

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

**Property Investment Analysis software**

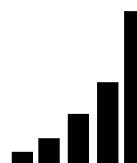
"The essential analytical tool for property investors"

by

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*Somerset Financial Services Pty Ltd*

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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 PIA website provides access to

- Frequently Asked Questions (FAQs) with answers
- Discussion group for PIA users
- Free maintenance updates as released
- Free subscription to the email update notification service

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

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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 Building Wealth property investment bestsellers 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 7.0, edition 16.

### 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 available in two different versions to run on either the Windows or Macintosh platform:

**PIA Personal Professional** – *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 Personal Professional 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 of where to find out more and how to become expert 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 dialog boxes.

If all else fails, you can obtain technical support by sending an email to [support@somersoft.com.au](mailto:support@somersoft.com.au) or calling the help line (07) 3286 4368. The Help line will help you – and you will help us by providing feedback.

## 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 email function under the Help menu (Windows version) or feedback form at the website ([www.somersoft.com.au/feedback.htm](http://www.somersoft.com.au/feedback.htm)) to submit your comments.

## Installing the software

### What you need

To run PIA Version 7.0 you will need a personal computer with at least 2 MB of free disk space and Windows 95 or later.

Installation is very simple and takes just a couple of minutes. Please follow the steps described below.

1. Insert the CD-ROM into your CD-ROM drive.
2. If you have Autorun switched on, installation starts automatically (go to step 3). If nothing happens, open the Start menu and click on **Run**. In the Run dialog box type D:\SETUP.EXE (where D: is the drive letter of your CD-ROM drive) and click on **OK**.
3. Read the *Setup Welcome* dialog box. It is important that you close all Windows applications before continuing. Click on **Next >** to continue.
4. In the Choose Destination Location dialog box, 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.
5. In the Select Program Folder dialog box, confirm the default name (or rename it, but again this is not recommended).
6. The Start Copying Files dialog box appears. Check the details and click **Next >** if the default settings are ok, or click on **Back** to go back to make changes. (Please note that PIA user information cannot be changed.)
7. The Setup Complete dialog box appears. Tick the *Launch Program* check box and click **Finish** to complete setup.

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

**Mac** A Macintosh version is also available and requires MacOS 7.1, 8.x or 9.x. To install the software, insert the CD and double-click the PIA Installer icon and follow the on-screen instructions. During the installation, a folder named either PIAFpu 7.0 or PIAPro 7.0, depending on the version, will have been placed on the destination drive. To start PIA, double-click the respective application icon within the folder. For your convenience, an alias is placed in the Apple menu.

➔ *In this Guide, the name PIA is used to refer to the two versions of PIA (PIAFpu or PIAPro) as described on page 1.*

## 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 receipt or the back of your CD case). If you enter the correct name and code, the confirmation message "Welcome to the World of Property Investment Analysis" 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.

**Mac** To start PIA, either click on the PIA alias installed in the Apple Menu or double-click the PIA application icon in the PIA folder.



➔ 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**.

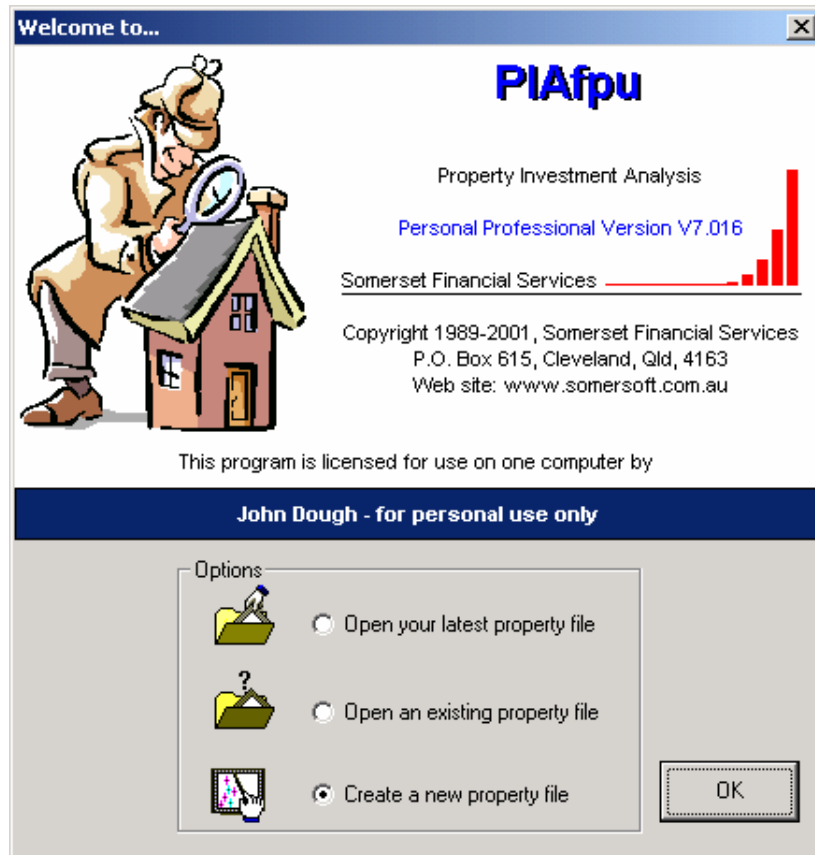


Fig. 2: PIA Welcome screen

- ① Note that the Version number in the Welcome screen is given as four digits (e.g. 7.016). The first two digits (7.0) represent the actual version number while the last two (16) represent the edition number. Maintenance editions of the software are released from time to time and are available free of charge from the website:

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

## Before we start

### Plug 'n' Play 'n' Print

The next section will take 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.

Data Entry Check List		
<b>Property</b>	Property Value	\$160,000
	Purchase Costs	\$5,250
	Rental Income	\$9,428
	Property Expenses	\$2,141
	Depreciation of Building	\$2,000
	Depreciation of Fixings	\$1,380
<b>Loan</b>	Loan Amount	\$163,759
	Loan Interest & Type	8.50%
	Loan Costs	\$3,509
<b>Investor</b>	Investor Details	
	Taxable Income	\$47,000
<b>What If?</b>	Inflation Rate (CPI)	2.00%
	Capital Growth Rate	4.50%
<input type="checkbox"/> Use these values as the defaults		
		<b>OK</b>

Investment Analysis						
Year	2000	1yr	2yr	3yr	5yr	10yr
Property value	\$200,000	208,000	216,320	224,973	243,331	296,049
Purchase costs	\$6,350					
Outlays/principal	\$0	1,938	2,089	2,231	2,614	3,799
Loan	\$210,270	208,332	206,243	203,992	198,932	182,304
Equity	\$-10,270	-222	10,077	20,981	44,379	113,745
Capital growth	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Inflation rate	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Gross rent/Net/yr	\$1100	9,173	9,336	9,540	9,929	10,962
Cash distributions						
Interest (P&I)	7.50%	15,705	15,554	15,292	15,029	13,844
Property expenses	27.44%	2,568	2,619	2,672	2,780	3,069
Pre-tax cash flow	\$0	\$1,078	\$1,096	\$1,071	\$1,064	\$749

SUMMARY			
<b>Assumptions</b>		<b>Projected results over 10 yrs</b>	
Property value	\$200,000	Property value	\$296,049
Initial outlay	\$0	Equity	\$113,745
Rent	\$1100	After-tax return/yr	8.00%
Cap. growth rate	4.00%	<b>IF SOLD</b>	
Inflation rate	2.00%	Selling costs & COT	\$31,219
Interest rate	7.50%	Equity	\$82,526
Taxable income	\$60,000	After-tax return/yr	3.14%

COMPUTER PROJECTIONS						
Investment Analysis	2000	1yr	2yr	3yr	5yr	10yr
Property value	\$200,000	208,000	216,320	224,973	243,331	296,049
Purchase costs	\$6,350					
Outlays/principal	\$0	1,938	2,089	2,231	2,614	3,799

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

**i** 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 will do 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*, *Linked Loans & Wealth Builder*). While this booklet will focus 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 appropriate starting values.



Category	Variable	Value
Property	Property Value	\$160,000
	Purchase Costs	\$5,250
	Rental Income	\$9,428
	Property Expenses	\$2,141
	Depreciation of Building	\$2,000
	Depreciation of Fittings	\$1,380
Loan	Loan Amount	\$163,759
	Loan Interest % Type	0.50%
	Loan Costs	\$3,509
Investor	Investor Details	
	Taxable Income	\$47,000
What If?	Inflation Rate (CPI)	2.00%
	Capital Growth Rate	4.50%

Use these values as the defaults ? OK

The *Investment Analysis Spreadsheet* is the main focus of PIA and of this Quick-Start Guide. You will spend most of your time within this spreadsheet as it gives you instant answers on how much a prospective investment property is likely to cost you after tax and what rate of return you might anticipate for the data you have entered.

Item	Year 1	Year 2	Year 3	Year 4
Investment cost	\$17,000	\$17,000	\$17,000	\$17,000
Property value	184,625	194,779	205,462	216,718
Property tax	2,304	2,581	2,715	3,281
Operating costs	8,137	8,207	8,212	8,212
Interest on debt	18,000	17,267	17,512	16,654
Equity	8,137	8,207	8,212	8,212
Income tax (25%)	3,000	3,000	3,000	3,000
Owner's net cash flow	9,137	9,207	9,212	9,212
Net cash available	15,000	14,800	14,600	14,300
Property expense	30,000	3,138	3,138	3,138
Pre-tax cash flow	85	11,662	11,462	11,162
Non-cash deductions	2,000	1,625	1,625	1,625
Depreciation	80,000	1,800	2,052	1,407
Loan cost	82,000	527	527	527
Total cash flow	3,000	10,935	10,362	9,635
After-tax cash flow	8,137	8,935	8,935	8,935
Rate of return (IRR)	25.92%	8.93	8.93	8.93

The *Home Loan Analysis Spreadsheet* is used to describe the status of your home loan (i.e. how much is still owing and what your repayments are). You can use it to analyse ways of repaying your home loan faster (e.g. by way of additional payments, fortnightly payments or a credit line) or even to consolidate and refinance several non-deductible loans into one.

Item	Year 1	Year 2	Year 3	Year 4
Home loan	17,000	17,000	17,000	17,000
Principal repaid	17,000	17,000	17,000	17,000
Interest rate	8.00%	8.00%	8.00%	8.00%
Equity	8,000	8,000	8,000	8,000
Interest saving	30,000	40,000	40,000	40,000
Refinance costs	82,000	0	0	0
Property (cost/yr)	15,000	15,000	15,000	15,000
Other (cost/yr)	0	0	0	0
Stamp duty	0	0	0	0
Refinance costs	0	0	0	0
Property (cost/yr)	0	0	0	0
Stamp duty	0	0	0	0
Loan interest	9,000	8,000	8,000	8,000
Interest rate	9.00%	9.00%	9.00%	9.00%
Interest	15,000	15,000	15,000	15,000
Loan balance	177,071	171,110	162,207	150,000
Loan term	30 years	28 years	26 years	24 years
Terms remaining	28 years	26 years	24 years	22 years

The *Linked Loans Spreadsheet* allows you to explore methods of repaying non-deductible loans faster using surplus cash flows from an investment property. Where a credit line is the preferred method for repaying a home loan, the *Linked Loans* spreadsheet allows you to take account of the after-tax cost of an investment property.

Item	Year 1	Year 2	Year 3	Year 4
Investment cost	\$17,000	\$17,000	\$17,000	\$17,000
Investment property	184,625	194,779	205,462	216,718
Property tax	2,304	2,581	2,715	3,281
Operating costs	8,137	8,207	8,212	8,212
Interest on debt	18,000	17,267	17,512	16,654
Equity	8,137	8,207	8,212	8,212
Income tax (25%)	3,000	3,000	3,000	3,000
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Net cash available	15,000	14,800	14,600	14,300
Property expense	30,000	3,138	3,138	3,138
Pre-tax cash flow	85	11,662	11,462	11,162
Non-cash deductions	2,000	1,625	1,625	1,625
Depreciation	80,000	1,800	2,052	1,407
Loan cost	82,000	527	527	527
Total cash flow	3,000	10,935	10,362	9,635
After-tax cash flow	8,137	8,935	8,935	8,935
Rate of return (IRR)	25.92%	8.93	8.93	8.93

The *Wealth Builder Spreadsheet* helps you interactively plan a portfolio of investment properties based on projected multiples of the property under review in the *Investment Analysis* spreadsheet. At each step (that is, each year) you can see whether you would have the necessary funds (cash savings) and whether the banks would be likely to lend you the finance (loan/value ratio and debt /service ratio). This spreadsheet integrates data from the investment property under review, your home and any existing property portfolio.

Item	Year 1	Year 2	Year 3	Year 4
Investment cost	\$17,000	\$17,000	\$17,000	\$17,000
Investment property	184,625	194,779	205,462	216,718
Property tax	2,304	2,581	2,715	3,281
Operating costs	8,137	8,207	8,212	8,212
Interest on debt	18,000	17,267	17,512	16,654
Equity	8,137	8,207	8,212	8,212
Income tax (25%)	3,000	3,000	3,000	3,000
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Property expense	30,000	3,138	3,138	3,138
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Non-cash deductions	2,000	1,625	1,625	1,625
Depreciation	80,000	1,800	2,052	1,407
Loan cost	82,000	527	527	527
Total cash flow	3,000	10,935	10,362	9,635
After-tax cash flow	8,137	8,935	8,935	8,935
Rate of return (IRR)	25.92%	8.93	8.93	8.93

## Getting started

This section guides you through the entries you need to make in order to make 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 20 minutes to complete. We suggest 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. Each item in the Check List is required for the initial analysis. When you have made all the entries, you can click **OK** to go to the main spreadsheet.

### Our example

John earns \$55,000 per year as a journalist. His wife Anthea earns \$20,000 per year working part time. They have a family home worth about \$200,000 on which they still have \$50,000 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 \$175,000 and their research has shown \$195 per week to be a reasonable rent. They want to use PIA to find the answers to the following questions:

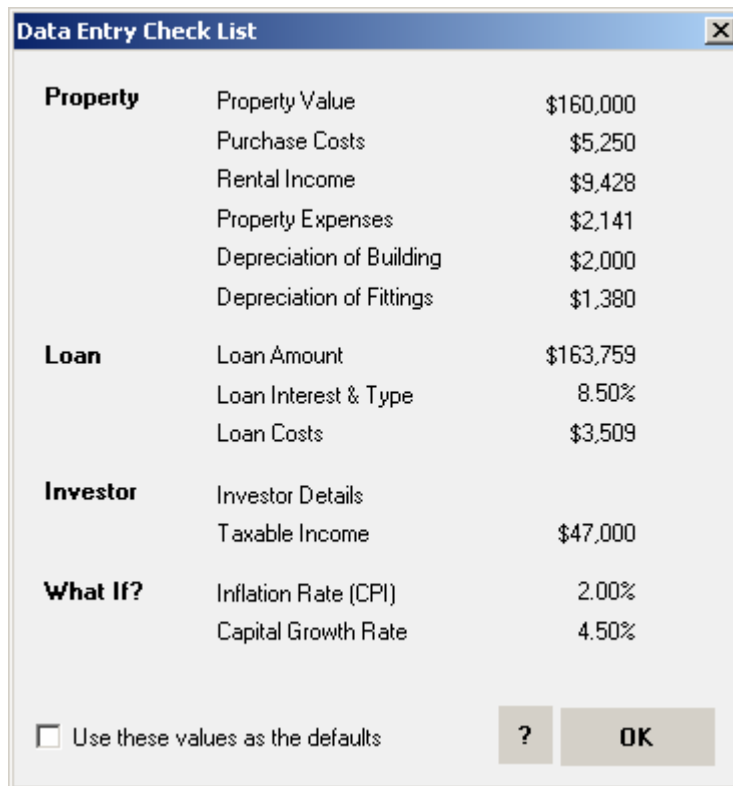
- What return on investment can they anticipate?
- What will the investment cost them after tax?
- How much tax will they save?
- Can they afford it?
- Can they afford more investment properties?
- Will the bank lend them the money?

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 8% and they are most comfortable with the idea of a principal & interest loan to be repaid over 25 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, will be introduced during the example.

## Data Entry Check List

When you select *Create a new property file* from 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.



Category	Variable	Value
<b>Property</b>	Property Value	\$160,000
	Purchase Costs	\$5,250
	Rental Income	\$9,428
	Property Expenses	\$2,141
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	Depreciation of Fittings	\$1,380
<b>Loan</b>	Loan Amount	\$163,759
	Loan Interest & Type	8.50%
	Loan Costs	\$3,509
<b>Investor</b>	Investor Details	
	Taxable Income	\$47,000
<b>What If?</b>	Inflation Rate (CPI)	2.00%
	Capital Growth Rate	4.50%

Use these values as the defaults

? OK

**Fig. 4: Data Entry Check List (showing original default values)**

- 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. An option for this can be found in the Preferences item of the Settings menu.*

As you can see, the Data Entry Check List is divided into four groups of variables covering the various aspects of a property analysis:

- Property
- Loan
- Investor
- What if?

The first two groups relate to the property and how it is financed. The Investor variables record personal details and help determine the investor-specific tax benefits, while “What If?” variables allow you to see what happens 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, will open a dialog box to view and edit the variables that make up or determine the item’s value.

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

Many of the items in the 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 them all each time, PIA uses default values when the file is created. The current values for the items in the Check List are shown on the right.

## Plug: Using the Check List

In this example we will run through the items on the screen 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.

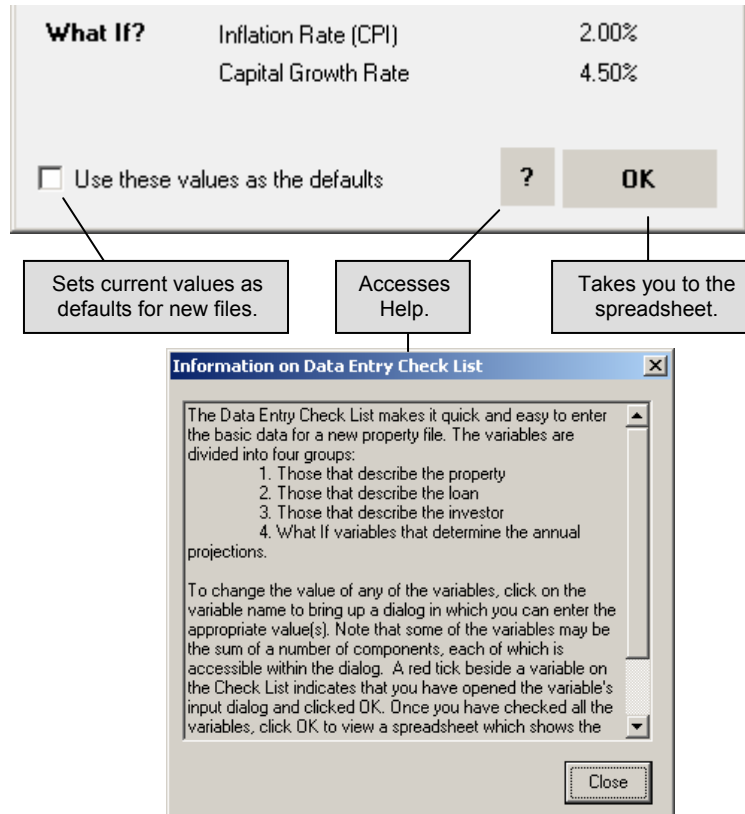


Fig. 5: Options from the Check List

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 defaults check box. New files will then open with these values set. The values will only be adopted if you click OK to exit the Check List.

Clicking on OK takes you to the spreadsheet – we will be doing that when we have entered the data for our example.



## Property Value

Click on *Property Value*. The Property Value dialog box opens. The house in our example costs \$175,000. Overwrite the default entry of \$160,000 with \$175,000.

Property Value	Initial	1yr	2yr	3yr	5yr	10yr
Property price:	175,000					
Renovations:	0	0	0	0	0	0
Book value:	175,000					
Market value:	175,000	182,875	191,104	199,704	218,082	271,770
Furniture package	0	0	0	0	0	0

Fig. 6: Property Value dialog box

Click **OK**. The value \$175,000 appears in the Check List, and a red tick appears on the right to indicate that an entry has been made. Click on *Property Value* again. As you can see, the increase in market value of the property has been automatically calculated based on a default increase in value of 4.5% per year. (Later, you will learn how to change this default value.)

- ① We could have changed the original \$160,000 value to \$175,000 and hit the Enter key without returning to the Check List. This would allow us to make changes to several variables and see the projected market values before returning to the Check List.*
- ① As you can see, the Property Value dialog box 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.*

We will skip these for the moment. Click **OK** to return to the Check List.

## Purchase Costs

Click on *Purchase Costs* in the Check List to display the Purchase Costs dialog box. The Purchase Costs dialog box shows the property price of \$175,000 you entered a moment ago. Purchase costs include conveyancing costs and stamp duty 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 \$650. Overwrite the default value of \$950 with \$650.

Purchase Costs	
Purchase price:	175,000
Stamp duty:	4,788
Conveyancing costs:	650
Other costs:	0
Total purchase costs:	5,438

Tax Status	Stamp Duty Scales
<input checked="" type="radio"/> Capital cost	<input checked="" type="checkbox"/> Uses Qld
<input type="radio"/> Revenue cost (eg. in A.C.T.)	Reset Scales

? OK Cancel

Fig. 7: Purchase Costs dialog box

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 box 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 box.

PIA calculates the stamp duty based on the purchase price and the rates for Queensland. The value now shown is \$4,788. Click **OK** to save the values and return to the Check List. The Purchase Costs are now shown as \$5,438.

## Rental Income

Click on *Rental Income* in the Check List to display the Rental Income dialog box. 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 \$195 per week. Overwrite the default value of \$185 with \$195 and press the Enter key. The values for *Potential rent per year* and *Actual annual rent* change accordingly. The difference between the *Potential rent per year* 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: \$9,836.

Season	Weeks	Rent/wk	Occupancy rate	Total rent
Peak				
Shoulder				
Off-season				
Totals	52			

Fig. 8: Rental Income dialog box

The Rental Income dialog box offers other options, including inflation-indexing (the default), and a subdialog for specifying the projected annual rents directly. We will skip these for the moment. Click OK to return to the Check List. The Rental Income is shown as \$9,836.

## Property Expenses

Click on the *Property Expenses* in the Check List to display the Property Expenses dialog box. 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 **Agent's Commission** and enter that value. Click **OK** to return to the Property Expenses dialog box. (Alternatively, you can enter an annual amount in the Agent's Commission field in the Property Expenses dialog box.)

Enter the following values:

Letting fee	\$195	Maintenance	\$500
Council rates	\$800	Pest control	\$120
Insurance	\$450	Other expenses	\$250

The Property Expenses dialog box should now look like this:

Normal Expenses (1st year)		Indicators	
Agent's Commission	811	Annual Rent	\$9,836
Letting fees	195	Expenses/rent	30.83%
Rates	800	Net rent	\$6,709
Insurance	450	Net yield	3.83%
Maintenance	500		
Body corporate	0		
Cleaning	0		
Pest control	120		
Mowing	0		
Other expenses	250		
<b>Total</b>	<b>\$3,126</b>		

Fig. 9: Property Expenses dialog box

There are many other options in the dialog box, but we will skip them for the moment, clicking **OK** to return to the Check List, which now shows Property Expenses of \$3,126.

## Depreciation of Building

Click on *Depreciation of Building* in the Check List to display the Depreciation of Building dialog box. As you can see, our property price of \$175,000 has been adopted here. The default Building Cost is calculated at 50% of the value of the property (here: \$87,500). Our building has an estimated original construction cost of \$65,000, so enter this figure in the *Building costs* box. When you press the Enter key, note that the *Building costs as a % of property price* is recalculated (37.14%), as is the building depreciation (\$1,625). 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.

ⓘ In our example, our couple is estimating the value of depreciable assets. In practice, however, to satisfy ATO requirements at tax time, it is common to have a quantity surveyor certify the value, especially the original construction costs.

ⓘ Building depreciation is often referred to as a Capital or Building Allowance.

Capital Costs		Capital Allowance	
Property price:	175,000	Renovation costs:	0
Building costs:	65,000	Total capital cost:	65,000
<input type="checkbox"/> Link costs to property price		Depreciation rate:	2.50%
Building costs as a % of property price:	37.14%	Depreciation of building:	1,625

Fig. 10: Depreciation of Building dialog box

As there is no intention of renovating the property at this time, we will leave the *Renovation Costs* at the default value of zero. Click on **OK** to return to the Check List. The Depreciation of Building is now shown as \$1,625.

## Depreciation of Fittings

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

Change the default value of General Fittings to \$0 and insert the value of \$3,000 for Curtains, \$4,000 for Carpets, and change the value of Low-value pool (items costing less than \$1,000) to \$3,500. We will use the default values for the effective lives of these assets (shown in the Life column) and the default Diminishing value method for calculating depreciation claims.

➔ You can enter *k* as a shortcut for thousands, for example: *3k* for 3,000 or *3.5k* for 3,500.

Itemised Depreciation Schedule							
Items	Value	Life (y)	1yr	2yr	3yr	5yr	10yr
Furniture package		15.0					
General fittings		15.0					
Curtains	3,000	7.0	643	505	397	245	73
Carpets	4,000	10.0	600	510	434	313	139
Hot water sys.		20.0					
Motor mower		7.0					
Refrigerator		15.0					
Stove		20.0					
Low-value pool	3,500	4.0	656	1,066	667	260	25
<b>Total</b>	<b>10,500</b>		<b>1,899</b>	<b>2,082</b>	<b>1,497</b>	<b>819</b>	<b>237</b>

Depreciation Preferences

Method:

- Diminishing value
- Prime cost
- Annual claim

General:

- Link value to property price
- Use "effective life" rules\*

\* Low-value pool rate halved in year 1

Navigation: << < > >>

Buttons: [?] [OK] [Cancel]

Fig. 11: Depreciation of Fittings dialog box

As you press the Enter key (or click away from a field with a changed value) the values in the table are recalculated. Also, when you enter a value for an item, the projected depreciation schedule is added on the right of the dialog. The total value is now \$10,500. Click on **OK** to return to the Check List. Depreciation of Fittings is now shown in the Check List as \$1,899.

We have now completed the entries for the property and move to the loan details.

## Loan Amount

Click on *Loan Amount* in the Check List. The Loan Amount dialog box opens. The total Loan amount shown is calculated as the sum of all costs plus any additional loan less any initial cash outlays. Outlays has a default value of \$5,000 as a deposit toward the property cost. However, as John and Anthea are borrowing all costs, set Outlays in the Property Cost row to \$0. Click OK to return to the Check List. The total Loan Amount is shown as \$184,196.

At Purchase	Outlays	Loan	Costs
Property cost	0	175,000	175,000
Renovation costs	0	0	0
Purchase costs	0	5,438	5,438
Furniture package	0	0	0
Loan costs	0	3,758	3,758
Additional loan		0	
<b>Totals</b>	<b>0</b>	<b>184,196</b>	<b>184,196</b>

Fig. 12: Loan Amount dialog box

- ➔ Note that we have yet to specify the loan costs, which are shown as a default of \$3,758. Once the actual costs are entered, the loan amount will be adjusted automatically.
- ⓘ It is also possible to specify the individual loan costs from this dialog box 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 dialog boxes via the Check List buttons.

## Loan Interest and Type

Next we have to specify the loan type and interest rate. Click on *Loan Interest & Type* in the Check List. The dialog box opens.

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 8.25 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). This is the value we want, so we leave this unchanged.

Loan A		Interest Only		Principal & Interest		Capitalise Interest		Credit Line	
Loan Amount	Interest Rate (Average)	From:	To:	From:	To:	From:	To:	From:	To:
184,196	8.25%			1yr	25yr				

Loan B		Interest Only		Principal & Interest		Capitalise Interest		Credit Line	
Loan Amount	Interest Rate (Average)	From:	To:	From:	To:	From:	To:	From:	To:

Loan Summary (1st year)		Capitalised Interest	
Total Loan:	<b>\$184,196</b>	<input type="checkbox"/>	Capitalised component tax-deductible
Interest:	<b>\$15,110</b>		
Payment:	<b>\$17,427</b>		

Buttons: Specify Annual Rates, ? (Help), OK, Cancel

Fig. 13: Loan Interest & Type dialog box

- ① The loan type we have chosen in this example is a relatively simple one (principal & interest over 25 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.
- ① 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 Check List. The new interest rate of 8.25% is shown.



## Loan Costs

Click on *Loan Costs* in the Check List. The Loan Costs dialog box opens. Loan costs are the costs associated with establishing 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, the remainder tend to be flat fees.*

As a guide, loan costs generally fall somewhere between 1 and 3% of the total loan. In our example, the establishment fee is a fixed amount (\$500) and because we have sufficient collateral, there is no mortgage insurance involved. Enter the Mortgagee stamp duty of 0.4% and the other costs (flat rates) as shown in the figure below:

Cost Component	% of Loan	Cost (\$)	Flat Fee
Establishment fees	0.27%	500	<input checked="" type="checkbox"/>
Mortgagee stamp duty	0.40%	732	<input type="checkbox"/>
Mortgage insurance	0.00%	0	<input checked="" type="checkbox"/>
Mortgagee's solicitor's fees	0.55%	1,000	<input checked="" type="checkbox"/>
Valuation fees	0.05%	100	<input checked="" type="checkbox"/>
Registration of mortgage	0.04%	80	<input checked="" type="checkbox"/>
Registration of title	0.04%	72	<input checked="" type="checkbox"/>
Search fees	0.08%	150	<input checked="" type="checkbox"/>
Other loan costs	0.00%	0	<input checked="" type="checkbox"/>
<b>Total costs</b>	<b>1.44%</b>	<b>2,634</b>	
<b>Total loan (including costs)</b>		<b>183,072</b>	
Loan cost write-off period		5 yrs	

Fig. 14: Loan Costs dialog box

Loan costs are written off over 5 years or over the term of the loan, whichever is shorter. We will leave this unchanged and click **OK** to return to the Check List. Our Loan costs are now shown as \$2,634 and, because these form part of the loan, the loan amount has changed to \$183,072.

## Investor Details

Click on *Investor Details* in the Check List to display the Investor Details dialog box.

Information you enter here is printed 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 figure below shows data from our example, but you can enter your own data here so that you will not have to change it later.

Click **OK** to return to the Check List.

The screenshot shows a dialog box titled "Investor's Personal Details". It is divided into two main sections: "Investor Details" and "Property Details".

**Investor Details:**

- Investor: John Dough
- Address: 19 Bayside Drive, Cleveland, Qld, 4163
- Contact: 07 3286 4368
- Email: johndough@somersoft.com.au

**Property Details:**

- Address: 74 Layburn Rd, Cleveland, Qld, 4163
- Description: 3-bedroom lowset brick on large block

At the bottom of the dialog box, there are four buttons: "Notes", "?", "OK", and "Cancel".

Fig. 15: *Investor Details dialog box*

- ① You can also click **Notes** to enter additional notes on the property. These notes are not printed in any of the reports that you generate, but are stored with the property file for later reference.

**Taxable Income**

Click on *Taxable Income* in the Check List. The Tax Credits dialog box opens. This dialog box 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.

➔ *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.*

John earns \$55,000 per year, Anthea \$20,000. As they currently have no other tax deductions, we will enter these values as their current taxable incomes for the first year. Make sure that the *Use Taxable Income* radio button is selected. (Click on the ? button if you would like to see a brief explanation of the benefits of using taxable income over marginal tax rate.)

In this example, we will assume that 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 Check List. The item Taxable Income has now been renamed Joint Taxable Income and shows \$75,000.

**Tax Credits**

Tax Credit Calculation

Marginal Rate

Use marginal rate 43.50%

Use taxable income (see below)

Registration of Title

Single name Proportional ownership

Joint names Investor: 100.00%

Tax Benefits Partner: 0.00%

**Taxable Income Year 1**

	Investor	Partner	Total
Assessable Income	55,000	20,000	75,000
Allowable Deductions	0	0	0
Current Taxable Income	55,000	20,000	75,000

Taxable Income Projections

Auto-indexed from year: 1yr at a rate of: 2.00%

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

Fig. 16: Tax Credits dialog box

## Inflation Rate (CPI)

Click on *Inflation Rate (CPI)* in the Check List. The Inflation Rate dialog box opens. This dialog box allows you to enter values for inflation to be used to index rental income, property 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 which are “linked” to it. Changing the inflation rate for a variable automatically removes the CPI link for that variable.

We will leave the values in this dialog box unchanged from the default 2.00%. Click **OK** to return to the Check List.

Year	Average	1yr	2yr	3yr	5yr	10yr
CPI Rate:	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%

Indexed Variables	Indexed	From Year	Average Rate	Linked to CPI
Rental income	<input checked="" type="checkbox"/>	1yr	2.00%	<input checked="" type="checkbox"/>
Property expenses	<input checked="" type="checkbox"/>	1yr	2.00%	<input checked="" type="checkbox"/>
Taxable income	<input checked="" type="checkbox"/>	1yr	2.00%	<input checked="" type="checkbox"/>
Living expenses	<input checked="" type="checkbox"/>	1yr	2.00%	<input checked="" type="checkbox"/>

Fig. 17: Inflation Rate dialog box

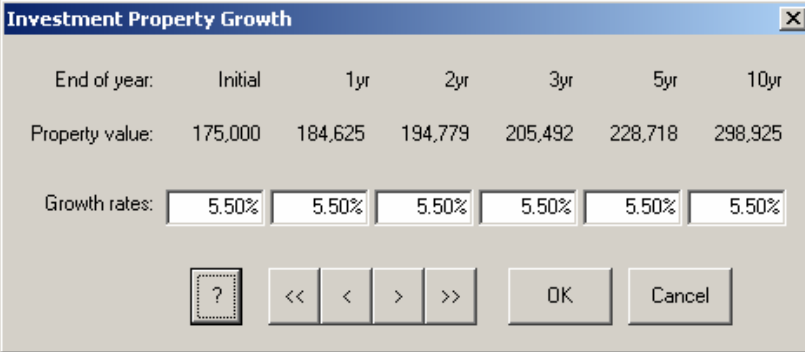
- ① *Choosing a rate of inflation is easy: You can simply use the current rate issued by the Australian Bureau of Statistics. However, choosing an accurate rate of inflation to cover increases in rents, expenses, etc. over the life of your investment requires a crystal ball, something that does not come with the software. We suggest that you use the current published rate unless you have sound reasons to do otherwise.*
- ① *The Arrow buttons at the bottom of the dialog box allow you to scroll through the years of the investment, up to the maximum of 40 years – you can then change the CPI rate for any year. Any changes are projected forward.*

## Capital Growth Rate

Click on *Capital Growth Rate* in the Check List. The *Capital Growth Rate* dialog box 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 edited separately. Changes to any year are projected forward.

Change this value to 5.5% and click **OK** to return to the Check List. The *Capital Growth Rate* is now shown as 5.5%.



End of year:	Initial	1yr	2yr	3yr	5yr	10yr
Property value:	175,000	184,625	194,779	205,492	228,718	298,925
Growth rates:	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%

Buttons: ? << < > >> OK Cancel

Fig. 18: Inflation Rate dialog box

- 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 between 5 and 6%.*

**Congratulations!** You have now completed the initial data entry. The next figure shows what your check list should look like if all values have been correctly entered.



Category	Item	Value	Status
<b>Property</b>	Property Value	\$175,000	✓
	Purchase Costs	\$5,438	✓
	Rental Income	\$9,836	✓
	Property Expenses	\$3,126	✓
	Depreciation of Building	\$1,625	✓
	Depreciation of Fittings	\$1,899	✓
<b>Loan</b>	Loan Amount	\$183,072	✓
	Loan Interest & Type	8.25%	✓
	Loan Costs	\$2,634	✓
<b>Investor</b>	Investor Details		✓
	Joint Taxable Income	\$75,000	✓
<b>What If</b>	Inflation Rate (CPI)	2.00%	✓
	Capital Growth Rate	5.50%	✓

Use these values as the defaults      ?      OK

Fig. 19: Check List after entry of example data

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

Before we click **OK** to go to the spreadsheet, tick the *Use these values as the defaults* check box. The values you have entered will now be the default values for new files you open – but only if you now click **OK**.

Click **OK**. This takes you to the main spreadsheet of the program. You can return to the 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 Check List from the spreadsheet, click the *Check List* icon 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 spreadsheet – the place you will spend most of your time in PIA. Here you can see the data you entered and projections based on the data entered (and default values, if not changed). You can modify entries here to try out "What if" scenarios.

The screenshot shows a spreadsheet window titled 'Untitled - Somerset PIA'. The spreadsheet is divided into two main sections: 'Input' and 'Projections over 10 years'. The 'Input' section includes fields for Year (2003), Property value (\$175,000), Purchase costs (\$5,438), Outlays/principal (\$0), Loan amount (\$183,072), Equity (\$-8,071), Capital growth rate (5.50%), Inflation rate (CPI) (2.00%), Gross rent /week (\$195), Cash deductions (Interest (P&I) at 8.25%, Property expenses at 30.83%), Pre-tax cash flow (\$0), Non-cash deductions (Deprec. of building at 2.50%, Deprec. of fittings at \$10,500, Loan costs at \$2,634), Total deductions (\$22,195), Tax credit (joint) (\$75,000), After-tax cash flow (\$0), Rate of return (IRR) (14.04%), and Pre-tax equivalent (24.84%). The 'Projections over 10 years' section shows values for 1yr, 2yr, 3yr, 5yr, and 10yr for various metrics, including Property value, Outlays/principal, Loan amount, Equity, Gross rent /week, Cash deductions, Non-cash deductions, Total deductions, Tax credit (joint), After-tax cash flow, and Pre-tax equivalent. A summary row at the bottom right shows 'Your cost / (income) per week' with values of 138, 133, 133, 135, and 132 for the respective years.

John Dough - for personal use only						
Investment Analysis	Input	Projections over 10 years				
Year	2003	1yr	2yr	3yr	5yr	10yr
Property value	\$175,000	184,625	194,779	205,492	228,718	298,925
Purchase costs	\$5,438					
Outlays/principal	\$0	2,304	2,501	2,715	3,201	4,828
Loan amount	\$183,072	180,768	178,267	175,552	169,403	148,785
Equity	\$-8,071	3,857	16,512	29,940	59,315	150,140
Capital growth rate	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%
Inflation rate (CPI)	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Gross rent /week	\$195	9,836	10,033	10,233	10,647	11,755
<b>Cash deductions</b>						
Interest (P&I)	8.25%	15,018	14,820	14,606	14,121	12,493
Property expenses	30.83%	3,126	3,189	3,253	3,384	3,736
Pre-tax cash flow	\$0	-10,612	-10,478	-10,341	-10,059	-9,303
<b>Non-cash deductions</b>						
Deprec. of building	2.50%	1,625	1,625	1,625	1,625	1,625
Deprec. of fittings	\$10,500	1,899	2,082	1,497	819	237
Loan costs	\$2,634	527	527	527	527	
Total deductions		22,195	22,242	21,507	20,475	18,092
Tax credit (joint)	\$75,000	3,450	3,545	3,445	3,054	2,422
After-tax cash flow	\$0	-7,162	-6,933	-6,896	-7,005	-6,881
Rate of return (IRR)	14.04%	Your cost / (income) per week				
Pre-tax equivalent	24.84%	138	133	133	135	132

Fig. 20: The spreadsheet showing the data entered in the example

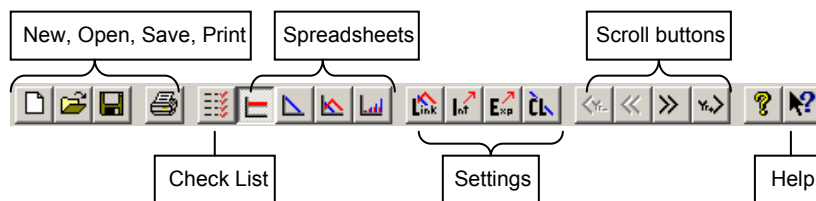
Let's take a look at the elements of the spreadsheet – which is really the main user interface of PIA:

### Menu bar

File Report Graphics Investor Calculator View Settings Help

At the top of the screen is the menu bar (File, Report, Graphics, etc). The individual menu items 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



Beneath 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 Date 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 box.

Investment Analysis
Year
Property value
Purchase costs
Outlays/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 box. Clicking once on **black** values opens a dialog box immediately, as these values are calculated and cannot be directly overwritten. Calculated values are shown in **red** if the value is negative.

Input
2003
\$175,000
\$5,438
\$0

## 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 any time. By default, these are the years 1,2,3,5 and 10.





**The "bottom line"**

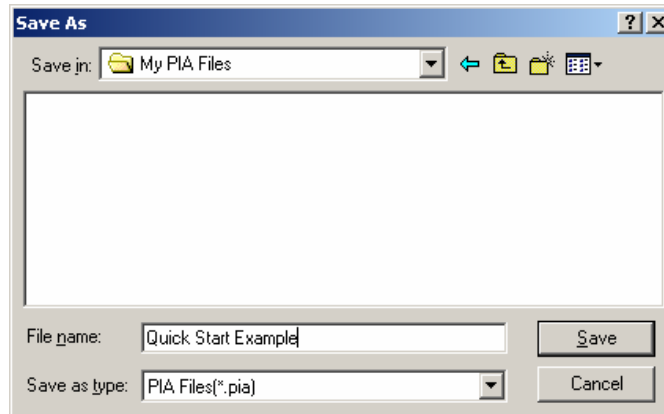
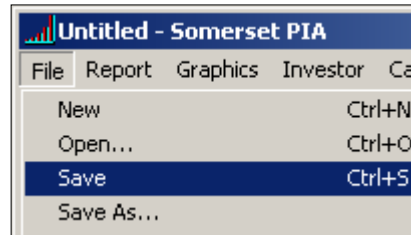
After-tax cash flow	\$0	-7,162	-6,933	-6,896	-7,005	-6,881
Rate of return (IRR)	14.04%	Your cost /(income) per week				
Pre-tax equivalent	24.84%	138	133	133	135	132

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 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".

**Time to save the file**

From the File menu, choose Save.

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 we will create a folder called "My PIA Files" within the "My Documents" folder.



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

## 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:

<b>Tax credit (joint)</b>	\$75,000	3,450
<b>After-tax cash flow</b>	\$0	-7,162
<b>Rate of return (IRR)</b>	<b>14.04%</b>	
Pre-tax equivalent	24.84%	<b>138</b>

Fig. 21: The "bottom line" of the spreadsheet

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

The *Rate of Return (IRR)* field shows **14.04%**. Again, recall that this is after-tax (the return is not taxed as the equity remains invested). The equivalent interest they would have to have earned from the bank to achieve the same return on investment is **24.84%**, 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 5.5% capital growth rate in the Input column and change it to 7%. The IRR should change to 18.78%. Then change it to 4% and note that the IRR changes to 8.43%. 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 5.5% 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.

### **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 (negatively geared), the after-tax cash flows are usually negative 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 **-\$7,162** or **\$138 per week**. This will be their after-tax cost.

**i** Note that about one third of this cost (\$2,304) in the first year is made up of principal loan payments (see Outlays/principal row). If John and Anthea had chosen an interest-only loan, their after-tax cost would have been just \$95 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 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 **\$3,450**. 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.

- ① *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 Australian Taxation Office. 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) 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 box appears:

	Investor	Partner	Total
Property ownership:	50.00%	50.00%	100.00%
Present taxable income:	55,000	20,000	75,000
Rental income:	4,918	4,918	9,836
Total income:	59,918	24,918	84,836
Rental deductions:	11,097	11,097	22,195
New taxable income:	48,820	13,820	62,641
Present tax:	13,857	2,680	16,537
New tax:	11,550	1,537	13,087
<b>Tax saving:</b>	<b>2,307</b>	<b>1,143</b>	<b>3,450</b>

Properties: Number:

Property Ownership  
 Single name  
 Joint names

? Report  
 OK Cancel

Fig. 22: The Tax Benefits dialog box

Currently, under the tax scales introduced on 1 July, 2003, John and Anthea collectively pay a total of \$16,537 in tax on a total income of \$84,836. With \$22,195 in rental tax deductions (interest, expenses, depreciation and loan costs) their taxable income would drop to \$62,641 and their tax payable would then be \$13,087. The tax savings (individual and total) are shown at the bottom of the screen. Because John is on a higher income, his tax savings (\$2,307) are higher than Anthea's (\$1,143) under the graduated Australian tax scales. Their total projected tax savings amount to **\$3,450**.

- ① *In this case the tax saving would have been greater if the property had been purchased in the name of the highest income earner only. To see for yourself, switch the Property Ownership radio button to Single name. John's tax saving jumps to \$4,253, Anthea's drops to zero, but the total saving is about \$800 more than in joint names. Reselect Joint names and click OK to return to the spreadsheet.*

### 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 \$175,000 property, with the help of rent from the tenant and tax savings as a result of the investment, will cost them just \$138 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. Enter John and Anthea's annual home loan repayments of \$8,400 and estimated annual living expenses of \$25,000. Their total income for the year is shown as \$84,836, their total expenditure as \$66,935, resulting in a cash surplus of **\$17,901**. John and Anthea are satisfied they can afford the investment.

The screenshot shows the 'Investment Capacity' dialog box with the following data:

Income (1st Year)		Expenses (1st Year)	
Taxable income (investor):	55,000	New tax (investor):	11,550
Taxable income (partner):	20,000	New tax (partner):	1,537
Rebates & non-cash deductions:	0	Rental expenses:	3,126
Current net income:	75,000	Inv loan interest:	15,018
New rental income:	9,836	Inv loan principal:	2,304
<b>Total income:</b>	<b>84,836</b>	Home loan payments:	8,400
		Living expenses:	25,000
		<b>Total expenses:</b>	<b>66,935</b>

Ownership		Capacity	
<input type="radio"/> Single name		Investment properties:	1
<input checked="" type="radio"/> Joint names	Proportional ownership	Total income:	84,836
	Investor:	Total expenses:	66,935
	Partner:	<b>Net surplus:</b>	<b>17,901</b>
		Total initial outlay:	0

Buttons: ? Report OK Cancel

Fig. 23: The Investment Capacity dialog box

### 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 \$10,494. Changing to 3 properties reduces it to \$2,107, but changing to 4 shows a loss of \$6,788. So theoretically, they could afford up to three such properties. But will the bank think so?

## Print: Generating a report

### ***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 *Financial* report.

Quick Start Example.pia - Somerset PIA

File Report Graphics Investor Calculator View Settings Help

John Dough - for personal use only

**PROPERTY INVESTMENT ANALYSIS FINANCIAL REPORT**

Property : 74 Layburn Rd, Cleveland, Qld, 4163  
Description: 3-bedroom lowset brick on large block

13-Jun-2003

**SUMMARY**

<b>Assumptions</b>		<b>Projected results over 10 yrs</b>	
Property value	\$175,000	Property value	\$298,925
Initial outlay	\$0	Equity	\$150,140
Rent	\$195	After-tax return /yr	14.04%
Cap. growth rate	5.50%	<b>IF SOLD</b>	
Inflation rate	2.00%	Selling costs & CGT	\$37,149
Interest rate	8.25%	Equity	\$112,990
Taxable income	\$75,000	After-tax return /yr	8.87%

**COMPUTER PROJECTIONS**

Investment Analysis      Projections over 10 years

Fig. 24: Excerpt from the Financial Report (on screen)

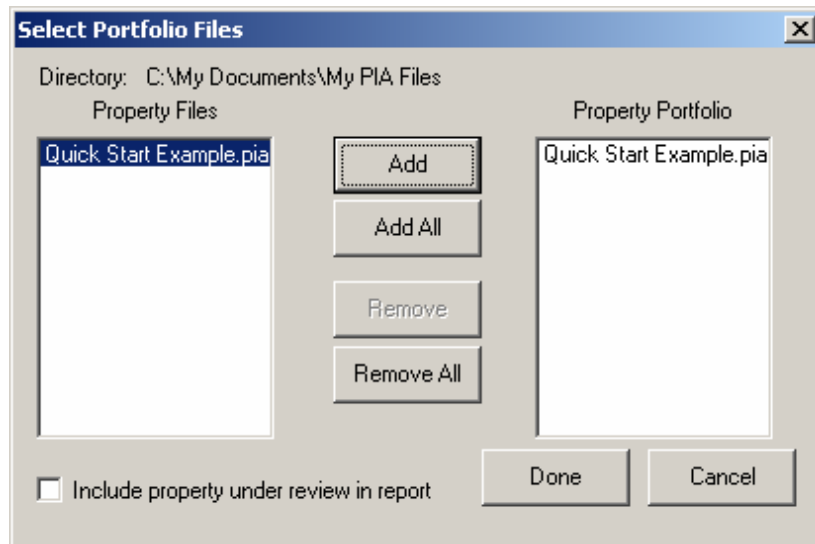
While the report will effectively present a business plan of their investment proposal to the bank manager, there is no guarantee that the loan will be forthcoming even though they have convinced themselves that they can afford it. Banks have their own criteria for assessing the risk in lending you money (loan-to-value ratios, debt-service ratios, etc), which are beyond the scope of this Quick-Start Guide. The PIA software includes a loan eligibility calculator that can help in this regard as well as the Wealth Builder Spreadsheet, which encompasses their home and any existing investment properties.

## What about their next investment property?

Let's say that John and Anthea have purchased the property and are so happy with their investment that they are immediately on the lookout for another property. Apart from 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. 22, John's new taxable income will have dropped from \$55,000 to \$48,820, while Anthea's will have dropped from \$20,000 to 13,820. These would then become the new taxable income figures showing in the Tax Credits dialog (Fig 16) for the new analysis.

One of the features of PIA that helps automate this process is the *Create Investment Portfolio* item under the Investor Menu. This allows you to specify your current non-property income and deductions and then specify which property files make up your current portfolio.



*Fig. 25: 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 automatically fills in all of the property-related income and deductions and presents these to you in an updated Taxable Income dialog.

When you have several investment properties, creating a portfolio in this manner also enables you to obtain a cash flow analysis of all your properties combined. For further information on this, see the Special Topic on Portfolio Analysis in the Help system (see next page).

## 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.

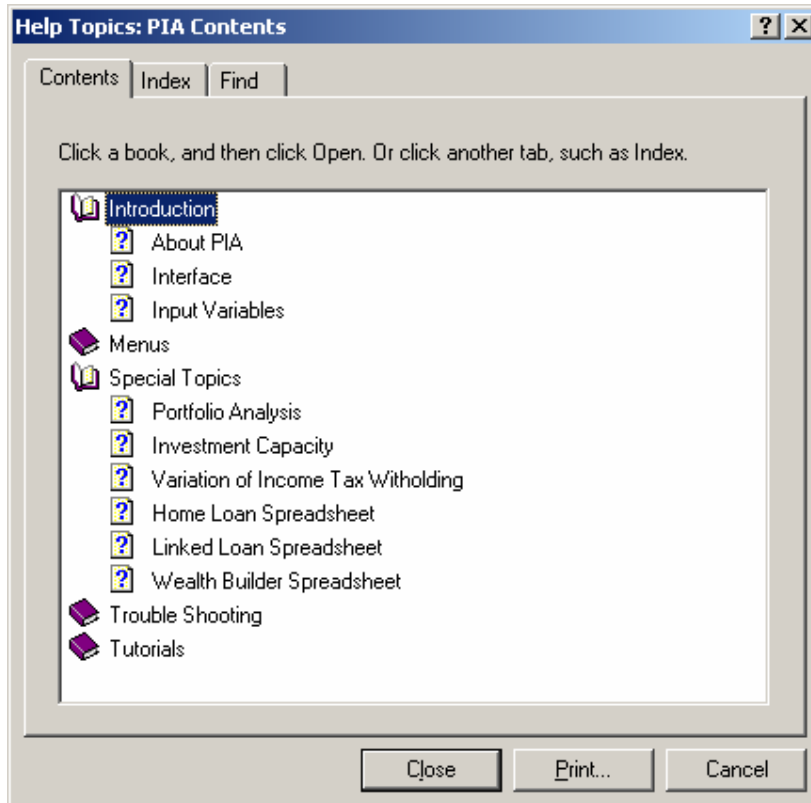


Fig. 26: Help Topics

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).

## 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 and its activities. Check out the news page for seminars being held around the country. The Property Investor Forum is worth a look just to see what other property investors are up to.

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

This site has all the information about the PIA software, including the latest maintenance updates and demonstration versions available for downloading. At this site, you can subscribe to the free email notification service for software updates. There is also a PIA User Group forum where you can swap tips and tricks with other users.

### 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 2001-02*
- *Guide to Capital Gains Tax 2001-02*
- *Guide to Depreciation 2001-02*

### 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.net.au](http://www.reia.net.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) - Aug 1999* explains tax rules for people who own rental property.