

SDS ProVal LS

Full User Manual

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Last Updated

December 2014

Changes relating to release of 14.2

1. New features added
2. Speed improved
3. Reports updated

Using this Manual

Text *in italics* refers to text exactly as it appears in the application.

Overview of ProVal LS

ProVal LS is an appraisal tool for assessing the financial viability of a development. An appraisal can consist of any number of different unit types and tenures, such as market sale, social rent, affordable rent, shared ownership, commercial, etc.

Although appraisals can be created from scratch, the recommended procedure is to start a new appraisal from a template. A template has pre-set scheme-wide default values, such as inflation rates and milestone definitions.

Unit types can be organised in a library where all unit inputs can also be pre-set.

Using unit types from the library with an appraisal created from a template is a quick and easy way to complete it.

Viability results are reported for each unit, for all units of the same product type and for the whole scheme.

Schemes can be consolidated.

Standard reports can be supplemented with reports designed by the user.

Full User Manual

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1.0 Project Tree, Starting New and Opening Appraisals

This section describes 4 aspects:

1. The project tree
2. Start a new appraisal
3. Open an existing appraisal (for editing)
4. Start a new Consolidation

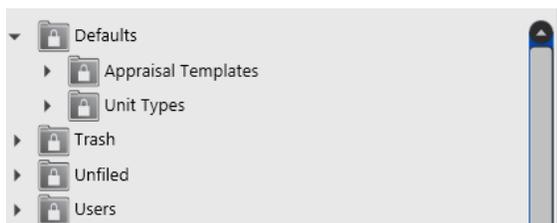
1.1.1 The Project Tree

The project tree is a listing of appraisal and system folders organised into a hierarchical structure.

The majority of the folders hold appraisal data grouped into an arrangement that suits your organisation. These folders can be names and nested as appropriate.

At the head of the tree are the system folders. These are:

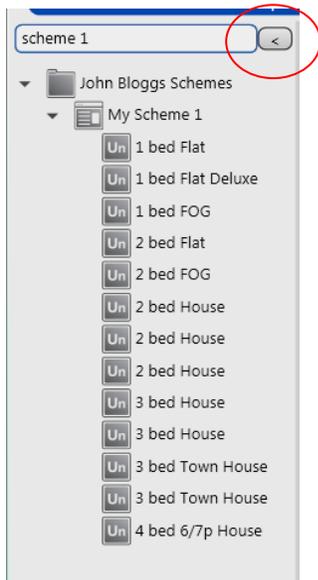
- *Defaults* - with two sub folders
- *Trash* - for deleted appraisals
- *Unfiled* - for appraisals which have not been saved into a nominated appraisal folder
- *Users* - names of people assigned a licence key.



In this illustration, the system folders are shown.

Search for appraisals using the search box at the top of the project tree. Use the < gadget to hide the tree. Expand the folder to show the appraisals. Expand the appraisal

to show the unit types in the appraisal.



In this illustration, the search box has been used to find *scheme 1*. Expanding the appraisal lists the unit types. To hide the project tree use the hide gadget as circled. To show the tree click on the bar at the left of the screen, or select *Project Tree* in the View option in the menu bar.

Placing the cursor on an appraisal name gives further information:

- Owner
- Path
- Scheme Name
- Units
- Local Authority Name
- Appraisal Date

1.1.2 Appraisal Options

Right mouse click on the appraisal name gives the following options. These are also listed in the properties window (along with further information) at the foot of the project tree.

Edit - open the appraisal for editing

Properties - displays information about the appraisal

Rename – rename the appraisal in the tree. This does not change the *Scheme Name* given at the start of the appraisal,

Delete – moves the appraisal to the *Trash* folder and marks it for deletion. Appraisals in

all folders can be finally deleted using the *File* option in the menu bar, *Clean Deleted Appraisals*. Inactive appraisals are not deleted.

Lock – locked appraisal can only be opened as Read-Only. Note that this is not a security feature as anyone can unlock an appraisal. When an appraisal is opened it is locked automatically.

Duplicate – clones the appraisal. It is advisable to rename the duplicated appraisal.

Save as Template - makes the appraisal into a template and saves it in the *Templates* system folder. Unit types are removed.

Cut - places the appraisal onto the clipboard.

Export Appraisal - creates a file of the data and saves to a folder of your choice. This file can be emailed to others with ProVal LS who can then import it. See folder options below.

Permissions - allows security to be applied. The appraisal can be made *Editable*, *Read-Only* or *Hidden*.

Reports - lists the system reports.

1.1.3 Folder Options

Folders have similar options as above and additional ones.

New – makes a new folder or create a new consolidation.

New Appraisal from Template - creates a new appraisal from a template and saves it in this folder.

Import - imports data from a file (see also *Export Appraisal* above)

Show Inactive Appraisals - hides appraisals but does not delete them.

Show Deleted Appraisals - appraisals marked for deletion are viewable.

Show Only my Appraisals - hides appraisals created by others.

1.1.4 File Menu Options

The *File* menu has these options.

View Log Files - when *Enable Logging* is selected in the *View* menu, this option opens the folder where the log files are saved. These files are used for support purposes.

Clean Deleted Appraisals - appraisals in all folders are finally deleted, but inactive appraisals are not deleted.

Log Out - logs the user out of ProVal LS.

Delete all Locks - removes the Lock flag from all appraisals

Rebuild Database Indexes - cleans the database to improve performance. This should be done on a regular basis.

Exit - closes the application.

1.2 Start a New Appraisal

There are 3 general methods for starting a new appraisal. The recommended and quickest method for starting a new appraisal is to create one from a template.

1. From a template
2. From an existing appraisal
3. From scratch

1.2.1 Templates Explained

Templates are stored in the *Defaults\Appraisal Templates* folder at the top of the project tree. If you cannot see the project tree, click *View* in the toolbar and select *Project Tree*.



A template is like a blank appraisal, except that some scheme-wide values are preset.

The template has no units or unit specific data.

Completed appraisals can be saved as a template, but the units and all unit data are removed.

As many templates can be created as you wish, but we recommend you keep these to a minimum in order to avoid too much work managing them and to reduce the possibility of confusion.

Inputs that are specific to a particular unit type (e.g. the management allowance) are saved with the unit.

Setting unit defaults is explained in section 2.0.

Some inputs can be stored in the template and/or as a unit default. E.g. A works cost could be stored in the template as a cost applicable to all units, or with the unit as a cost specific to that unit type.

Works

[Click here to add a new scheme cost](#)

Description	Input Type	Input	Applies To	Allocate Cost by	Total Before Inflation	Inflation
Standard cost	Per m ²	£1,300	All Units	Floor Area	£2,917,200	
Sub Total					£2,917,200	
Units Cost					£170,000	
Total					£3,087,200	

Unit Works

	A	B
Dwelling Description	28 4P Flat	28 4P Flat
Units	10	20
Floor Area (m ²)	68.00	68.00
Product Type	Affordable Rent	Shared Ownership
Input Type	Per Unit	Per Unit
Input Value	£5,000	£6,000
Cost Base Year		
Inflation Rate	0.0 %	0.0 %
Inflate To		
VAT%	0.00 %	0.00 %
Unit Works Cost Gross Total	£5,000	£6,000
Allocated from Scheme Works Costs	£97,240	£97,240
Net Works Cost (per unit)	£102,240	£103,240

In the above example a scheme wide default for works of £1,300/m² was set in the template. Further works cost of £5,000 and £6,000/unit were set as unit defaults. Both inputs have been added together to create the total works cost. Note that the scheme cost is allocated to the units and the Unit Works section shows the total cost for each unit.

Where both options are used, all costs are added together. In this way individual units might have different works costs, but scheme-wide sums could be included as extra works costs.

Sometimes it may be helpful to start a new appraisal from a previously created appraisal, rather than starting from scratch or by using a template. This is like editing an existing appraisal and saving it as a new version as you might with an Excel workbook. This practice is not recommended.

Detailed information about setting defaults can be found on the SDS website. See *Guidance for Administrators when Setting Default Values*, on the ProVal LS support page.

Creating a New Template

You may need permission for this procedure. Permission settings are set by the organisation. Refer to the Administrator Manual in this document.

The recommended way of creating a new template is to take an existing appraisal and save it as a template.

Alternatively, start a new empty appraisal (see 1.2) and add appropriate data for a scheme, but do not add units in section A. Scheme-wide data can be set in the following sections.

Appraisal section	Typical data inputs set as default in a template
Start	Weeks per year Rent Paid at End of Month (y/n) Smooth Tenant Payments (y/n)
Start – Loans	Details of long term loan parameters for different product types
Start – Milestones	Typical abstract dates for key events Note that when starting a new appraisal, calendar dates reset according to the <i>Cashflow Start Month</i> . On starting a new appraisal this is the current month
A, Units	Ignore this section – do not add unit types
B, Capital Costs	Capital costs for Acquisition, Works, Fees and Other costs applicable to all units.
C, Subsidy Analysis	Subsidy details, assuming that the subsidy is received as cash. Note this can be set in an existing appraisal but not if starting a new empty appraisal.
D, Development Cashflow Forecast	Cost profiles for expending development costs in the cashflow forecast.
E, Total Scheme Cost	Ignore this section
F, Private Finance	Ignore this section
G, Inflation	Inflation parameters for long term I/E
H, Long Term Capital Receipts	Details of ad hoc capital I/E to be added in the long term cashflow.

Inputs set by default can be amended in an appraisal (assuming you have permission to do so). In this event an amber warning indicator is displayed and a message displayed detailing the change.

Set the value by default where it is the most likely input when completing an appraisal. Setting inputs by default saves time when completing an appraisal and helps to ensure consistency of data across all appraisals.

You cannot create a new appraisal by editing a template.

Creating a Template from an Existing Appraisal

1. In the project tree select a scheme that has scheme values you want to save in a template. Alternatively, edit the appraisal and save it as a new appraisal.
2. Right mouse click on the appraisal name and select *Save as Template*. A copy of the appraisal is saved in the *Appraisal templates* folder, but with all unit columns removed. The name is the same as the appraisal appended by *(template)*.
3. Click right mouse on the template name and select *Rename*. Rename the template.
4. You can now start a new appraisal from this new template, as described below.

Creating a Duplicate Template

This is a useful way of creating a new template where only a few defaults differ from the current defaults.

1. Expand the *Appraisal Defaults* folder and highlight the template name.
2. Click right mouse and select *Duplicate*.
3. A new template is called *Copy of.....*
4. Right mouse click and select *Rename*. Rename the template.
5. This new template can now be edited. Right mouse click and select *Edit*. Save any changes.

Starting a New Appraisal from a Template

This is the recommended method of creating a new appraisal.

Starting a new appraisal from a template can either be done from the folder where you want the new appraisal to be saved (recommended) or from the *Appraisal Templates*

folder. Appraisals created from the appraisal templates folder are saved in the *Unfiled* folder. Appraisals saved here can be moved to other folders.

Recommended method

1. In the project tree select the folder where the new appraisal is to be saved.
2. Right mouse click on a template name and select *New Appraisal from Template*
3. Rename the appraisal.

Alternative Method

1. Expand the *Defaults* folder and then expand *Appraisal Templates*.
2. Right mouse click on the template name and select *Create from Template*, or double click on the template name.
3. A new appraisal is created in the *Unfiled* folder.
4. Rename the appraisal.
5. Move the appraisal to an appropriate folder.

1.2.2 Duplicating an Existing Appraisal

1. Expand the project tree and highlight the scheme appraisal name.
2. Right mouse click and select *Duplicate*.
3. The new appraisal is called *Copy of.....*
4. Rename the new appraisal. Right mouse click and select *Rename*.
5. Right mouse click and select *Edit*.

It is also possible to create an appraisal from an existing appraisal when it is open for editing. On closing the appraisal, select *Save As* from the close dialog box. Enter a new name as prompted and click *Save*.

1.2.3 Starting a New Empty Appraisal

This is not generally recommended because inputs have to be made in all sections.

1. Right click on a folder where the new appraisal is to be saved.
2. Select *New* then *ProVal* then *Scheme Appraisal*.

3. Rename the appraisal. Right mouse click and select *Rename*.

1.3 Open Existing Appraisal

Use the search box at the top of the project tree to find the appraisal.

1. Right mouse click on the appraisal name.
2. Select Edit.
3. Alternatively double click on the name.

1.3.1 Opening a ProVal XL Appraisal (ProVal in Excel) in LS

1. Select an appraisal folder in the project tree.
2. Right mouse click, select *Import*.
3. Select *Excel Appraisal*.
4. In the *ProVal Import Options* dialog, navigate to the ProVal XL appraisal.
5. Select the appraisal name.
6. Click the Import button.

Owing to methodology changes adopted in ProVal LS, the results in LS are not exactly the same as in the XL version. For further explanation, refer to the *ProVal XL to ProVal LS Guide* on the SDS website, ProVal LS support page.

Exporting/Importing LS Appraisals

Appraisals can be sent to other organisations that have ProVal LS. The appraisal data must first be exported to an *XML* file.

1. Select the appraisal in the project tree.
2. Right mouse click, select *Export Appraisal*
3. In the *Save appraisal As* dialog box, choose a folder to save the exported data file.

The data file can now be attached to an email.

On receipt of the XML file, the recipient should save the file in a convenient location.

To open the appraisal in LS, the appraisal must now be imported.

1. Select an appraisal folder in the project tree.
2. Right mouse click, select *Import*
3. Select *Appraisal*.
4. In *Open saved appraisal...* highlight the XML data file. Click Ok.

1.4 New Consolidation

A consolidation appraisal reports the results of a number of appraisals added together. You cannot create a new appraisal as a consolidation. Data edits must be made in the source appraisals.

To create a new consolidation:

1. Select a folder in the project tree where the new consolidation is to be saved.
2. Right mouse click and choose *New*.
3. Choose *ProVal* then *Consolidation*.
4. A new consolidation is created - note that it has a different icon.
5. Rename the consolidation appropriately.
6. Drag and drop appraisals from the project tree into the consolidation.

See 19.0 for further information about consolidating appraisals.

2.0 Unit Type Defaults

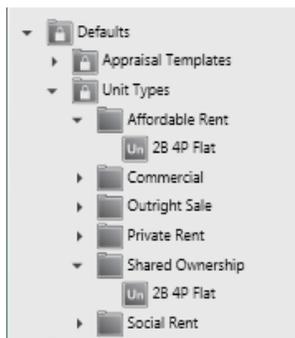
Overview

Every input applicable to a unit can be set by default. These defaults are stored separately from defaults in the templates. The *Unit Types* folder is in the *Defaults* folder. It can be thought of as a library of 'standard unit types' ready for incorporating into an appraisal.

Sub-folders can be created to organise units into categories of your choice, e.g. by product type (see example below) bedrooms, or unit type.

As with templates, the extent to which defaults are set is your choice. And assuming you have permission, inputs set by default can be amended in the appraisal.

Example



In this illustration the Unit Types folder has been expanded to show sub folders: Affordable Rent, Commercial, Outright Sale, etc. The Affordable Rent and Shared Ownership folders have been expanded to show an example unit type (2B 4P Flat).

Additional information on setting defaults can be found on the ProVal LS support page of the SDS website – See *Guidance for Administrators when Setting Default Values*.

Another way of adding unit types to an appraisal is to add them from another appraisal.

2.1 Creating a Unit Type Default

This can be done in 3 ways.

1. From a new appraisal. (This is recommended for creating a number of unit types of the same type in one process).
2. From an existing appraisal.
3. From an existing unit default.

2.1.1 Create From New Appraisal

1. Start a new appraisal.
2. Go to Section A, expand *Unit Attributes*.
3. Click *Add a new unit* and create several columns. Each column holds data for a specific unit type. Give each column a different floor area/number of bedrooms, but make them all the same *Product Type*. This is best practice because several unit types of the same *Product Type* can be created at the same time, easily and quickly.
4. Complete all parts of section A, setting inputs as defaults as required.
5. Common inputs can be entered across all columns in one operation, using a *<Ctrl + Enter>* keyboard shortcut.
6. In Section B, complete default capital costs in the unit columns (do not set the scheme-wide defaults).
7. In Section C, complete default subsidy in the unit columns.
8. On completing the data, right mouse click on the head of the column (A, B, etc.) and choose *Save as Default....*
9. Repeat Steps 4 -8 for all unit types.
10. Save and reopen the appraisal. Inputs can now be amended to suit a different *Product Type*.
11. Retain this appraisal for future use.

The following unit values are set in Section A:

- Unit Attributes (key characteristics of the unit)
- Additional Unit Attributes (further characteristics of the unit)
- NPV Rates
- Sales & Staircasing
- Rent Allowances
- Rent

Capital costs per unit are set in Section B.

Subsidy per unit is set in Section C.

Ignore all other sections.

2.1.2 Create From Existing Appraisal

1. Open an existing appraisal.
2. Expand *Unit Details* in Section A.
3. Expand *Unit Attributes*.
4. Right mouse click at the head of the column and choose *Save as Default*.

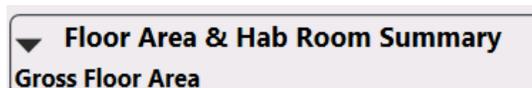
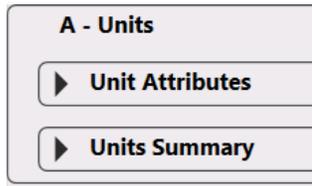
2.1.3 Create From an Existing Default Type

1. Expand the *Appraisal Templates* folder in the project tree.
2. Expand the *Unit Types* folder.
3. Create a new appraisal and input the unit type to be duplicated.
4. Amend the inputs as necessary.
5. Right mouse click at the head of the column and choose *Save as Default*.
6. Rename as necessary and choose the *Unit Types* folder.
7. Close the appraisal (save or discard as you wish).

3.0 Entering Appraisal Data

General

1. To expand/hide a particular section of the appraisal, use the ► gadget. Collapse all parts of a section with a key combination of `Ctrl` plus - (minus sign).



Read-only data is identified by a grey background. This data cannot be edited. The permission setting determines whether the user's job role permits editing. Other options are *Read-only* or *Hidden*.

2. Cells with a pink background identify essential user input and so must have data entered. These cells also display a red indicator when not completed and listed in the *Errors* tab in the bottom window.
3. Some cells have restricted input options; select one from the drop down list.
4. Put the mouse cursor over the input question text for an expanded explanation. Display the Help window at the foot of the appraisal for more information, or put the mouse over the input field to display the *Help* text. Tooltips can be turned off. Select the *View* toolbar option and then uncheck *Enable Tooltips*.
5. For answering questions requiring a *Y/N* response, select one of the two options.
6. Click **once** into a cell and the cell contents is highlighted. Start typing to overwrite existing data or use the keyboard to delete. Avoid using the *Backspace* key to remove data. Alternatively, use the right mouse option and select *Clear*.
7. Use the tab button or mouse to move between inputs.

3.1 Cell Editing

Apart from in-cell editing as described above, right mouse click to access these options:

- *Clear* - delete the contents of the cell.
- *Revert to Default* - Replace an amended input with the original default value.
- *Cut* - remove the contents of the cell to the clipboard.

- *Copy* - copy the contents of the cell.
- *Paste* - paste the contents of the clipboard into the cell.
- *Copy Left* - enters the value across all columns to the left.
- *Copy Across* - enters the value across all columns, left and right.
- *Copy Right* - enters the value across all columns to the right.
- *Export Appraisal* – Exports the unit data to an XML file.
- *Permissions* - Administrator function to restrict access. The options are *Editable*, *Read-Only* or *Hidden*. Permissions relate to the job role to which the user has been assigned.

3.2 Editing Defaults in the Appraisal

Where a value has been previously specified by default, it can still be changed, assuming the user has editing permission. After changing a default, an amber warning indicator is displayed and a message listed in the *Warnings* tab in the bottom window. Put the mouse pointer over the indicator to see the warning message.

Changing a default in the appraisal only affects the appraisal. It does not change the original default.

3.3 Validating Inputs

Inputs with no default value are checked for being within a reasonable range. The range is arbitrarily set within the application. Where the input lies outside this range, an amber warning indicator is displayed and a message listed in the *Validation* tab in the bottom window. A warning of this kind may not be a mistake, just that the input is unusual.

3.4 Adding User Comments

You can annotate your input with a comment, like adding a cell comment in Excel. While in the input field, go to the *User Comments* tab in the bottom window and type something. A blue indicator is displayed. Put the mouse pointer over the indicator to see the comment.

4.0 Appraisal Windows Overview

1. Start a new appraisal. Several new windows appear.

The appraisal is displayed in its own tab and so it is possible to have multiple appraisals open and to move between them by selecting the tab. This tab also has the *x* gadget which prompts the user to save and close the appraisal.

2. To maximise the screen view of the appraisal, close the project tree and summary windows, using the *<* gadget. Double click on the vertical bar to reveal them. Alternatively, select *Project Tree* or *Section Map* options in the *View* menu.
3. To zoom in/out of the appraisal, place the cursor on the title bar and use the mouse wheel. To revert to optimum zoom, select *Reset Zoom* in the *View* menu.

4.1 Appraisal Summary & Section Map Window

This width of this window can be resized. Close the window using the *<* minimise gadget at the top right corner of the window. Double click on the vertical bar to reveal it, or select it from the *View* menu bar.

The window has two tabs.

1. Summary
2. Section Map

4.1.1 Summary

The *Summary* tab displays the *Appraisal Summary* (i.e. key results) for all units in the appraisal. The outputs are fixed in the system. Underneath this, the *Products Summary* shows the key results for each *Product Type* in the appraisal.

4.1.2 Section Map

The *Section Map* tab lists all sections and input questions in the appraisal. There is a *Question Finder* search box at the bottom of this window. Click on an item to move to that section.

4.2 Appraisal Window

At the head of the appraisal there are 3 sets of buttons.



1. Sensitivity
2. Undo and Redo buttons.
3. Appraisal section navigation buttons, Start, A to L.

4.2.1 Sensitivity

This button creates a sensitivity report which is displayed in a separate tab. The procedure for creating this report is described in Section 19.0.

4.2.2 Undo and Redo

Use these buttons to undo or redo input actions. If there are no actions to undo or redo, the buttons are not highlighted. In the above illustration there are actions to undo, but nothing to redo.

Click the arrow button between the buttons to show a history of actions. The dialog box has a *Clear History* button.

4.2.3 Navigation

The appraisal navigation buttons highlight which section of the appraisal has focus (in the above illustration Section B has focus) and are used to move between sections. Put the mouse pointer over the button to see its description. See also 4.1.2 *Section Map*.

Tip!

Use a keyboard combination of <Ctrl - > to collapse the currently selected section.

Use a keyboard combination of <Ctrl Shift - > to collapse all appraisal sections.

4.3 Lower Window

The screenshot shows a software window titled 'Lower Window' with a tabbed interface. The active tab is 'Help'. The main content area displays the following information:

- Question: **Inflation Rate**
- Formula:
- Preview: 0.0 %
- Reference: UnitAcqInflationRate

A help tooltip is visible, containing the following text:

- Question: Inflation Rate
- Annual inflation rate
- The annual rate at which to inflate the 'Input Value' from the 'Cost Base Year' to the 'Inflate To' milestone.
- Section: Unit Acquisition

The height of this window can be resized.

It has 7 sections.

1. Formula Editor
2. Help
3. User Comments
4. Validation
5. Errors
6. Warnings
7. Support

4.3.1 Formula Editor

Inputs can be created using formulae, rather than inputting specific values. To use natural language references to other inputs (and to read-only outputs) in the same appraisal, use its cell reference name.

The screenshot shows a software window titled 'Formula Editor' for the question 'January 1999 Value'. The main content area displays the following information:

- Question: **January 1999 Value**
- Formula:
- Preview: £80,000
- Reference: Jan99Value

Example

To create a formula for the *January 1999 Value* based on an index applied to the *Market Sales Value* (MSV) you firstly need to know the correct way of referencing the MSV (you will appreciate that inputs do not have row and column headings as in Excel). Follow these steps.

1. Select the Market Sales Value input.

1. Click *Reference* in the formula editor window to copy its system reference name to the clipboard.
1. Place the cursor in the input for *January 1999 Value*.
1. In the *Formula* bar type the equals sign (=) then paste (Ctrl + V) or right mouse click and select *Paste from Clipboard*.
1. Now complete the formula by adding an asterisk (for multiplication) and a required index.
1. Click Enter or Tab or click into the next input.

4.3.2 Help

The Help window tab displays guidance on what the question is about and provides guidance on the input.

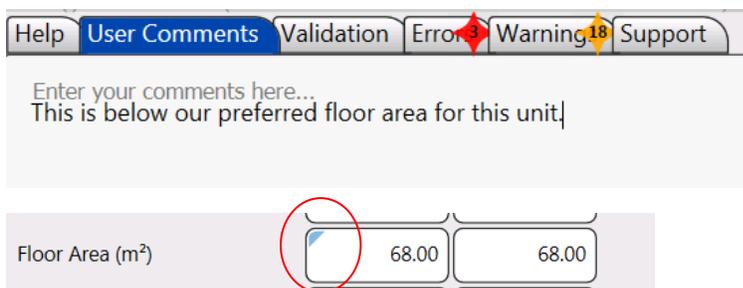
The Help window displays an extended explanation and guidance for making the input.

Question information is also displayed by putting the mouse pointer over the question text. Input guidance is displayed by putting the mouse pointer over the input (but not with the cursor inside the cell).

Tooltips can be turned on and off from the *View* toolbar menu.

4.3.3 User Comments

This is a free text entry box so that you can add your own notes and comments. E.g. you might want to explain why you have used a particular value. A blue indicator identifies where comments have been made. Put the mouse pointer over the indicator to see the comment.



4.3.4 Validation

This window identifies inputs which lie outside the system limits. These are arbitrarily

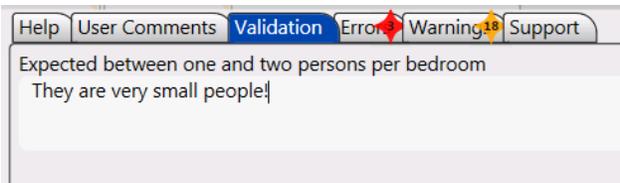
set and intended to prevent typing errors.

Number of Bedrooms	<input type="text" value="2"/>	<input type="text" value="2"/>
Is Bedsit?	<input type="text" value="N"/>	<input type="text" value="N"/>
Persons	<input type="text" value="4"/>	<input type="text" value="10"/>

In this illustration the second column has a 2-bed unit with an occupancy of 10 persons. The expected occupancy is between one and two persons per bedroom. The amber warning identifies the unusual input. Place the mouse pointer over the amber warning to highlight the cause of the warning.

In the *Validation* window the user can add a comment as to why this input was made. This comment is also displayed in the tooltip.

These validation warnings are listed in the *Warnings* window as described in 4.3.6.



Validation warnings are not necessarily mistakes.

4.3.5 Errors

The *Errors* window displays input errors and reports outputs that lie outside the benchmarks set by the organisation.

Local Authority	<input type="text"/>
-----------------	----------------------

In this illustration the Local Authority name has been omitted. The pink background identifies that this is an essential input. The red indicator also identifies the error. Place the mouse pointer over the red indicator to highlight the cause of the warning.

The *Errors* window lists all errors such as omission of an essential input, but also any outputs which fail the organisation's benchmark settings are also listed.

Source	Question	Current Value	Issue
My Scheme	Loan Repaid Year	51	Answer exceeds error ben
My Scheme	Local Authority		Answer is required.

The user can add a comment about each error. Put the mouse pointer over the indicator to see the comment.

Current Value	Issue	Reason
51	Answer exceeds error benchmark of 35	Being reviewed

In this illustration the user has added a *Reason* (or comment) about the issue. This is added to the tooltip.

The number of errors is displayed on the tab and these can be printed in a report.

4.3.6 Warnings

The *Warnings* window highlights when default values have been amended and where system validation rules have been broken (as described in 4.3.4).



Current Value	Issue
Land as agreed	Value has changed from default (Land Purchase).
SUFFOLK	Value has changed from default (SURREY).

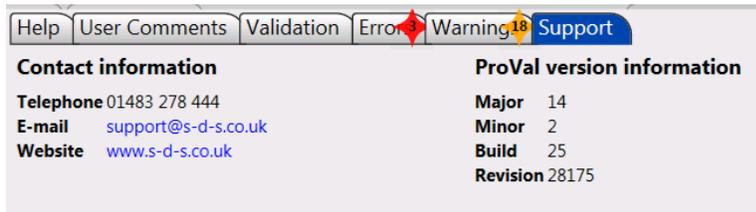
In this illustration the second item shows that the County as set by default was Surrey and this has been changed to Suffolk.

An amber cell indicator identifies warnings and displays the user comment made in relation to it. Hold the cursor over the indicator to see the comment. The number of warnings is also displayed on the tab.

A warning is not necessarily an indication of a mistake.

4.3.7 Support

This displays information about how to get help from SDS and other information.



Contact information	ProVal version information
Telephone 01483 278 444	Major 14
E-mail support@s-d-s.co.uk	Minor 2
Website www.s-d-s.co.uk	Build 25
	Revision 28175

This information may be requested when dealing with support issues.

Clicking on the email address creates a new email in your default email application. Clicking the website address opens the SDS website in your web browser. The website has user manuals and other useful documents. See the Support pages for ProVal LS.

5.0 Appraisal Header

Click the 'Start' navigation button (next to button A).



This section now has focus.

Start - Beginning of Appraisal			
Scheme Name	My Scheme		
Scheme Description	A scheme of exceptional beauty and financial prudence		
Organisation	Shelton Development Services Ltd.	Appraisal Date	11 Dec 2014
Funding Year	2020/21	Date Last Saved	13 Jan 2015
Local Authority	Amber Valley	Project/File Reference	123
Total Units	30	Appraisal By	UserA
Practical Completion	Mar 2016	Drawing Number	
Weeks per Year	52.18	Site Area	1.00 Hectares
Site Purchase Tenure	Freehold	Seller	Mr Greedy
Rent Paid at End of Month?	Y	Appraisal Version	First
Smooth Tenant Payments?	Y	HC Code	482
		Investment Region	EM
		Bid Reference	HCA 123
Appraisal Comments	This input box will word wrap so you have plenty of space for comments.		
▶ Loans			
▶ Milestones			
▶ Site Address			

It has 4 sub sections.

- 1 . Basic Scheme Information - Name, local authority, and other scheme-wide data.
- 2 . Loans - long term loan parameters
- 3 . Milestones - event timings.
- 4 . Address and other location information.

5.1 Basic Scheme Information

Start - Beginning of Appraisal			
Scheme Name	<input type="text" value="My Scheme"/>		
Scheme Description	<input type="text" value="A scheme of exceptional beauty and financial prudence"/>		
Organisation	<input type="text" value="Shelton Development Services Ltd."/>	Appraisal Date	<input type="text" value="11 Dec 2014"/>
Funding Year	<input type="text" value="2020/21"/>	Date Last Saved	<input type="text" value="13 Jan 2015"/>
Local Authority	<input type="text" value="Amber Valley"/>	Project/File Reference	<input type="text" value="123"/>
Total Units	<input type="text" value="30"/>	Appraisal By	<input type="text" value="UserA"/>
Practical Completion	<input type="text" value="Mar 2016"/>	Drawing Number	<input type="text"/>
Weeks per Year	<input type="text" value="52.18"/>	Site Area	<input type="text" value="1.00"/> Hectares
Site Purchase Tenure	<input type="text" value="Freehold"/>	Seller	<input type="text" value="Mr Greedy"/>
Rent Paid at End of Month?	<input type="text" value="y"/>	Appraisal Version	<input type="text" value="First"/>
Smooth Tenant Payments?	<input type="text" value="y"/>	HC Code	<input type="text" value="482"/>
		Investment Region	<input type="text" value="EM"/>
		Bid Reference	<input type="text" value="HCA 123"/>
Appraisal Comments	<input type="text" value="This input box will word wrap so you have plenty of space for comments."/>		

Read-only data has a grey background. These may indicate outputs or that the user does not have permission to edit the data.

Cells with a pink background identify essential data.

Some cells a drop-down list.

For further guidance on cell editing, see 3.0.

Many inputs in this section are free text and the questions are self explanatory. Some less obvious data inputs are described below:

Rent Paid at End of Month?

This setting affects the treatment of rent income in the long term cashflow. Although rent is usually defined as a sum per week, the long term cashflow converts this to a monthly income. Setting this input to **Y** means that the rent is received at the end of the month. Setting to **N** means it is received at the start of the month. Setting this to **N** (i.e. rent is received earlier) improves the long term interest cost, loan repayment period and Net Present Value of the rent.

Smooth Tenant Payments?

Not all months have the same number of weeks. Set to **Y** to smooth the annual rent into 12 equal monthly amounts. See also *Rent Paid at End of Month* above.

Site Area

This is a two-part entry. Enter either as acres or hectares.

Changing from acres to hectares (and vice versa) converts the input. E.g. Enter 2 acres. Change to Hectares: the input is converted to 0.81ha.

5.2 Loans

Each product type has its own long term loan type (for convenience this has the same name as the product type). Each loan has its own loan repayment method, loan terms and covenant settings. All units of the same product type inherit the same loan type.

When *Cross Subsidy* has been set to **Y** income from all units is used to assist the repayment of the most expensive loan (usually the loan incurring the highest interest cost).

5.2.1 Loan Repayment Method & Loan Terms

There are 3 repayment methods

1. Overdraft (recommended)
2. Annuity
3. Hybrid

1. Overdraft (recommended)

This method repays the interest and loan principal as quickly as income allows. If the income exceeds the loan interest, the loan balance reduces, but if income is less than the interest cost, the loan balance increases - just like an overdraft.

A loan repayment period is not set for this method. Instead, the appraisal reports the year that the loan can be paid off. It is possible that the loan can never be paid off if the interest is very high and/or the income is very low.

A cashflow surplus arises once the loan has been paid off.

The screenshot shows a table with columns: Name, Repayment Method, Term, Loan Rate, Maximum Facility, Maximum Loans: Val, Maximum Loans: Cost, and Cross Subsidy. The 'Affordable Rent' row is selected, showing 'Overdraft' as the repayment method, a loan rate table, and 'Y' for cross subsidy.

Name	Repayment Method	Term	Loan Rate	Maximum Facility	Maximum Loans: Val	Maximum Loans: Cost	Cross Subsidy								
<input checked="" type="checkbox"/> Affordable Rent	Overdraft		<table border="1"><thead><tr><th>Year</th><th>Rate</th></tr></thead><tbody><tr><td>1 to 5</td><td>6.0%</td></tr><tr><td>6 to 20</td><td>6.0%</td></tr><tr><td>21 to 100</td><td>6.0%</td></tr></tbody></table>	Year	Rate	1 to 5	6.0%	6 to 20	6.0%	21 to 100	6.0%				Y
Year	Rate														
1 to 5	6.0%														
6 to 20	6.0%														
21 to 100	6.0%														

In this illustration the Affordable Rent loan type has been set to repay by the Overdraft Method and the interest rates vary from Years 1 to 5, 6 to 20 and 22 to 100. The Cross Subsidy setting of 'Y' means that when this loan has been repaid income from the units is used to repay the next most expensive loan.

2. Annuity

This repays the loan principal and interest by equal annual instalments (rather like a repayment mortgage). These instalments change if the interest rate changes.

3. Hybrid

This is similar to the *Overdraft* method except the loan balance does not increase when the income is lower than the interest cost. Instead, the difference is recorded and displayed as a cashflow deficit. This deficit accumulates until income exceeds the interest at which point the deficit starts to be repaid. Once the deficit has been repaid the loan balance is repaid. No interest is added to the deficit.

5.2.2 Covenant Settings

These advanced settings do not affect the results. Loan repayments and the loan balance are not restricted by these covenants, but any breach is highlighted in the report at Section F - Private Finance. These settings generally apply to loans which are secured on the scheme itself, rather than loans secured on the organisation's general stock.

Each loan can have 3 **optional** covenant settings.

1. Maximum Facility
2. Maximum Loan:Value
3. Maximum Loan:Cost

Maximum Facility

This is the maximum amount of the loan facility. Note that the loan balance can increase when using the *Overdraft* repayment method described above.

Maximum Loan:Value

This is the ratio (by percentage) of the loan balance and market sales value that you do not want to exceed. E.g. 80% would mean that the loan should not exceed 80% of the market sales value.

Maximum Loan:Cost

This is the ratio (by percentage) of the loan balance and Total Scheme Cost that you do not want to exceed. E.g. 80% would mean that the loan should not exceed 80% of the Total Scheme Cost.

5.2.3 Interest Rates

The long term loan interest rate(s) for each loan type can be varied by any number of periods over the 100 years long term cashflow.

The interest rate on the development loan is set separately, see Section D.

5.3 Milestones

Milestones are key timing events used to facilitate the creation of a development cashflow. They can also help inform users when key events are expected to happen.

Milestones can be set by default in a template using abstract event names.

There are 9 standard milestones, but you can add your own milestone descriptions.

The first milestone - *Cashflow Start* - defines the calendar date of Month 1 of the development cashflow. When starting a new appraisal this defaults to the current month (and stays fixed thereafter, unless edited). It is not necessarily an event.

Milestones are set from previous events using the *Definition*.

Milestone	Abbr.	Definition	Date	Month No	Warning	Notes
Cashflow Start (Month 1)	CS	same as CS	December 2014	1		
Exchange of Contracts (Land)	EoC	1 month(s) after CS	Jan 2015	2		
Legal Completion (Land)	LCL	1 month(s) after EoC	Feb 2015	3		
Start on Site	SoS	2 month(s) after LCL	Apr 2015	5		
First Handover	FH	11 month(s) after SoS	Mar 2016	16		
First Sale	FS	same as FH	Mar 2016	16		
Practical Completion (Last Handover)	PC	3 month(s) after FH	Jun 2016	19		
Retention	R	11 month(s) after PC	May 2017	30		
Last Sale	LS	15 month(s) after FS	Jun 2017	31		

In this illustration, the *Exchange of Contracts (Land)* is defined as occurring one month after the *Cashflow Start*. The *Legal Completion (Land)* is defined as 1 month after the exchange milestone. *Start on Site* happens 2 months after legal completion.

Milestones are defined by an offset from another milestone, i.e. a number of months, after (or before) a previous event. Milestones are chronologically reordered when the cursor is moved away from this section.

A warning is displayed if a milestone's timing is illogical, e.g. setting *First Handover (FH)* before *Start on Site (SoS)*. You may need to scroll to the right to see the message. Enter comments about the milestones in the last column. Milestone timing errors are not displayed in the *Errors* window at the bottom of the appraisal.

Each unit type in the appraisal can have its own handover date. This is set as an offset period (months) from the *First Handover* milestone. The *Practical Completion* milestone cannot be edited. It is defined as the last handover date of all units in the appraisal.

Each unit type can have its own sales date. This is set as an offset period (months) from the handover of the unit. The *First Sale* and *Last Sale* milestones cannot be edited. They are determined from the unit data.

First and Last Sale milestones can be ignored when there is no unit being sold.

Phased handovers (and sales) are handled within the appraisal by varying handover dates (and unit sale dates) for each unit type. Setting a date for a particular dwelling type defines that event for all units of that dwelling type.

1.3 Site Address

Site Address is underneath *Milestones*.

Add additional postal address details of the scheme location.

If you are connected to the internet, entering a postcode displays the Ordnance Survey X and Y coordinates and the latitude and longitude.

Entering the first part of a postcode, e.g. GU1, returns the position for the centre of that area.

▼ Site Address			
Address Line 1	<input type="text" value="My Project"/>	Site OS X Coordinate	<input type="text" value="500 245"/>
Address Line 2	<input type="text" value="High Street"/>	Site OS Y Coordinate	<input type="text" value="150 307"/>
Town	<input type="text" value="Guildford"/>		
County	<input type="text" value="SURREY"/>		
Post Code	<input type="text" value="GU1"/>		
Site Latitude	<input type="text" value="51.2431"/>		
Site Longitude	<input type="text" value="-0.5653"/>		

6.0 Adding, Deleting & Moving Unit Types

There is no limit to the number of unit types in an appraisal. However, depending on your hardware specification and network speed, performance may be affected on schemes with many unit type columns.

6.1 Adding a new Unit Type

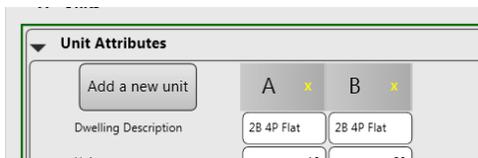
There are 4 ways to insert a new unit column into the appraisal

1. Using the *Add a new unit* button
2. Inserting from the *Unit Types* folder in *Defaults* (recommended)
3. Importing from another appraisal.
4. Duplicating a unit type within the appraisal

In section A expand *Unit Attributes*.

6.1.1 'Add New Unit' Button

Click *Add a new unit* button, at the start of the *Unit Attributes*. A new column is appended to the appraisal. This column has no data.



6.1.2 Importing from the Unit Types Defaults Folder

This is the recommended method.

1. In the project tree select the *Defaults* folder and then *Unit Types*. Select a folder, e.g. *Affordable Rent* and expand to show the unit types. Note that the names of the folders in *Unit Types* are set by the organisation.
2. You may want to close the *Appraisal Summary* window and adjust the zoom setting so that you can see both the appraisal window and the project tree.
3. With a *Unit Type* highlighted, hold down the left mouse button, drag the *Unit*

Type from the project tree into the blank area of Section A and drop it. Alternatively, *double click* on the Unit Type name. The new unit column together with its defaults is added to the appraisal.

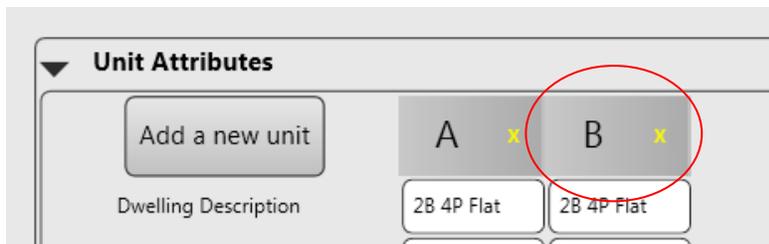
6.1.3 Importing from Another Appraisal

This is similar to inserting from the unit types folder.

1. In the project tree select the appraisal and expand to show its unit types.
2. With a particular unit type highlighted, hold down the left mouse button, drag the unit into the blank area of section A and release. You cannot use a double click to perform this action. The new unit column together with its values is added to the appraisal.

6.1.4 Duplicating a Unit Type

In the unit column heading to be duplicated (**A, B, C...**) click right mouse. Select *Duplicate* from the context menu.

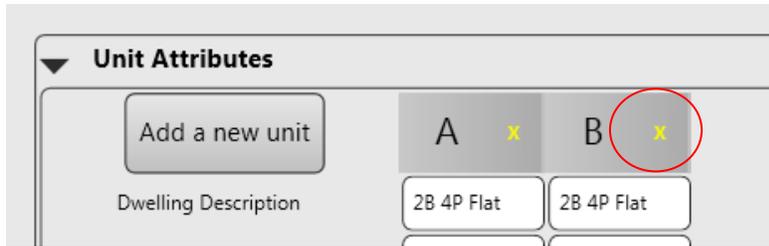


A duplicate unit type is appended to the appraisal.

This method is particularly useful when setting up an appraisal with several unit types of the same product type that are similar to each other. Create a unit type and fully populate its data in section A. Then duplicate it, amending inputs as necessary.

6.2 Deleting a Unit Type

1. Right mouse click on the column heading (**A, B, C...**)
2. Select *Delete Unit Column*. Alternatively, click the cross gadget in the column heading (**A, B, C...**).
3. Confirm your decision at the next dialog box.



6.3 Moving a Unit Type

The order of the unit columns can be rearranged in the appraisal. This is helpful when you want to keep unit columns with the same product type together, particularly after adding an additional unit type, or after duplicating it.

1. Right mouse click on the column heading (**A, B, C...**)
2. Select *Move Column To*.
3. Select from *Start, End, Left, or Right*. If choosing *Left* or *Right* repeat the action as necessary.

7.0 Section A - Unit Details

Section A lists inputs relevant to the unit (i.e. not scheme wide inputs) except for unit capital costs which are added in Section B – see below.

All inputs are defined per unit.

Section A has these subsections:

- 7.1 Unit Attributes
- 7.2 Additional Attributes
- 7.3 NPV Rates
- 7.4 Sales & Staircasing
- 7.5 Rent Allowances
- 7.6 Rent
- 7.7 Units Summary

7.1 Unit Attributes

These primary attributes describe the unit type:

- *Dwelling Description*

Any text that helps describe the unit type. E.g. House, Flat, Shop, Type ABC1. If this is omitted, the system suggests a name based on the *Product Type* and *Number of Bedrooms*.

- *Units*

Enter the number of units of this type.

- *Floor area (m²)*

This is normally defined as the gross internal floor area of the unit. Additional floor area for communal and other shared spaces is added in the *Additional Attributes* section.

- *Product Type*

A description defining the way the unit is appraised. This is sometimes loosely described as the tenure. Other user-defined *Product Types* can be added in

global properties.

7.2 Additional Attributes

These attributes provide further information about the unit.

- *Number of Bedrooms*

Input the number of bedrooms. Validation with the number of *Persons* is checked.

- *Is Bedsit?*

If it is a Bedsit, input 1 for *Number of Bedrooms* and select the "Y" option.

- *Persons*

This is the intended occupancy of the unit. This input is validated against the number of bedrooms.

- *January 1999 Value*

To display a unit's target rent, this is an essential input. The value is usually derived by applying an index to the *Current Market Value*. Property Indices are published on the web by Nationwide, Halifax, and others.

- *Current Market Value*

Input the current unconstrained value of the property as if it were available for sale in the open market (ignore the actual tenure for this purpose). This description is also referred to synonymously elsewhere in the application as its market sales value.

- *Offset from First Handover*

The offset (months) refers to the *First Handover* milestone. An offset of zero means that the unit hands over at the same date as the *First Handover* milestone. For a rented unit this is also the month that rent income is received in the long term cashflow and the earliest date that the unit can be sold.

- *Handover Date*

This is the calendar date based on the offset given in the previous question. It is read-only data. The last handover date for all units is defined as the *Practical Completion* milestone.

- *Is Flat?*

Input **Y** when the unit is a flat or **N** to indicate that it isn't.

- *Adjust Area by %*

- *Additional Floor Area*

The above two questions are linked. Enter a percentage to add additional floor area, calculated on the *Floor Area* of the unit.

E.g. entering 15% of a unit *Floor Area* of 75m² adds 11.25m². Alternatively, entering 15m² *Additional Floor Area*, displays 20% as the *Adjust Floor Area %*.

The gross floor area (i.e. including additional spaces) is summarised in the *Units Summary* where, alternatively, a total gross floor area for the project can be input. The additional floor area is spread equally across all units.

- *Is New Build?*

Input **Y** when the unit is new build, or **N** to indicate that it isn't.

- *Habitable Rooms*

Enter the number of rooms within the unit which are defined as habitable. These are typically bedrooms and living rooms. See also the *Units Summary*.

- *Is Commercial?*

Input **Y** when the unit is commercial, or **N** to indicate that it isn't.

- *Is Shared?*

Input **Y** when the unit is shared, or **N** to indicate that it isn't. A unit is normally defined as being shared when some accommodation is located outside of the dwelling, e.g. shared lounge, bathroom or kitchen area. If all the accommodation is behind the front door, the dwelling is described as being self-contained.

- *Storeys*

Input the number of storeys. This is defined by the user and has no impact on the appraisal outputs or calculation methodology.

- *Is Extended Family?*

Input **Y** when the unit accommodates a large family, or **N** to indicate that it doesn't. Most users adopt the HCA definition for this.

- *Is Elderly/Cat 2 Frail?*

Input **Y** when the unit is designed for elderly or frail elderly occupation, or **N** to indicate that it isn't.

- *Supported Stay Period*

This has 4 possible inputs: *Permanent*, *Medium*, *Short* and *Very Short*. This defines the period that the occupant is expected to live in the unit. It is typically used in supported housing situations. These periods are defined to suit the user

and have no impact on the appraisal outputs or calculation methodology.

7.3 NPV Rates

This section defines the parameters for calculating the Net Present Value (NPV). This is a technique for calculating the value of income/expenditure (I/E) when it is received/expended over a long period of time.

The NPV rate and period can be adjusted to suit the risk profile of each unit type. Higher risk units typically have a higher discount rate and/or a lower discount period. Risk in this sense refers to the likelihood that I/E will be as forecast.

The calendar date for defining 'present value' is identified in the appraisal in Section I.

To ensure the NPV is correctly reported, always set these inputs, even where there is no long term rent income, such as market sales.



The screenshot shows a form titled "NPV Rates" with a dropdown arrow on the left. It contains two rows of input fields. The first row is labeled "NPV Discount Rate" and has two input boxes: the left one contains "7.00 %" and the right one contains "6.00 %". The second row is labeled "NPV Discount Period" and has two input boxes: the left one contains "35" and the right one contains "30".

7.3.1 NPV Discount Rate

This is the rate used to discount future income/expenditure to 'present value'. For example, this might be as at the handover date of the unit, or at the first handover date of all units, or at the last handover date of all units. Increasing the NPV rate reduces the NPV result.

7.3.2 NPV Discount Period

This is the period of years over which the NPV is calculated. The NPV is actually calculated on a monthly basis, i.e. I/E is assumed to arise at monthly intervals. Extending the period over which the NPV is calculated improves the result. However, the improvement in NPV diminishes as the period increases and is constant as the period tends towards infinity.

7.4 Sales & Staircasing

Sales income is accounted for in the long term cashflow. When using the typical *Overdraft* loan repayment method, it forms part of the loan repayments, reduces the loan interest cost and reduces the loan balance/repayment period.

Sales income does not affect the development interest cost, but for information only sales income is shown separately in the development cashflow (Section D).

Ground rents (as set in the Rents section) can be capitalised and sold. This income is shown in the long term cashflow.

7.4.1 Selling Outright and Shared Ownership Units

1. Set a *Sales %* to be sold. If selling all the equity in one transaction such as with an outright sale unit, input 100%. For shared ownership units, input the initial tranche, e.g. 40%.
2. Set *Offset from handover (months) to Initial Sale*. The *Handover Date* is repeated here for information. An offset of zero means that sales income is received at the same time the unit hands over. An offset of 3 means that sales income is received 3 months later.
3. The *Sales per Month* input determines how the income is profiled in the long term cashflow.

Example

10 units in Column A handover in June 2015.

The sales offset is 3 months, i.e. units start selling in September 2015.

The *Sales per Month* is 2 units per month.

Therefore the last sales income occurs 5 months later (10 units divided by 2 per month) i.e. January 2016.

The sales rate need not be a whole number of units. In all cases the income is profiled across the whole period and always represents a discreet number of units, i.e. sales income is not averaged. This might mean that some months have zero income, or that income in some months is higher/lower than in others.

4. Staircasing refers to the sale of further tranches of equity where the initial sales tranche is less than 100%.

Start Staircasing in Year defines the number of years after the unit handover when further sales of equity begin. *End Staircasing in Year* defines the number years after handover when further sales cease. *Maximum Equity % to be Sold* defines the maximum level of equity sold, i.e. inputting 80% would leave 20% of the equity unsold at the end of the staircasing period.

If after staircasing there is equity remaining, *Sell Remaining Equity in Year* defines when any unsold equity is received after handover.

Revenue allowances do not reduce when the unit staircases, but the rent reduces pro rata. All rent and allowances cease when 100% of the equity is sold, except ground rents which continue to be received (unless and until the ground rents are sold).

Grant is set aside coincident with staircasing when this parameter is set in section C, Subsidy.

Subsidy				
	A	B	C	
Dwelling Description	2B 4P Flat, Shared ownership	2 bed Flat Outright Sale	2 bed Flat Rent to Buy	
Units	20	10	10	
Floor Area (m ²)	68,00	68,00	68,00	
Product Type	Shared Ownership	Outright Sale	Rent to Buy	
Set Aside?	Y	N	Y	
+ Add Source				
X HCA	Per Unit	£10,000	£20,000	£20,000
X LA	Per Unit	£0	£5,000	£5,000
Unit Subsidy Total		£10,000	£25,000	£25,000

7.4.2 Selling Rent to Buy Units

Rent to Buy units are characterised by rent being received from the *Handover Date* followed by a sale at a later year.

The sale can be either a share of the equity followed by staircasing, or 100% as a single sale.

See example below.

7.4.3 Selling Ground Rents

To establish the value of a ground rent sale, input a *Ground Rent Yield* to capitalise the rent.

E.g. A ground rent at Year 1 of £250 p.a. and a yield of 5%, means that the value of the sale is $£250/5\% = £5,000$.

Set *Sell Ground Rents at end of Year* to define how many years after handover the sales income is received.

After selling ground rents no further ground rents are received.

7.4.4 Examples of Inputs for Selling Units

	A *	B *	C *
<input type="button" value="Add a new unit"/>			
Dwelling Description	2B 4P Flat, Shared ownership	2 bed Flat Outright Sale	2 bed Flat Rent to Buy
Units	20	10	10
Floor Area (m ²)	68.00	68.00	68.00
Product Type	Shared Ownership	Outright Sale	Rent to Buy
Sales & Staircasing			
Sell Ground Rents at End of Year		10	
Sales %	40 %	100 %	50 %
Actual Sales	£80,000	£200,000	£100,000
Handover Date	Jul 2016	Apr 2016	Apr 2016
Offset from handover (months) to Initial Sale	3	2	0
Sold on	Oct 2016	Jun 2016	Apr 2016
Sales per Month	1.7	1	1
Defer Initial Sale Until End of Year			4
Start staircasing in Year	10		
End staircasing in Year	20		
Maximum Equity % to be Sold	85.0 %		
Sell Remaining Equity in Year	30		5
Capitalised Ground Rent at Year of Sale		£2,498	
Ground Rent Yield	0.0 %	5.0 %	0.0 %

Column A

Shared Ownership

40% of the equity is sold 3 months after the Handover Date
 Sales rate is set to 1.7 units per month, i.e. the 20 units are sold over 12 months.
 Staircasing starts at Year 10 and by Year 20 reaches 85% of the equity sold.
 The remaining 15% equity is sold in Year 30.

Column B

Outright Sale plus Sale of Ground Rent

The Sales % automatically defaults to 100%.
 The income is received 2 months after the Handover Date.
 Sales rate is 1 unit per month, i.e. 10 units are sold over 10 months.
 Ground rents are capitalised at 5% and sold in Year 10

Column C

Rent to Buy

Rent is received from the Handover Date.
 50% of the equity is sold at Year 4 and the remaining 50% equity is sold in Year 5.
 Sales rate is 1 unit per month, i.e. sales are sold over 10 months.

Notes

Sales income is inflated as set by the Inflation settings in Section G.
 In the long term cashflow, sales income is received at the end of the period in which it is timed.

7.5 Rent Allowances

Rent allowances are revenue expenses incurred during the long term management of the units. These are input under these headings:

1. Managing Agent
2. Management
3. Maintenance
4. Service Costs
5. Reinstatement
6. Other Allowances
7. Voids and Bad Debts
8. Major Repairs

7.5.1 Managing Agent

This is used when the management of the units is undertaken by an external lettings agent.

The fee paid to the agent is a percentage of the gross rent (excluding service charges and ground rents). VAT can be added to this cost. The fee can be varied over any number of periods up to 100 years.

7.5.2 Management

This is for the cost to the organisation to manage the units.

Input as a sum per annum. This can be varied over any number of periods up to 100 years.

The cost can be inflated from the *Management Inflation Base Year* to the *Handover Date*, at the inflation rate specified at the start of section G - *Inflate Allowance to Handover at*. Simple inflation is applied in whole years only.

Management per Unit per Annum					
Year	1 to	10	£150	£450	£450
Year	11 to	100	£175	£500	£500
Management Inflation Base Year		2008/09	2008/09	2008/09	

G - Inflation	
Base Inflation Rate	2.50 %
Inflate Allowances to Handover at	3.00 %

These illustrations show the Management per Unit per Annum varying from £150 to £450 for the first 10 years, then from £175 to £500 for the remaining period. The cost is given as at a base date of 2008/09. If the units handover in say 2014/15 the cost is inflated at 3% as input in section G, Inflation.

7.5.3 Maintenance

This allowance is typically used for day-to-day repairs, but the user can apply their own definition. Data input follows the same principles as above, 7.5.2.

7.5.4 Service Costs

In this position the **cost** of providing a service is set. Where there is a corresponding income from the dwelling occupier, this is input in the Rents section and is referred to as the *Service Charge*. This is described further in section 7.6.3.

Remember to input the **cost** of providing a service where rents are inclusive of a service **charge** (e.g. typically the case with affordable rents).

Data input follows the same principles as above, 7.5.2.

7.5.5 Reinstatement

If preferred, this allowance can be used for the cost of works incurred between lettings, i.e. voids works.

Data input follows the same principles as above, 7.5.2.

7.5.6 Other Allowances

This refers to any other allowance. One use for this might be the payment of a rent to a superior landlord, such as arises with Temporary Social Housing.

Data input follows the same principles as above, 7.5.2.

7.5.7 Voids and Bad Debts

This is the rent loss when the property is void and also includes an allowance for bad

debts.

Data input is by percentage and is applied to gross rents and service charges.

7.5.8 Major Repairs

This cost includes major repairs, planned and cyclical maintenance. For day-to-day maintenance costs see 7.5.3 above.

There are 2 methods for inputting this cost.

1. Sinking fund (recommended)
2. Life cycle costs

1. Sinking Fund

In this method, an annual sum is deducted over the period of the long term cashflow. The sum is not the cost of the actual repairs in any year, but is usually defined as a sum which, over the period of the long term cashflow, provides the same Net Present Value as the actual repair costs. This method is recommended for viability purposes as it removes the distortion created by life cycle costings.

1. *Input Type* - Select the appropriate option from the list box.
 1. *Net Works Costs* - the allocated works cost for the unit from section B.
 1. *User Input Sum* - a lump sum for this unit (as an alternative to the works cost).
 1. *Input Value* - a sum or percentage linked to the *Input Type* or *User Input Sum*
This can be varied over any number of periods up to 100 years.
2. *Defer to Start of Year* - delay the start of the sinking fund to a specified year after handover.

Add a new unit		A
Dwelling Description	2B 4P Flat, Shared ownership	
Units	20	
Floor Area (m ²)	68.00	
Product Type	Shared Ownership	
Major Repairs		
Input Type	% of Works	
Net Works Cost (per unit)	£109,025	
User Input Sum		
Input Value		
Year	1 to 100	0.80 %
Defer to Start of Year	5	
Total in First Applicable Year	£967	
Life Cycle Cost		
Multiplier		
NPV of Major Repairs as a Percentage of Works	11.2 %	
NPV of Major Repairs	£12,237	
Major Repairs Description	0.8% of Works, from year 5	

In this illustration, the sinking fund *Input Type* is set as a percentage of works. The allocated *Net Works Cost (per unit)* is £109,025. This is multiplied by the *Input Value* of 0.8% and the cost is deferred to start of year 5. The cost is inflated (as per section G inflation parameters) to give the value of £967 at Year 5. The *NPV of Major Repairs as a Percentage of Works* is 11.2% and the NPV itself is £12,237.

2. Life Cycle Costings

This method models estimated repair costs in the year they are expected to occur. Each appraisal unit is matched with an archetype, a particular type and size of unit which has pre-defined life cycle costs.

Archetypes are set up in the Global Properties (refer to the Administrator's Manual for more information).

An archetype is a model unit type, commonly developed by the organisation. A multiplier (1.1, 0.9...etc) can be applied to the costs for differences in size, or other characteristics between the appraisal unit and the archetype.

Costs for communal areas must be included within the life cycle costs unit.

1. *Input Type* - Select *Life Cycle Costings*

1. *Life Cycle Cost* – select an archetype from the list (as defined in Global Properties). The archetype selected should be as close to the description of the appraisal unit as possible.

1. *Multiplier* – This value is used to adjust all costs. This might be appropriate when say a 80m² flat is used as the archetype and the appraisal unit is say 95m². A value below 1.0 would reduce the costs.

The screenshot shows a software interface for configuring 'Major Repairs'. The interface is a table with two columns: labels on the left and input fields on the right. The 'Input Type' is set to 'Life Cycle Costings'. The 'Net Works Cost (per unit)' is £109,025. The 'User Input Sum' is empty. The 'Input Value' is £0. The 'Defer to Start of Year' is empty. The 'Total in First Applicable Year' is £0. The 'Life Cycle Cost' is '1-bed flat, (45m²)'. The 'Multiplier' is 1.05. The 'NPV of Major Repairs as a Percentage of Works' is 9.5%. The 'NPV of Major Repairs' is £10,358. The 'Major Repairs Description' is 'Life Cycle Costings'.

Major Repairs	
Input Type	Life Cycle Costings
Net Works Cost (per unit)	£109,025
User Input Sum	
Input Value	£0
Defer to Start of Year	
Total in First Applicable Year	£0
Life Cycle Cost	1-bed flat, (45m ²)
Multiplier	1.05
NPV of Major Repairs as a Percentage of Works	9.5 %
NPV of Major Repairs	£10,358
Major Repairs Description	Life Cycle Costings

In this illustration the *Input Type* is set to *Life Cycle Costings*. The *Life Cycle Cost* archetype matched to the unit is a 1-bed flat (45m²). A *Multiplier* of 1.05 means that all costs in the archetype are increased by 5%.

7.6 Rent

This is where rent and service charges are entered.

At the start the *Handover Date*, *Target Rent at Handover* and *Rent Cap* are displayed. Note that the target rent and rent cap are values estimated at the *Handover Date*, i.e. inflated from current target rent/cap values.

Rent			
Handover Date	Jul 2016	Apr 2016	Apr 2016
Market Rent Yield p.a.	0.00 %	5.00 %	5.00 %
Market Rent p.w.	£0.00	£191.64	£191.64
Target Rent at Handover	£69.09	£114.30	£114.30
Valuation Date	Dec 2014	Dec 2014	Dec 2014
Rent Cap	£154.98	£154.98	£154.98
Local Housing Allowance	£0.00	£175.00	£175.00

In this section a *Market Rent Yield p.a.* and *Market Rent p.w.* are determined. Data entered here can be used to set the rent as described in 7.6.2 below.

These fields are linked. Entering a *Market Rent Yield p.a.* calculates a *Market Rent p.w.* (calculated by multiplying the *Current Market Value* by the *Rent Yield (%)* divided by *Weeks per Year.*). Similarly, entering a *Market Rent p.w.* returns the equivalent *Market Rent Yield p.a.*

A *Valuation Date* refers to the date that the market rent was determined. When setting the rent there is an option to inflate it up to the *Handover Date* at the rate of residential rent inflation, as set in section G.

The *Local Housing Allowance* can be entered as memorandum information (data to be derived elsewhere). A future update is planned to display this data automatically.

Rent			
Handover Date	Jul 2016	Apr 2016	Apr 2016
Market Rent Yield p.a.	0.00 %	5.00 %	5.00 %
Market Rent p.w.	£0.00	£191.64	£191.64
Target Rent at Handover	£69.09	£114.30	£114.30
Valuation Date	Dec 2014	Dec 2014	Dec 2014
Rent Cap	£154.98	£154.98	£154.98
Local Housing Allowance	£0.00	£175.00	£175.00

In this illustration the *Market Rent p.w.* in columns B and C have a *Valuation Date* of December 2014. Their *Handover Date* is April

2016. Using the option to set an inflated market rent (as described in 7.6.2) the market rent is inflated by 2 years,

There are 5 sub-sections:

1. Cost Rent
2. Residential Rent
3. Service Charges
4. Ground Rent
5. Commercial Rent

7.6.1 Cost Rent

The *Cost Rent* expresses the year 1 revenue costs (rent allowances and loan cost). It is sometimes called a breakeven rent. Setting the rent at the *Cost Rent* does not guarantee that rent in later years meets revenue costs, especially if major repairs have been deferred.

Service Costs p.w. and the *Total Cost p.w.* and *Total Cost p.m.* are displayed.

Cost Rent			
Cost Rent p.a. excl. S.C.	£10,232.51	£8,760.72	£1,240.04
Cost Rent p.w. excl. S.C.	£196.10	£167.89	£23.76
Service Costs p.w.	£11.50	£0.00	£11.50
Total Cost p.w.	£207.60	£167.89	£35.26
Total Cost p.m.	£902.71	£730.06	£153.34

7.6.2 Residential Rent

Rents can be varied over the long term cashflow any number of times up to 100 years.

Rent is set in two stages. In the top half of the input, select a rent calculation method from the drop down list. In the lower input box enter an appropriate sum or percentage. Move the cursor away and the actual rent is shown. A reminder of the calculation method is displayed in the line below.

To prevent further changes to the set rent (including updates to inflation data) set *Lock Rents* to **y**. Note that rents must be unlocked before changes can be made.

Residential Rent (per week)				
Year	1 to	100	<input type="text" value="% U/Equity"/>	
			<input type="text" value="2.75 %"/>	
			<input type="text" value="£153.31"/>	<input type="text" value="£114.30"/>
Year 1 Rent			<input type="text" value="2.75% of Unsold Equity"/>	<input type="text" value="80% of Market Rent"/>
			<input type="text" value="100% of Target Rent"/>	
Lock Rents			<input type="text" value="N"/>	<input type="text" value="N"/>
			<input type="text" value="N"/>	
Rent at 52.18 wks/yr			<input type="text" value="£63.24"/>	<input type="text" value="£153.31"/>
			<input type="text" value="£114.30"/>	

In this illustration, column A shows the two part input box. The top part is set to % of *Unsold Equity* and the lower part to a value of 2.75%. Move the cursor away and the actual rent of £83.24 is shown. Rents are not locked. Therefore, if the rate of inflation changes then the *Target Rent* also changes and the rent in column C changes accordingly. *Rent at 52.18 wks/yr* displays the equivalent rent if the organisation collects rent over a different number of times p.a., e.g. 48 weeks.

Rent p.a. is based on the set rent per week multiplied by the *Weeks per Year* shown at the beginning of the appraisal, but in the long term cashflow, the rent is received on a monthly basis according to the following rules.

Rent Paid at End of Month ? - setting this to **y** means that in the long term cashflow the rent is received on the last day of the month.

Smooth Tenant Payments ? - setting this to **y** means that the annual rent is divided by 12 i.e. each month's rent is the same. Setting this to **n** means that some months would have less/more rent depending on the number of days in the month.

Start - Beginning of Appraisal			
Scheme Name	<input type="text" value="My Scheme"/>		
Scheme Description	<input type="text" value="A scheme of exceptional beauty and financial prudence"/>		
Organisation	<input type="text" value="Shelton Development Services Ltd."/>	Appraisal Date	<input type="text" value="11 Dec 2014"/>
Funding Year	<input type="text" value="2020/21"/>	Date Last Saved	<input type="text" value="21 Jan 2015"/>
Local Authority	<input type="text" value="Guildford"/>	Project/File Reference	<input type="text" value="123"/>
Total Units	<input type="text" value="40"/>	Appraisal By	<input type="text" value="UserA"/>
Practical Completion	<input type="text" value="Apr 2016"/>	Drawing Number	<input type="text"/>
Weeks per Year	<input type="text" value="52.18"/>	Site Area	<input type="text" value="1.00"/> Hectares
Site Purchase Tenure	<input type="text" value="Freehold"/>	Seller	<input type="text" value="Mr Greedy"/>
		Appraisal Version	<input type="text" value="First"/>
Rent Paid at End of Month?	<input type="text" value="Y"/>	HC Code	<input type="text" value="302"/>
Smooth Tenant Payments?	<input type="text" value="Y"/>	Investment Region	<input type="text" value="SE"/>
		Bid Reference	<input type="text" value="HCA 123"/>

7.6.3 Service Charges

Service Charge is the term used to describe the income for housing services provided to the tenant. The charge may be different from the *Service Cost* (see 7.5.4).

Setting *Make Service Charges Always Equal Costs* to **y** means that the service charge equals the service cost. Setting this to **n** means the service charge can be set by the user.

Setting *Service Charges Already Included in Rent* to **y** means that it would be inappropriate to set a service charge in addition to the rent, i.e. the rent already includes

any service charge element (e.g. as would be the case with affordable rents).

Make Service Charges Always Equal Costs	<input type="radio"/> N	<input checked="" type="radio"/> Y	<input type="radio"/> Y
Service Charges Already Included in Rent	<input checked="" type="radio"/> Y	<input type="radio"/> N	<input type="radio"/> N
Service Charges (income per week)			
Year	1 to	100	<input type="text" value="£0.00"/> <input checked="" type="text" value="£11.50"/> <input type="text" value="£11.50"/>

In this illustration, column A identifies that the service charge is already in the rent and so no service charge is set. In columns B and C the service charge is automatically set to equal the cost of providing the service (i.e. the service cost).

7.6.4 Ground Rent

Ground rents paid on leasehold properties are set per annum and can be varied over the long term cashflow any number of times up to 100 years. Ground rents continue to be received until sold (see *Sales & Staircasing* in section A). Inflation is applied (see section G).

Ground Rent Per Annum						
Year	1 to	100	<input type="text" value="£100"/>	<input checked="" type="text" value="£100"/>	<input type="text" value="£100"/>	<input type="text" value="£100"/>

In this illustration all units have a ground rent of £100 p.a.

7.6.5 Commercial Rent

Commercial rent is based on the net floor area (i.e. excluding additional areas) and set as £/m² per annum. It can be varied over the long term cashflow any number of times up to 100 years.

An *Initial Rent Free Period (Months)* is the period when no rent is received. The rent is fixed (i.e. not inflated) for the period of the lease, i.e. *the Rent Review Period (years)*.

Commercial Rent (per m ² /yr)	
Year	1 to 100 <input type="text" value="£150.00"/>
Commercial Rent (per ft ² /yr) <input checked="" type="text" value="£13.94"/>	
Initial Rent Free Period (Months)	<input type="text" value="6"/>
Rent Review Period (years)	<input type="text" value="5"/>

In this illustration a rent has been set at £150/m² per annum (equivalent to £13.94/ft² p.a.). The first year has a rent free period of 6 months and the rent remains fixed for 5 years. After 5 years the rent is inflated at the commercial rent inflation rate (see section G) and fixed for a further 5 years, and so on.

7.7 Units Summary

The total floor area (residential and commercial) and number of habitable rooms are summarised.

7.7.1 Floor Area

Total Floor Area is analysed between residential and commercial.

As an alternative to setting additional floor area for each unit, a *Gross m²* floor area can be input for the scheme. Additional area resulting from this input is spread equally across all units (houses and flats of residential units, or commercial units). These inputs for adding floor area are linked. Changes at a unit level affects the total in this summary and vice versa.

A conversion from m² to ft² is also shown.

7.7.2 Habitable Rooms

The *Habitable Rooms Summary* is analysed between *Residential Rent*, *Residential Sale* and *Other*. This data only applies to residential units.

Units Summary				
Floor Area & Hab Room Summary				
Gross Floor Area			Habitable Rooms Summary	
	Net m ²	Gross m ²	Gross ft ²	
Residential Floor Area	2,720.0	3,170.0	34,121.9	Residential Rent 120
Commercial Floor Area	100.0	100.0	1,076.4	Residential Sale 0
Total Floor Area	2,820.0	3,270.0	35,198.3	Other 0
				Total 120

In this illustration the *Total Floor Area* of 2,820m² is analysed between the *Net m²* (habitable floor area of the residential units and lettable area of commercial units) and *Gross m²* (including any additional floor areas). Entering a total *Gross m²* spreads the resulting additional area across all units of the respective product type.

8.0 Section B - Capital Costs

Capital costs (acquisition, works, fees and other) can be entered as a total for the scheme (e.g. a single acquisition cost) and/or as a cost for each unit. With the exception of fees, where different rules apply (see 8.3) capital costs at the scheme level are always added to costs per unit. In each subsection scheme costs and unit costs are entered in separate areas, but the total cost is shown in both.

Costs are applied to a product type and allocated to the units by one of 3 methods: *Floor Area*, *Units*, or *Persons*. In section E, the total scheme cost is analysed by unit, by product type and the whole scheme.

Costs can be inflated from an *Inflation Base Year* up to a milestone event.

An *Account Code* can be input as memorandum information.

Costs are entered in 4 subsections.

1. Acquisition
2. Works
3. Fees
4. Other

8.1 Acquisition

Costs at the scheme level are defined in the first input area. Costs can be detailed on any number of rows. Click the green + button to add a new row. Click the red x button to delete a cost.

Description - a free text description of the cost.

Input Type - select a method for defining the calculation method from the drop down list.

Input Value - this input, combined with the *Input Type* gives the *Total Before Inflation*.

Applies To – from the drop down list, select the product type to which the cost applies. By default the cost applies to all types.

Allocate Cost by - from the drop down list, select a method for allocating the cost. The cost is allocated to the product type selected in the *Applies To* column.

Cost Base Year – if relevant, select a year from the drop down list. The *Total Before Inflation* is inflated at the *Inflation Rate* up to the chosen *Inflate to* milestone.

VAT - enter a VAT rate and the *Inflated Total* has VAT added to give the *Gross Total*.

Underneath this table is a sub total followed by a summary of any costs defined in *Unit Acquisition Costs*.

Where the actual acquisition cost is below the market value (e.g. a s.106 situation) the *Land Discount* can be calculated.

Acquisition														
Click here to add a new scheme cost														
	Description	Input Type	Input	Applies To	Allocate Cost by	Total Before Inflation	Inflation Base Year	Inflate To	Inflation Rate	Inflated Total	VAT	Gross Total	Account Code	Total
<input checked="" type="checkbox"/>	Land as agreed	Lump Sum	£1,800,000	All Units	Floor Area	£1,800,000	2011/12	Exchange of Contracts (Land)	3.00 %	£1,966,909	0.0 %	£1,966,909		£1,966,909
<input checked="" type="checkbox"/>	Easement	Per Unit	£1,000	All Units	Floor Area	£41,000		Cashflow Start		£41,000		£41,000		£41,000
<input type="checkbox"/>														
	Sub Total		£2,007,909			£1,841,000				£2,007,909	£0	£2,007,909		
	Units Cost		£0			£0				£0	£0	£0		
	Total		£2,007,909			£1,841,000				£2,007,909	£0	£2,007,909		

Land Discount	
Acquisition Total Entered	£2,007,909
Market Value, if Different	£2,500,000
Land Discount	£492,091
Land Discount as Percent of Market Value	19.68 %

In this illustration, acquisition is defined at the scheme level. There are two cost items: the agreed land value and a cost for an easement. Both costs apply to all units and are allocated to each unit by floor area. The agreed land value is inflated from 2011/12 up to the Exchange of Contracts milestone, at a rate of 3%.

It is unusual for the acquisition to be defined differently for each unit. However, entering acquisition per unit is done in the same way as explained in 8.2.1 below.

8.2 Works

Defining costs at the scheme level is done in the same way as described for acquisition – see 8.1 above.

8.2.1 Entering Costs per Unit

The lower input area is used for defining costs per unit (one cost per unit). This is particularly helpful when a works cost for flats is different from houses, or schemes which have mixed product types. Additional costs (e.g. abnormal costs) can be added in the scheme cost area. The total cost includes inputs from both areas.

Inputting costs per unit follows the same principles as in the scheme input area.

Works													
Click here to add a new scheme cost													
Description	Input Type	Input	Applies To	Allocate Cost by	Total Before Inflation	Inflation Base Year	Inflate To	Inflation Rate	Inflated Total	VAT	Gross Total	Account Code	
<input type="checkbox"/> Fitting out	Fitting out	Lump Sum	£50,000	All Commercial	Floor Area	£50,000		Cashflow Start		£50,000		£50,000	
<input type="checkbox"/> Increase Spec	Increase Spec	Per Unit	£5,000	All Residential	Floor Area	£200,000		Cashflow Start		£200,000		£200,000	
<input type="checkbox"/> Site Clearance	Site Clearance	Lump Sum	£10,000	All Units	Floor Area	£10,000		Cashflow Start		£10,000		£10,000	
<input type="checkbox"/>													
Sub Total			£260,000			£260,000				£260,000	£0	£260,000	
Units Cost			£3,954,000			£3,954,000				£3,954,000	£0	£3,954,000	
Total			£4,214,000			£4,214,000				£4,214,000	£0	£4,214,000	

Unit Works				
	A	B	C	D
Dwelling Description	office	28 4P Flat, Shared ownership	2 bed Flat Outright Sale	2 bed Flat Rent to Buy
Units	1	20	10	10
Floor Area (m ²)	100.00	68.00	68.00	68.00
Product Type	Commercial	Shared Ownership	Market Rent	Rent to Buy
Input Type	Per m ²	Per m ²	Per m ²	Per m ²
Input Value	£1,500	£1,200	£1,100	£1,300
Cost Base Year				
Inflation Rate	0.0 %	0.0 %	0.0 %	0.0 %
Inflate To				
VAT%	0.00 %	0.00 %	0.00 %	0.00 %
Unit Works Cost Gross Total	£150,000	£95,100	£87,175	£103,025
Allocated from Scheme Works Costs	£50,355	£5,241	£5,241	£5,241
Net Works Cost (per unit)	£200,355	£100,341	£92,416	£108,266

In this illustration the first input area has works costs defined for the scheme: Fitting out, Increase Spec and Site Clearance. These costs apply variously to *All Commercial*, *All Residential* and *All Units* as shown in the *Applies To* column. In the lower input area each unit has a different works cost per m². Scheme costs are allocated to each unit type by *Floor Area* as shown in the column *Allocate Cost by* and are added to each unit type cost to give a *Net Works Cost per unit*.

8.3 Fees

Entering data in this section follows similar methodology as described in 8.1 and 8.2 above, except the user can choose whether to add fees together from the two input areas (as with acquisition and works) or to use inputs from one input area only.

Fees can be set quickly at the unit level, by using a percentage of acquisition & works costs. At a later time, a more detailed assessment can be undertaken using the table of fees. Switch between the two input options using the radio buttons at the start of this section.

There are 3 radio button options.

1. *Unit Level*

This option means that only fees in the *Unit Fees* input area are used in the appraisal. Fees shown in the scheme fees table are ignored and the *Total* column in the table shows zero.

1. *Scheme Level*

For this option, detail the costs in the table, one fee per row. The number of rows is unlimited. Any fees defined in the *Unit Fees* area are ignored.

1. *Combined*

This option adds inputs from both unit level and scheme level areas. In the absence of a default set by the user, this is the application default option.

Fees														
Fees Analysis: <input checked="" type="radio"/> Unit Level <input type="radio"/> Scheme Level <input type="radio"/> Combined														
	Description	Input Type	Input	Applies To	Allocate Cost by	Total Before Inflation	Inflation Base Year	Inflate To	Inflation Rate	Inflated Total	VAT	Gross Total	Account Code	Total
<input checked="" type="checkbox"/>	Architect	% of Works ex VAT	5.00 %	All Units	Floor Area	£0		Cashflow Start		£0	20.0 %	£0		£0
<input checked="" type="checkbox"/>	Borrowing Charges	Lump Sum		All Units	Floor Area	£0		Cashflow Start		£0		£0		£0
<input checked="" type="checkbox"/>	Builders Design	Lump Sum		All Units	Floor Area	£0		Cashflow Start		£0		£0		£0
<input checked="" type="checkbox"/>	Building Control	Per Unit	£400	All Units	Floor Area	£0		Cashflow Start		£0	20.0 %	£0		£0
<input checked="" type="checkbox"/>	Clerk of Works	% of Works ex VAT	0.50 %	All Units	Floor Area	£0		Cashflow Start		£0	20.0 %	£0		£0

In this illustration fees are as shown at the *Unit Level*. Notice how the scheme table of fees shows zero in the *Total* column.

Fees														
Fees Analysis: <input type="radio"/> Unit Level <input checked="" type="radio"/> Scheme Level <input type="radio"/> Combined														
	Description	Input Type	Input	Applies To	Allocate Cost by	Total Before Inflation	Inflation Base Year	Inflate To	Inflation Rate	Inflated Total	VAT	Gross Total	Account Code	Total
<input checked="" type="checkbox"/>	Architect	% of Works ex VAT	5.00 %	All Units	Floor Area	£210,700		Cashflow Start		£210,700	20.0 %	£252,840		£252,840
<input checked="" type="checkbox"/>	Borrowing Charges	Lump Sum		All Units	Floor Area			Cashflow Start		£0		£0		£0
<input checked="" type="checkbox"/>	Builders Design	Lump Sum		All Units	Floor Area			Cashflow Start		£0		£0		£0
<input checked="" type="checkbox"/>	Building Control	Per Unit	£400	All Units	Floor Area	£16,400		Cashflow Start		£16,400	20.0 %	£19,680		£19,680
<input checked="" type="checkbox"/>	Clerk of Works	% of Works ex VAT	0.50 %	All Units	Floor Area	£21,070		Cashflow Start		£21,070	20.0 %	£25,284		£25,284

In this illustration fees are as shown at the *Scheme Level*. The table of fees now has focus and the *Total* column evaluates the inputs. Any fees defined at the Unit Level are ignored.

8.4 Other

This subsection can be used for any further capital costs which do not fall readily under one of the three categories described above.

This area is particularly useful for adding contingencies, or for s.106 contributions, or Community Infrastructure Levy (CIL) charges. Inputting these separately means that the totals for acquisition, works and fees are not distorted.

Example

Suppose you want to add a 2% contingency to the works cost. This cannot be done within the works subsection.

Other														Total
Click here to add a new scheme cost														
	Description	Input Type	Input	Applies To	Allocate Cost by	Total Before Inflation	Inflation Base Year	Inflate To	Inflation Rate	Inflated Total	VAT	Gross Total	Account Code	
<input type="checkbox"/>	Contingency Works	% of Works ex VAT	2.00 %	All Units	Floor Area	£84,280				£84,280		£84,280		£84,280
<input type="checkbox"/>	CIL Payment	Per m ²	£100	All Units	Floor Area	£327,000		Cashflow Start		£327,000		£327,000		£327,000
<input type="checkbox"/>														
Sub Total		£411,280				£411,280				£411,280	£0	£411,280		
Units Cost		£0				£0				£0	£0	£0		
Total		£411,280				£411,280				£411,280	£0	£411,280		

In this illustration a 2% works contingency has been added, If the Works cost changes this contingency also changes. Also shown is a CIL payment.

9.0 Section C - Subsidy

Subsidy (e.g. Social Housing Grant and other public grant) can be entered for each unit type, or entered as a total for the scheme.

The source of the subsidy must be identified, as well as the product type to which it applies.

Only enter subsidy in this section that is received as cash during the development period.

Internal subsidy that does not arise as a capital sum (e.g. rent conversion income) should be entered in section F, *Private Finance – Requirement*, if appropriate.

Subsidy received after the scheme has been completed can be entered in the long term cashflow as a capital receipt in section H.

There are two subsections.

1. Unit input
1. Summary

9.1 Unit Input

1. Click the green + button to add a source of grant. Select the source options from the drop down list.
1. Select a calculation method: *Per unit*, *Per Person* or *Per m²*
1. Enter the subsidy in each unit column.
1. If grant is to be set aside when subsequent sales occur, change the *Set Aside* flag to **Y**.

C - Subsidy

Subsidy

	A	B	C	D
Dwelling Description	office	28 4P Flat, Shared ownership	2 bed Flat, Outright Sale	2 bed Flat, Rent to Buy
Units	1	20	10	10
Floor Area (m ²)	100.00	68.00	68.00	68.00
Product Type	Commercial	Shared Ownership	Market Rent	Rent to Buy
Set Aside?	N	Y	N	Y

+ Add Source

HCA	Per Unit	£0	£10,000	£0	£20,000
LA	Per Unit	£0	£0	£0	£5,000
Unit Subsidy Total			£10,000		£25,000

In this illustration two subsidy sources are used: HCA and LA. Column B has subsidy of £10,000 per unit from HCA and Column D has £20,000 from the HCA and £5,000 from the LA. In both cases grant is set aside on subsequent sales – as highlighted.

9.2 Summary

This summary table analyses total subsidy by product type and per unit/per person, together with the average (end column).

Inputs at the unit level and here are synchronised.

Subsidy Analysis					
Total	Per Unit	Per Person			Average
	Commercial	Shared Ownership	Market Rent	Rent to Buy	
Persons	0	200	40	40	280
HCA		£1,000	£0	£5,000	£1,429
LA		£0	£0	£1,250	£179
RCGF					£0
DPF					£0
Other					£0
Total per Person		£1,000	£0	£6,250	£1,607

In this illustration the inputs as shown above are now summarised. The Per Person tab is selected.

When a total subsidy is input in this table, it overwrites the unit input as described in 9.1 and locks the unit subsidy from further change. The total subsidy remains fixed even though the number of units changes. Entering unit input afterwards is not possible unless the unit input is unlocked.

To revert to unit input, unlock the unit input table by clicking the red padlock icon.

Subsidy Analysis					
Total	Per Unit	Per Person			Average
	Commercial	Shared Ownership	Market Rent	Rent to Buy	
HCA	£0	£238,095	£0	£15,000	
LA	£0	£0	£0	£50,000	
RCGF					
DPF	£0	£0	£0	£50,000	
Other					
Total	£0	£238,095	£0	£115,000	

In this illustration in Subsidy Analysis, total subsidy from DPF has been input for the 'Rent to Buy' product type at £50,000. This causes the DPF source in the unit input table to be locked from further input. To enable unit input click the red padlock. Further unit input now causes the total in the Subsidy Analysis to be updated.

10.0 Section D - Development Cashflow

The development cashflow forecasts capital income (subsidy) and costs (acquisition, works, fees, other) over the development period. The cashflow per month, interest cost and cumulative debt is shown.

Sales income is shown for information, but it is not included in the development cashflow.

The development cashflow period is unrestricted.

Monthly headings show month number, calendar date and milestone descriptions.

For automatic forecasting, totals can be profiled using a variety of system templates in conjunction with milestones, calendar dates or month numbers. Alternatively, using the manual option, specific monthly sums can be entered directly into the cashflow.

The total sum for each cost section can be profiled in one operation, or each cost item (such as the detailed analysis of fees) can be profiled individually. Setting the profile of the total sum forces all subsidiary cost items to inherit the same profile.

If costs or income are amended, the cashflow is updated when system profiles have been used. Forecasts that have been set manually require user intervention.

A warning message is displayed if the development cashflow is left unbalanced.

Section D has the following subsections:

1. Interest rate inputs and summary.
1. Development Cashflow Forecast

10.1 Interest Rate Inputs and Summary

10.1.1 Interest Rates

These are set at the start of the section. Separate interest rates can be applied to cashflow balances when they are negative (i.e. money has to be borrowed) or positive (i.e. interest is earned).

The interest cost is calculated using either a simple or compound methodology. Set the *Use Compound Monthly Interest* to **Y** for compound interest.

D - Development Cashflow

Interest On Negative Balances	<input type="text" value="6.00 %"/>	Total Interest - Negative means cost	<input type="text" value="-£308,556"/>
Use Compound Monthly Interest	<input type="text" value="N"/>	Total Remaining Balance to Forecast	<input type="text" value="£0"/>
Interest On Positive Balances	<input type="text" value="4.00 %"/>	Date First Cashflow Event	<input type="text" value="Dec 2014"/>
		Date Last Cashflow Event	<input type="text" value="Sep 2017"/>
		Milestones End Date	<input type="text" value="Oct 2017"/>
		Milestones Number of Months	<input type="text" value="35"/>
		Milestones Peak Cumulative Cashflow	<input type="text" value="-£6,124,760"/>

▶ Development Cashflow Forecast

In this illustration, interest on borrowings (negative balances) are calculated at 6% and at 4% on positive balances. The calculation of interest is set to simple.

Where *Total Interest* is negative, an interest cost has been incurred.

The *Total Remaining Balance to Forecast* should be zero when the cashflow has been properly completed. A warning message is displayed when the cashflow is left unbalanced.

Key Milestone calendar dates are reported along with the *Peak Cumulative Cashflow*.

10.2 Development Cashflow Forecast

The forecast has several columns:

Development Cashflow Forecast																
Description	Spread	Budget	Balance To Forecast	Earlier Total	CS Dec 2014 (1)	Jan 2015 (2)	EoC Feb 2015 (3)	LCL Mar 2015 (4)	Apr 2015 (5)	SoS May 2015 (6)	Jun 2015 (7)	Jul 2015 (8)	Aug 2015 (9)	Sep 2015 (10)	Later Total	Latest Date
▶ Subsidy	By Percent	£333,095	£0	£0	£0	£0	£0	£333,095	£0	£0	£0	£0	£0	£0	£0	Mar 2015
▶ Acquisition Costs	By Percent	£2,007,909	£0	£0	£0	£0	£0	£2,007,909	£0	£0	£0	£0	£0	£0	£0	Mar 2015
▶ Works Costs		£4,214,000	£0	£0	£0	£0	£0	£250,000	£0	£76,167	£149,406	£216,905	£276,068	£324,621	£3,245,454	Jul 2016
▶ Fees Costs		£778,567	£0	£0	£60,117	£59,851	£58,891	£57,839	£56,490	£54,849	£52,911	£50,679	£48,154	£45,331	£278,986	Jul 2016
▶ Other Costs	By Percent	£411,280	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£411,280	Jul 2016
Handovers				£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£7,367,217	
▶ Cashflow & Interest				£0	£-60,267	£-60,101	£-59,640	£-1,968,459	£-67,374	£-142,423	£-214,614	£-281,117	£-339,303	£-386,841	£3,193,299	
Cumulative Cashflow					£-60,267	£-120,369	£-180,009	£-2,148,468	£-2,215,842	£-2,358,265	£-2,572,879	£-2,853,996	£-3,193,299	£-3,580,141		
Sales (in Long Term Cashflow)				£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£1,600,000	

Show Charts

Description - this describes each income/cost category. Expand the category to see individual rows of data.

Spread - the button has an icon indicating the forecast spread profile. Click the button to select a spread profile and add dates. Spread profiles are described below.

Budget - the total cost or subsidy as entered in section B or C.

Balance to Forecast* - this is the *Budget* outstanding after a forecast has been entered. This sum is zero when the cashflow is properly completed, otherwise a warning is displayed.

Earlier Total* - this is the cumulative total before the start of the visible part of the cashflow forecast.

Cashflow Forecast – the monthly columns show calendar dates, month numbers and milestones. Scroll the forecast left/right using the scroll bar. Only a small section of the cashflow is visible at any one time on screen.

*Later Total** - this is the cumulative total after the visible part of the cashflow forecast.

*Last Date** - the last event in the cashflow for that item.

* These columns can be hidden by right mouse click when the cursor is placed on the monthly column headings of the cashflow forecast.

10.2.1 Profiles

Where cost headings have multiple input rows the total cost can be forecast in a single operation (all subsidiary costs have the same profile) or each cost can be forecast separately. It is recommended in the first instance to cashflow the total and adjust the profiles for the subsidiary items as necessary.

WARNING. Profiling the total overwrites the profile of individual items.

Works Costs		£4,214,000	£0	£0
Unit Works Costs		£3,954,000	£0	£0
Site Clearance		£10,000	£0	£0
INcrease Spec		£200,000	£0	£0
Fitting out		£50,000	£0	£0

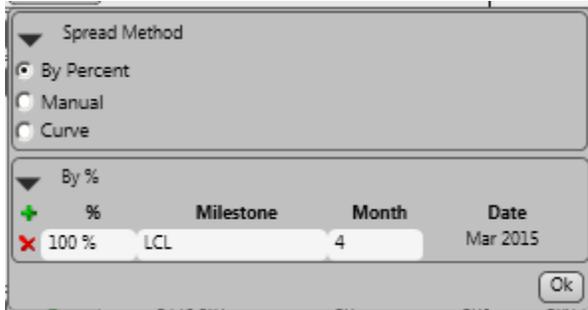
In this illustration the *Works Cost* has been expanded to show the individual works' items. On the first row the total cost is shown. This has been profiled as an S-curve so all the individual items inherit the same profile.

To set the profile for all items in a category, click the *Spread* button next to the category total. Choose an option:

- By percentage
- Manual
- Curve

By Percentage

1. Select *By Percent* as the *Spread Method*. Click the green + button to add a row.
2. Enter a percentage.
3. Define timing either by selecting a *Milestone* or *Month* number.
4. Add more rows as necessary.
5. Click Ok. The *Spread* button text displays *By Percent*.



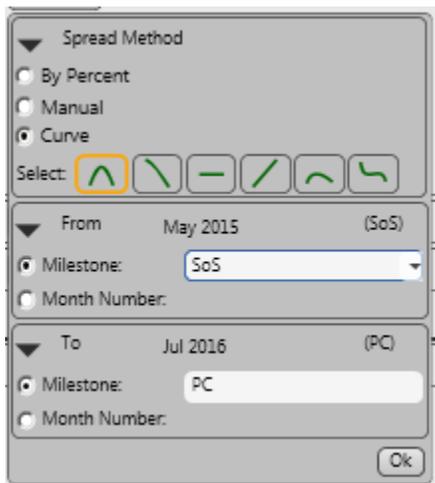
In this illustration the *Spread Method* is *By Percent*. The profile is that 100% of the total is forecast at the LCL milestone, or Month 4.

Manual

1. Select *Manual* as the *Spread Method*. The row in the cashflow forecast becomes editable.
2. Enter sums in the forecast. The button text displays 'Manual'. If the *Budget* changes the forecast has to be updated.
3. Check the *Balance to Forecast* is zero.

Curve

1. Select *Curve* as the *Spread Method*. Choose a curve profile. Additional user defined curves can be added as an Administrator function.
2. Input *From* and *To* dates. These can be defined as a *Milestone* or *Month Number*.
3. Click Ok. The button text displays the chosen curve profile symbol.



In this illustration the S-curve profile has been selected and the total forecast between the SoS and PC milestones.

Mixing Profiles

Where a mix of spread methods is used the *Spread* button will show *Mixed*.

Works Costs	Mixed	£4,214,000	£0	£0
Unit Works Costs	▲	£3,954,000	£0	£0
Site Clearance	By Percent	£10,000	£0	£0
Increase Spec	▲	£200,000	£0	£0
Fitting out	▲	£50,000	£0	£0

In this illustration the total Works Cost was profiled using an S-curve. Afterwards the Site Clearance item was profiled as 100% at the SoS milestone. Note how the Spread button on the Total row now shows Mixed.

10.3 Handovers

This row identifies when one (or more) unit types are handed over, i.e. they are ready for occupation.

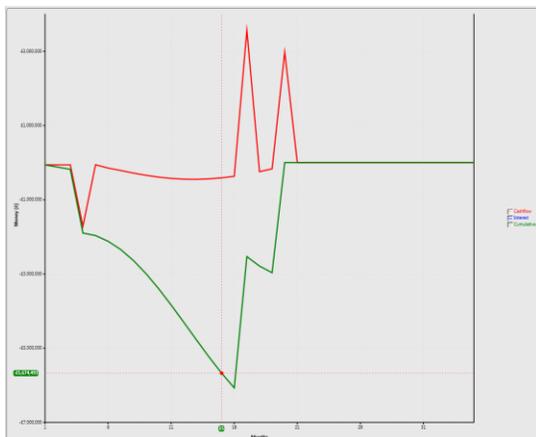
The total cost of the unit with its capitalised interest, is transferred to the long term cashflow (where a long term loan arises) and the *Cumulative Balance* in the development cashflow reduces.

Sales receipts are shown in the long term cashflow. The interest cost of the period between handover and sale accrues in the long term cashflow.

10.4 Charts

Click Show Charts button under the forecast.

The chart opens in a separate tab. To close the chart, click the close gadget in the chart tab.



In this illustration the chart shows the *Cashflow* and *Cumulative* spend. Choose what to show in the chart by selecting the radio button on the right hand side.

11.0 Section E - Total Scheme Cost

This section is read-only and summarises an analysis of the total scheme cost.

The report is the same for all analysis options.

Expand the selection tree to view total scheme costs for:

- a particular unit type
- a summary of all units of the same product type
- the whole scheme

In this report several key viability indicators are given.

- Averages per unit, per person and per m².
- Totals as a percentage of Market Sales Value (MSV) in particular the TSC/MSV %. The MSV in this report is the same as the current market value input in section A.

E - Total Scheme Cost							
Appraisal Commercial Shared Ownership B: 2B 4P Flat, Shared ownership Market Rent Rent to Buy	B: 2B 4P Flat, Shared ownership						
	Total	Per Unit (20)	Avg. Per Person (10)	Per m ² (79)	% MSV	% TSC	
	Acquisition	£968,353	£48,418	£4,842	£611	24.2 %	26.1 %
	Works	£2,006,823	£100,341	£10,034	£1,266	50.2 %	54.0 %
	Acq & Wks	£2,975,176	£148,759	£14,876	£1,877	74.4 %	80.1 %
	Fees	£375,479	£18,774	£1,877	£237	9.4 %	10.1 %
	Interest Cost	£166,796	£8,340	£834	£105	4.2 %	4.5 %
	Fees & Interest	£542,275	£27,114	£2,711	£342	13.6 %	14.6 %
	Other Costs	£198,348	£9,917	£992	£125	5.0 %	5.3 %
	Total	£3,715,799	£185,790	£18,579	£2,344	92.9 %	100 %
Subsidy	£238,095	£11,905	£1,190	£150	6.0 %	6.4 %	
MSV	£4,000,000	£200,000	£20,000	£2,524	100 %	107.6 %	
Month 1 Sales	£0	£0	£0	£0	0.0 %	0.0 %	
Opening Loan	£1,715,704	£85,785	£8,579	£1,082	42.9 %	46.2 %	
Offset Sales	£1,600,000	£80,000	£8,000	£1,009	40.0 %	43.1 %	

In this illustration the TSC is analysed for the unit type in column C. Highlighted is the TSC/MSV %, indicating that this unit is being developed at a cost 92.9% of MSV.

E - Total Scheme Cost						
Appraisal	Appraisal					
	Total	Per Unit (41)	Avg. Per Person (280)	Per m ² (3270)	% MSV	% TSC
Commercial						
Shared Ownership						
B: 2B 4P Flat, Shared ownership						
Market Rent						
Rent to Buy						
Acquisition	£2,007,909	£48,973	£7,171	£614	25.1 %	26.0 %
Works	£4,214,000	£102,780	£15,050	£1,289	52.7 %	54.7 %
Acq & Wks	£6,221,909	£151,754	£22,221	£1,903	77.8 %	80.7 %
Fees	£778,567	£18,989	£2,781	£238	9.7 %	10.1 %
Interest Cost	£298,659	£7,284	£1,067	£91	3.7 %	3.9 %
Fees & Interest	£1,077,226	£26,274	£3,847	£329	13.5 %	14.0 %
Other Costs	£411,280	£10,031	£1,469	£126	5.1 %	5.3 %
Total	£7,710,415	£188,059	£27,537	£2,358	96.4 %	100%
Subsidy	£353,095	£8,612	£1,261	£108	4.4 %	4.6 %
MSV	£8,000,000	£195,122	£28,571	£2,446	100%	103.8 %
Month 1 Sales	£0	£0	£0	£0	0.0 %	0.0 %
Opening Loan	£6,995,320	£170,618	£24,983	£2,139	87.4 %	90.7 %
Offset Sales	£1,600,000	£39,024	£5,714	£489	20.0 %	20.8 %

In this illustration the TSC for the whole scheme is analysed. Highlighted is the TSC/MSV %, indicating that the scheme is being developed at a cost 96.4% of MSV.

12.0 Section F - Private Finance

This section is mostly read-only and reports key indicators for the private finance (or long term loan).

Adjustments to the loan requirement, such as adding internal subsidy, are made here (see 12.2).

Loan parameters are defined in the *Loans* section at the beginning of the appraisal.

There are 3 subsections.

- 1 . Loan Report.
- 2 . Requirement.
- 3 . Value:Loan Ratios

12.1 Loan Report

In section A, each unit is given a product type which also defines its loan type. The terms for each loan type are detailed in the loans section at the beginning of the appraisal.

In the appraisal, each unit type has its own long term loan, i.e. its total cost less any subsidy/income.

Sales income is deducted from the total costs (see section E) where it is received in the same month as handover and reduces the opening loan.

All sales income is accounted for in the long term cashflow.

The loan arises at the handover of the units as shown in the development cashflow and is coincident with the handover date for that unit type. Units in other unit type columns may have different handover dates.

The *Loan Report* in section F shows loan results for all the units of the same product type. The *Loan repaid by year* reports the repayment year (counting from the first handover date in the scheme) for all units of that product type.

A message at the start of the report normally indicates that *Loans reflect cross subsidy*. This is the recommended setting. It means that income from all units is used to repay the most expensive loan of any loan type (i.e. typically the loan with the highest interest cost) as assessed on an ongoing basis.

Example 1

Three unit types in columns A, B, C are for market rent.

The individual loan repayment periods are shown below as Year 13, 79 and 5 respectively. These results are calculated by using the income from the units in each column to repay the loan. These results are reported in section I – *Long Term Results, Unit Results, Loan*.

Loan				
Allocated Opening Loan	£166,666	£168,244	£172,749	£6,743,242
Loan Repaid - Year	13	79	5	45

In this illustration, taken from section I – Long Term Results, Unit results, Loan, the loan repayment period for each unit type is reported. When the loan in column C is repaid, its income helps to repay the loan in Column B, and when that is repaid, income from both helps to repay Column A.

In the *Loan Report* of section F the *Loan Repaid by year* is reported as Year 45. This is also reported in the *Product Summary* of the *Appraisal Summary*. In effect, all income is being used as efficiently as possible to repay all units of this product type.

Appraisal Summary		F - Private Finance	
Total Units	40	Loan Report	
Persons	280	Loans reflect cross subsidy	
NPV at First Handover	£1,337,973	Name	Market Rent
IRR	8.89 %	Loan repaid by year	45
TSC / MSV	93.23 %	Peak loan amount	£6,928,121
Loan Repaid Year	45	... occurs in year	1
Products Summary		Peak loan as % of maximum facility	0.0 %
Market Rent		Maximum loan to value ratio	101.7 %
Total Units	40	...occurs in year	6
Total Persons	280	...excess over lender's maximum	
NPV at First Handover	£1,337,973	Maximum loan to cost (A&W only)	115.1 %
Avg. IRR	8.52 %	...occurs in year	1
TSC / MSV	93.23 %	...excess over lender's maximum	
Loan Repaid Year	45	GrantTotal	23,405

In this illustration, the *Loan Repayment by year* for all unit types is year 45. Income from all units is used to repay the loan with the highest cost. The *Product Summary* and *Appraisal Summary* reports the *Loan Repaid by* at Year 45.

This cross subsidy methodology is always used for units of the same product type, whether or not cross subsidy has been selected in the long term loan parameters at the beginning of the appraisal.

However, with cross subsidy selected, income from all units is used to repay loans of all product types. The most expensive loan is repaid as a priority. This is likely to be the loan with the highest interest cost consistent with any other parameters such as maximum facility, loan:value and maximum loan cost.

Example 2

Columns A, B, C have 3 different product types: market rent, social rent and shared ownership.

In section I, the individual loan repayment periods are year 18, never and 5 respectively. These are 'stand alone' results for each unit column, i.e. only the income for units in each column is used to repay the loan.

Each month, income from all units (from columns A, B and C) is used to repay the most expensive loan – this is usually the loan with the highest interest cost. The most expensive loan therefore varies during the long term cashflow period.

With cross subsidy selected, the *Loan Report* in section F and the *Products Summary* report the loans being repaid in year 18, 34 and 30 respectively and the *Appraisal Summary* reports an overall repayment at year 34, when the last loan is repaid.

Loan				
Allocated Opening Loan	£166,666	£168,244	£172,749	£6,743,242
Loan Repaid - Year	18	never	5	34

In this illustration, taken from section I – *Long Term Results, Unit results, Loan*, the loan repayment for each unit column is reported on a 'stand alone' basis, i.e. only income from each unit column is used to repay its loan.

F - Private Finance			
Loan Report			
Loans reflect cross subsidy			
Name	Market Rent	Social Rent	Shared Ownership
Loan repaid by year	18	34	30

In this illustration, the *Loan Report* in section F shows when each loan can be repaid using all income to repay the most expensive loan (as determined on an ongoing basis).

Appraisal Summary	
Total Units	40
Persons	280
NPV at First Handover	£4,442,472
IRR	18.44 %
TSC / MSV	93.23 %
Loan Repaid Year	34

Products Summary	
▼ Market Rent	
Total Units	20
Total Persons	200
NPV at First Handover	£229,674
Avg. IRR	7.62 %
TSC / MSV	93.81 %
Loan Repaid Year	18
▼ Social Rent	
Total Units	10
Total Persons	40
NPV at First Handover	-£1,059,397
Avg. IRR	2.69 %
TSC / MSV	88.65 %
Loan Repaid Year	34
▼ Shared Ownership	
Total Units	10
Total Persons	40
NPV at First Handover	£5,272,195
Avg. IRR	75.30 %
TSC / MSV	96.65 %
Loan Repaid Year	30

In this illustration, the *Products Summary* mirrors the report in section F, as above. The *Appraisal Summary* reports the year that the last loan is repaid.

Other information in the *Loan Report* includes

- Peak loan and year
- Peak loan as a percentage of the maximum facility
- Maximum 'loan/market sales value' percentage
- Maximum 'loan/cost (A&W only)' percentage
- Grant total

Other terms applicable to the loans are defined in the *Loans* section at the beginning of the appraisal.

12.2 Private Finance Requirement

A loan adjustment and a capital contribution can be made on the product tab (not on the total tab).

A loan adjustment (*Loan Adj.*) is any adjustment to the loan which the user wishes to make for any reason. A positive input reduces the loan. A description can be given when using this option.

A *Capital Contribution* is similar to a loan adjustment and has the same effect. Some users show internal subsidy here. Normally internal subsidy is not shown as an input as it does not reduce the initial borrowing requirement.

These adjustments are apportioned to each unit column, weighted by their loan requirement. Any adjustments affecting the opening loan also affect the NPV result and loan repayment period (unless using the annuity repayment methodology).

Requirement			
Appraisal Market Rent Social Rent Shared Ownership			
Private Finance Requirement		% of TSC	% of MSV
Total Scheme Cost:	£7,336,048	100%	91.7%
Development Subsidy:	£353,095	4.8%	4.4%
Loan Adj:	£10,000	0.1%	0.1%
Capital Contribution:	£331,000	4.5%	4.1%
Month 1 Sales:	£0	0.0%	0.0%
Offset Sales:	£1,000,000	13.6%	12.5%
Net Loan:	£5,641,952	76.9%	70.5%

In this illustration, the *Net Loan* calculation is summarised for the whole Appraisal. Adjustments are made on the separate product type tabs.

Requirement			
Appraisal Market Rent Social Rent Shared Ownership			
Private Finance Requirement		% of TSC	% of MSV
Total Scheme Cost:	£1,749,709	100%	87.5%
Development Subsidy:	£0	0.0%	0.0%
Loan Adj: My description	£10,000	0.6%	0.5%
Capital Contribution:	£150,000	8.6%	7.5%
Month 1 Sales:	£0	0.0%	0.0%
Offset Sales:	£0	0.0%	0.0%
Net Loan:	£1,589,709	90.9%	79.5%

In this illustration, the *Net Loan* calculation is summarised for the *Social Rent* product type. Note how a *Loan Adj.* and *Capital Contribution* have been added.

12.3 Value:Loan Ratios

This subsection provides additional information, for each unit type.

Value:Loan (by percentage) results are reported using several definitions.

- *MSV:Net Loan* - this is the *Market Sales Value* divided by the *Allocated Net Loan*
- 1 *NPV:Net Loan* - this is the *NPV of the Net Rent Only* divided by the *Allocated Net Loan*
- 1 *User Value:Loan* - this is the *User Specified Value* divided by the *Allocated Net Loan*

	A	B	C
Dwelling Description	2B 4P Flat, Shared ownership	2 bed Flat Outright Sale	2 bed Flat Rent to Buy
Units	20	10	10
Floor Area (m ²)	68.00	68.00	68.00
Product Type	Market Rent	Social Rent	Shared Ownership
Current Market Value	£200,000	£200,000	£200,000
NPV of Net Rent Only	£99,610	£109,052	£21,194
User Specified Value		£120,000	
Allocated Opening Loan	£171,954	£174,971	£179,417
MSV : Net Loan	116.3 %	114.3 %	111.5 %
NPV : Net Loan	57.9 %	62.3 %	11.8 %
User Value : Net Loan		68.6 %	

In this illustration, a User Specified Value of £120,000 has been entered in column B. The MSV:Net Loan in column A is the MSV (£200,000) divided by the loan (£171,954). In column B, the *User Value:Net Loan* is the £120,000 as entered divided by the loan (£174,951).

By entering a required or *Target Value:Loan Ratio* enables the *Affordable Loan* to be reported, i.e. the loan which achieves the required ratio on the selected value.

Rent Yield on Loan is reported here, being the net rent received in the first year (*Year 1 Net Rent*) divided by the *Allocated Opening Loan*.

Affordable Loan (Using NPV)	£191,578	£100,407	
Affordable Loan (User Value)		£109,091	
Affordable Loan on Rent	£165,955	£112,871	£22,845
Year 1 Net Rent	£9,693	£6,593	£1,344
Rent Yield On Loan	5.6 %	3.8 %	0.7 %

In this illustration, affordable loans are reported (based on the selected value divided by the required *Target Value:Loan Ratio* along with the *Rent Yield On Loan*..

13.0 Section G - Inflation

Inflation parameters are used to adjust capital costs and to increase (or decrease) the revenue income and expenditure (I/E) in the long term cashflow.

It is recommended that rates are set by default in the appraisal template.

13.1 Inflating Capital Costs

In section B, inputs for *Capital Costs* (acquisition, works, fees, other) can be inflated. This is useful if inputs need to be adjusted at the point they are actually paid.

Simple inflation is applied in whole years only.

Example 1

Acquisition cost input at today's value, may need to be inflated to the point it is paid, in say, 2 years time.

Example 2

A default works cost, as set in the past, may need to be inflated to reflect its current cost. Using inflation in this way saves having to frequently update defaults.

1. Enter the costs and an Inflation Base Year (i.e. the point from which inflation applies).
2. Enter an inflation rate.
3. Enter a milestone, representing the end of the inflation period.

Acquisition											
Click here to add a new scheme cost	plies To	Allocate Cost by	Total Before Inflation	Inflation Base Year	Inflate To	Inflation Rate	Inflated Total	VAT	Gross Total	Account Code	Total
Land as agreed	units	Floor Area	£1,800,000	2011/12	Exchange of Contracts (Land)	3.00 %	£1,966,909		£1,966,909		£1,966,909
Sub Total			£1,800,000				£1,966,909	£0	£1,966,909		
Units Cost			£0				£0	£0	£0		
Total			£1,800,000				£1,966,909	£0	£1,966,909		

In this illustration, the acquisition cost is input as £1.8m. This is shown as applicable at an *Inflation Base Year* of 2011/12. An *Inflation Rate* of 3% giving the *Inflated Total* of £1,966,909 at the time of *Exchange of Contracts (Land)* milestone.

Inflation can be added to scheme level costs as shown above and in the same way to costs entered at a unit level.

Inflation is added in whole years only.

Unit Works			
	A	B	C
Dwelling Description	2B 4P Flat, Shared ownership	2 bed Flat Outright Sale	2 bed Flat Rent to Buy
Units	20	10	10
Floor Area (m ²)	68.00	68.00	68.00
Product Type	Market Rent	Social Rent	Shared Ownership
Input Type	Per m ²	Per m ²	Per m ²
Input Value	£1,200	£1,000	£1,000
Cost Base Year	2011/12	2011/12	2011/12
Inflation Rate	3.0 %	3.0 %	3.0 %
Inflate To	Start on Site	Start on Site	Start on Site
VAT%	0.00 %	0.00 %	0.00 %
Unit Works Cost Gross Total	£91,842	£76,535	£76,535
Allocated from Scheme Works Costs	£5,250	£5,250	£5,250
Net Works Cost (per unit)	£97,092	£81,785	£81,785

In this illustration, works in column A is £1,200/m². This cost is shown applicable at the Cost Base Year of 2011/12. An Inflation Rate of 3% p.a. is applied up to the year of the Start on Site milestone (4 years time). The input cost of £81,600 inflated by 4 years is now £91,842.

13.2 Inflating Revenue Income/Expenditure

Revenue allowances (management, maintenance, etc.) as entered in section A, can be inflated from their base year (i.e. the point from which inflation applies) up to the handover of the unit. The inflation rate for this period is set at the start of section G - *Inflate Allowances to Handover*. Inflation is added in whole years.

G - Inflation	
Base Inflation Rate	2.50 %
Inflate Allowances to Handover at	3.00 %

In this illustration, allowances as set in section A are inflated at 3% p.a. up to handover.

Inflation rates for I/E in the long term cashflow can be set over multiple periods. Rates must be set over the full 100 years term of the cashflow. A rate can be positive, zero, or negative.

1. Set a *Base Inflation Rate*. This is the organisation's view of underlying long term inflation, such as the Consumer Price Index.
2. Set a margin to be added to (or if negative, deducted from) the *Base Inflation*

Rate, for each of the income/allowance categories. The *Effective Inflation Rate* is the inflation rate used in the long term cashflow.

G - Inflation

Base Inflation Rate

Inflate Allowances to Handover at

		Margin on Base Rate	Effective Inflation Rates
Income Inflation Margins			
Residential Rent			
Year	1 to 10	<input type="text" value="1.00 %"/>	<input type="text" value="3.50 %"/>
Year	11 to 100	<input type="text" value="0.50 %"/>	<input type="text" value="3.00 %"/>

In this illustration, *Base Inflation Rate* is 2.5%. *Residential Rent* inflates for the first 10 years at 1% above *Base Inflation Rate* and at 0.5% above thereafter. The *Effective Inflation Rates* are therefore 3.5% and 3% respectively.

Rent inflation as set in the above illustration applies to all residential product types. Different rates of rent inflation can be applied to different product types. Set the flag *Allow different rates of inflation per product type* to **Y**. Inputs using this option override the settings described above.

Allow different rent inflation rates per product type Y

Affordable Rent	<div style="border: 1px solid gray; padding: 2px;"> 3.5% <table border="1"> <thead> <tr> <th>Year</th> <th>Margin</th> <th>Rate</th> </tr> </thead> <tbody> <tr> <td>1 to 100</td> <td>1.0%</td> <td>3.5%</td> </tr> </tbody> </table> </div>	Year	Margin	Rate	1 to 100	1.0%	3.5%
Year	Margin	Rate					
1 to 100	1.0%	3.5%					
Any	<input type="text" value="2.5%"/>						
Commercial	<input type="text" value="2.5%"/>						
Market Rent	<input type="text" value="2.5%"/>						
Market Sale	<input type="text" value="2.5%"/>						
Other	<input type="text" value="2.5%"/>						
Outright Sale	<input type="text" value="2.5%"/>						
Private Rent	<div style="border: 1px solid gray; padding: 2px;"> 2.5% <table border="1"> <thead> <tr> <th>Year</th> <th>Margin</th> <th>Rate</th> </tr> </thead> <tbody> <tr> <td>1 to 100</td> <td>0.0%</td> <td>2.5%</td> </tr> </tbody> </table> </div>	Year	Margin	Rate	1 to 100	0.0%	2.5%
Year	Margin	Rate					
1 to 100	0.0%	2.5%					
Rent to Buy	<input type="text" value="2.5%"/>						
Shared Ownership	<div style="border: 1px solid gray; padding: 2px;"> 3.0% <table border="1"> <thead> <tr> <th>Year</th> <th>Margin</th> <th>Rate</th> </tr> </thead> <tbody> <tr> <td>1 to 100</td> <td>0.5%</td> <td>3.0%</td> </tr> </tbody> </table> </div>	Year	Margin	Rate	1 to 100	0.5%	3.0%
Year	Margin	Rate					
1 to 100	0.5%	3.0%					

In this illustration inflation has been set differently for *Affordable Rent*, *Private Rent* and *Shared Ownership*.

14.0 Section H – Long Term Capital Receipts

Capital sums can be added in the long term cashflow. While normally these sums refer to receipts, e.g. charitable or other fund raising, negative inputs are treated as payments, e.g. incentives given to convert rented units to sale.

Assign the sum to a product type, enter an allocation method for spreading the cost across the units and give the year of receipt. Add inflation if appropriate.

1. Click the green + button to create an input row.
2. Complete the inputs as prompted.

Receipts are shown in the long term cashflow as *Other Capital Receipts* in the loan section.

H - Long Term Capital Receipts							
	Description	Amount	Applies To	Allocate by	Year of Receipt	Inflation Rate	Amount Received
<input type="checkbox"/>	Charitable fund raising	£20,000	Social Rent	Floor Area	10	1.0 %	£21,874
<input type="checkbox"/>	Marketing	-£30,000	Rent to Buy	Units	5	3.0 %	-£33,765
<input type="checkbox"/>							

In this illustration, the first sum is a receipt and the second, a payment

Description	May 17/Apr (2)	May 18/Apr 19 (3)	May 19/Apr 20 (4)	May 20/Apr 21 (5)	May 21/Apr 22 (6)	May 22/Apr 23 (7)	May 23/Apr 24 (8)	May 24/Apr 25 (9)	May 25/Apr 26 (10)	May 26/Apr 27 (11)	May 28
Opening Loan	£5,679,799	£5,902,419	£5,959,614	£6,011,543	£6,100,885	£6,205,376	£6,292,039	£6,356,823	£6,409,653	£6,440,853	
Loan Details											
Handed Over from Dev CF	£274,822	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0
Interest	£327,313	£346,294	£349,520	£353,334	£358,445	£364,597	£369,471	£372,723	£376,278	£379,046	
Sales Receipts	£100,000	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0
Staircasing Receipts	£0	£0	£0	£0	£0	£0	£0	£0	£0	£386,012	
Set Aside	£0	£0	£0	£0	£0	£0	£0	£0	£0	£18,398	
Ground Rent Sales	£0	£0	£0	£0	£0	£0	£0	£0	£24,977	£0	
Other Capital Receipts	£0	£0	£0	-£33,765	£0	£0	£0	£0	£21,874	£0	
Loan Repayment, Total	£379,515	£289,099	£297,591	£263,992	£253,954	£277,933	£304,687	£319,893	£345,078	£675,387	

In this illustration, the inputs illustrated above are showing in the long term cashflow as *Other Capital Receipts*.

15.0 Section I - Long Term Results

This has two subsections

1. Scheme Results
2. Unit Results

15.1 Scheme Results

This has 3 reporting areas:

1. Scheme Results
1. Loan
1. Interest

15.1.1 Scheme Results

Max. Annual Deficit Year - the year in which the cashflow is at its most negative.

Capitalised Year 1 Net Revenue Deficit - the revenue deficit capitalised at the interest rate.

Cumulative Surplus at Year... – the total surplus as at the last year of the NPV period. This is the cash arising after the loan has been paid off.

NPV Discount Rates - the NPV discount rate(s) as set in section A – NPV rates.

Summarise Cashflow to Year... - NPV period(s) as set in section A – NPV rates.

NPV at First Handover - the Net Present Value of the scheme at the point that the first unit hands over. Note that units can handover at different times. Units handing over after this date have a lower NPV because of the additional discounting.

NPV of Net Rent Only - the Net Present Value of all net rental income.

Capital Value of Scheme at Year 1 - the capital value as defined in *Unit Results* in this section. This sum is not a cashflow item. It is typically the residual asset value of the unit(s).

Discounted Capital Value – as above discounted by the NPV discount rate.

NPV of all Capital Receipts - the NPV of all capital receipts (e.g. sales and staircasing receipts).

IRR - the Internal Rate of Return. This is the discount rate which returns a zero NPV.

Total Set Aside Receipts - the cash total of subsidy which has been set aside when a

unit staircases. Staircasing details are set in section A, Sales & Staircasing.

15.1.2 Loan

For a description of the loan repayment methods see Outputs in Section A.

See also the Loan report in Section F - Private Finance

Peak Loan – the highest value of the loan.

Occurs in Year – the year in which the *Peak Loan* occurs.

Revenue First Exceeds Interest in Year – the breakeven year, i.e. you get more income in this year than expenditure.

Loan repaid by year – the year that the loan is repaid by

First Cumulative Breakeven Year – the year that cumulative cashflow is positive (this is relevant when the annuity repayment method is used).

First Cumulative Breakeven Year – as above but the last year. This can occur when there are two breakeven years.

15.1.3 Interest

Interest Total – total interest during the period of the loan.

Interest Cover at Year 1 – net income divided by the interest cost in year 1.

Min. Interest Cover – the year in which the Interest Cover is at its lowest.

Target Interest Cover – a desired interest cover result

Met first after Year 1 in Year: - The year that the *Target Interest Cover* is first met

15.2 Unit Results

These show viability results and other outputs, per unit.

- 1 . NPV
- 2 . Internal Rate of Return
- 3 . Loan
- 4 . Cumulative Deficit

15.2.1 NPV

If appropriate, enter the *Asset Value* at Year 1, e.g. a residual value of the unit, together with an inflation rate. The inflated asset value is discounted by the discount rate over the unit discount period to give the NPV of the asset value at handover. Note that this is not shown in the long term cashflow as it is not a cash item.

NPV		
NPV of Asset Value		
Asset Value At Year 1	£50,000	
Asset Value Inflation Rate	3.00 %	0.00 %
NPV of Asset Value	£21,131	£0

In this illustration, an *Asset Value at Year 1* in column A has been set at £50,000. This is inflated at 3% then discounted by the discount rate to give the *NPV of Asset Value* of £21,131.

The NPV discount rate and period are set in the NPV Rates in Section A, or they can be entered here.

NPV is a timed based calculation and so the result varies depending on the date chosen to calculate it. Since units may handover at different times, NPV values cannot be added together to give a scheme NPV. In this section NPV is reported at 3 dates:

- At unit handover
- At first handover of all units
- At last handover of all units (PC)
- At land acquisition date

In the *Appraisal Summary* and *Products Summary* window, the NPV is reported at *First Handover*.

Appraisal Summary	
Total Units	4
Persons	16
NPV at First Handover	£774,363
IRR	20.07 %
TSC / MSV	25.82 %
Loan Repaid Year	8

Products Summary	
Market Rent	
Total Units	4
Total Persons	16
NPV at First Handover	£774,363
Avg. IRR	20.05 %
TSC / MSV	25.82 %
Loan Repaid Year	8

In this illustration, NPV is reported for all units as at First Handover. Units handing over at a later date have a lower NPV.

A ranking for NPV is provided together with the year in which the NPV is zero (NPV Breakeven Year).

NPV at Unit Handover Date	£186,061	£200,911
Net Present Value Rank	2	1
NPV Breakeven Year	3	8

In this illustration, ranking of NPV at Handover Date and Breakeven Year are shown.

Note that the NPV for the unit is shown at its handover date. When units have different handover dates, the NPV for the scheme is not the sum of the NPV for each unit.

NPV results calculated at the same point in time are given as follows. These can be added together.

- NPV at date of the First Unit Handover
- NPV at the date of the Last Unit Handover (PC)
- NPV at the land acquisition date (Legal Completion of Land milestone)

NPV at Unit Handover Date	£186,061	£200,911
Net Present Value Rank	2	1
NPV Breakeven Year	3	8
NPV % of TSC	229.64 %	203.54 %
NPV at First Handover	£186,061	£194,197
NPV at PC (Last Handover)	£186,061	£200,911
NPV at Land Acquisition Date	£173,006	£180,544

In this illustration, NPV in column B at the Handover Date is £200,911. The NPV at First Handover is lower, because the unit hands over after the unit in column A and the NPV for both units is lower at land acquisition.

15.2.2 Internal Rate of Return (IRR)

Internal Rate of Return (i.e. the discount rate which returns zero NPV) at the point of handover is displayed together with its ranking.

IRR		
IRR at Unit Handover	20.0 %	20.1 %
IRR Rank	2	1

In this illustration the IRR at unit Handover is shown and the ranking.

15.2.3 Loan

The *Allocated Loan* for each unit is reported. It is derived from the total costs for the unit less any subsidy. Sales income is taken into account in the long term cashflow and is used to reduce the loan balance.

The payback results accord with the loan repayment methodology adopted as set in the loans section at the start of the appraisal and described in 5.2.1 above.

See also the loan report for the product type given in Section F

Loan results are grouped as follows:

- Loan Repaid - Year
- Interest Total

Results for repayment year, peak loan, breakeven and cumulative results in this area vary depending on the selected loan repayment methodology.

Annuity Method

Loan Repayment Year – the period of the annuity.

Peak Loan – this is always be as at Year 1 of handover as the principal is repaid from the beginning.

Year Income First Exceeds Cost - the year in which the income exceeds the annuity loan repayment. Usually called the breakeven year.

Peak Cumulative Debt - the total cash deficit which has accrued when the income cannot meet the annuity loan repayment.

Peak Cumulative Debt Year -the year in which the *Peak Cumulative Debt* occurs.

First Cumulative Breakeven Year - the first year in which surpluses, after paying the annuity loan repayment, have repaid the earlier cumulative debt.

Last Cumulative Breakeven Year - the last year in which surpluses, after paying the annuity loan repayment, have repaid the earlier cumulative debt. Normally this is the same as the First Cumulative Breakeven Year unless there are two (or more) breakeven years.

Overdraft (recommended)

Peak Loan - this increases if the income is less than the interest on the loan. In extreme conditions the loan may never be paid off.

Year Income First Exceeds Cost - the year in which the income exceeds the interest on the loan. Usually called the breakeven year.

Peak Cumulative Debt - not applicable.

Peak Cumulative Debt Year - not applicable.

First Cumulative Breakeven Year - not applicable.

Last Cumulative Breakeven Year - not applicable.

Hybrid

Peak Loan is always be as at Year 1 of handover. If interest is greater than income a deficit arises. This deficit (shown as a negative cashflow) increases until the income exceeds the loan interest at which point the cashflow deficit is paid off followed thereafter by the repayment of the loan.

Year Income First Exceeds Cost - the year in which the income exceeds the interest. Usually called the breakeven year.

Peak Cumulative Debt - the total cash deficit which has accrued when the income cannot meet the interest.

Peak Cumulative Debt Year - the year in which the *Peak Cumulative Debt* occurs.

First Cumulative Breakeven Year - The first year in which surpluses, after paying the interest, have repaid the earlier deficits.

Last Cumulative Breakeven Year - The last year in which surpluses, after paying the interest, have repaid the earlier deficits. Normally this is the same as the First Cumulative Breakeven Year unless deficits arise subsequently.

Interest

Interest Total - the total long term interest incurred.

Min. Interest Cover – Year - the year when the ratio of interest to net income is worst.

Target Interest Cover % - a desired ratio of income to interest (%).

Target Interest Cover First Met - the year the Target Interest Cover (as above) is met.

No. of Years Interest Cover is met - the period of the cashflow where the Target Interest Cover (as above) is met or exceeded.

15.2.4 Cumulative Deficit

Cumulative Deficit/Surplus - this is the total deficit after interest/loan repayments at the end of the NPV period.

Max. Annual Deficit - this is the worst deficit in the cashflow.

Max. Annual Deficit - Year – The year in which the *Max. Annual Deficit* arises.

Capitalised Year 1 Net Revenue Deficit – this is the capital value adjustment to the loan to ensure a break-even at Year 1.

16.0 Section J - Long Term Cashflow

Each part of the cashflow can be expanded and/or collapsed to facilitate viewing.

To see future years of the cashflow, use the horizontal scroll bar at the bottom of the cashflow. It extends to 100 years.

Year 1 is set by the first handover milestone. E.g. if this is say February 2014, Year 1 of the long term cashflow begins at March 2014 and ends February 2015.

Income/expenditure is linked to milestone events such as the unit handover and sales timings.

Charts

Click *Show Charts* in the long term cashflow.

Alternatively, from the *View* menu, choose *Charts*.

The chart opens in a separate tab.

Select the values to display in the chart. Hover the mouse cursor on a chart point to display the axis values.

To close the chart, click the close gadget in the chart tab.

17.0 Section K - Affordability

This reports a purchaser's mortgage, rent and service charge costs of buying a shared ownership unit.

Key attributes can be edited and are linked with inputs in section A.

1. Specify the purchaser's mortgage APR and repayment term. A standard repayment calculation is used.
2. Enter a deposit by percentage of the MSV or equity purchased, or by a sum. The mortgage and mortgage cost are reported.
3. Gross rents and service charges are reported. Service charges input here are not shown in the long term cashflow.
4. Total cost to the purchaser is shown (per year, per month and per week).
5. Set a *Target Total Cost/Earnings Ratio (%)*. This is a maximum and is one way of defining affordability, i.e. the total cost should not exceed the target percentage of the household income.
6. Enter *Actual Household Earnings* gross income per year.
7. Enter the *Mortgage Earnings Multiplier*. This determines the mortgage sum, i.e. a multiple of earnings (taking into account rent and service charges).

The following outputs are reported:

Minimum Earnings Required - the minimum earnings that the purchaser needs in order to qualify for the mortgage.

Minimum Earnings Ratio - the ratio of total cost divided by minimum earnings.

Maximum Mortgage on Earnings - the maximum mortgage based on the *Actual Household Earnings* and the *Mortgage Earnings Multiplier*.

*Affordable Equity Share on Earnings** - the equity share that can be afforded.

Outright Sale Cost per Week - the cost of a mortgage for purchasing 100% of the equity (less any deposit).

Homebuy Saving per Week - this is the difference between the *Outright Sale Cost per Week* and the actual cost per week.

Homebuy % of Full Sale Cost - a comparison of the actual cost with the *Outright Sale Cost (%)*.

* Important: The calculation of the affordable equity share ignores the difference in rent which would follow an actual change to the equity share purchased.

18.0 Section L - Residual Land Value

An approximation of the residual land value can be assessed from a unit's *Gross Development Value* (GDV). The residual land value is what a purchaser could afford to pay for the land, based on the GDV, less development costs and profit.

For market sales, the GDV is the estimated market sales value. The GDV for a social housing unit is made up of the following sums:

- Affordable Loan plus
- Internal Subsidy (an input representing the policy of the HA) plus
- Sales Income (as defined in the appraisal) plus
- External Subsidy (as defined in the appraisal)

The *Affordable Loan* is the NPV of the net income. Note that this calculation does not guarantee that the net rent can repay the loan.

The *Assessed Land Value* is the GDV less the following costs.

- Works
- Fees and interest, estimated by percentage of the GDV.

An assumption for these is used because the fees/interest in the appraisal relate to the costs in the appraisal. Moreover, the interest cost cannot be calculated on the residual land value as this is not yet known.

- Profit, by percentage of the GDV

Note that stamp duty land tax is ignored.

To make valid comparisons between different unit types, the residual land value (RLV) must be converted to a *RLV per acre*. Enter the *Average Plotting Density - upa* (units per acre). The plotting density is the typical maximum number of units that can be accommodated on one acre of land with the required infrastructure (roads, parking, etc.).

Rankings for each unit type are shown; the highest RLV per acre has a ranking of 1.

Important!

The RLV results are indicative. This section is not a detailed residual land appraisal as might be used in the private sector. It shows the land values for each unit type to aid in determining the unit mix of the scheme.

Gross Development Value	
Affordable Loan	£235,207
Internal Subsidy	£0
Sales Income	£6,800
External Subsidy	£11,905
Assessed GDV	£253,911

In this illustration, the Gross Development Value (GDV) is calculated from the affordable loan (i.e. the NPV of the net rent) plus the initial tranche of equity and the subsidy (grant).

L - Residual Land Value	
	A *
Dwelling Description	2B 4P Flat, Shared ownership
Units	20
Floor Area (m ²)	68.00
Product Type	Shared Ownership
Fees & Interest (%)	12.0 %
Profit Margin (%)	10.0 %
Fees & Interest + Profit	£52,596
Works	£97,342
Sub Total	£149,938
Residual Land Value	£103,973
Avg. Plotting Density - upa	14
RLV per acre	£1,455,628
Rank	1

In this illustration, The *Residual Land Value* deducts costs from the GDV of £253,911 (as above). Costs are 12% for fees and interest, 10% for profit and the allocated works cost (from section B) - a sub-total of £149,938. Subtracting this from the GDV leaves the unit *Residual Land Value* of £103,973. This unit can be plotted at a density of 14 units per acre. Therefore the RLV per acre is £1,455,628.

19.0 Consolidation

A consolidation holds data from more than one appraisal. There is no limit on the number of appraisals in a consolidation, but from a practical point of view, large consolidations impact the performance owing to the large amount of data.

A consolidation holds dynamic data. If the appraisal is amended after being consolidated, the consolidation is updated.

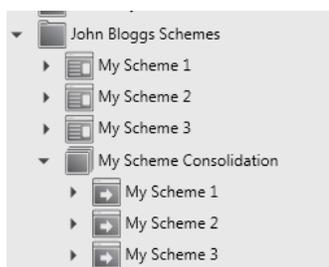
To create a static copy of the appraisal data:

1. Right click on the appraisal name in the project tree and select *Duplicate*.
1. *Rename* the duplicated appraisal.
1. Lock this copy (so it does not get amended further). Right mouse click and choose *Lock*. Apply further security by setting permissions.

Data in the consolidation cannot be edited.

To create a consolidation:

1. Highlight a folder in the project tree.
2. Right mouse click and choose *New*.
3. Choose *ProVal* then *Consolidation*. A new consolidation is created - note that it has a different icon.
4. *Rename* the consolidation.
5. Drag and drop appraisals into the consolidation.



In this illustration, John Bloggs Schemes folder has 3 scheme appraisals and a consolidation, *My Scheme Consolidation*. The 3 scheme appraisal have been dropped into the consolidation. The original appraisals are not moved.

Open the consolidation by double clicking.

The consolidation reports the following:

1. Schemes
2. Units
3. Consolidated Costs
4. Total Scheme Cost
5. Long Term Results
6. Long Term Cashflow
7. Affordability
8. Residual Land Value

19.1 Schemes

This lists the appraisals in the consolidation.

Schemes - Scheme File Listing																																																			
Consolidation Name	<input type="text" value="Board Consolidation"/>	Date Last Saved	<input type="text"/>																																																
Appraisal By	<input type="text" value="Jo Bloggs"/>	Total Units	<input type="text" value="250"/>																																																
Appraisal Version	<input type="text" value="1"/>	Number of Schemes	<input type="text" value="3"/>																																																
Appraisal Comments	<input type="text"/>																																																		
Appraisal Date	<input type="text" value="17 Dec 2014"/>																																																		
<p>▼ Schemes in this Consolidation</p> <table border="1"> <tbody> <tr> <td>Scheme Name</td> <td>My Scheme 1</td> <td>Units</td> <td>61</td> </tr> <tr> <td>Address</td> <td>Land Off Telford Street</td> <td>Funding Year</td> <td>2014/15</td> </tr> <tr> <td>Local Authority</td> <td>Adur</td> <td>Appraisal Date</td> <td>3/20/2014 12:00:00 AM</td> </tr> <tr> <td></td> <td></td> <td>Appraisal Version</td> <td>Board Viability March 2014</td> </tr> <tr> <td>Scheme Name</td> <td>My Scheme 2</td> <td>Units</td> <td>88</td> </tr> <tr> <td>Address</td> <td>Land Off Telford Street</td> <td>Funding Year</td> <td>2014/15</td> </tr> <tr> <td>Local Authority</td> <td>Adur</td> <td>Appraisal Date</td> <td>3/20/2014 12:00:00 AM</td> </tr> <tr> <td></td> <td></td> <td>Appraisal Version</td> <td>Board Viability March 2014</td> </tr> <tr> <td>Scheme Name</td> <td>My Scheme 3</td> <td>Units</td> <td>101</td> </tr> <tr> <td>Address</td> <td>Land Off Telford Street</td> <td>Funding Year</td> <td>2014/15</td> </tr> <tr> <td>Local Authority</td> <td>Adur</td> <td>Appraisal Date</td> <td>3/20/2014 12:00:00 AM</td> </tr> <tr> <td></td> <td></td> <td>Appraisal Version</td> <td>Board Viability March 2014</td> </tr> </tbody> </table>				Scheme Name	My Scheme 1	Units	61	Address	Land Off Telford Street	Funding Year	2014/15	Local Authority	Adur	Appraisal Date	3/20/2014 12:00:00 AM			Appraisal Version	Board Viability March 2014	Scheme Name	My Scheme 2	Units	88	Address	Land Off Telford Street	Funding Year	2014/15	Local Authority	Adur	Appraisal Date	3/20/2014 12:00:00 AM			Appraisal Version	Board Viability March 2014	Scheme Name	My Scheme 3	Units	101	Address	Land Off Telford Street	Funding Year	2014/15	Local Authority	Adur	Appraisal Date	3/20/2014 12:00:00 AM			Appraisal Version	Board Viability March 2014
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		Appraisal Version	Board Viability March 2014																																																
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Address	Land Off Telford Street	Funding Year	2014/15																																																
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Local Authority	Adur	Appraisal Date	3/20/2014 12:00:00 AM																																																
		Appraisal Version	Board Viability March 2014																																																

In this illustration, basic information about the 3 appraisals is reported and some useful memorandum data has been input at the start. This section also lists the total number of units in the consolidation and the number of schemes.

19.2 Units

All data is read-only. If the 3 original appraisals had 10 unit type columns then the consolidation shows all 30 columns.

Unit Attributes							
	A	B	C	D	E	F	Total
Dwelling Description	2 bed House	1 bed Flat Deluxe	2 bed House	3 bed House	3 bed Town House	1 bed FOG	
Units	1	2	4	7	4	4	250
Floor Area (m ²)	77.39	54.50	77.39	88.80	99.88	39.93	20,692.39
Product Type	Affordable Rent	Social Rent	Shared Ownership	Shared Ownership	Shared Ownership	Shared Ownership	
NPV Rates							
Loan Repayment Method	Overdraft	Overdraft	Overdraft	Overdraft	Overdraft	Overdraft	
Loan Term	0	0	0	0	0	0	
▶ Loan Rate	6.00 %	6.00 %	6.00 %	6.00 %	6.00 %	6.00 %	
Long Term Loan Source							
NPV Discount Rate	6.00 %	6.00 %	6.00 %	6.00 %	6.00 %	6.00 %	
NPV Discount Period	30	30	30	30	30	30	
▶ Additional Attributes	Nov 2014	Nov 2014	Nov 2014	Nov 2014	Nov 2014	Nov 2014	Dec 2012
▶ Sales & Staircasing	0 %	0 %	50 %	50 %	50 %	50 %	
▶ Rent Allowances	£788	£619	£100	£100	£100	£100	£72,029
▶ Rent	£4,641	£2,819	£1,590	£1,952	£2,027	£940	£516,548

In this illustration, the NPV section has been expanded to display the long term loan information.

19.3 Consolidated Costs

This is a simple statement of total scheme costs. For an analysis of TSC see section E (19.4).

B - Consolidated Costs	
Total Units	250
Total Acquisition	£2,150,000
Total Works	£24,716,590
Total Fees	£1,761,077
Total Other Costs	£0
Total Interest Cost	£436,792
Total Costs	£29,064,459
Total Funding	£0
Sales Receipts	£1,042,850
Loan Adjustment	£0
Capital Contribution	£0
Net Loan	£28,021,609

19.4 Total Scheme Costs

This follows the same format as described in section E – Total Scheme Costs – see 11.0

E - Total Scheme Cost						
Consolidation	Consolidation					
	Total	Per Unit (250)	Avg. Per Person (1070)	Per m ² (20692)	% MSV	% TSC
▶ Affordable Rent						
▼ Social Rent						
B: 1 bed Flat Deluxe						
E: 2 bed House						
F: 1 bed Flat						
G: 2 bed Flat						
H: 2 bed House						
I: 3 bed House						
J: 4 bed 6/7p House						
K: 2 bed FOG						
▶ Shared Ownership						
▶ Outright Sale						
▶ Private Rent						
Acquisition	£2,150,000	£8,600	£2,009	£104	6.7 %	7.4 %
Works	£24,716,590	£98,866	£23,100	£1,194	76.7 %	85.0 %
Acq & Wks	£26,866,590	£107,466	£25,109	£1,298	83.4 %	92.4 %
Fees	£1,761,077	£7,044	£1,646	£85	5.5 %	6.1 %
Interest Cost	£436,792	£1,747	£408	£21	1.4 %	1.5 %
Fees & Interest	£2,197,869	£8,791	£2,054	£106	6.8 %	7.6 %
Other Costs	£0	£0	£0	£0	0.0 %	0.0 %
Total	£29,064,459	£116,258	£27,163	£1,405	90.2 %	100%
Subsidy	£0	£0	£0	£0	0.0 %	0.0 %
MSV	£32,218,500	£128,874	£30,111	£1,557	100%	110.9 %
Month 1 Sales	£1,042,850	£4,171	£975	£50	3.2 %	3.6 %
Opening Loan	£28,021,609	£112,086	£26,188	£1,354	87.0 %	96.4 %
Offset Sales	£16,787,900	£67,152	£15,690	£811	52.1 %	57.8 %

In this illustration, the selection shows the total cost for all schemes. In the selection tree, *Social Rent* has been expanded where individual units making up that product type can be selected.

19.5 Long Term Results

This section, together with the Long Term Cashflow, Affordability and Residual Land Value sections follow the same format as section I in the appraisal. See 15.0.

20.0 Sensitivity & Benchmarks

To perform sensitivity and view benchmarks, the Benchmarking and Sensitivity section in global properties must be completed first. This is explained more fully in the Administrator's Manual.

+	Appraisal Type	Output	Benchmark Type	Warn Value	Error Value	Benchmarking Sequence	Sensitivity Sequence	Description
X	Scheme Appraisal	IRR (IRR)	Lump Sum	6.00 %	5.90 %	1	3	
X	Scheme Appraisal	Loan Repaid Year (LoanR	Lump Sum	30.0	35.0	3	2	
X	Scheme Appraisal	First Cumulative Breakev	Lump Sum	5.0	10.0		4	
X	Scheme Appraisal	Last Cumulative Breakev	Lump Sum	10.0	15.0		5	
X	Scheme Appraisal	NPV at First Handover (N	Per Unit	£0	-£1	2	1	
X	Scheme Appraisal	Revenue First Exceeds Cc	Lump Sum	9.0	10.0		6	

In this illustration, the administration for *Benchmarking and sensitivity* in *Global Properties* is shown. The first row shows that the appraisal IRR has a *Warn Value* of 6% and an *Error Value* of 5%. This is the first result to be reported in the benchmark report and the third in the report of sensitivity results. If the result is below 6 % then a *Warning* (amber) indicator is given, but if it falls below 5% an *Error* (red) indicator is given.

20.1 Benchmarks

Benchmark results are listed in the lower window of the appraisal (*Warnings and Errors* tab).

There is also a standard report.

Benchmarks						
Unit	Description	Type	Result	Warn Level	Error Level	Status
	IRR	Lump Sum	9.57%	6.00%	5.90%	green
	NPV at First Handover	Per Unit	962,608	0	-1	green
	Loan Repaid Year	Lump Sum	16	30	35	green

In this illustration taken from the standard report, the 3 benchmarks, as shown above, are reported. The results are all better than the *Warn Level* and so the green *Status* indicator is displayed.

20.2 Sensitivity

Click the *Sensitivity* button at the head of the appraisal,

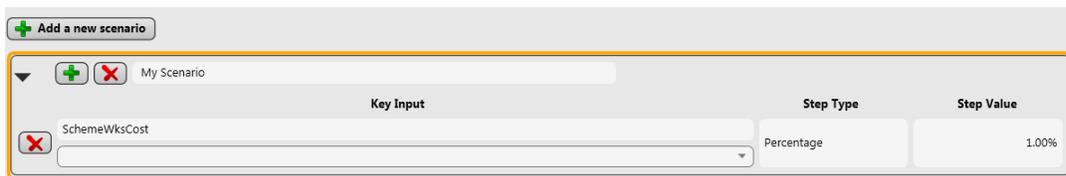


This illustration shows the position of the *Sensitivity* button at the head of the appraisal

The *Sensitivity Definition* window opens in a separate tab.

Create a *Sensitivity Scenario*:

1. Click the green + button.
1. In the first row give the scenario a name
1. Choose a *Key Input* from the first drop down list. This lists the most common inputs on which sensitivity is performed. For a full list choose from the second drop down list.
1. The *Step Type* shows the units to be used for amending the input, e.g. by percentage or lump sum.
1. In the last box input a *Step Value*.
1. Click away from the input area and the scenario is highlighted by an orange outline.



In this illustration the scheme works cost has been selected from the first drop down list. The appraisal results are to be tested in 1% steps.

In the lower window the change in works cost is shown for each 1% step (+/-) and the results of the *Key Outputs* as defined in the *Global Properties* are shown.

The results are also available in a standard report. Click the *Create Report* at the top of the *Sensitivity Definitions* window.

Current selected scenario: My Scenario					
Current selected scope: Appraisal					
Key Inputs	-2 Steps	-1 Step	Appraisal	+1 Step	+2 Steps
SchemeWksCost	-£174,005	-£87,002	£0	£87,002	£174,005
Key Outputs - as defined in Global Properties					
	-2 Steps	-1 Step	Appraisal	+1 Step	+2 Steps
NPV at First Handover	£1,136,461	£1,049,535	£962,608	£875,681	£788,754
Loan Repaid Year	14	15	16	17	19
IRR	10.49 %	10.01 %	9.57 %	9.15 %	8.76 %
First Cumulative Breakeven Year	13	1	1	15	1
Last Cumulative Breakeven Year	13	15	14	17	1

In this illustration, revised scheme works cost for each 1% step (+/-) are displayed. Underneath are the *Key Outputs*.

21.0 Reports

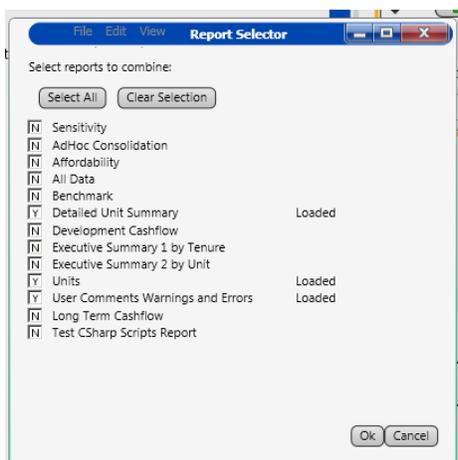
There are a number of standard reports. Bespoke reports can be written on request.

Select the appraisal in the project tree (there is no need to open it). Right mouse and select *Reports*.

Reports open in a separate tab.

- Affordability
- All Data
- Benchmarks
- Detailed Unit Summary
- Development Cashflow
- Executive Summary 1, by Tenure
- Executive Summary 2, by Unit
- Units
- User Comments, Warnings and Errors
- Long Term Cashflow
- Combine

Choose *Combine* to select a number of reports in one combined report.



In this illustration, 3 reports are combined: *Detailed Unit Summary*, *Units* and *User Comments Earnings and Errors*.

Selecting *All Data* reports all inputs from each section of the data.

Options in the report are as follows:

- Print
- Save in xml format
- Save in html format
- Copy to clipboard (either as html or text)
- Save report to Excel

Close reports using the close gadget on the report tab.

22.0 Getting Help & Support

When completing the appraisal, help text is provided on the questions and inputs.

- Hover the cursor over the question and a comment tool tip appears.
- Hover the cursor over the input box and a help tool tip appears.

These tool tips can be turned off in the View Menu. In the View menu, untick *Enable Tooltips*

There are other useful options in the View menu.

Project Tree – unhide the project tree

Section Map – unhide/select the section map

Full Screen – maximise appraisal screen area. If selected the option changes to *Restore Screen*

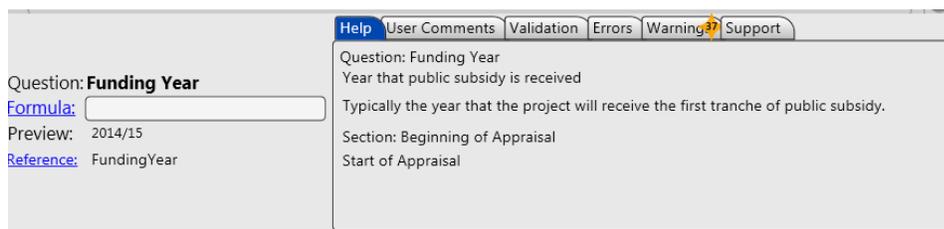
Rest Zoom – reset the zoom on the appraisal window. Screen magnification can be adjusted using the mouse wheel with the cursor in the title bar.

Show Inflation Questions – Hide/Unhide question relating to inflation (section B)

Collapse All – collapse all appraisal sections, Also possible with a keyboard shortcut of <Control Shift ->

22.1 Help Window

In the lower window of the appraisal there is a *Help* tab. This displays both the question comment and the help text (as described above). This tab can be left open while working in the appraisal.



In this illustration, the Help tab is shown and the cursor is in the *Funding Year* input.

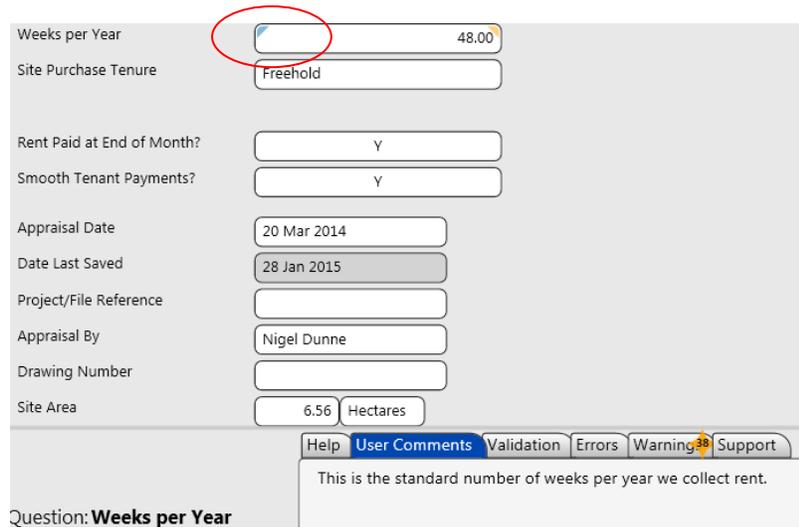
22.2 Adding User Comments

Add 'cell comments' to inputs.

1. Select an input.
2. In the lower window click the *User Comments* tab.
3. Enter comment.

A blue triangular indicator appears in the input field.

Place the cursor on this indicator and a tool tip displays the comment.

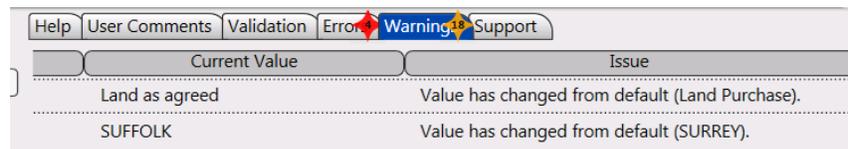


The screenshot shows a form with several input fields. The 'Weeks per Year' field contains the value '48.00' and has a blue triangular indicator on its left side, which is circled in red. A tooltip is visible below the 'User Comments' tab, displaying the text: 'This is the standard number of weeks per year we collect rent.' Other fields include 'Site Purchase Tenure' (Freehold), 'Rent Paid at End of Month?' (Y), 'Smooth Tenant Payments?' (Y), 'Appraisal Date' (20 Mar 2014), 'Date Last Saved' (28 Jan 2015), 'Project/File Reference', 'Appraisal By' (Nigel Dunne), 'Drawing Number', and 'Site Area' (6.56 Hectares). The bottom navigation bar includes tabs for Help, User Comments, Validation, Errors, Warning (with a yellow diamond icon and '39'), and Support.

In this illustration, the input *Weeks per Year* has a comment, as entered in the *User Comments* tab in the lower window. A blue indicator triangle indicator appears in the input and a pop up tooltip displays the comment when the cursor is placed over it.

22.3 Warnings

The *Warnings* window highlights when default values have been amended and where system validation rules have been broken (as described in 4.3.4).



Current Value	Issue
Land as agreed	Value has changed from default (Land Purchase).
SUFFOLK	Value has changed from default (SURREY).

In this illustration the second item shows that the County as set by default was Surrey and this has been changed to Suffolk.

An amber cell indicator identifies warnings and displays any user comment made in relation to it. Hold the cursor over the indicator to see the comment. The number of warnings is also displayed on the tab.

A warning is not necessarily an indication of a mistake.

22.4 Validations

This window identifies inputs which lie outside the system limits. These are arbitrarily set and intended to prevent typing errors.

Number of Bedrooms	<input type="text" value="2"/>	<input type="text" value="2"/>
Is Bedsit?	<input type="text" value="N"/>	<input type="text" value="N"/>
Persons	<input type="text" value="4"/>	<input type="text" value="10"/>

In this illustration the second column has a 2-bed unit with an occupancy of 10 persons. The expected occupancy is between one and two persons per bedroom. The amber warning identifies the unusual input. Place the mouse pointer over the amber warning to highlight the cause of the warning.

In the *Validation* window the user can add a comment as to why this input was made. This comment is also displayed in the tooltip.

These validation warnings are also listed in the *Warnings* window as described in 4.3.6.

Help User Comments Validation Error Warning Support

Expected between one and two persons per bedroom
They are very small people!

Validation warnings are not necessarily mistakes.

22.5 Errors

The *Errors* window displays input errors and reports outputs that lie outside the benchmarks set by the organisation.

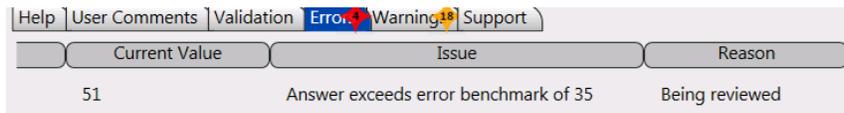
Local Authority	<input type="text"/>
-----------------	----------------------

In this illustration the Local Authority name has been omitted. The pink background identifies that this is an essential input. The red indicator also identifies the error. Place the mouse pointer over the red indicator to highlight the cause of the warning.

The *Errors* window lists all errors such as omission of an essential input, but also any outputs which fail the organisation's benchmark settings are also listed.

Source	Question	Current Value	Issue
My Scheme	Loan Repaid Year	51	Answer exceeds error ben
My Scheme	Local Authority		Answer is required.

The user can add a comment about each error. Put the mouse pointer over the indicator to see the comment.



Current Value	Issue	Reason
51	Answer exceeds error benchmark of 35	Being reviewed

In this illustration the user has added a Reason (or comment) about the issue. This is added to the tooltip.

The number of errors is displayed on the tab and these can be printed in a report.

22.6 Exporting the Appraisal Data

Sometimes it is necessary to see the appraisal in order to provide support. Support can also be provided across the Internet so that SDS can directly observe what is happening on the user's machine. Alternatively, the appraisal can be emailed to SDS.

To send the appraisal to SDS for support:

1. Highlight the appraisal in the Project tree
2. Right mouse click
3. Select *Export Appraisal*
4. Save the file in a convenient place. Attach it to an email to support@s-d-s.co.uk

22.7 Support Information

In the lower window, select the *Support* tab.

Contact details and system information are displayed.