



# ***PIA Quick-Start Guide***

**Property Investment Analysis software**

"The essential analytical tool for property investors"



Bernie Williams & Ian Somers

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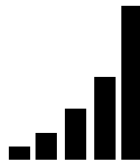
## **Property Investment Analysis software**

"The essential analytical tool for property investors"

by

Bernie Williams & Ian Somers

*Somerset Financial Services Pty Ltd* \_\_\_\_\_



Please note that the latest most up-to-date version of this guide will be installed with the software as an Acrobat pdf document. A copy will also be available from the Support section of the Somersoft website...

**[www.somersoft.com.au](http://www.somersoft.com.au)**

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## Help

Before contacting technical support, please review this guide as it covers the main application of the software. More comprehensive help information is available under the Help Menu from within the program. The Somersoft website provides access to

- PIA Frequently Asked Questions (FAQs) with answers
- Latest versions of the PIA Quick Start and PIA User Guides
- PIA updates when they are released
- Property FAQs with answers
- Property Investors Forum

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## Welcome to PIA

Welcome to PIA Property Investment Analysis, a powerful program designed to make it easy for investors to analyse and evaluate prospective property investments.

PIA helps you analyse the capital growth, cash flows and rates of return on investment properties, taking tax implications into account. It is simple to use and – as a decision tool – provides the answers to a long list of "What ifs" on property investment. PIA is an analysis tool – it is not an accounting tool.

On the market since 1989, PIA has become an industry standard in Australia and New Zealand, used extensively by leading real-estate groups, property marketers, banks, lenders and accountants, and by thousands of property investors.

PIA was developed to complement the bestselling books on property investment by Jan Somers. The latest books in this series are:

- *Building Wealth Story by Story*
- *More Wealth from Residential Property*

This PIA Quick-Start Guide is based on PIA Version 7.5, edition 50.

## What PIA can do for you

Briefly, PIA can help you make objective decisions about a potential property investment. You can quickly estimate your rate of return, tax savings, true after-tax cost, and affordability. Furthermore, you can very easily test the sensitivity of your results (i.e. playing "What if") by making changes to the variables like growth, inflation and interest rates. Finally you can print out a professionally structured report to help you present your investment proposal to your accountant or bank manager.

## Two different versions

PIA is a standalone Windows program (XP, Vista, Win 7, 8, 10) available in two different versions to suit property investors and industry professionals:

**PIA Investor** – *PIAFpu* (Fpu = for personal use) – is suited to investors as it has a single-user license and is for personal use only.

**PIA Professional** – *PIAPro* (Pro = professional) – is better suited to industry professionals who want to use PIA in a consulting capacity to show investors the benefits and implications of property investment. It has all the features of the PIA Investor as well as a site license and additional client-related features such as client fields and professional disclaimers in reports.

## About this book

This Quick-Start Guide is designed to help first-time users get started with PIA. It assumes that you are acquainted with the basic concepts of your computer and the Windows user interface.

To ensure a smooth start, the book guides you through installing your software, starting it, and entering your first set of data. You can either enter the data shown in the example in this guide (treating the whole description as a tutorial) or enter your own data.

By the end of the book you will be able to use the spreadsheet to answer simple questions like:

- What return can I anticipate on my investment?
- What will it cost me after tax?
- How much tax will I save?

But there is a lot more to PIA than can be covered in this Quick-Start Guide. Details are given towards the back of this guide on where to find out more information to help you become even more adept with the program.

## **If you get stuck**

First, please read this Quick-Start Guide. It guides you through the basic steps of an investment analysis.

Secondly, use the online help. You can access this from anywhere in the main part of the program by pressing F1 or by accessing Help via the Help menu.

Tool tips are available for the icons in the toolbar of the spreadsheet and for the buttons in the Data Entry Check List. These appear if you position the mouse pointer over the icon or button. You can get context-sensitive help by clicking on the "?" button in most dialogs.

If all else fails, you can obtain technical support by sending an email to **support@somersoft.com.au**. A good option is to use the Support On-Line feature under the Help menu which generates an email to technical support with a copy of your file as an attachment.

## **User feedback**

We welcome feedback from users – it helps us to give you what you want. So please do not hesitate to make comments or suggestions. You can use the Feedback email function under the Help menu or feedback form in the Support section of the website ([www.somersoft.com.au](http://www.somersoft.com.au)) to submit your comments.

# Installing the software

## What you need

To run PIA Version 7.5 you will need a personal computer with at least 8 MB of free disk space and Windows XP, Vista, Win 7, 8 or 10.

Installation is via a download from our website, is very simple and takes just a few minutes. Please follow the steps described below.

1. Open your web browser and enter [www.somersoft.com.au/pia.htm](http://www.somersoft.com.au/pia.htm) in the address bar. Click to download PIAPro or PIAFpu depending on the program you have chosen. If you are asked by the browser whether to open/run the file or save it to disk, choose open/run (this will automatically run the install once it has downloaded). If you save it to your downloads, you will need to locate and run the downloaded file.
2. When the installation routine runs on your PC, it will first confirm the Publisher is Somerset Financial Services Pty Ltd and then the version and edition being installed..
3. Read the *Setup Welcome* dialog. It is recommended that you close all Windows applications before continuing. Click on **Next >** to continue.
4. Read the *Readme File* information for the latest news on PIA, then click **Next >** to continue with the installation.
5. In the *Destination Location* dialog, click **Next >** to confirm the default location. You may select a different location using the **Browse** button, but this is not recommended as it may cause later problems with upgrading and support.
6. The Start Installation dialog appears. Check the details and click **Next** to start the installation, or click on **Back** to go back to make changes.
7. The Setup Complete dialog appears. Click **Finish** to complete setup.

Installation is now complete and PIA opens. Normally you will start PIA by clicking on the desktop icon or by using the Windows Start menu and selecting Programs then PIA.

- ➔ *In this Guide, the name PIA is used to refer to the two versions of PIA (PIAFpu or PIAPro) as described on page 1.*
- ➔ *Note that PIA will only run in demonstration mode until you complete the next step to enter your licensee name and registration code. This can be entered at the time you start the program or via the Register item under the Help menu within PIA*



# Using PIA

## Starting PIA the first time ever

The first time you ever use PIA on a particular computer, you will be prompted to enter your specific licensee name and corresponding registration code (see your tax invoice or email notification). If you enter the correct name and code, the confirmation message "Welcome to the World of Property Investment" is displayed.



Fig. 1: The Congratulations screen

**Congratulations!** You have then successfully installed the software.

➔ *If the number you enter is incorrect, the program will run in demonstration mode only. To access the full version of the software, you will need to re-enter the licensee name and registration number either by re-running the software or by accessing the Register item under the Help Menu.*

You will then be asked to specify your location (Australia or New Zealand) – this sets the default tax scales for the calculation of tax credits. Click **OK**.

If you have chosen Australia, you will then be asked to specify which State (QLD, NSW, VIC etc.) for the correct stamp duty and sales commission scales. Select the state in which your property is located. (You can, of course, change the scales used at any time.) Click **OK**.

PIA saves all of these changes and will continue to use them until you change them again. PIA will then open with the Welcome screen.

## Starting PIA

Normally, to start PIA you need only double-click on the PIA icon on the desktop and the Welcome screen appears immediately (see Fig. 2). This is the screen you will see whenever you start PIA. It gives version, license and copyright details and allows you to select which file you want to open.

➔ *Your icon will show the version of the PIA software you have installed.*

When the PIA Welcome screen appears, you have the choice of opening the latest property file you saved, opening any previously saved file, or creating a new property file. If you are using PIA for the first time, select the *Create a new property file* radio button and click on **OK**.

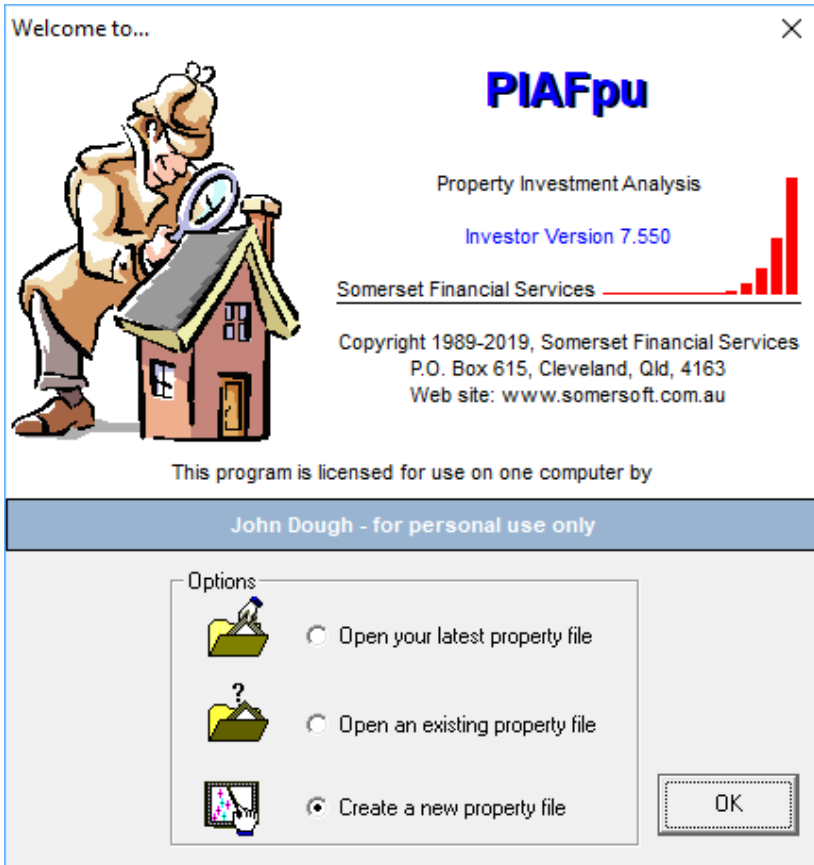


Fig. 2: PIA Welcome screen

- ① Note that the Version number in the Welcome screen is given as four digits (e.g. 7.550). The first two digits (7.5) represent the actual version number while the last two (50) represent the edition number. Updated editions will be released on our web site from time to time as new features are added, tax laws and State taxes change, and when changes are needed to improve the program. These updates are available free of charge to registered users for at least two years from the date of purchase of their original software

[www.somersoft.com.au](http://www.somersoft.com.au)

# Before we start

## Plug 'n' Play 'n' Print

The next section takes you step by step through entries to complete your first property investment analysis. You can then look at the results and make changes in the spreadsheet and, once you are satisfied, print out a report.

**Plug**  
in the data with the  
Data Entry Check List.  
This is the most intuitive way  
for new users to enter data.



**Play**  
with the parameters on the  
spreadsheet.  
This is where experienced  
users spend most of their time.  
Enter changes and see the  
impact on the fly!



**Print**  
your results in the form of  
a report.  
This is a great way to convince  
lenders that you have done  
your homework.


SUMMARY				
	Assumptions		Projected results over 10 yrs	
	Property value	\$400,000	Property value	\$716,339
	Investment	\$40,000	Equity	\$336,983
	Gross yield	4.46%	After-tax return/yr	15.06%
	Net yield	3.05%	Net present value	\$128,137
	Growth rate	6.00%	<b>IF SOLD</b>	
	Inflation rate	4.00%	Selling costs & CGT	\$97,052
	Interest rate	8.00%	Equity	\$239,931
	Taxable income	\$66,000	After-tax return/yr	10.26%

Fig. 3: The PIA Plug 'n' Play 'n' Print procedure

① When you are more experienced with PIA, you may choose to enter data straight into the spreadsheet and skip the Data Entry Check List altogether.

## PIA overview

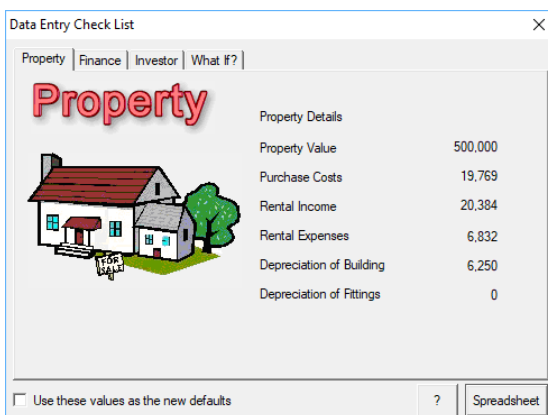
In fact, PIA has four separate spreadsheets, a multitude of dialogs, and a whole suite of property-related calculators that, together, fulfil a wide variety of investment and financial functions.

While it may have spreadsheet-like screens, PIA is a stand-alone program, written in a language called C++. However, in many ways it behaves like other spreadsheet programs:

- If you make a change to one variable, the change is automatically reflected throughout.
- PIA stores data on each of your investment properties in separate files. To analyse the cash flows on your entire portfolio of investment properties (*Portfolio Analysis*), you simply specify which files you wish to include and PIA does all the synchronisation and collation for you.
- A new file always opens with a template of default values. These values can then be tailored to the property being reviewed and the new set of variables can even be saved as the new default template. If you are using PIA for your own use only, it is recommended that once you modify personal variables (e.g. home loan status, living expenses, etc), you should save them as part of the default template (Settings menu).

The screens that you will spend most of your time interacting with PIA are the *Data Entry Check List* and the four spreadsheets (*Investment Analysis*, *Home Loan Analysis*, *Wealth Builder* & *Linked Loans*). While this booklet focuses mainly on the *Data Entry Check List* and the *Investment Analysis Spreadsheet*, the roles of each of the screens are described below:

The *Data Entry Check List* provides an intuitive interface for entering data about an investment property, how it is to be financed, how tax credits are to be calculated, and how these variables are to change over time. This would normally be the first step in analysing any prospective property as it helps construct an *Investment Analysis* spreadsheet with all of the



The screenshot shows a window titled "Data Entry Check List" with a close button (X) in the top right corner. Below the title bar is a tabbed interface with four tabs: "Property" (selected), "Finance", "Investor", and "What If?". The "Property" tab is active, displaying a large red "Property" title and a cartoon illustration of a house with a "FOR SALE" sign. To the right of the illustration is a table of property details:

Property Details	
Property Value	500,000
Purchase Costs	19,769
Rental Income	20,384
Rental Expenses	6,832
Depreciation of Building	6,250
Depreciation of Fittings	0

At the bottom of the window, there is a checkbox labeled "Use these values as the new defaults" which is currently unchecked. To the right of the checkbox are two buttons: a question mark "?" and a button labeled "Spreadsheet".



## Getting started

This section guides you through the entries you need to make in order to complete your first property investment analysis. You can either use the data given in the example or your own data. If you use the example data shown here, the dialogs and screens you see should be identical to those shown in this guide, allowing you to confirm your progress. This section takes about 40 minutes to complete.

We strongly recommend that you first work through the steps with the data shown here in our fictitious example and then repeat the procedure using your own data.

### Step by step to your first analysis

This section takes you through the Data Entry Check List to build your spreadsheets. Each item in the Check List is required for the initial analysis. When you have made all the entries, you can click **Spreadsheet** to go to the main *Investment Analysis Spreadsheet*. Once in the spreadsheet, you can return to the Data Entry Check List at any time by choosing the Data Entry Check List item under the View menu.

### Our example

John earns \$85,000 per year as a journalist. His wife Anthea earns \$45,000 per year working part time. They have a family home worth about \$580,000 on which they still have \$120,000 outstanding. They have just read the book *More Wealth from Residential Property* by Jan Somers and while it made a lot of sense, it all sounded too good to be true. To help them better understand how negative gearing works, they decide to evaluate a typical investment property for themselves using the PIA software. They see a property advertised for sale for \$480,000 and their research has shown \$395 per week to be a reasonable rent. They want to use PIA to find the answers to the following questions:

- What return on investment can they anticipate?
- What will the investment cost them after tax?
- How much tax will they save?
- Can they afford it?
- Can they afford more investment properties?
- Will the bank lend them the money?

They decide to use the equity in their own home as collateral and borrow enough to cover all costs, including purchase and loan costs. The prevailing interest rates are around 4.8% and they are most comfortable with the idea of a principal & interest loan to be repaid over 30 years. Because they both work, they want to use an agent to manage the property on their behalf.

Other key data, most of which they will estimate based on the experience with their own property, is introduced during the example.

## Data Entry Check List

When you select *Create a new property file* in the Welcome screen and click **OK**, the Data Entry Check List is displayed. This dialog is a quick, easy and intuitive way for new users to enter all the basic data for a new property file.

The screenshot shows a window titled "Data Entry Check List" with a close button (X) in the top right corner. Below the title bar are four tabs: "Property", "Finance", "Investor", and "What If?". The "Property" tab is selected and highlighted. The main content area of the "Property" tab features a large red "Property" title, an illustration of a house with a "FOR SALE" sign, and a table of property details. At the bottom of the tab, there is a checkbox labeled "Use these values as the new defaults", a question mark icon, and a "Spreadsheet" button.

Property Details	
Property Value	500,000
Purchase Costs	19,769
Rental Income	20,384
Rental Expenses	6,832
Depreciation of Building	6,250
Depreciation of Fittings	0

*Fig. 4: Data Entry Check List (showing the Property page with its original default values)*

As you can see, the Data Entry Check List is divided into four pages of variables covering the key components of a property analysis:

- Property
- Finance
- Investor
- What If?

Each page is accessed by clicking on the corresponding tab at the top of the dialog. The variables in the first two pages relate to the investment property (Property tab) and how it is to be financed (Finance tab). The Investor variables record personal details needed to determine specific tax benefits, as well as the investor's borrowing and investment capacities. The "What If?" variables allow you to see what might happen over time with different inflation and growth rates. Already you can see some of the power of PIA – it allows you to play with the variables and see what happens.

If you move the mouse pointer over the item names in the central column (for example, *Property Value*), the item changes colour and the mouse pointer changes to a hand. This indicates that the item is a button that, if clicked on, opens a dialog to view and edit the variables that make up or determine the item's value. In fact, the dialog opens if you click on either the variable name (button) or its current value, which is shown on the right.

To help keep track during data entry, a red tick (✓) is shown on the right when you have viewed the corresponding dialog and clicked **OK** to exit, whether or not you have made changes in that dialog.

Many of the items in the Data Entry Check List are actually made up of, or are the function of, a number of other variables. In fact, PIA uses over 100 variables in analysing a property investment. Instead of having to enter all of them each time, PIA uses default values when the file is created.

- ① *The Data Entry Check List is a useful but not a critical step in analysing a property investment. As you will see later, all of the variables in the Check List can be entered directly from the main spreadsheet. This has the advantage of showing instant feedback, but is less intuitive and does not show which variables have yet to be changed. However, once you become familiar with the program and all of the variables, you may well choose to bypass the Check List altogether. (See the Display tab in the Preferences item of the Settings menu.)*



## Plug: Using the Data Entry Check List

In this example we will run through all the items page by page and from top to bottom, entering data for each one. When we have done that, we will then go to the main spreadsheet of the program to see the results.

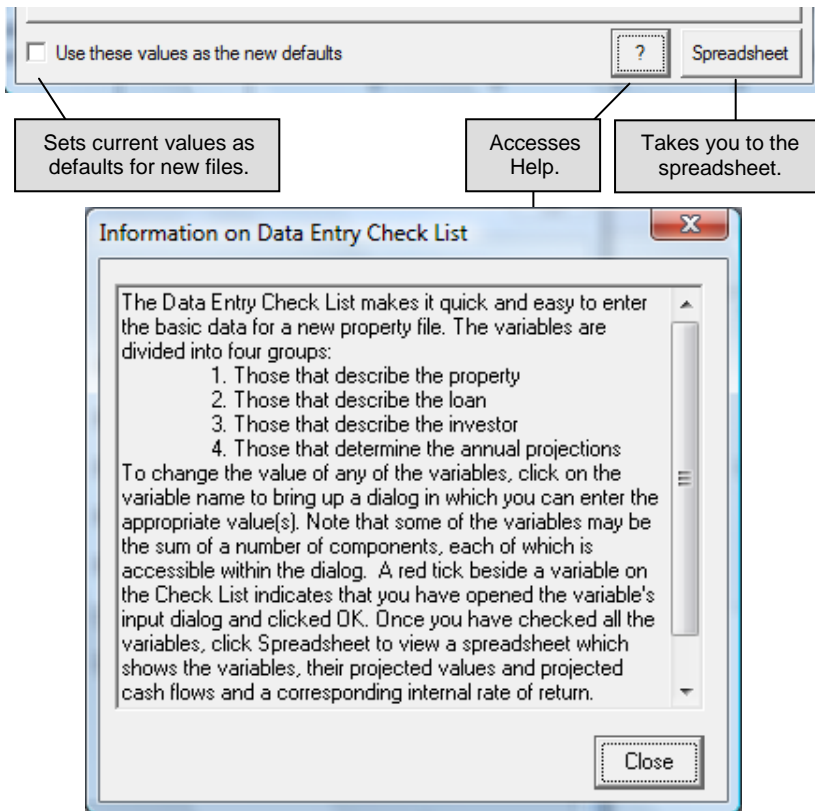


Fig. 5: Options from the Check List

Clicking on the "?" button displays help for the current screen.

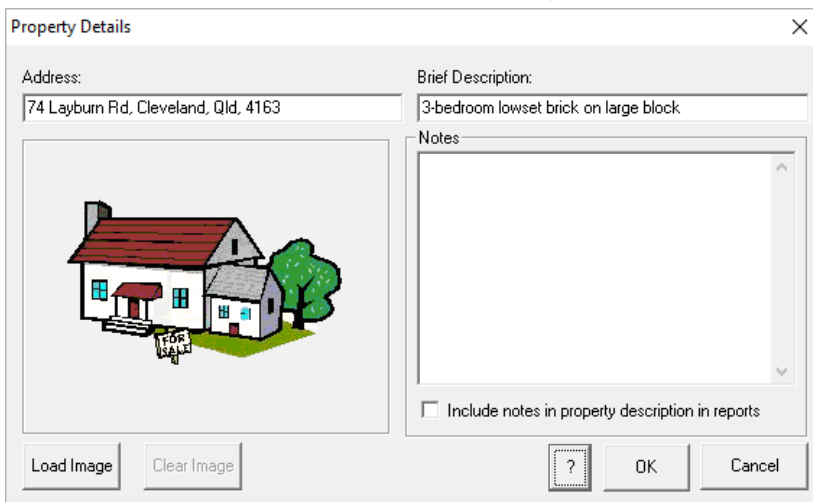
➔ You can make your current values in the Check List the default values by checking the "Use these values as the new defaults" check box. New files then open with these values set. The values will only be adopted if you click **Spreadsheet** to exit the Check List.

Clicking on **Spreadsheet** takes you to the spreadsheet – we will be doing that when we have entered all four pages of data for our example.

## Property Details

The first of our four Data Entry Check List pages is the Property page (Fig. 4) and the first item on this page is *Property Details*.


Click on *Property Details*. The Property Details dialog opens. This allows you to load an image (jpeg format) of the property as well as enter its address and a brief description. These items are saved in the file you are creating, and appear in the relevant fields in any reports you generate. You could also record extensive notes about the property in the Notes area. These would also be saved in the file, but would not appear in any report.

The image shows a 'Property Details' dialog box with a title bar and a close button (X). It contains several input fields: 'Address:' with the text '74 Layburn Rd, Cleveland, Qld, 4163'; 'Brief Description:' with the text '3-bedroom lowset brick on large block'; and a 'Notes:' area which is a large empty text box. Below the address field is a placeholder image of a house with a red roof and a 'FOR SALE' sign. At the bottom left are 'Load Image' and 'Clear Image' buttons. At the bottom right are a help button (question mark in a box), 'OK', and 'Cancel' buttons. There is also a checkbox labeled 'Include notes in property description in reports' which is currently unchecked.

*Fig. 6: Property Details dialog*

In our example, we will simply enter the address (74 Layburn Rd, Cleveland, Qld, 4163) and a brief description (3-bedroom lowset brick on large block) as shown above, then click **OK**.

The address and brief description will now appear below the property image on the Data Entry Check List and a red tick is displayed to the right of the Property Details button to indicate that these particular variables have now been checked.

-  *As you will see in the next step, for convenience, some variables can be entered in more than one dialog and can later be changed in the spreadsheet that we create.*

### Property Value

Click on *Property Value*. The Property Value dialog opens. Note that the address and description are displayed. The house in our example costs \$480,000. Overwrite the default entry of \$500,000 with \$480,000 and press the Enter key.

Property Value	1yr	2yr	3yr	4yr	5yr
End of year: 2018					
Property Price: 480,000					
Renovations: 0	0	0	0	0	0
Book value: 480,000					
Market value: 480,000	499,200	519,168	539,935	561,532	583,993
Holding costs: 0					
Furniture package: 0	0	0	0	0	0

Property Details

Address: 74 Layburn Rd, Cleveland, Qld, 4163

Description: 3-bedroom lowset brick on large block

Linked to Property Price


- ☒ Value of fittings
- ☒ Construction cost
- ☒ Stamp duty

Annual Growth Rates ? << < > >> OK Cancel

Fig. 7: Property Value dialog

As you can see, the increase in market value of the property has been automatically calculated based on a default increase in value of 4.0% per year. (Later, you will learn how to change this default value.) Pressing the Enter key (sometimes called the Return key) before clicking OK allows us to make changes to several variables and see their immediate impact before returning to the Check List.

Click **OK** to return to the Data Entry Check List. The value \$480,000 appears in the Check List, and a red tick again appears on the right to indicate that an entry has been made.

-  As you can see, the Property Value dialog allows you to enter other values, such as renovations, furniture packages, and the address and description of the property. Also, you can see at the bottom right of the screen that various values can be linked to the property price. This means that the default values for these variables are automatically determined by the property price. If the price is changed, then the variable is also changed.

## Purchase Costs

Click on *Purchase Costs* in the Check List to display the Purchase Costs dialog. The Purchase Costs dialog shows the property price of \$480,000 you entered a moment ago. Purchase costs include conveyancing costs, stamp duty, transfer of title and may also include other costs such as interstate travel to select the property.

Conveyancing costs vary considerably and it may be worthwhile shopping around. In our example, the solicitor has quoted \$1,250. Overwrite the default value of \$2,500 with \$1,250 and press the Enter key.

**Purchase Costs**

Purchase price: 480,000

Stamp Duty: 15,225

Transfer of title: 1,272

Conveyancing costs: 1,250

Other costs: 0

**Total purchase costs: 17,747**

**Tax Status**

☒ Capital cost

☐ Revenue cost (eg. in A.C.T.)

**Stamp Duty Scales**

☒ Uses Qld

Reset Scales

?

OK Cancel

*Fig. 8: Purchase Costs dialog*

As we saw in the previous dialog, stamp duty was linked to the property price and is hence calculated automatically according to the State entered on initial start up – but this can be changed at any time. If you selected Qld, for example, "Uses Qld" is shown under Stamp Duty Scales. If not, you will have to change it for the tutorial – no problem. Click on **Reset Scales**. The Stamp Duty Scales dialog appears. Click on the *Qld* radio button to set the Queensland scale. Click on **OK**. *Uses Qld* now appears under Stamp Duty Scales in the Purchase Costs dialog.

PIA calculates the stamp duty and transfer of title fees based on the purchase price and the specified State. The values now shown are \$15,225 (stamp duty) and \$1,201 (transfer of title). Click **OK** to save the values and return to the Check List. The Purchase Costs are now shown as \$17,676.

## Rental Income

Click on *Rental Income* in the Check List to display the Rental Income dialog. This dialog is divided into sections, one of which relates to holiday letting only. The property we are analysing is to be permanently let with an anticipated rent of \$395 per week. Overwrite the default value with \$385 and press the Enter key. The values for *Potential annual rent* and *Actual annual rent* change accordingly. The difference between the *Potential annual rent* and the *Actual annual rent* is determined by the *Annual vacancy rate*. The default of 2% may be a realistic value for this suburb at this time, but John wants to play it safe and is basing his calculation on 3%. Change the default value of 2% to 3% and press the Enter key. PIA calculates the *Actual annual rent* and displays the new value: \$19,924.

Rental Income (1st Year)				
Rent per week	395			
Potential annual rent	20,540			
Annual vacancy rate	3.00%			
Actual annual rent	19,924			
Gross yield	4.15%			

Preferences				
<input checked="" type="radio"/>	Per week			
<input type="radio"/>	Per month			
<input type="radio"/>	Per year			
<input type="radio"/>	Holiday letting			
<input type="radio"/>	Gross yield			

Holiday Letting (1st Year)				
Season	Weeks	Rent/wk	Occupancy rate	Total rent
Peak				
Shoulder				
Off-season				
Totals	52			

Advanced   Annual Rent   ?   OK   Cancel

Fig. 9: Rental Income dialog

The Rental Income dialog offers other options, including a subdialog for specifying how the projected annual rents are to be determined. We will skip this for the moment. Click **OK** to return to the Data Entry Check List. The Rental Income is shown as \$19,924.

Rental Expenses

Click on *Rental Expenses* in the Data Entry Check List to display the Rental Expenses dialog. This dialog allows you to enter the expenses associated with the property. Agent's Commission is the management fee paid to the agent. Here the agent has quoted 8.25%. Click on the **Agent's Commission** button and enter 8.25% in the Agents Commission dialog. Click **OK** to return to the Rental Expenses dialog. (Alternatively, you can enter an annual amount directly in the Agent's Commission field in the Rental Expenses dialog.) You can move from field to field with Tab or the arrow keys. You can update the dialog by pressing the Enter key after each entry.

Enter the following values:

Letting fee	\$395	Maintenance	\$800
Council rates	\$1,600	Pest control	\$120
Insurance	\$800	Other expenses	\$250

The Rental Expenses dialog should now look like this:

Rental Expenses

Normal Expenses (1st Year)

Agent's commission	1,644
Letting fees	395
Rates	1,600
Insurance	800
Maintenance	800
Body corporate	0
Cleaning	0
Pest control	0
Mowing	120
Other expenses	250
Total	5,609

Indicators

Annual Rent	19,924
Expenses/rent	27.31%
Net rent	14,315
Net yield	2.98%

Advanced

Annual & Special Expenses

?OKCancel

Fig. 10: Rental Expenses dialog

There are many other options in the dialog, but we will skip them for the moment, clicking **OK** to return to the Data Entry Check List, which now shows Rental Expenses of \$5,609.

### Depreciation of Building

Click on *Depreciation of Building* in the Check List to display the Depreciation of Building dialog. As you can see, our property price of \$480,000 has been adopted here. The default Building Cost is calculated at 50% of the value of the property (here: \$240,000). Our building has an estimated original construction cost of \$220,000, so enter this figure in the *Building costs* box and press Enter. Note that the *Building costs as a % of property price* is recalculated (45.83%), as is the *Depreciation of building* (\$5,500). The default depreciation rate is 2.5% – which is the figure we want because the property was built after 1987– so no change is needed.

➔ If you tick the box next to Link costs to property price, the Building costs automatically change if you change the Property price, always remaining the same percentage of the property price.

- ❶ In our example, our couple simply estimates the value of the building. In practice, however, to satisfy ATO requirements at tax time, it is common to have a quantity surveyor certify the estimated original construction costs.
- ❷ Depreciation of building is often referred to as a Capital or Building Allowance.

Capital Costs		Capital Allowance	
Property price:	480,000	Renovation costs:	0
Building costs:	220,000	Total capital cost:	220,000
<input type="checkbox"/> Link costs to property price		Depreciation rate:	2.50%
Building costs as a % of property price:	45.83%	Depreciation of building:	5,500

Fig. 11: Depreciation of Building dialog

Click on **OK** to return to the Data Entry Check List. The Depreciation of Building is now shown as \$5,500.

# Depreciation of Fittings

Click on *Depreciation of Fittings* in the Check List to display the Depreciation of Fittings dialog.

In 2017, the Australian Government decreed that depreciation of fittings would only be tax deductible for new items that the investor purchases. One of the reasons given for this change to tax law was that for the most part, the value of fittings in a second-hand property is already largely written off.

As this property is an established one, we will leave the default value of fittings as zero.

Depreciation of Fittings

Itemised Depreciation Schedule

Items	Value	Life (yrs)	1yr	2yr	3yr	4yr	5yr
Furniture package		15.0					
General fittings		15.0					
Curtains		7.0					
Carpets		10.0					
Hot water sys.		20.0					
Motor mower		7.0					
Refrigerator		15.0					
Stove		20.0					
Low-value pool		4.0					
Total							

Depreciation Preferences

Method

☒ Diminishing value

☐ Prime cost

☐ Annual claim

General

☒ Link value to property price

0.00%

☒ Use "effective life" rules

200.00%

\* Low-value pool rate halved in year 1

<<

<

>

>>

?

OK

Cancel

Fig. 12: Depreciation of Fittings dialog

Click on **OK** to return to the Check List. Depreciation of Fittings is shown in the Check List as \$0.

- i

If the property had been a new one, our couple would have had a range of items to depreciate, the costs of which would normally have been available from the builder or a quantity surveyor. Earlier versions of PIA by default, assumed that the value of depreciable fittings was 6% of the property price.



# Property Page

Congratulations, you have now completed the entries for the investment property. The Property page of the Data Entry Check List now displays all of the new values and all of the items are ticked as shown below. If any of your values do not agree, go back to the item's dialog and check your entries against the example.

Data Entry Check List


Property

Finance

Investor

What If?

Property



Property Details

Property Value	480,000	✓
Purchase Costs	17,747	✓
Rental Income	19,924	✓
Rental Expenses	5,609	✓
Depreciation of Building	5,500	✓
Depreciation of Fittings	0	✓

☐ Use these values as the new defaults

?

Spreadsheet

Fig. 13: Data Entry Check List Property Page

It is now time to enter the data for financing the investment. To do this, click the **Finance** tab at the top of the Data Entry Check List.

➔ While there are many variables shown on this page, they are divided into three groups and are dealt with in three dialogs. The first of these encompasses variables that relate to the loan amount, the second to those that relate to the loan type and rate of interest, and the third to those that relate to costs in setting up the loan.

Data Entry Check List


Property

Finance

Investor

What If?

Finance



Loan Amount	452,208
Cash Invested	50,000
Amount Required	502,208
Loan Type	I/O Yrs 1-40
Interest Rate	5.00%
Loan Repayments	22,610
Loan Costs	5,733
Tax Write-Off Period	5yr

☐ Use these values as the new defaults

?

Spreadsheet

### Loan Amount

Click on *Loan Amount* in the Finance page of the Data Entry Check List. The *Loan Amount* dialog opens. Cash Invested has a default value of \$50,000 as a deposit toward the property cost. However, as John and Anthea are borrowing all costs, set Cash Invested in the Property Cost row to \$0 and press Enter. Click **OK** to return to the Data Entry Check List. The total *Loan Amount* and *Amount Required* are both shown as \$503,762 while the *Cash Invested* is shown as zero. Note that all three variables have red ticks to the right, indicating that all three have been specified in the dialog.

At 2019	Cash Invested	Equity Invested*	Loan	Costs
Property cost	0	0	480,000	480,000
Renovation costs	0		0	0
Purchase costs	0		17,747	17,747
Furniture package	0		0	0
Holding costs	0		0	0
Loan costs	0		6,015	6,015
Additional loan			0	
Totals	0	0	503,762	503,762

\* To be used where you already have equity in the property

Loan Type    ?    OK    Cancel

Fig. 14: Loan Amount dialog

➔ *Note that we have yet to specify the loan costs, which are shown as a default of \$5,992. Once the actual costs are entered, the loan amount is adjusted automatically.*

- ① *It is also possible to specify the individual loan costs from this dialog by clicking on the **Loan costs** button and to specify the loan interest and type by clicking on the **Loan Type** button. However, in this example, we will access these dialogs via the Check List buttons.*
- ① *The Equity Invested variable would only be used where you already have equity in the property and simply wish to analyse the cash flows from this point in time, for example, when you are evaluating the impact of renovating or refurbishing an existing investment property. The Additional Loan variable would be used where you want to borrow additional funds to assist with the investment, for example, to provide a cash flow buffer in the first year.*

# Loan Interest and Type

Next we have to specify the loan type and interest rate. Click on *Loan Type* or *Interest Rate* in the Check List to open the *Loan Interest & Type* dialog.

First we have to change the loan type to Principal & Interest. Click on the radio button next to *Principal & Interest* at the top of the box. Then enter the value 4.8 into the *Interest Rate (Average)* field. The default value for the period of the loan is 25 years (shown under the *Principal & Interest* radio button). As we want a 30 year term, change the 25 to 30 as shown below.

Loan Interest & Type

Loan A

Loan Amount

503,762

Interest Rate (Average)

4.80%

☐ Interest Only

From:

To:

From:

To:

From:

To:

From:

To:

☒ Principal & Interest

From:

To:

From:

To:

From:

To:

From:

To:

☐ Capitalise Interest

From:

To:

From:

To:

From:

To:

From:

To:

☐ Credit Line

From:

To:

From:

To:

From:

To:

From:

To:

1yr

30yr

Loan B

Loan Amount

Interest Rate (Average)

0.00%

☐ Interest Only

From:

To:

From:

To:

From:

To:

From:

To:

☐ Principal & Interest

From:

To:

From:

To:

From:

To:

From:

To:

☐ Capitalise Interest

From:

To:

From:

To:

From:

To:

From:

To:

☐ Credit Line

From:

To:

From:

To:

From:

To:

From:

To:

Loan Summary (1st year)

Total Loan:

\$503,762

Interest:

\$24,013

Payment:

\$31,717

Loan Type

☐ Split rate

Capitalised Interest

☐ Capitalised component tax-deductible

Specify Annual Rates

?

OK

Cancel

Fig. 15: Loan Interest & Type dialog

- The loan type we have chosen in this example is a relatively simple one (principal & interest over 30 years). However, as the dialog indicates, it is possible to simulate a variety and even a combination of loan types. For example, it is possible to specify two separate loans, a combination of interest only and principal & interest, with varying terms.
- The default loan type is Interest Only from 1 to 40 years. In fact the term is indefinite, but PIA calculates projections to a maximum of 40 years.

Click **OK** to return to the Data Entry Check List. The Loan Type shows "P&I Yrs 1-30", the new Interest Rate is 4.80% and the annual Loan Repayments variable is \$31,717

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### Loan Costs

Click on *Loan Costs* in the Check List. The Loan Costs dialog opens. Loan costs are the costs associated with setting up a loan. Some of these costs may be a percentage of the loan amount, others are a flat fee.

➔ *If you enter a dollar amount in the Cost (\$) column, the Flat fee tick appears. It disappears if you enter a percentage in the column % of Loan. Note the first three items tend to be percentages (no tick), the remainder tend to be flat fees (ticked).*

As a guide, loan costs generally fall somewhere between 0.5 and 2.5% of the total loan. In our example, the establishment fee is a fixed amount (\$800), mortgage stamp duty no longer applies and because we have sufficient collateral, there is no mortgage insurance involved. Enter the other costs (flat rates) as shown in the figure below:

Cost Component	% of Loan	Cost (\$)	Flat Fee
Establishment fees	0.16%	800	<input checked="" type="checkbox"/>
Mortgagee stamp duty	0.00%	0	<input type="checkbox"/>
Mortgage insurance	0.00%	0	<input checked="" type="checkbox"/>
Mortgagee's solicitor's fees	0.20%	1,000	<input checked="" type="checkbox"/>
Valuation fees	0.06%	300	<input checked="" type="checkbox"/>
Registration of 1st mortgage	0.04%	192	<input checked="" type="checkbox"/>
	0.00%	0	<input checked="" type="checkbox"/>
Search fees	0.04%	200	<input checked="" type="checkbox"/>
Other loan costs	0.00%	0	<input checked="" type="checkbox"/>

Total costs                      0.50%                      **2,492**

Total loan (including costs)                      **500,239**

Loan cost write-off period     yrs

*Fig. 16: Loan Costs dialog*

Loan costs are written off over 5 years or over the term of the loan, whichever is shorter. We will leave the *Loan cost write-off period* unchanged and click **OK** to return to the Data Entry Check List. *Loan Costs* are now shown as \$2,492 and, because these form part of the loan, the *Loan Amount* is now \$500,239.

### Finance Page

You have now completed the entries for the Finance page and the Data Entry Check List should appear as shown in the Figure below, with all variables ticked. If there are any differences with the values on your page, check back to the corresponding dialog to see if you have missed any step.

Data Entry Check List


Property

Finance

Investor

What If?

Finance



Loan Amount	500,239	✓
Cash Invested	0	✓
Amount Required	500,239	✓
Loan Type	P&I Yrs 1-30	✓
Interest Rate	4.80%	✓
Loan Repayments	31,495	✓
Loan Costs	2,492	✓
Tax Write-Off Period	5yr	✓

☐ Use these values as the new defaults

?

Spreadsheet

Fig. 17: Data Entry Check List Finance Page

It is now time to enter the information that is specific to the investor. To do this, click the **Investor** tab at the top of the Data Entry Check List.

➔ *The Investor page, like the Finance page, is divided into groups (five in this case) of variables. These include details of personal income, home loan, living expenses, any existing investment portfolio, and last but not least, their taxable income.*

Data Entry Check List


Property

Finance

Investor

What If?

Investor



Investor Details	Person(s)
Joint Work Income	110,000
Joint Work Deductions	0
Principal Residence	600,000
Amount Owning	420,000
Home Loan Repayments	33,672
Living Expenses	30,950
Portfolio Properties	0
Portfolio Value	0
Taxable Income (Single)	75,000

☐ Use these values as the new defaults

?

Spreadsheet

### Investor's Personal Details

Click on *Investor Details* in the Data Entry Check List to display the Investor's Personal Details dialog. Investor Details you enter here can be used in later reports. These customized reports are useful if you are presenting an investment proposal to lenders – or simply want to have your figures checked by an accountant. The information below is for our example, but you can enter your own here if you do not wish to change it later.

The Investor Type and the Work-Related Income & Deductions will be used to determine precise tax benefits from the investment. John earns \$85,000 per year, Anthea \$45,000. Change the defaults, if necessary, as shown below. They have no other significant income or deductions so their total taxable work-related income is \$130,000.

Click **OK** to return to the Data Entry Check List and note that both Joint Work Income and Joint Work Deductions are also updated and ticked.

Assessable Income	Investor	Partner	Total
Salary/Wages:	85,000	45,000	130,000
Other income:	0	0	0
Total Income:	85,000	45,000	130,000
Allowable Deductions			
Work related:	0	0	0
Other deductions:	0	0	0
Total Deductions:	0	0	0
Taxable Work Income:	85,000	45,000	130,000

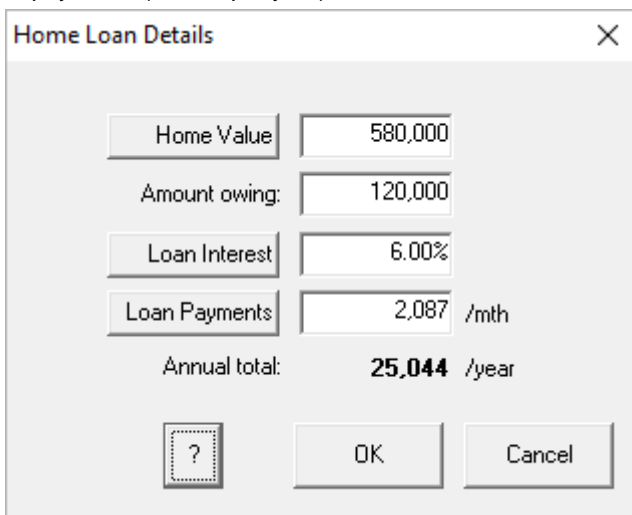
**Fig. 18: Investor Details dialog**

- i** You do **not** enter any income or deductions for existing investment properties in this dialog. As you will see, this is more easily entered in PIA's Current Investment Portfolio or Current Taxable Income dialogs.

## Home Loan Details

Click on *Principal Residence* or *Amount Owing* in the Data Entry Check List. The Home Loan Details dialog opens. This dialog allows you to specify the current market value of your home as well as describing the current status of your home loan. Your home's market value and remaining loan is used by PIA to assess your ability to borrow funds for investment. The amount you still owe, the interest rate you are currently being charged and the repayments you are currently making can also be used to determine the remaining term of the home loan.

In our example, John and Anthea estimate that their own home has a market value of \$580,000 and have an outstanding debt of \$120,000 on it. They are paying interest on the loan of 6.0% and are making monthly repayments of \$2,087. Make the changes to the default values as shown below and click **OK** to return to the Data Entry Check List. The three items Principal Residence (580,000), Amount Owing (120,000) and Home Loan Repayments (25,044 per year) are now ticked.



Home Value	580,000
Amount owing:	120,000
Loan Interest	6.00%
Loan Payments	2,087 /mth
Annual total:	25,044 /year

? OK Cancel

Fig. 19: Home Loan Details dialog

- ① It is also possible to specify projected changes to the home value and home loan interest rates over time by clicking the respective buttons.
- ① Where the monthly loan payments are not know, it is possible to calculate them from a knowledge of the original loan, term and interest rate. PIA has a Loan Payment calculator and a Loan Consolidation dialog in which these can be calculated. Clicking the Loan Payments button (shown above) opens the Loan Consolidation dialog.

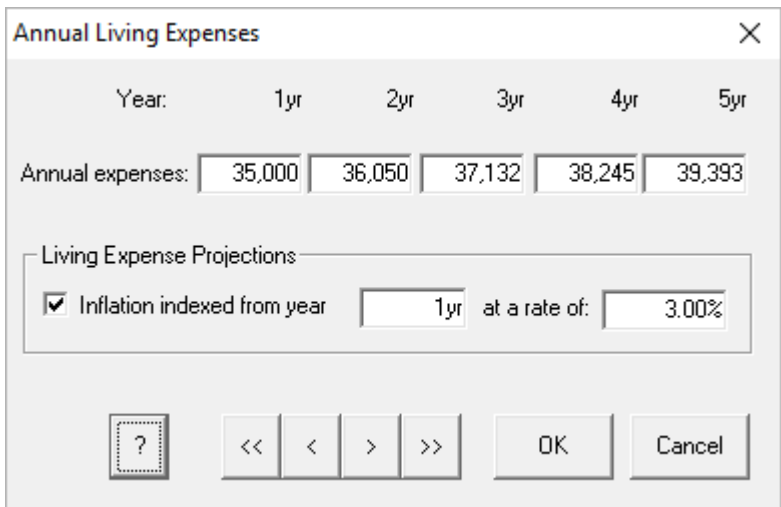
## Living Expenses

Click on *Living Expenses* in the Check List. The Annual Living Expenses dialog opens. This dialog allows you to specify your estimated annual living costs (excluding your home loan repayments) and how they might change over time. In order for PIA to help you estimate your capacity to invest, it needs to know how much money you need to set aside to live on.

In our example, our couple have estimated that apart from their annual home loan repayments (25,044), their annual living expenses would amount to about \$35,000. Change the default value in the first year to 35,000 and press the Enter key.

➔ *The figures for later years are indexed at a rate of 3% as defined in the Living Expense Projections area below. You could vary this assumption if necessary. As you will see later, you can specify how all key parameters change over time.*

Click **OK** to return to the Check List. The Living Expenses item is now \$35,000 and is ticked.



The dialog box titled "Annual Living Expenses" has a close button (X) in the top right corner. It features a "Year:" label with five input fields for "1yr", "2yr", "3yr", "4yr", and "5yr". Below these, the "Annual expenses:" label is followed by five corresponding input fields containing the values "35,000", "36,050", "37,132", "38,245", and "39,393". A section titled "Living Expense Projections" contains a checked checkbox labeled "Inflation indexed from year" followed by an input field with "1yr", and "at a rate of:" followed by an input field with "3.00%". At the bottom, there is a help button (question mark in a box), four navigation buttons ("<<", "<", ">", ">>"), and two action buttons ("OK" and "Cancel").

Fig 20: The Annual Living Expenses dialog

❶ *PIA has an alternative dialog (Annual Living Expense Budget) for estimating your current annual living expenses by working through a weekly, monthly and/or quarterly budget template. If you change the total expenses for the first year, this total amount is reapportioned pro rata over all the items in the budget template. This alternative dialog is accessible under the Investor menu.*



### Current Investment Portfolio

Click on *Portfolio Properties* or *Portfolio Value* in the Check List. The Current Investment Portfolio dialog opens. As this is our couple's first investment property, there is no portfolio information to include in this example, So click **Close** to return to the Data Entry Check List and confirm that the Portfolio Properties and Portfolio Value are both zero.

Current Investment Portfolio

Properties

Year:

2018

1yr

2yr

3yr

5yr

10yr

Properties:

Value:

Loans:

Equity:

Rents:

Expenses:

Interest

Loan payments:

Pre-tax cash flow:

Non-cash deductions:

Total deductions:

Tax credits:

After-tax cash flow:

New taxable income

85,000

87,550

90,177

95,668

110,906

☐ Include property under review

?

Create

Remove

Report

<<

<

>

>>

Close

Fig 21: Current Investment Portfolio dialog

- i** This dialog is used if you have existing investment properties and want to take account of their cash flows in relation to the property being analysed. You would need to have previously used PIA to enter the data for each property in turn, saving each to a file (as you will see later). You would then click the Create button and choose the PIA files that make up your existing investment portfolio. All the portfolio information would then be displayed in this dialog and be available for PIA to use in the current analysis (see "What about their next investment property?" later in this guide).

## Taxable Income

Click on *Taxable Income* in the Check List. The Tax Credits dialog opens. This dialog allows you to specify the method for calculating tax credits from negative gearing and whether the property is to be purchased in single or joint names. Your taxable income is calculated from your assessable income minus your allowable deductions.

As Anthea & John currently have no income and deductions from any existing property portfolio, their taxable incomes will be the same as we entered earlier for their respective work-related taxable incomes. Make sure that the *Use taxable income* radio button is selected and uses the default Australian tax scale.

➔ *Using taxable income (if known) is more accurate than using marginal rate, as it does not assume all tax credits accrue at the same marginal rate of tax.*

In this example, the property is to be registered in joint names with a 50/50 split. Click on the *Joint names* radio button – the Proportional Ownership changes to the default of 50% for the Investor and Partner. Click on **OK** to return to the Data Entry Check List. The item Taxable Income (Single) is renamed Taxable Income (Joint) and shows \$130,000.

**Tax Credits**

**Tax Credit Calculation**

☐ Use marginal rate

☒ Use taxable income

**Tax Scale:** Australia

**Ownership**

☐ Single name

☒ Joint names

Proportional Ownership

Investor 50.00%

Partner 50.00%

Tax Benefits

**Taxable Income Year 1**

	Investor	Partner	Total
Assessable Income	85,000	45,000	130,000
Allowable Deductions	0	0	0
Current Taxable Income	85,000	45,000	130,000

**Taxable Income Projections**

☒ Auto-indexed from year: 1yr at a rate of: 3.00%

Advanced ? Year: 1yr << < > >> OK Cancel

Fig. 22: Tax Credits dialog

# Investor Page

With the Investor page now complete, you have just one more page of variables to enter before you start playing What If on the spreadsheet that you are creating. First, check to see that the variables on the Investor page agree with those shown below and that all are ticked.

Data Entry Check List


Property

Finance

Investor

What If?

Investor



Investor Details	Person(s)	
Joint Work Income	130,000	✓
Joint Work Deductions	0	✓
Principal Residence	580,000	✓
Amount Owing	120,000	✓
Home Loan Repayments	25,044	✓
Living Expenses	35,000	✓
Portfolio Properties	0	✓
Portfolio Value	0	✓
Taxable Income (Joint)	130,000	✓

☐ Use these values as the new defaults

?

Spreadsheet

Fig. 23: Data Entry Check List Investor Page

It is now time to click on the *What If?* tab at the top of the Data Entry Check List. This displays a page of variables used to determine annual projections.

➔ *These are divided into two groups: a group that historically has been closely aligned with the rate of inflation and another, the capital growth rate, which has consistently exceeded the rate of inflation.*

Data Entry Check List

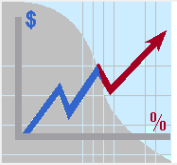
Property

Finance

Investor

What If?

What If?



Inflation Rate (CPI)	3.00%
Rental Income Rate	3.00%
Rental Expense Rate	3.00%
Taxable Income Rate	3.00%
Living Expenses Rate	3.00%
Capital Growth Rate	4.00%

☐ Use these values as the new defaults

?

Spreadsheet

### Inflation Rate (CPI)

Click on *Inflation Rate (CPI)* in the Data Entry Check List to open the Inflation Rate dialog. This dialog allows you to enter values for inflation to be used to index rental income, rental expenses, taxable income and living expenses. The convention used in this program is that a change in the overall consumer price index rate (CPI rate) results in a corresponding change in the inflation rate of all variables that are “linked” to it. Changing the inflation rate for a variable automatically removes the CPI link for that variable.

Our couple select an average CPI rate of 2.5% based on official economic forecasts. However, they feel that with John confident of several work promotions over the next 10 years, a higher rate (say 3.5%) should apply to their taxable income. They also feel that their living expenses are likely to increase at the same rate, in line with their disposable income.

First change the *Average CPI Rate* to 2.5% and press Enter. Note that the rates for all variables change to 2.5%. Now change the *Average Rate* for both *Taxable income* and *Living expenses* to 3.5% and press Enter. Neither of these variables is now linked to CPI. Click **OK** to return to the Check List.

Year	Average	1yr	2yr	3yr	4yr	5yr
CPI Rate:	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%

Indexed Variables	Indexed	From Year	Average Rate	Linked to CPI
Rental income	<input checked="" type="checkbox"/>	1yr	2.50%	<input checked="" type="checkbox"/>
Rental expenses	<input checked="" type="checkbox"/>	1yr	2.50%	<input checked="" type="checkbox"/>
Taxable income	<input checked="" type="checkbox"/>	1yr	3.50%	<input type="checkbox"/>
Living expenses	<input checked="" type="checkbox"/>	1yr	3.50%	<input type="checkbox"/>

? << < > >> OK Cancel

Fig. 24: Inflation Rate dialog

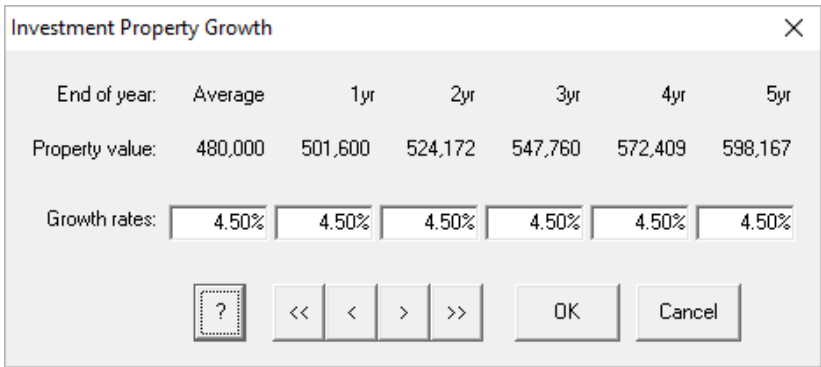
- ① *Choosing a rate of inflation is easy: You can simply use the current rate issued by the Australian Bureau of Statistics. However, choosing accurate rates of inflation to cover increases in rents, expenses, etc. over the life of your investment requires a crystal ball, something that does not come with the software. We suggest that you use the current published rate unless you have sound reasons to do otherwise.*

### Capital Growth Rate

Click on *Capital Growth Rate* in the Check List. The *Investment Property Growth* dialog appears.

Here you can enter the expected long-term growth rate for the value of the property. Overwriting the average annual rate sets that growth rate for all years, but each year can also be entered separately. Changes to any year are adopted for subsequent years.

Change the value for the first year (1yr) to 4.5% and click **OK** to return to the Data Entry Check List. The *Capital Growth Rate* is now shown as 4.5%.



The dialog box titled "Investment Property Growth" contains a table with columns for "End of year:", "Average", "1yr", "2yr", "3yr", "4yr", and "5yr". The "Property value:" row shows values increasing from 480,000 to 598,167. The "Growth rates:" row shows input fields, all containing "4.50%". Below the table are navigation buttons: a help button with a question mark, left and right arrow buttons, and "OK" and "Cancel" buttons.

End of year:	Average	1yr	2yr	3yr	4yr	5yr
Property value:	480,000	501,600	524,172	547,760	572,409	598,167
Growth rates:	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%

Fig. 25: *Investment Property Growth* dialog

- ① Choosing an accurate average future rate of capital growth is another case of crystal balling. It is the main reason these are referred to as “What If?” variables. We recommend the approach of choosing a reasonable starting value and once you have completed the analysis, choose values above and below the starting value to assess the impact on your investment decision. A general guide to choosing a reasonable starting value for capital growth might be to take the average inflation rate you have chosen and add between 2 to 3%.
- ① In our example, our fictitious couple experienced a doubling in value of their own home over the previous ten years. This is equivalent to just over 7% average annual compound growth. Based on this – and the fact that the land is the major value component of this investment property and that land generally increases in value at a faster rate than the building – they are hoping for an average annual growth rate for this property over the next 10 years of more than 5%.

# What If? Page

**Congratulations!** With the What If? page now complete, you have now finished the initial data entry and are ready to see the results of your work in a spreadsheet format. The next figure shows what the What If? page of your check list should look like if you have entered the correct values.

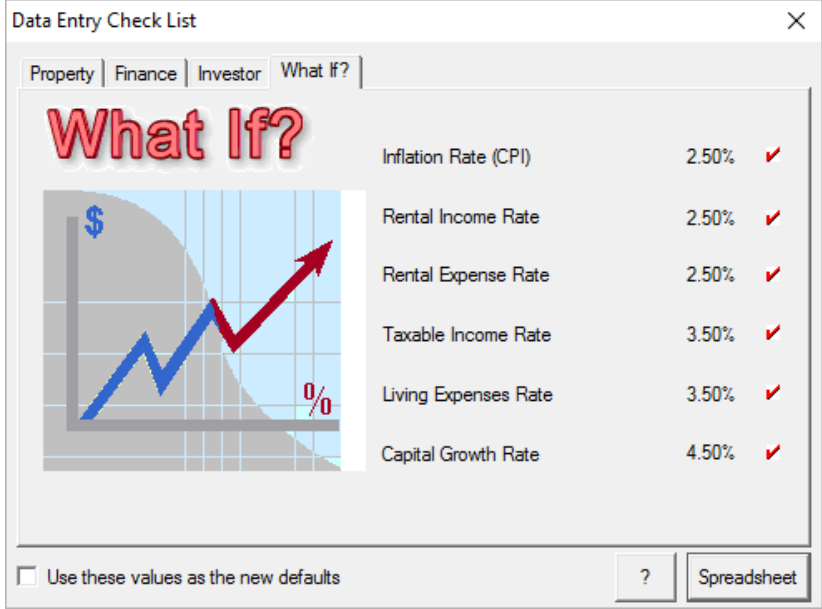



Fig. 26: Data Entry Check List What If? Page

➔ If you have different values, you can go back to the relevant dialog and check your entries against the example.

Before we click **Spreadsheet** to go to the spreadsheet, tick the *Use these values as the defaults* check box. All the values you have entered will now become the default values for new files you open.

Click **Spreadsheet**. This takes you to the Investment Analysis spreadsheet where you will see all of the results of your data entry. You can return to the Data Entry Check List at any time and continue to make changes if you wish or you can access the same data entry dialogs directly from the spreadsheet. To return to the Data Entry Check List from the spreadsheet, click the  *Check List* icon (shown on the left) in the Tool bar or select *Data Entry Check List* from the View menu.

# Play: Using the spreadsheet

**You made it!** You have now arrived at the Investment Analysis spreadsheet – the place you will spend most of your time in PIA. Here you can see the data you entered and projections based on that data (or on default values, if not changed). Here you can make and "undo" changes to variables to explore "What if" scenarios and instantly see the impact on the "bottom line".

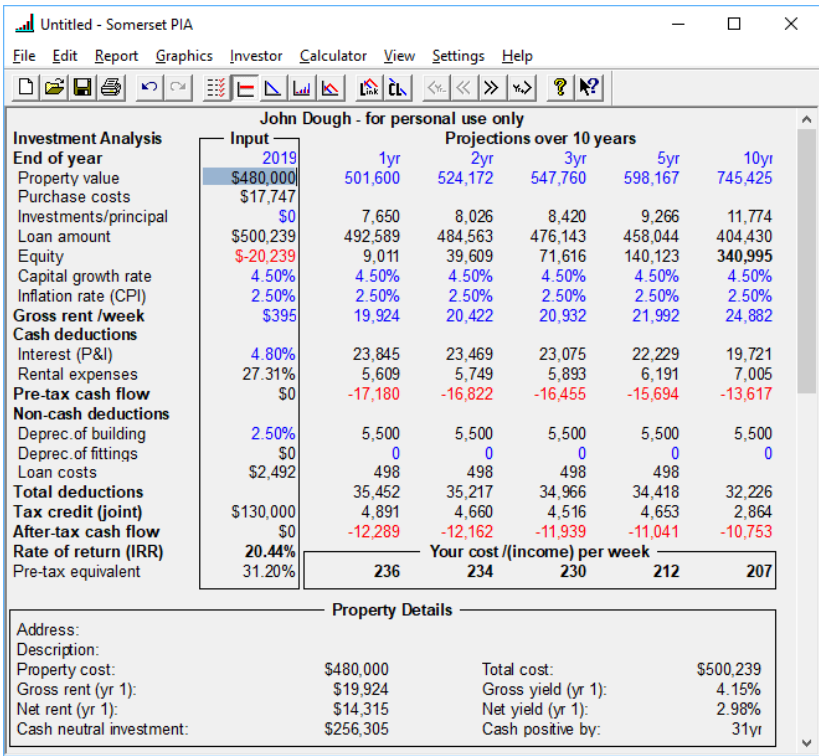


Fig. 24: The spreadsheet showing the data entered in the example

➔ The spreadsheet is really the main interface in PIA and provides direct access to all of the menus, dialogs and supporting analytical tools. The window can be resized and/or scrolled to view the entire contents of the spreadsheet. The coordinates of the spreadsheet window are saved on exit and reinstated when the program is restarted.

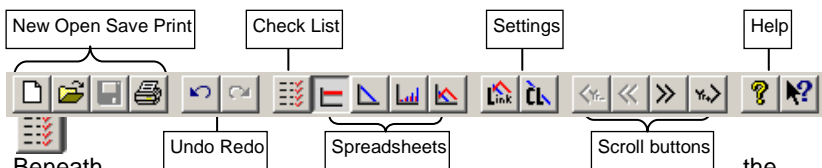
Let's take a look at the elements of the Investment Analysis spreadsheet:

## Menu bar



At the top of the screen is the menu bar (File, Edit, Report, etc). The individual items within the menus may differ depending on the version of the software. The menus function in the normal way, providing access to all the powerful functions of the software.

## Tool bar



the Menu bar is the Tool bar consisting of a series of icons, each of which provides quick access to commonly used functions. If you position the mouse pointer over an icon, a "tool tip" appears, telling you the meaning of the icon. For example, you can click the *Check List* icon (shown on left) if you wish to return to the Data Entry Check List.

## Item names

The left-hand column of the spreadsheet contains the names of the items/rows in the spreadsheet. You will recognize many of these from the Check List. Other items, such as *After-tax cash flow*, show values calculated by PIA based on your entries or on default values. If you position the mouse pointer over an item, the pointer turns to the familiar "pointing hand", indicating that you can click to open the associated dialog.

Investment Analysis
End of year
Property value
Purchase costs
Investments/principal
Loan amount

## Input column

The second column of the spreadsheet is referred to as the Input column. It contains a set of initial values associated with the row items. Most of these values can be selected with the mouse pointer and overwritten. Three colours are used on-screen in the spreadsheet cells. **Blue** values can be selected and overwritten directly. Double-clicking on them opens the corresponding dialog. Clicking once on **black** values opens a dialog immediately, as these values are calculated and cannot be directly overwritten. Calculated values are shown in **red** if the value is negative.

Input
2019
\$480,000
\$17,747



### Projected values

The five remaining columns show the projections for future years. The icons in the Tool bar (shown on right) allow you to scroll through the years. While PIA calculates projections up to 40 years, only 5 years are shown at a time. By default, these are the years 1,2,3,5 and 10. You can display whichever years you wish.



### The "bottom line"

After-tax cash flow	\$0	-12,289	-12,162	-11,939	-11,041	-10,753
Rate of return (IRR)	20.44%	Your cost/(income) per week				
Pre-tax equivalent	31.20%	236	234	230	212	207

The bottom three rows of the spreadsheet collectively represent your "bottom line". The *After-tax cash flow* is the cash flowing into or out of your pocket each year. Negative values (in red) represent your investments in the property. The *(Internal) Rate of return (IRR)* is a measure of the return on these investments and is determined by the series of after-tax cash flows and the resultant equity built up in the property. It represents the interest equivalent of your investment (if it had been invested in a bank account) with the important difference that, because the equity remains invested, it is NOT taxed. The *Pre-tax equivalent* shows the equivalent pre-tax rate of return using the marginal tax rate. *Your cost (income) per week* shows you the projected weekly net cost or income resulting from the investment – the real "bottom line".

### Property Details

Property Details			
Address:	74 Layburn Rd, Cleveland, Qld, 4163		
Description:	3-bedroom lowset brick on large block		
Property cost:	\$480,000	Total cost:	\$500,239
Gross rent (yr 1):	\$19,924	Gross yield (yr 1):	4.15%
Net rent (yr 1):	\$14,315	Net yield (yr 1):	2.98%
Cash neutral investment:	\$256,305	Cash positive by:	31yr

The Property Details area below the spreadsheet provides a visual reminder of the property being analysed as well as additional parameter values that describe the investment. These parameters include the property and total cost (including purchase and loan costs), gross rent and gross yield, and net rent (net of rental expenses) and net yield. Two other useful parameters shown are an estimate of the initial cash investment required for the investment to break even in the first year (*Cash neutral investment*) and an estimate of the year by which the investment would break even (*Cash positive by*) for the specified initial investment.


➔ If an image of the property has been loaded into PIA, it is displayed on the left-hand side of the Property Details area and is displayed in reports.

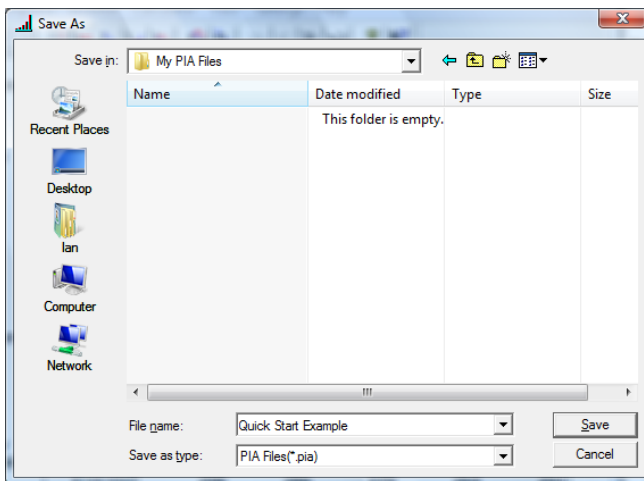
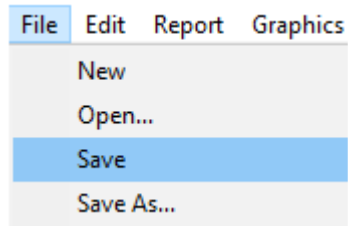
## Time to save the file

From the File menu, choose Save.

The Save As dialog opens.

➔ *It is recommended, but not critical, that you create a folder specifically to hold your PIA files. If this is independent of the folder containing the PIA program itself, it makes it easier and more efficient for backing up your own data.*

In this case you will create a folder called "My PIA Files" within the "My Documents" folder. To create a new folder, first choose the My Documents folder in the Save in: field. Next click the  symbol on the right-hand side, type in the name "My PIA Files" instead of the "New Folder" text, then click *Open*. The Save As dialog is displayed as shown below:



Type in the name "Quick Start Example" in the File name field and click the Save button.

**i** *For simplicity, PIA uses individual files rather than a central database to store the information on all the individual investment properties. Each PIA file has a suffix ".PIA" and contains both the data you enter as well as the projections you make. However, to avoid entering all of your personal information repeatedly, you can choose to make any document the default template for any new files that you create. To do this, choose Save Default Template under the Settings menu or tick the "Use these values as the new defaults" check box at the bottom of the Data Entry Check List.*

### Answering the questions

At the beginning of the example, John and Anthea had a list of questions that we wanted the software to help answer. Let's now take a look at the results:

Tax credit (joint)	\$130,000	4,891
After-tax cash flow	\$0	-12,289
Rate of return (IRR)	20.44%	
Pre-tax equivalent	31.20%	236

Fig. 25: The "bottom line" of the spreadsheet

#### **What return on investment can they anticipate?**

The *Rate of return (IRR)* field shows **20.44%**. Again, recall that this is after-tax (the return is not taxed as the equity remains invested). To achieve the same after-tax return on their investment from a bank deposit, it would have to earn **31.20%**, as such interest would be taxed at their marginal rates.

At this point it is worth playing "What If" to appreciate the power of the software. Select the 4.5% capital growth rate in the Input column and change it to 5.5%. The IRR should change to 24.02%. Then change it to 3.5% and note that the IRR changes to 16.37%. Clearly, the growth rate is an important factor in determining the return on investment in this example.

Change the growth rate back to the original 4.5% and note the effect on the *After-tax cash flow* – none! Capital growth affects the equity and the IRR, but does not affect the cash flows.

➔ Rather than manually re-entering 4.5% in the capital growth field, you could have clicked on the **Undo** icon on the toolbar (shown on the right-hand side) to revert to the previous value. As you have made two changes (5.5%, then 3.5%), you would need to click **Undo** twice.



#### **What will the investment cost them after tax?**

Here, John and Anthea have to look at the *After-tax cash flow* projections and the *Cost per week*. When the loan is substantial, the after-tax cash flows are usually negative (negatively geared), but gradually become positive as rents rise with inflation and, in our example, when the loan is repaid. In our example the after-tax cash flow in the first year of the investment is **-12,289** or **\$236 per week**. This will be their after-tax cost.

① Note that a significant part of this cost (\$7,650) in the first year is made up of principal loan payments (see Investments/principal row). If John and Anthea had chosen an interest-only loan, their after-tax cost would have been just \$91 per week. You can test this yourself by clicking on the Interest row title and changing the loan type to Interest only, but don't forget to switch it back (or use Undo) to Principal & interest to follow the rest of this example.

### How much tax will they save?

From the *Tax credit* row, we can see that the total tax credits amount to **\$4,891**. The term "tax credit" is another way of saying "tax saved as a result of the investment". In this case, the tax saved is assumed to be a reduction in the tax paid rather than a tax refund at the end of the year.

- i** For PAYG taxpayers (formerly PAYE) to have their regular tax payments reduced because of negatively geared investments, they must complete the appropriate form as specified by the tax authorities. While the details may have changed from time to time, the principle remains the same (see [www.ato.gov.au](http://www.ato.gov.au) or [www.ird.govt.nz](http://www.ird.govt.nz) for more information).

To see where the tax credit comes from, we have to open the *Tax Benefits* item in the *Investor* menu. The following dialog appears:

	Investor	Partner	Total
Property ownership:	50.00%	50.00%	100.00%
Current taxable income:	85,000	45,000	130,000
Rental income:	9,962	9,962	19,924
Total income:	94,962	54,962	149,924
Rental deductions:	17,726	17,726	35,452
New taxable income:	77,236	37,236	114,472
Present tax:	19,792	5,892	25,684
New tax:	17,113	3,679	20,793
Tax savings:	2,679	2,213	4,891
<b>Tax credits:</b>	<b>2,679</b>	<b>2,213</b>	<b>4,891</b>

Properties: Number: 1

Property Ownership: ☐ Single name ☒ Joint names

Tax Options: Personal use: 0.00% ☐ Quarantine losses ☐ NRAS

Year: 1yr << < > >> ? Report OK Cancel

Fig. 26: The Tax Benefits dialog

Under the 2019/20 tax scales, John and Anthea would collectively pay a total of \$26,6425,684 in tax on a taxable income of \$130,000. With rental income of \$19,924 and rental deductions of \$35,452 (interest, expenses, depreciation and loan costs) their taxable income would drop to \$114,472 and their tax payable would then be \$21,41020,793. The tax savings (individual and total) are shown at the bottom of the screen. Their total projected tax savings amount to **\$4,891**.

- i** You can investigate the impact on total tax savings by changing property ownership from joint to single (and back).

### Can they afford it?

We have already seen from the bottom line of the spreadsheet what the cost to John and Anthea will be. The \$480,000 property, with the help of rent from the tenant and tax savings as a result of the investment, will cost them just \$236 per week. But the question they must ask themselves is “Can they afford this amount”. To answer this, we will examine their total annual income (including the rental income from the property) and their total annual expenditure (taking account of their reduced tax liabilities).

Open the *Investment Capacity* item in the *Investor* menu. John and Anthea's total income for the year, including rental income, is itemised in the left-hand column, while their total expenses, including the new rental expenses and investment loan interest is shown on the right. With a projected net surplus of **\$31,983**, John and Anthea are satisfied that they can afford the investment.

Income (1st Year)		Expenses (1st Year)	
Total non-property income:	130,000	New tax (investor):	17,113
Current rental income:	0	New tax (partner):	3,679
Current assessable income:	130,000	Rental expenses:	5,609
Non-taxable income:	0	Inv loan interest:	23,845
less... Current cash expenses:	0	Inv loan principal:	7,650
Current net income:	130,000	Home loan payments:	25,044
New rental income:	19,924	Living expenses:	35,000
Total income:	149,924	Total expenses:	117,940

Ownership		Proportional Ownership	
<input type="radio"/> Single name	Investor:	<input type="text" value="50.00%"/>	
<input checked="" type="radio"/> Joint names	Partner:	<input type="text" value="50.00%"/>	
<input type="checkbox"/> Quarantine losses			

Capacity	
Investment properties:	<input type="text" value="1"/>
Total income:	149,924
Total expenses:	117,940
<b>Net surplus:</b>	<b>31,983</b>
Total initial outlay:	0

? Full Report Brief Report OK Cancel

Fig. 27: The *Investment Capacity* dialog

### Can they afford more investment properties?

With their confidence growing, they ask themselves how many properties like this they can afford. To answer this, it is simply a matter of increasing the number of properties in the *Capacity* section of the dialog until there is no longer a cash surplus. Change the 1 to 2 and press the Enter key. The surplus is reduced to a \$19,130. So at this stage they may even be able to afford two properties. Change *Investment properties* back to 1 and click **OK**.

# Print: Generating a report

## But will the bank lend them the money?

The figures look good for John and Anthea and they decide to approach the bank for the money to finance their investment. Good figures professionally presented will make a great impression, so their next move is to print out a report of their analysis and take it first to their accountant (to cross-check their work) and then to their bank manager.

The *Report* menu contains a number of options for displaying reports. Each report can be viewed and printed. Experiment with the reports in the *Report* menu. To return to the spreadsheet, choose *Investment Analysis* under the *View* menu. John and Anthea choose to print the five-page *Investment Analysis* report.

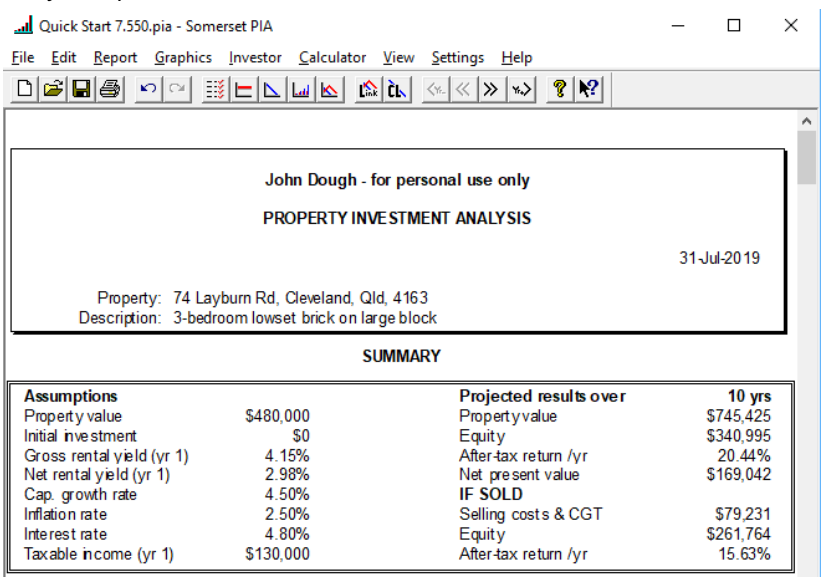


Fig. 28: Excerpt from the Investment Analysis report (on screen)

While the report will effectively present a business plan of their investment proposal to the bank manager, there is no guarantee that the loan will be forthcoming even though they have convinced themselves that they can afford it. Banks have their own criteria for assessing the risk in lending you money (loan-to-value ratios, debt-service ratios, etc), which are beyond the scope of this Quick-Start Guide. Powerful PIA tools that can help in this regard – including loan eligibility and borrowing capacity calculators as well as the Wealth Builder Spreadsheet – are described in the PIA User Guide.

## What about their next investment property?

Let's assume that John and Anthea found a very smart banker who also used the PIA software and who showed them how, by clever use of credit lines and the refinancing of their existing \$120,000 home loan debt, they would easily qualify for the investment loan and might even qualify for a second investment loan. They purchase the property and are so happy with their investment that they are immediately on the lookout for another property. Apart from all of the details on the new property, one of the personal items that will be different for the next property will be the taxable income used in assessing any tax credits.

As we have already noted in Fig. 26, John's new taxable income will have dropped from \$85,000 to \$77,236, while Anthea's will have dropped from \$45,000 to \$37,236. These would then become the new taxable income figures showing in the Tax Credits dialog (Fig. 22) for the new analysis.

One of the features of PIA that helps automate this process is the *Current Investment Portfolio* (dialog shown in Fig. 21), available in the *Investor* menu item and the Data Entry Check List. Clicking the dialog's **Create** button opens the *Select Portfolio Files* dialog (Fig. 29), which in turn makes it easy to select the files making up your current investment property portfolio.

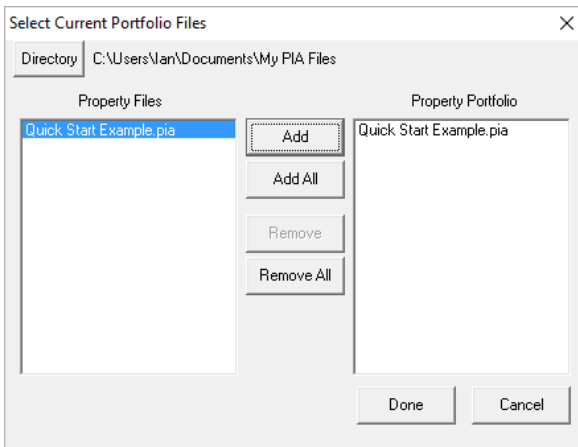


Fig. 29: Selecting files that make up the investment property portfolio

When you choose the files that make up the existing portfolio (in this case just the one file that we have saved) and click **Done**, PIA extracts all of the property-related income and deductions, automatically updates the taxable income and makes it all available to the rest of the program. You can check this by opening the Tax Credits dialog (click on the Tax Credit row title in the spreadsheet). By the time you have several investment properties, you will probably find this feature essential (see the *Help Topics* item under the *Help* menu and look for *Portfolio Analysis* in the *Special Topics*).

## Where to from here?

The aim of the Quick-Start Guide was to help you install the software and run through your first investment analysis – to plug in the data, play with the parameters, and print out the results. But at this stage you have just scratched the surface of the software.

They say that the best way to learn how to use the full potential of any program is to play with it. And when all else fails, consult the manual. Well help is close at hand. The *Help topics* item in the *Help* menu provides on-line access to information on all of the software's features.

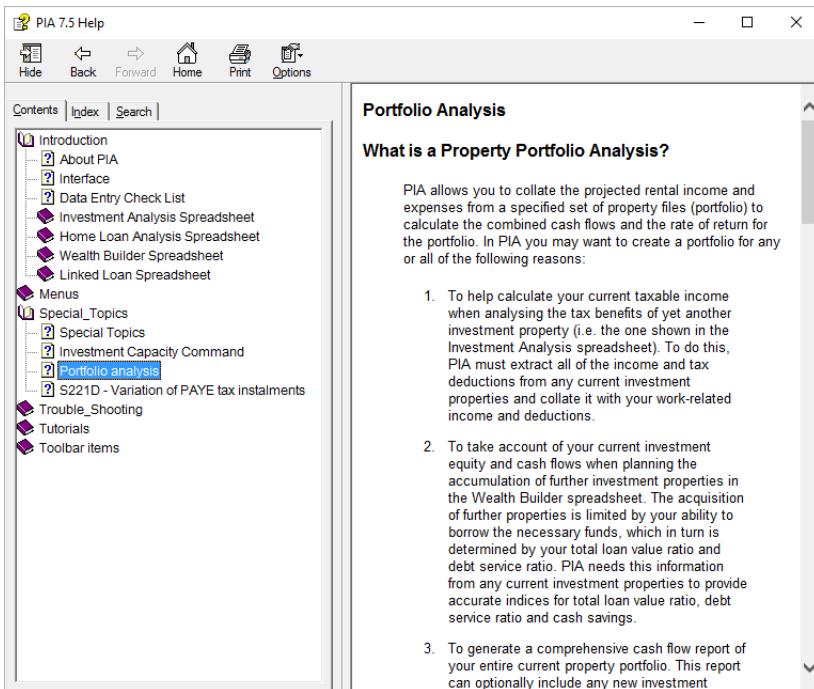


Fig. 26: Help Topics

In addition to the on-line Help Topics, this information is available in a comprehensive PIA Users Guide as a separate file. This is a PDF file, which can be read using Adobe Acrobat Reader, available as freeware at [www.adobe.com/products/acrobat/readstep2.html](http://www.adobe.com/products/acrobat/readstep2.html).

The PIA Users Guide is accessed via its icon in the PIA group (PIAPro or PIAFpu) under the All Program item in the Windows Start Menu.



## Additional sources of information

There are many sources of information that will help you understand the PIA software and the financial model on which it is based. Much of this information is available in books and on the Internet.

### Building Wealth books

The two books by Jan Somers currently in print are a valuable source of essential background information on the principles of property investment.

- *Building Wealth Story by Story* (1998)
- *More Wealth from Residential Property* (2001)

### Somerset website [www.somersoft.com.au](http://www.somersoft.com.au)

This site has the latest news and information about our company, its products and its activities. Check out the following:

- *The PIA Updates section for a list of all the latest changes to the PIA software.*
- *The Support section for lists of FAQs on both PIA and investment property, copies of the latest User and Quick Start Guides, and opportunities for user feedback.*

### Australian Taxation Office website [www.ato.gov.au](http://www.ato.gov.au)

This is the definitive source of tax advice in relation to property investment in Australia. There are many free publications available. In particular, we recommend the following:

- *Rental Properties*
- *Guide to Capital Gains Tax*
- *Guide to Depreciation*

### Australian Taxpayers Association website [www.taxpayer.com.au](http://www.taxpayer.com.au)

The association is an excellent source of up-to-date tax advice and puts out a “plain English” tax guide each year.

### Real Estate Institute of Australia [www.reia.com.au](http://www.reia.com.au)

A good source of up-to-date information on property-related issues.

### New Zealand Inland Revenue website [www.ird.govt.nz](http://www.ird.govt.nz)

This is the definitive source of tax advice in relation to property investment in new Zealand. A free publication called *Rental income (IR 264)* explains tax rules for people who own rental property.