planEASe®

Economic Analysis System

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Disclaimer of warranty

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This program is sold without any express or implied warranties whatsoever. Because of the diversity of conditions and hardware under which this program may be used, no warranty of fitness for a particular purpose is offered. The user is advised to test the program thoroughly before relying on it. The user must assume the entire risk of using the program. Any liability of seller or manufacturer will be limited exclusively to product replacement or refund of the purchase price. Some states do not allow the exclusion or limitation of implied warranties or liability for incidental or consequential damages, so the above limitation may not apply to some customers. You may have specific legal rights which vary from state to state.

planEASe is accompanied by a license agreement bearing the serial number of the system. If this license agreement is not present, you should not purchase the software. Analytic Associates will not support any user who purchases the software without the license agreement. Furthermore, Analytic Associates will not sell the expansion software for the system to any such user. If you have any questions regarding the authenticity of the software you are purchasing, please telephone Analytic Associates directly, and we will give you such assurance at that time.

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Getting Started

Installation

Please read the following instructions completely before attempting to install this software. If anything is not clear to you, call us for help. planEASe will run on any computer running Microsoft Windows 95 / 98 / NT / 2000 / XP / Vista / or Windows 7. Installing planEASe (and/or the demo) is the same as installing most other Windows software. Just insert the CD in your CD drive, wait a few seconds, and select the install option. planEASe will then install itself into the \planwin (or your choice) directory. The demo version installs in a \planwind directory.

Demonstration Version Limitations

The planEASe Demonstration Version includes planEASe, the *Partnership Models*, the *Monthly Extension*, the *Reporting Extension*, the *Financial Utilities*, the *Graphics Extension* and the *Portfolio Extension*. The software is completely functional, with the following limitations which are removed when you purchase the software:

- You may not save an Assumption Set (or any other file) in the Demonstration Version. Thus, each time you re-start the system, you must re-enter the assumption values for any property you are analyzing. Both the Demonstration and System Versions contain the Assumption Set for the *Sample Apartments* investment which is detailed in this manual. You may recall these assumption values by retrieving *test.ru* when asked for the Assumption Set.

- The Demonstration Version will not print reports or graphs, export reports or graphs, and you may not save any reports or graphs as a WebPage. As an exception to this limitation, the Acquisition Report (and associated graphs) located on the Reports Menu will print, export, and Save as Web Page, so you may check out the planEASe output capabilities with your computer.

- You may only open Assumption Sets formatted for the Demonstration Version. All Assumption Sets shipped with planEASe and the Demonstration Version (see the list and descriptions starting on page 223) have been so formatted, and you may open them.

- Your Demonstration Version session will automatically end after 24 hours, unless you terminate it earlier.

The purpose of the Demonstration Version is to show you that planEASe operates properly on your computer, and to allow you to "play" with the assumption values and system functions to see how the system operates. For instance, the Demonstration Version allows you to:

- change assumption values and see the results of those changes on the cash flow projections, Rates of Return, and Net Present Values.

- perform Sensitivity and Risk Analysis. For instance, try to find the "Price of Property" that gives you a 15% After Tax Rate of Return.

- perform Detail Analysis. There are two loans for the *Sample Apartments*. Examine the debt service and interest payments for the two loans side-by-side and in total.

- experiment with such features as re-financing and assumption of existing loans. See how the system handles "negatively amortizing" loans.

- enter assumptions for a property and compute the complete results using any of the many sample Assumption Sets shipped with the software (or your own assumptions if you wish).

- experiment in the same ways with the other products, and note the tight integration of our software ... seven products behave as one when in operation.

Customer Support Arrangements

As you will note from the title page of this manual, we maintain a customer support hot-line at (800) 859-EASe or 859-3273, which is separate from our marketing number of (800) 959-EASe or 959-3273. If you need support, we urge you to call the ***support*** number, and ***not*** the marketing number.

We are available for support Monday through Friday from 9am to 5pm ***California time***. Additionally, we are sometimes available during later hours and weekends. If you dial the support line, your call will normally be answered directly by someone capable of answering your questions. In the rare instance that support personnel are not available during normal hours, you may leave a message and your call will be returned as soon as possible. The marketing line is typically answered by order takers who are not capable of product support.

More than occasionally we mail user notes and notifications in regard to your planEASe and new software we issue. Above your name and address on the mailing label is a line of information which looks like:

EAxxxxxx mm/dd/yy

Eaxxxxxx is the Serial Number of your planEASe. All updates to your software are issued to you with this serial number in the new version. Thus the serial number identifies your particular copy of planEASe, and you are responsible for its safekeeping. Following the xxxxxx numbers you may note one or more of the letters GRUMPO, which indicate that you have purchased one or more of the following optional extension products:

G Graphics Extension
R Reporting Extension
U Financial Utilities
M Monthly Extension
P Partnership / LLC Models
O Portfolio Extension

Our one annual support fee (currently $195/year) covers all the products you buy from us, no matter how many, so you may think of the support for our extension products as being "free".

mm/dd/yy is the ***expiration*** date of your Update Subscription. Benefits of subscribing include all major software and manual updates issued during the year, unlimited telephone support, and discount prices on any new products we issue during the course of the year. If your subscription has expired we will still carry you on our mailing list for a reasonable period of time (at least a year), and you will receive notification in time to renew prior to any update.

Your name, as shown on the shipping label below the data line described above, is the same as the name encoded in the About planEASe Box (located on the Help Menu). If you want that name to be changed (for instance, by adding professional designations such as CPA, CCIM, etc), please inform us and we will effect the change in the next update shipped to you.

Subscription Update Program

The planEASe license agreement provides that you may subscribe to our Update Program for this software. We urge that you do this. In addition to entitling you to receive updates of the software and manual, this program entitles you to receive announcements of new planEASe models directly by mail, and announcements of documented system problems and fixes. Whenever we issue new software like the *Monthly Extension* or the *Financial Utilities*, subscribers are offered a discount introductory price. Additionally, subscribers are entitled to call us directly at the support number shown on the cover page to discuss any system difficulties.

Your subscription to our update service dates 90 days from your purchase date, no matter when you subscribe, so waiting six months until a new version is issued won't save you any money, and may cause you to miss important information on the system. Subscriptions are also cumulative. This means that if you bought the system two (or more) years ago and suddenly show up for an update, you're going to have to pay two (or more) years of subscription to get it, and you will have missed our help in the meantime.

Many software publishers offer such a subscription service, and not all of them have issued updates thereafter. In that regard, you should be interested in our record of issuing updates to our subscribers, as shown in the table on the next page.

As you become familiar with planEASe, you will appreciate the immense variety of situations that may be analyzed. Indeed, the system is, in a real sense, a programming language. Although the software has been tested now by thousands of users (the toughest test lab in the country), we are constantly improving and inevitably, new bugs will appear as users try things that are not anticipated. We will correct any situation which causes the system to not operate as documented. If you find a bug, please send us a copy of the Assumption Set and a description of the processing being performed when the bug occurred. If you have any questions about how to do this, please call us for support and we will lead you though the process by telephone. You will receive a free copy of the corrected system if your Update Subscription is current.

We are ***proud*** of our support of planEASe. We ***want*** you to call us if you have questions, and ***please*** don't feel shy about it. If you can't do something with the software or can't find something in this manual, let us know and we'll try to help you.

planEASe Publishing History	
December 1981	Version 1.0
June 1982	Version 1.2
December 1982	Version 1.4
April 1983	Version 1.5
August 1984	Version 1.7
December 1985	Version 1.9
October 1986	Version 2.0 (1986 Tax Law)
November 1987	Version 3.0 (Point and shoot interface)
May 1988	Version 3.1
December 1989	Version 3.2
April 1991	Version 3.3
September 1991	Version 3.31 (Reporting Extension)
April 1992	Version 3.32 (Income Statements)
April 1993	Version 3.33 (Publisher)
November 1993	Version 4 (First Windows Version)
November 1995	Version 5 (English Assumptions)
November 1996	Version 6 (Lease Analysis + Pie Charts)
August 1997	Version 6.1 (1997 Capital Gain Law)
October 1998	Version 7 (TitlePages / Installment Sales)
October 1999	Version 8 (32 Bit / Web Pages)
October 2000	Version 9 (Resize / Page SubTypes)
October 2001	Version 10 (Development + Unit Sales)
January 2003	Version 11 (Reimbursements)
January 2004	Version 12 (Tax Law + Market Profiles)
January 2005	Version 14 (Spell Check / Thesaurus)
January 2006	Version 15 (Monthly/Quarterly/Yearly)
January 2007	Version 16 (Graph Library / Movies)
January 2008	Version 17 (Unit Sales Absorption)
April 2009	Version 18 (Portfolio Extension)
January 2010	Version 19 (EzEntry + New WebPages)
January 2011	Version 20 (Web Publishing)
January 2012	Version 21 (Report Packages)

planEASe

System

Operation

Introduction

planEASe is aimed at the Commercial/Investment Real Estate Professional. This software system enables you to project and analyze the cash flows and tax benefits of an investment in virtually any type of real estate, including development and properties with existing leases such as Shopping Centers and Office Buildings. The primary concepts guiding the development of planEASe are:

Forecasting Flexibility

You will find that there are very few limits as to what can be done with this system within its stated purpose. For instance, you are not limited (practically) in the number of years you forecast, or the complexity of the financing, revenues, or expenses you can forecast with planEASe. A simple apartment investment requires few assumptions, and can typically be accomplished very quickly. A complicated office building with many existing leases typically has many revenue assumptions, and requires more time to project. The beauty of the system is that it can handle both situations, as well as many others. You have an investment in your software, both in the purchase price, and more importantly, in the time you invest in learning to operate it. The flexibility of planEASe assures you that you will not have to buy and learn multiple products to satisfy your need to analyze real estate investments.

Advanced Analytical Techniques

The spectacular Sensitivity and Risk Analysis capabilities of planEASe allow you to easily investigate the effect of changes in your assumptions and produce graphs which show these effects simply and concisely.

Ease of Use

planEASe users are real estate professionals, not computer professionals. We recognize this, and have designed this system to be free of computerese. We also have attempted to make system operation as easy and fast as possible, both through the extensive planEASe Help System that guides you at every step of operating the software, more than 300 content-sensitive Movies available immediately from the Menu Bar, and a Windows interface fully compliant with industry standards. If you know Commercial/Investment Real Estate and you are comfortable with Windows, you will feel right at home immediately.

Computational Speed

The mathematics of Discounted Cash Flow Theory (Internal Rates of Return, Net Present Values, et cetera) take time to perform, even on a computer. However, planEASe is fully compiled software honed to a fine computational edge since 1981. This means it operates **incredibly quickly**, unlike other products which require a copy of some other language or product such as BASIC or Excel to operate. This is one of several reasons why Risk Analysis and Sensitivity Analysis are impractical with other software.

Reporting Flexibility

You may print your reports and graphs in many formats and variations. The ProForma Income Statement, for instance, can be prepared in more than 6,000 variations, depending on your particular needs. Any report text (or number) can be edited before printing, and all reports and/or graphs can be exported to the Windows Clipboard with three mouse clicks for pasting into virtually *any* Windows word processor, spreadsheet, publishing or presentation software. This means you can complete your analysis with planEASe and then easily make it into a spreadsheet from which you can produce graphs of your own design, write special format reports, make any language changes you want, and so on.

Provide for System Growth

planEASe is designed to be *modular*. This means you can add different capabilities to the system, and the resulting software continues to operate as "one-piece". For instance, if you are concerned with forecasting Limited Partnerships or LLCs, you might want to add our *Partnership / LLC Models* to your planEASe. This addition then becomes part of your software, and whenever you want to forecast a partnership or LLC, you would simply ask for the "RP" model rather than the "RU" model. Another example of this modularity is our optional *Monthly Extension* which allows your Basic, Lease and Detail Analysis reports (and the Income and Annual Statements) to be prepared on a monthly or quarterly basis rather than the standard and usual annual basis. In addition, the Monthly Extension allows you to enter Unit Sales analyses (this was added in Version 10). As with the *Partnership / LLC Models*, the *Monthly Extension* becomes a part of your planEASe, and whenever you want, you may switch between monthly, quarterly and annual computations and reports with one mouse click. Yet another example of this modularity is the optional *Graphics Extension* which adds presentation quality graphic displays and printed output to all the analytical functions of planEASe. You'll see many examples of the graphs available with the *Graphics Extension* throughout this manual. You may want to add this extension to planEASe if you use our software to prepare presentations for your clients, investors or lenders. Versions 11 and 12 added the Reimbursements Dialog and Market Profiles Dialog to planEASe, facilitating depth analysis of Office and Retail properties. Version 18 added the *Portfolio Extension*.

This manual is organized in several parts:

System Operation (the first page of the Table of Contents) describes the ***operation*** of the software, telling you how to get around in planEASe and perform analysis and reporting.

Model Documentation (the second page of the Table of Contents) describes the meaning of the assumption values and the resulting analysis. planEASe is shipped with the "RU" models described in the *Real Estate Investment Analysis* section, where you will find the discussion of the meaning of the assumptions and analysis reports. The many other analysis capabilities of planEASe are detailed here as well.

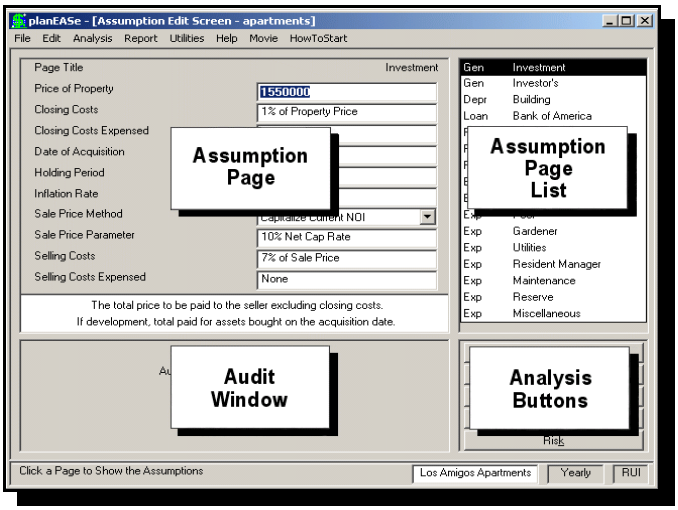
How Do I Do describes many things that you will want to do with planEASe, and in most cases gives you example assumptions to accomplish these purposes. If you can't think how to do something, this is the first place to look. This same information is available within planEASe on the *Help/How Do I Do* Menu Option.

Discounted Cash Flow Theory (in the Appendix) not only describes this theory, but also gives you a detailed explanation of the calculations performed by planEASe, and explains why the results you get in an analysis may be different from (and more accurate than) similar calculations performed by spreadsheets and other real estate analysis software.

Glossary of Terms (in the Appendix) gives you a listing of the terminology unique to planEASe. See this section whenever we puzzle you with names like *Continuation Page* or *Multiple Page Type*.

Index (together with the Table of Contents) gives you the reference for using this manual in the best way. PlanEASe is shipped with many "tutorials" which are the best way to learn how to use the software to do the kind of analysis you need. But when you are stumped as to how to do something broader than the analysis, referencing the Index or Table of Contents in this Manual should answer the concern.

Assumption Editing



Assumption Edit Screen

The first thing you will see when you activate planEASe is this ***Assumption Edit Screen***. In planEASe, the *Assumption Set* is a fundamental concept. The *Assumption Set* is to planEASe what a *WorkSheet* is to a Spreadsheet program, or what a *Document* is to a word processing program. That is, in a word processor, the *Document* is the thing you edit and process. In a spreadsheet, it's the *WorkSheet*, and in planEASe it's the *Assumption Set*. Just as you open and save Documents in the word processor, you open and save Assumption Sets in planEASe.

Here the Assumption Set is the *Los Amigos Apartments* (as noted in the status bar at the bottom of the screen). This is an Assumption Set included on the system disk saved under the name *Apartments.ru*. A planEASe Assumption Set consists of all the assumptions you have entered for a particular property or analysis. You can think of an Assumption Set as a "Notebook" full of *Assumption Pages*. The first page, "Investment Assumptions", is displayed here. A *Real Estate Investment Analysis* Assumption Set consists of:

1. One Investment Assumptions page
2. One Investor's Assumptions page
3. Many Depreciation Assumptions pages (there is one here, named "Building")
4. Many Loan Assumptions pages (there is one here, named "New First Loan")
5. Many Revenue Assumptions pages (there are four here, named "1 Bedroom Units", etc.)
6. Many Expense Assumptions pages (there are many here, named "Resident Manager", etc.)

where *Many* is any number you want (these pages shown with *Many* are therefore called *multiple pages*). As with a notebook, you may insert new pages for any of the *multiple pages*, and also remove them. Also like a notebook, you may easily access any page without paging through the intervening pages. For these reasons, planEASe adapts easily to the normal procedure of beginning the investigation of a property with few details (pages), and then expanding the detail of the analysis as more information in regard to the investment is gathered in the investigation process.

The Assumption Edit Screen is divided into four major rectangles and three window-wide bars:

Assumption Page List (showing the names of your pages, at the top right)
Assumption Page (showing the contents of each page, at the top left)
Audit Window (showing the computed results of the current Assumption Page, at the bottom left), and
Analysis Buttons (allowing you to go to the various analysis function, at the bottom right)
Title Bar (at the very top of planEASe, now saying "planEASe - Assumption Edit Screen ...")
Menu Bar (below the Title Bar, now saying "File Edit Analysis ...")
Status Bar (at the very bottom of planEASe, showing "Yearly" and "RUI" on the right side)

Assumption Page List

There are many pages in an Assumption Set. The *Assumption Page List* shows the list of pages in the current Assumption Set (Notebook) and allows you to control which Assumption Page is being displayed. The highlighted name in this list identifies the page currently displayed in the *Assumption Page* (to the left of the *Assumption Page List*). You can display the other pages in the list simply by clicking on the page name in the list. You also may use PgUp and PgDn to display the prior and following pages in the list. Ctrl-PgDn and Ctrl-PgUp display the first page of the prior or next Page Type. Ctrl-Home and Ctrl-End highlight and display the first and last pages in the list. Typing a new Page Title in the displayed Assumption Page changes the title in the Assumption Page List.

To *Add*, *Delete*, *Clone*, *Cut*, *Copy*, and *Paste* Assumption Pages, click the *Edit* Menu in the Menu Bar. **You may use as many Assumption Pages as you want** to fully describe all the Assets, Loans, Revenues and Expenses for a property.

Assumption Page

The *Assumption Page* (to the left of the *Assumption Page List*) allows you to edit/change the assumption values in the currently displayed page. You may display other assumption pages by clicking on the name of the page you want to display (in the *Assumption Page List*). To change an assumption value in the displayed page, just click on it and enter the new value. Of course, you also may use ↑, ↓ and Enter↵ to highlight and edit assumptions values.

At the bottom of the *Assumption Page* is a two line *Assumption Help* message. Whenever you highlight an assumption value, this area shows a short help message describing the assumption. If you need more extensive help, doubleclick on the *Assumption Help* and full assumption help will appear.

Audit Window

Below the Assumptions, on the left side of the screen, is the *Audit Window*. Whenever you are displaying one of the *multiple* assumption pages (Depreciation, Loan, Revenue and Expense Assumption pages are called *multiple* because you may include as many of each of them as you want for a property), the *Audit Window* shows the cash flow projection for the projected item. For instance, if you click on a loan page in the page list, the loan assumptions are shown, and the *Audit Window* displays the loan projection based on those assumptions. Doubleclick the *Audit Window* area to expand it for easier viewing. The *Audit Window*, like everything else in planEASe, is kept current as you change assumptions. When entering new assumptions, you may want to turn the *Audit Window* off (uncheck *Auto-Audit* in the *Analysis* Menu).

Toward the upper right of the *Audit Window* there is a *Notes/Audit* button that allows you to view and edit any Notes attached to the Assumption Page. If the word Notes on the button is in *italics*, there are Notes attached to the Assumption Page. The lack of italics, then, means no Notes are present. While viewing Notes, the *Notes/Audit* button is renamed to Audit to allow you to toggle between viewing the Notes and the Audit.

Analysis Buttons

These buttons offer easy access to the first five analysis functions of planEASe: Basic, Detail, Lease, Sensitivity, and Risk (see the discussion of the Menu Bar below).

Title Bar

At the top of planEASe is the Title Bar, which tells you the function you are performing. When you are at the Assumption Edit Screen, it also shows you the filename for the current Assumption Set. Some functions (like *Utilities/Cash Flow Analysis*) also allow you to edit/save files, and when you are at them, the current file name is displayed here.

Menu Bar

planEASe can be thought of as the Assumption Edit Screen being the *hub of a wheel* with *spokes* leading to the other functions:

Analysis Menu:	Basic, Detail, Lease, Sensitivity, and Risk Analysis are here (and on the Analysis Buttons)
Reports Menu:	APOD, Acquisition, Sale, Income and Annual Statements, Rent Roll and Assumption Reports, and TitlePages
Utilities Menu:	Cash Flow Analysis, Interest Rates, Loan Planner, Loan Amortization, Depreciation and Exchange Recap

To reach any of these 19 *spoke* functions, just request it from the Menu Bar at the top of the *Assumption Edit Screen*. To return from any *spoke*, press Esc or the *Exit* Button with the mouse (or Alt-X), or pull down the *File/Exit* (or *Print/Exit*) Menu Option in the *spoke*, any of which will return you to the *hub* Assumption Edit Screen.

Each entry on all of the menu choices is documented (in order of appearance) in the following pages. See the Table of Contents or Index to locate the choice desired.

Status Bar

The Status Bar at the bottom of planEASe tells you four things:

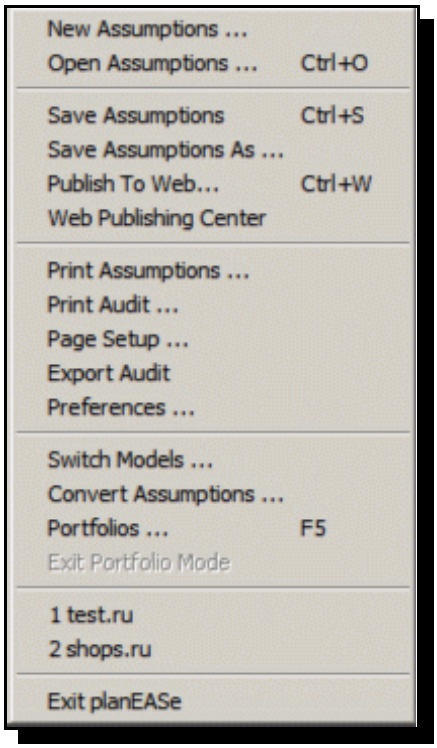
Model is located at the far right of the Status Bar. Normally *RUI*, the current model can be changed by requesting *File/Switch Models*.

Mode is next to Model, showing whether you are in the Monthly, Quarterly or Yearly projection mode. Monthly and Quarterly projection modes are available by requesting *Analysis / Monthly* or *Analysis / Quarterly* (if you have purchased the optional *Monthly Extension*).

Investment Name is the Investment Name you have entered for the Assumption Set. You initially enter this when you request *File/New Assumptions*. After that, you may edit it by clicking directly on it.

Live Help Message is shown at the Left edge of the Status Bar. In planEASe, **any white area of the screen is actionable ---** that means if you click or doubleclick on it something will happen. The live help message you see in this area, in general, tells you what will happen if you click in the white area currently under your mouse. To see this in action, simply move your mouse around the white areas on the screen and watch the Live Help Message change. This is only one of the many planEASe help capabilities discussed on page 64.

File Menu



The File Menu at the *Assumption Edit Screen* offers these options:

New Assumptions
allows you to enter a new Assumption Set. You are asked to complete an Assumption Set Specification Dialog by giving the Investment Name and other initial information, as described on page 9.

Open Assumptions
allows you to retrieve (open) any Assumption Set you have saved during previous sessions. To open an Assumption Set, click its name in the file window to select it and then press the Open button. As a shortcut, doubleclicking the name both selects it and opens it. If you have made any changes in the current Assumption Set, planEASe will ask you whether to save the changes before opening the new Assumption Set.

Save Assumptions
allows you to save the current Assumption Set with all the changes you have made since it was last saved. If the current Assumption Set has been named (that is, the Title Bar shows an Assumption Set Name rather than "Untitled") *Save Assumptions* **automatically replaces the Assumption Set on disk without further ado**. If the Assumption Set is still untitled, planEASe proceeds as under *Save Assumptions As*.

Save Assumptions As
allows you to save the current Assumption Set under any name you specify. If you choose an existing Assumption Set name, you are asked whether you want to replace the existing Assumption Set. If you choose a new name (by typing it into the file name text box), the Assumption Set is saved under that name and is added to the Assumption Set List displayed when you ask to *Open Assumptions*.

Publish To Web
allows you to publish your analysis, in its current state, to the planEASe Website. For a discussion of publishing to the Web, see page 12

Web Publishing Center
takes you directly to your personal Web Publishing Center, where you can view, edit or delete any published analysis, specify a map and photos to accompany the analysis and personalize the presentation with your logos, color combinations and font choices.

Print Assumptions
allows you to print a report of the Assumption Set values as shown in *Assumption Page* format. If you have purchased the optional *Reporting Extension*, an Analysis Assumptions Report showing the assumptions formatted in English in a client-oriented report is available on the *Reports / Assumptions Report* Menu Option.

Print Audit
allows you to print a report showing the audit results currently displayed in the *Audit Window*.

Page Setup
See the Page Setup Dialog section on Page 73

Export Audit
allows you to export the data currently being displayed in the *Audit Window* to the Windows Clipboard, from which you may paste it into other Windows applications supporting the clipboard. Shown grayed-out in the File Menu pictured on page 6 , it is available only when an Audit is displayed in the Audit Window.

Preferences
allows you to set several preferences to personalize your planEASe.

Square Feet / Unit Changeover controls the level below which planEASe will interpret the number entered in the Assumption Set Specifications Dialog (described on page 9) to be Units instead of Square Feet. This controls whether planEASe produces Unit APOD and Rent Roll reports rather than SqFt oriented reports. It also controls whether the Assumption EzEntry Dialog (see page 10) shows grids for Unit Assumptions or SqFt assumptions. By default, this is 2,000, so an entered value of 1,999 would be interpreted as 1,999 Units.

Warn before Delete Assumption Page controls whether planEASe warns you before deleting an Assumption Page after you request *Edit/Delete Page* at the Assumption Edit Screen. You are **always** warned before deleting the **last** page of any Page Type, no matter what this setting.

Use Effective Income for Percentages allows you to change the basis for calculation of Percentages in the Common Size Statement, the Annual Statements, and the APOD. By default, percentages are expressed as a percent of the Gross Income. If you check this option, the percentages are expressed as a percent of the Effective Income (after subtraction of vacancies).

Round Sale Price to nearest allows you to round the Sale Price(s) shown in the Sale Report, Income and Annual Statements and other reports to the nearest dollar, hundred dollars or thousand dollars.

Show Reimbursements in Reports can be set to *Separately* or *As Lease Revenue*. Separately means that Reimbursements, when they are present, will be shown as an individual revenue in the Income and Annual Statements as well as the APOD Report, RentRoll, and Detail Analysis. When shown separately, you may choose between displaying them as a total, or individually by expense name.

Disclaimer allows you to set the disclaimer that (optionally) prints at the bottom of many reports. You may use as many lines as you wish, but using more lines results in less space being available for the report itself. That is, when the disclaimer is printed, planEASe subtracts the space used by the disclaimer from the space available on the page to print the report.

Switch Models
This option will be used rarely, unless you have purchased the optional *Partnership / LLC Models*. There are two Models in the *Real Estate Investment Analysis*: RUI and RUM. The two Models are identical, except that the RUI Model, uses Internal Rates of Return (IRR's), whereas the RUM Model uses Modified Internal Rates of Return (MIRR's) and the Assumption Set includes the Safe Rate and Reinvestment Rate necessary to compute them.

In addition to these models, you may also choose the *Installment Sale Analysis* (the RSA Model) included with the basic planEASe, and documented beginning on page 139.

Likewise, there are two Models in the (optional) *Limited Partnership / LLC Investment Analysis*: RPI and RPM. The two Models are identical, except that the RPI Model, uses Internal Rates of Return (IRR's), whereas the RPM Model uses Modified Internal Rates of Return (MIRR's) and the Assumption Set includes the Safe Rate and Reinvestment Rate necessary to compute them.

Additionally, due to the increasing use of the Limited Liability Company (LLC) format for Group Investments, two additional models (RPR, corresponding to RPI, and RPF, corresponding to RPM) are available using titles of Group Member (instead of Limited Partner) and Managing Member (instead of General Partner). Other than the change of names, the RPI and RPR models are identical, as are the RPM and RPF models.

This *Switch Models* Menu Option allows you to choose to use any of the Models you have purchased. You may freely change between Models within the same Analysis (for instance, change from RUI to RUM or vice versa) and continue to work with the same Assumption Set. If you change from a Model in one Analysis to another (for instance from RUI to RPM) you must also choose from the Assumption Sets available for that Model after changing Models

Convert Assumptions
allows you to convert the current Assumption Set from the *Real Estate Investment Analysis* to the *Limited Partnership / LLC Investment Analysis* (or vice versa). This Menu Option is only available if you have purchased the optional planEASe *Partnership / LLC Models*.

When you choose this option, the *Convert Assumptions As* Dialog appears, and you choose the file name for the converted Assumption Set. When converting **to** the Partnership Models, the Partnership / Group and Distribution Assumption Page values are set to zero, and one Fee page and one Funding page are added to the end of the Assumption Page List with zero values. After the converted Assumption Set is saved, you must choose *File/Switch Models* and choose the new model to open the newly saved Assumption Set.

Portfolios
accesses the Portfolio Specification Dialog (see Page 201) for Portfolio Analysis.

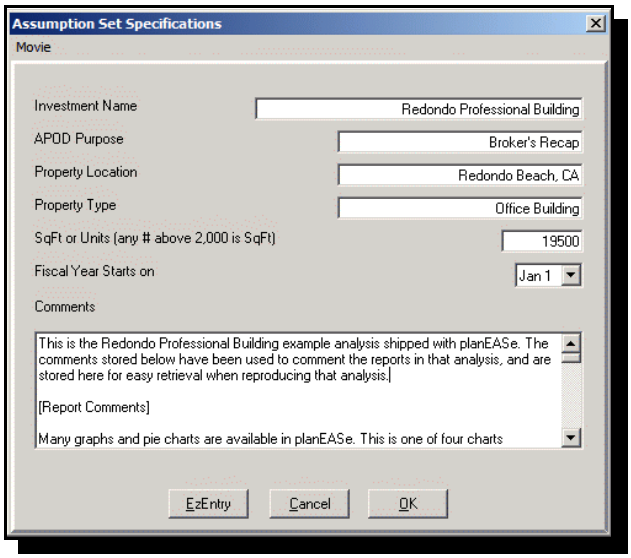
Exit Portfolio Mode
is available if you are in Portfolio Mode, and simply exits it. See Page 199 for further discussion.

Recently Used Assumption Sets
allows you to recall recently used Assumption Sets for further processing. As shown in the menu pictured on page 6, *shops.ru* and *test.ru* are available.

Exit planEASe
allows you to exit planEASe. You may also exit planEASe at any time by doubleclicking the *Control Menu* (the little icon at the upper left corner of the planEASe Window) or clicking the ⓧ button at the right corner of the Title Bar. In either case, planEASe will terminate immediately after assuring that you have the opportunity to save any unsaved assumption changes.

Assumption Set Specifications Dialog

This Assumption Set Specifications Dialog is accessed from the *File / New Assumptions* Menu Option, to begin entering a new Assumption Set.



Investment Name is constantly displayed in the Status bar at the bottom of the screen, and is used as the default value for either the Title or Subtitle in virtually all planEASe Reports for this Assumption Set. This and the other information in this dialog is easily changed at any time after completing this dialog by clicking on the Investment Name shown in the Status Bar at the bottom of the screen.

APOD Purpose, **Property Location** and **Property Type** are displayed in the APOD Report, which is part of the optional *Reporting Extension*. If you do not have this extension, these fields are not shown here, and the dialog is shorter.

SqFt or Units controls whether planEASe produces Unit oriented APODs, Rent Rolls, Annual Statement and Income Statements, rather than SqFt oriented versions of these reports. It also controls whether the Assumption EzEntry Dialog (see page 10) shows grids for Unit Assumptions or SqFt assumptions. The current crossover preference is 2,000 (see Preferences on page 7), so the entered value of 19,500 is interpreted as 19,500 SqFt.

Fiscal Year Starts on allows you to specify the first date of the Fiscal Year. Normally January 1, you may change it to the first of any month, and the planEASe reports with time shown horizontally or vertically (Basic, Detail, Lease, and Income Statements) will have the reporting year run from that date through the next 12 months. All Annual, Quarterly and Monthly variations of these reports reflect this specification. When this field is set to other than Jan 1, the Years in the yearly reports are shown as fy2003 rather than 2003 to remind you that the years shown are fiscal rather than calendar, and Quarterly report quarters are shown as Q2f03 rather than Q2 03.

Comments are saved with the Assumption Set for your use in later sessions. The Comments box is a useful place to store Report Commentary so you can later reproduce reports without having to retype the comments. The comments saved here do not print in any reports, so you may store any private notes regarding an Assumption Set here.

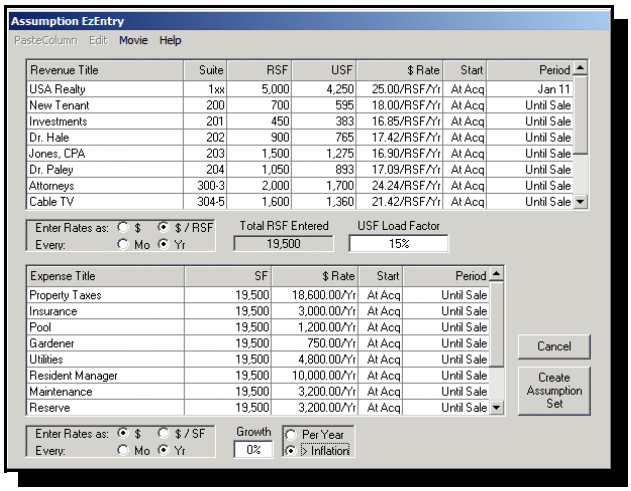
Three buttons control your exit from this dialog:

Cancel ignores all entries in this dialog and returns you to your previous planEASe Session.

OK creates an initial Assumption Set according to your specifications and opens it for your editing with one page of each type (Revenue, Expense, et cetera). All assumption values are set to reasonable default values to begin, and you may then proceed to enter your assumption values in any order you desire.

EzEntry is available when you have entered a *SqFt or Units* value, opening the Assumptions EzEntry Dialog documented on the next page for your use in specifying detailed initial Revenue and Expense items.

Assumption EzEntry Dialog



The Assumption EzEntry Dialog is accessed from the *File / New Assumptions* Menu Option, filling in the *SqFt or Units* entry in the Assumption Set Specifications Dialog (described on Page 6), and pressing the *EzEntry* Button that is activated by your *SqFt or Units* entry. This Dialog provides a fast and convenient method of entering starting Assumption Values for an Assumption Set by allowing pasting of entire columns of information supplied from an external Rent Roll, APOD, or other information source for a property. The Dialog shown here for the Redondo Professional Building (*offices.ru*) was accessed by specifying a SqFt (not Units) value, filled in by exporting the planEASe Rent Roll and APOD Reports to Microsoft Excel, and then using the *Paste Column* Menu Option here to paste the information from Excel into the Dialog, which is shown ready to create the starting Assumption Set.

The two Grids, Revenue on top and Expense on the bottom, collect the assumption values as you type or paste them in. Entering a Revenue or Expense Title in the first column causes default values to be placed in the remaining columns. These values can be changed by editing or pasting different values. Rules for what can be placed in each cell (like "RSF must be 0 or greater" are shown in the Status Bar whenever you place the cursor in a cell by clicking in it, or using the Enter↵, ↑, ↓, ← or → keys to change cells. These navigation keys only work to navigate to cells with information in them. Blank cells cannot be accessed. The *Edit* Menu Option is available anytime the cursor is in one of the grids, allowing you to Insert, Delete, Cut, Copy and Paste Rows. Both Grids allow you to enter as many rows as you want.

The *PasteColumn* Menu Option is available anytime the cursor is in one of the grids, and allows you to paste an entire column of information from the Windows Clipboard into the current Grid beginning in the row where the cursor is located. For example, selecting *PasteColumn / RSF's* pastes the clipboard data into the RSF column. If any data is already in that column, planEASe asks if you want to overwrite it. If there are more rows on the Clipboard than in the Grid, additional rows are automatically added. Any unacceptable values on the clipboard (for instance, minus $25 for the Rate, or "abc" for the Suite) are skipped rather than pasted.

Anytime you use the *PasteColumn* Menu Option planEASe remembers the status of the Grid before pasting, and offers the option to undo the Paste at the *Edit / Undo ...* Menu Option where *Undo* is followed by the name of the action being undone, such as *Edit / Undo Paste Revenue RSF's*. In addition, the *Edit / Insert Row, Delete Row, Cut Row* and *Paste Row* commands are remembered, and can be undone, one at a time, and in reverse order of occurrence.

After all column pasting and editing of the Assumption Values, you may sort either grid on any column's values by clicking the column header and choosing ascending or descending order. The order of the rows in the grids determines the order of the Assumption Pages in your starting Assumption Set, so sorting by Suite Number or RSF value may be appropriate. Any sorts you specify are also remembered by the *Edit / Undo...* command, and can be undone.

The *Rate Definition Box*es below the Grids allow you to control the definition of the $ Rates you enter or paste into the grids ... *$ / RSF/ Yr, $ / RSF /Mo,* et cetera. If you specify $ / RSF (or $ / SF for Expenses) ,the calculator for the Page in the Assumption Set will be automatically filled with the information, allowing easier later access to the Reimbursements Dialog and more convenient use of the Continuation Page capability once you have created the Assumption Set.

To the right of the Revenue *Rate Definition Box* are additional controls for your use. The *Total RSF Entered* box simply keeps track of the total RSF values you have entered or pasted into the Revenue Grid, and cannot be accessed. The *USF Load Factor* box allows you to enter (if you want) a Load Factor (here shown as 15%) for the property. If this value is not zero, planEASe computes the USF for the row whenever the row's RSF value is entered or changed. USF is computed as RSF times (1 - Load Factor), so, for example, a 20% Load Factor converts 1000 RSF to 800 USF.

To the right of the Expense *Rate Definition Box* are controls allowing you to specify a starting growth rate for your expenses and whether that growth rate adds to the inflation rate or not. These specifications apply to all expenses in the grid.

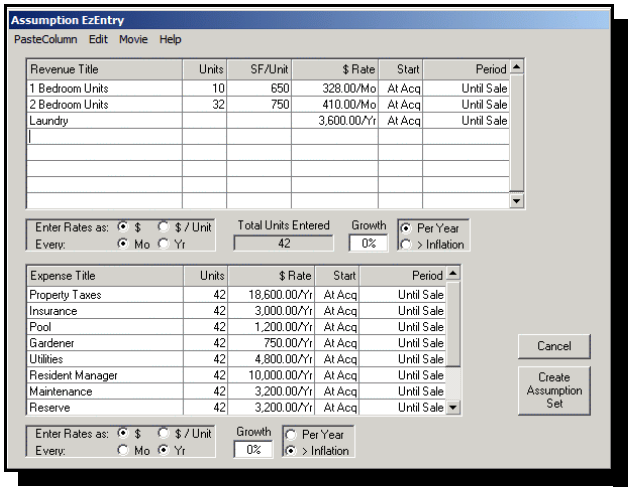
When you have completed your work in this Dialog, two buttons to the bottom right control your exit from the Dialog:

- ***Cancel*** Button simply ignores (and erases) any work done in this Dialog and returns you to planEASe in a new Assumption Set with one (empty) revenue and expense page, just as if you had never entered this Dialog For this reason, planEASe asks you to confirm the cancellation before proceeding.

- ***Create Assumption Set*** Button leaves this Dialog and creates a new Assumption Set with one Revenue Page for each row in the Revenue Grid containing a non-blank title and one Expense Page for each row in the Expense Grid containing a non-blank title. Any row in either Grid that causes an Annual Revenue or Annual Expense Amount of $100 or less will cause the resulting Assumption Page to have an Annual Revenue or Expense Amount of Zero. You will be notified if this occurs.

No matter which button you choose to complete your session with this Dialog, planEASe saves the contents of the Revenue and Expense Grids and offers the opportunity to *Edit / Recover Last EzEntry Dialog* the next time you access this Dialog by choosing the *File / New Assumptions* Menu Option. This opportunity is available until you perform one of the operations that triggers the *Edit / Undo ...* Menu Option.

The Assumption EzEntry Dialog for SqFt properties was documented above. If you enter a Units value in the Assumption Set Specification Dialog and press the *EzEntry* Button, you will see the slightly different Dialog shown here — oriented to Units rather than RSF. The Dialog shown here for the Los Amigos Apartments (*apartments.ru*) was accessed by specifying a Units value, filled in by exporting the planEASe Rent Roll and APOD Reports to Microsoft Excel, and then using the *Paste Column* Menu Option here to paste the information from Excel into the Dialog, which is shown ready to create the starting Assumption Set. All concepts discussed previously for the SqFt Dialog apply to this Units Assumption EzEntry Dialog.



Publish To Web

The *File / Publish To Web* Menu Option at the Assumption Edit Screen allows you to upload your analyses to your personal analysis website (maintained for you by planEASe) so that you can direct other people to view your analyses in their browsers. Once you have published an analysis, you can email a link to the analysis to clients or colleagues so that they can view the analysis later, or simultaneously with you. Optionally, analyses can be password protected at two levels. If you are viewing the analysis together with another person, the publishing process is so quick that you can make assumption changes, replace the published analysis, and refresh the browser page to view the new analysis well within ten seconds. Published analyses can be viewed in any of the major available browsers (Internet Explorer, FireFox, Chrome and Safari).

What you can publish:

Investment Analysis (Apartments, Offices, Retail, etc.)
Development Analysis
Unit Sales Analysis
Tenant Representation Analysis
Owner Representation Analysis
Partnership / LLC Analysis (if you have the *Partnership / LLC Models*)
Portfolio Analysis (if you have the *Portfolio Extension*)

Maps and Pictures can be uploaded for any of these analyses.
Monthly Details are available if you have the *Monthly Extension*
Contents of the *TitlePages* Document (if any) are uploaded under the Description Tab

What is published:

Investment Analysis (Apartments, Offices, Retail, etc.)

The details of the published Income Statement depend on your settings for the Income Statement in planEASe. If you have set the Revenues ListBox below the Income Statement in planEASe to Total, the published statement will not have any detail for individual revenues (lessees, units, etc). If the Revenues ListBox is set to Detail, the Statement will show the individual Lessees (and allow drill-down to the individual leases and reimbursements). This choice is permitted so that you can choose whether to display the revenue details or not, depending on what you want the viewer to be able to see. The contents of the other ListBoxes and CheckBoxes below the Income Statement are treated in the same way, so that, for instance, unchecking the After Tax Check Box eliminates any tax considerations from your published Income Statement.

The APOD Report is shown for these Analyses, as is another report, the Comparative APOD, which is not available in planEASe. This report shows the difference between the APOD and the Annual Statement for the first year of the Analysis, thereby highlighting the changes assumed in the analysis during the first analysis year. The Annual Statement for any year can be viewed by clicking on the year number in the title bar of the Income Statement. Explanations of the various Ratios and Measures can be viewed by clicking on the Ratio / Measure Name. These explanations use the same numbers as in your analysis, for ease of understanding.

planEASe also publishes the Assumptions Report for your analysis under the Assumptions Tab. The *Show Page Notes* and *Refer Revenues* CheckBoxes under the Assumptions Report in planEASe control whether the page notes are published and whether the revenues are published.

Development and Unit Sales Analysis

In addition to the Income Statement and Assumptions Report (details controlled as described above), development assumption sets publish the reports you see in the Unit Sales and Development Spending Dialogs. These reports are listed in separate tabs. The APOD Reports are not shown for Development and Unit Sales Analyses

Tenant and Owner Representation Analysis

These analyses have a special Summary Page format on the Web, and the Income Statement and APOD is not available. However, details for each of the lease alternatives in the analysis are there, as they are in planEASe.

Partnership / LLC Analysis

In addition to the Income Statement, APOD and Assumptions Report, Partnership / LLC Published Analysis includes Horizontal and Vertical Basic Analysis Reports (Annual and Monthly).

Portfolio Analysis

In addition to the Income Statement and APOD, the Assumptions Report shows the Portfolio Assumptions (rather than the Assumptions Report for the Base Assumption Set as in planEASe). A VERY unique capability here is that, if the analyses for the included Assumption Sets in the Portfolio have been published, the names of the published included Assumption Sets will be shown as a link and, when clicked, the analysis of the clicked included Assumption Set will open in a separate window in the browser (together with all the drill-down lease analysis for that analysis).

When using this capability, the analyses for the included Assumption Sets should be saved using the Portfolio Assumption values (that is, the Portfolio Holding Period, Acquisition Date, etc) rather than the assumptions in the included Assumption Set so that the cash flows will match those in the Portfolio Analysis.

How to Publish:

To publish an analysis, access the *File / Publish To Web* Menu Option at the Assumption Edit Screen. The *Publish Analysis As* Dialog that appears then allows you to set the name of the published analysis. The name defaults to the current Investment Name (or Portfolio Name), but you can click on any of the currently published names to use them, or simply type in a new name. Whichever choice you make, planEASe eliminates any spaces (and other non-alpha characters) and uses the resulting name. If the name chosen is the same as a previously published filename, you will be asked if you want to replace the existing file. If you are already viewing the published analysis in your browser, replacing the file allows you to simply refresh the browser page after the upload, facilitating assumption changes in real time.

Following this, planEASe shows the *Publishing Information* Dialog:

Location defaults to the location you have entered in the Assumption Set Specification's Property Location which also shows in the APOD report, and is used to link to any Documents and Photos you have uploaded to the Web, and is also shown in the top title and summary area of the published financial analysis website. All websites published with the same location name will have the same Documents and Photos shown.

Map Address defaults to the address you entered for this analysis previously (if any). This address is used to obtain a map for the property, and should contain appropriate information to define the map, such as City / State / Zipcode. Alternatively, you may enter the Google Map Longitude / Latitude coordinates here. To obtain Google Map coordinates, right-click on the map location desired, choose “What's here” from the menu and copy the coordinates from the Google search box (for example: 41.879387,-87.625004).

Map Description allows you to (optionally) enter as many characters as you want to be shown above the map.

Password allows you to (optionally) protect access to your analysis with a password. If you choose to do so, none of the analysis will be visible on the site until the password is entered. If you do enter a password, checking the APOD access checkbox below in the Dialog tells the site to show the Analysis Summary Page and APOD without entering the password, only blocking access to the projections until the password is entered.

Description allows you to enter any text desired to be shown on the summary page for the published analysis.

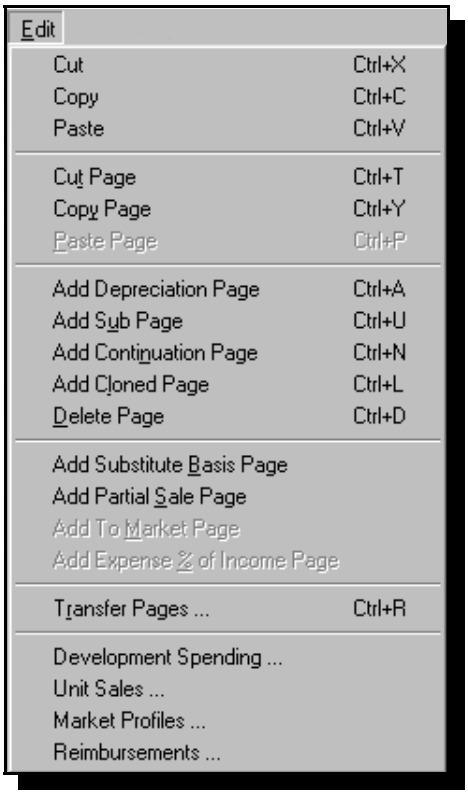
Following entry of the Publishing Information, pressing the *Publish* Button begins the upload. After completion, you are given the following choices:

Go To Analysis simply opens your browser to the summary page of the published analysis (or the Enter Password Dialog if password protected). Once you are looking at the summary page, you can copy the page address from the top of the browser window and paste it into an email that you can send to any clients or colleagues you want to be able to access the analysis. If the analysis is password protected, consider adding the password to the email.

Go To Publishing Center opens your personal Web Publishing Center where you can manage your published analyses. You can also access the your Publishing Center at any time by using the *File / Web Publishing Center* Menu Option at the Assumption Edit Screen. When at your Publishing Center, you can view or delete your published analyses, adjust your color and font settings, upload pictures, upload your logos, specify map settings, and more.

OK simply returns you to your planEASe session so you can proceed with further analysis.

Edit Menu



These commands allow you to control your *Assumption Page List* for an Assumption Set by adding and deleting assumption pages in various ways. These commands only affect Multiple Page Type pages. That is, the General Page Type pages at the top of the Assumption Page List cannot be added or deleted. The Cut / Copy / Paste commands at the top of the Edit Menu are the same as the normal Windows commands for Cut / Copy / Paste of any highlighted text to and from text boxes.

Cut Page

deletes the currently displayed page and places a copy on the Assumption Clipboard for later use with the *Paste Page* command. Any previous contents of the Assumption Clipboard are automatically replaced by the contents of the cut page. You can **move assumption pages** (within the same Multiple Page Type) by cutting them and pasting them into a different location in the Assumption Page List.

Copy Page

places a copy of the currently displayed page on the Assumption Clipboard for later use with the *Paste Page* command. Any previous contents of the Assumption Clipboard are automatically replaced by the contents of the copied page.

Paste Page

is available if you have previously cut or copied an Assumption Page to the Assumption Clipboard and are currently displaying an assumption page of the same Multiple Page Type as that on the Clipboard. Pages are pasted **in front** of the currently displayed page.

Add Page

allows you to add a new assumption page (of the same Multiple Page Type) immediately **following** the page currently displayed. This option is renamed based on the type of Assumption Page being displayed. For example, it would be renamed *Add Revenue Page* when a Revenue Page is displayed.. The assumption values on the added page will be the planEASe defaults (use *Add Cloned Page* and/or *Copy/Paste Page* to add a page with the same values as the displayed page). The Page Title is initially set to the Multiple Page Type (e.g. “Revenue” or “Expense”), which you should change to a more descriptive title when editing the new page.

Add SubPage

is the same as *Add Page*, except that the added page contains a Page Title of “&”, (saving you the effort of editing the Page Title). Some Page SubTypes cannot accept SubPages, and this menu item will not be available when you are displaying those Page SubTypes. See page 78 for a discussion of the use of “&” in Page Titles.

Add Continuation Page
is the same as *Add Cloned Page* (below), except that the added page contains a Page Title of "& Continued", (saving you the effort of editing the Page Title). and a Start Date of "Continuation". For Revenues and Expenses, the added page otherwise contains the same assumption values as the page currently being displayed. For amortizing Loans, if Balloon Payment Due is being used, the Original Loan Period on the continuation page is reduced by the time that the balloon payment is scheduled for. Thus a 30 year loan with a balloon payment in 24 months will have a 28 year Original Loan Period on the added continuation page to facilitate entry of Variable Rate / Payment Loans. For Depreciation Pages, if the Depreciation Start Date and/or Expenditure Date are after acquisition, the continuation page has dates one year later, to facilitate planning of annual capital spending. Some Page SubTypes cannot accept Continuation Pages, and this menu item will not be available when you are displaying those Page SubTypes.

Add Cloned Page
is the same as *Add Page*, except that the added page contains the same assumption values as the page currently being displayed. Cloning a page saves the time of entering assumption values when you want the added page assumptions to be the same or similar to the current page. *Add Cloned Page* is functionally the same as using *Copy Page* followed immediately by *Paste Page* (except that the assumption page is not put on the Assumption Clipboard if you use *Add Cloned Page*, and correspondingly, the previous contents of the Assumption Clipboard remain undisturbed).

Delete Page
allows you to delete the assumption page currently displayed on the screen. If the displayed page is the only page of its Multiple Page Type, deleting it means that you must use *Edit/Transfer Pages* to add a new page of that kind, so we warn you of this before you are allowed to complete the deletion.

Add Page SubType Page
is titled for one or more of the Page SubTypes available depending on what Multiple Page Type is being displayed currently. For example, if you are displaying a Depreciation Page, you will be allowed to *Add Partial Sale Page.*

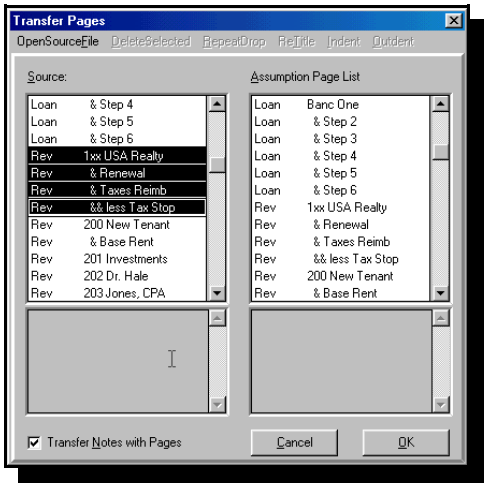
Development Spending
allows you to access the Development Spending Dialog (see Page 174) to plan (or re-plan) Development Spending for this Assumption Set. This capability is not available for Assumption Sets that contain Unit Sales assumptions.

Unit Sales
allows you to access the Unit Sales Dialog (see Page 186) to plan (or re-plan) Unit Sales for this Assumption Set. This capability is not available for Assumption Sets that contain Development Spending assumptions, and is not shown unless you have purchased the optional *Monthly Extension*.

Reimbursements
allows you to access the Reimbursements Dialog (see Page 103) to plan (or re-plan) expense reimbursements and/or Percentage Rent provisions for leases you have planned in your Assumption Set.

Market Profiles
allows you to access the Market Profiles Dialog (see Page 108) to plan (or re-plan) the market rates and other parameters for re-leasing expiring space in your Assumption Set.

Transfer Pages



allows you to Copy and Delete Assumption Page Blocks within and **between** Assumption Sets. This means you never have to enter a multi-page lease or loan twice. Just copy it from the Assumption Set where you entered it to the current Assumption Set using this Transfer Pages capability. Using other capabilities here, you can replicate Page Blocks (like multi-page leases) and delete Page Blocks. If you have an Assumption Set with no pages of a particular type (for instance, no expense pages), you can copy a page of that type from another Assumption Set into the current Assumption Set. Use this capability without fear, because any changes you make can be eliminated by pressing the *Cancel* button or the Esc key.

When you request *Edit/Transfer Pages*, the Transfer Pages Dialog appears as shown here. The Source Assumptions are originally set to be the same as the current Assumption Set (use the *OpenSourceFile* menu option to open another Assumption Set for the Source Assumptions). You may then select one (or more) pages in the Source (on the left side) and copy (or drag and drop) them into the Assumption Page List (on the right side of the Dialog).

To select a single assumption page, simply click on it. To select a Page Block, as shown in the screen above, click on the first page in the block, and, holding down the ⇧Shift key, click on the last page in the block. To select non-contiguous pages, click each page while holding down the Ctrl key. All pages in a Page Block must be of the same page type (e. g. all expenses, or all loan pages).

There are two ways to insert the selected page or Page Block into the Assumption Page List on the right. To use the keyboard method, press Ctrl - C to copy the page or block to the clipboard. The cursor will turn into a double box, signifying that a page insertion is underway, and an *Insertion Line* will appear in the Assumption Page List showing where the page or block will be inserted. You can move the Insertion Line up or down using the ↑ and ↓ keys. Page Down and Page Up will scroll the Assumption Page List. When you have positioned the Insertion Line where you want, pressing Enter↵ or Ctrl - V completes the insertion of the page(s). Once an insertion has begun, it must be completed. If you have selected General Pages, the values on those pages *replace* the corresponding values in the Assumption Page List rather than creating new pages.

To use the Drag and Drop method, click and hold on the Source page, and the cursor will turn into a page. Holding the mouse button down, drag the Source page over the Assumption Page List. The cursor turns into a dropping page, signifying that you may drop the page there, and the Insertion Line appears so you can place the insertion where you want. Dragging a Page Block requires that you press the ⇧Shift (or Ctrl) key while clicking and holding on the *last* page in the Block. The Drag and Drop method is easier if you first scroll the Assumption Page List so the desired insertion point is visible before beginning the Drag and Drop process. If you are scrolling the Assumption Page List by moving the Insertion Line to the top or bottom of the Assumption Page List, scrolling is facilitated by wiping the cursor side to side across the bottom or top of the list.

After inserting the selected page(s), they are automatically selected, and you may, if you wish, use the *DeleteSelected* menu option to cancel the insertion (*DeleteSelected* is also useful for deleting any Page Blocks that you select in the Assumption Page List). You can use the *RepeatDrop* menu option to duplicate the inserted pages as many times as you wish rather than repeating the insertion process again. The *ReTitle* menu option allows you to change the Page Title of any page in the Assumption Page List (doubleclicking the Page Title activates this option also). When you've changed the title, pressing Enter↵ posts the new title to the list.

Indent inserts the "&" character (see page 78 for a discussion of the use of "&" in Page Titles) in front of the Page Titles of all selected pages that do not already have it there.

Outdent performs the opposite function ... it eliminates the "&" character from in front of the Page Titles of all selected pages in the Assumption Page List. This allows you to "hide" a group of pages (like *Indent*ing all the detailed Capital Spending in a development Pro Forma printed in annual mode) and then easily restore the original Page Titles to print the detailed Pro Forma for the first year in monthly mode. You can do the same thing by editing the Page Titles of all affected pages, but this sure is easier!!

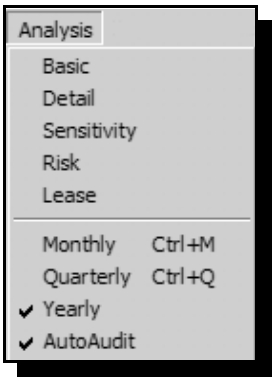
Profiles allows you to transfer the Local Market Profiles (and all Variants depending on them) from one Assumption Set to another. It will only be available to you if:

- The Source Assumption Set contains one or more Local Profiles, **AND**
- The Target Assumption Set does NOT contain any Market Profiles.

If these conditions are met, and you choose the *Profiles* menu option, you will first be asked to verify that you want the transfer of Market Profiles. If you choose *Yes*, the Profiles from the Source Assumption Set will be inserted in your Target Assumption Set, the Transfer Pages Dialog will terminate, and the Global Market Profiles will also be recovered from disk and inserted in your Assumption Set.

The transfer of Construction Draw, Unit Sales Draw and Permanent Loans, as well as Substitute Basis, Development Spending Cost Items, and Unit Sales Parameter Pages is not permitted. Likewise, deletion of these pages (created in the Development Spending and Unit Sales Dialogs) is not permitted. If you attempt this, you will be notified it is not possible. Copying such items is facilitated by saving the Assumption Set, opening it again, and saving it under a different name, so as to use the same assumptions as a "template" for the newly named project.

Analysis Menu



The Analysis Menu provides the five Analysis functions for your assumptions: Basic, Detail, Sensitivity, Risk and Lease Analysis. Choosing one of the first five functions from this menu is the same as pressing the corresponding Analysis Button at the bottom right of the *Assumption Edit Screen*. This Menu Option offers the following choices:

Basic Analysis
allows you to view/print the overall cash flow projection for the investment in any of three Basic Views: Vertical, Horizontal, or Graph.

Detail Analysis
allows you to view/print the cash flow projections for any of the multiple page types (i.e.: depreciation, loan, revenue or expense) organized as a grid or array of the individual pages, in any of three Detail Views: Vertical, Horizontal, or Graph. This is useful for showing, for instance, expense breakdowns or revenue breakdowns within the individual property.

Sensitivity Analysis
As you perform an analysis, planEASe measures the worth of the investment in terms of rates of return and net present values. Sensitivity Analysis allows you to investigate how these measures vary with a change in one of the assumptions. **Any** measure may be chosen for the Sensitivity Analysis, and **any** assumption may be chosen as well. Sensitivity Analysis provides a one page table and graph which describes the relationship between the assumption value and the resulting measure.

Risk Analysis
As you perform an analysis, planEASe measures the worth of the investment in terms of rates of return and net present values. Risk Analysis allows you to investigate how these measures vary with a change in one or more of the assumptions. **Any** measure may be chosen for the Risk Analysis, and **any** group of assumptions may be chosen as well. Risk Analysis provides a one page table and graph which describes the relationship between the risky assumption values and the variability (or risk) of the resulting measure.

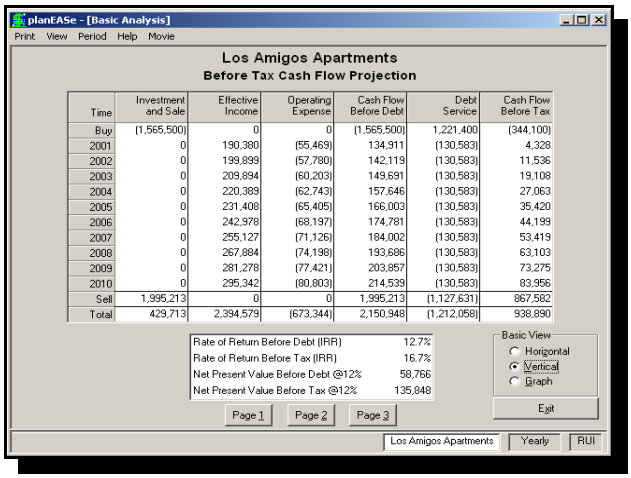
Lease Analysis
allows you to view/print a summary of the leases in an Assumption Set as well as individual analyses, reports and graphs for each lease. Lease Analysis is also used to prepare Tenant Representation and Owner Representation presentations.

Monthly / Quarterly / Yearly
You may, if you have purchased the planEASe *Monthly Extension*, change from Yearly to Monthly or Quarterly calculations by checking or unchecking the *Analysis/Monthly* or *Analysis /Quarterly* Menu Option (see the *Monthly Extension* on page 34.)

AutoAudit
You may turn the *Audit Window* on or off by checking or unchecking the *Analysis/AutoAudit* Menu Option. This may be desirable on slower machines when you are entering original assumption values or when you are in Monthly calculation mode.

Basic Analysis

Basic Analysis allows you to view/print the overall cash flow projection for the investment in any of three Views: Vertical, Horizontal, or Graph. To change between these views, just click the appropriate Basic View Button (at the bottom right of the screen). Here you are seeing the Basic Analysis in Vertical View (the Before Tax Cash Flow Projection, Page 1) for the *Los Amigos Apartments*, an investment on your planEASe System Disk saved under the Assumption Set name *apartments.ru*. The Basic Analysis Screen contains a View Control at the right bottom of the screen allowing you to switch between the three Views of your analysis.



Vertical View organizes the Cash Flow Projection with the years running vertically down the side of the page and presents the information as separate pages (3 pages for the *Real Estate Investment Analysis*, models RUI and RUM, and 5 pages for the four Limited Partnership / LLC Models). You may view any of these pages by pressing the corresponding Page Button at the bottom of the screen.

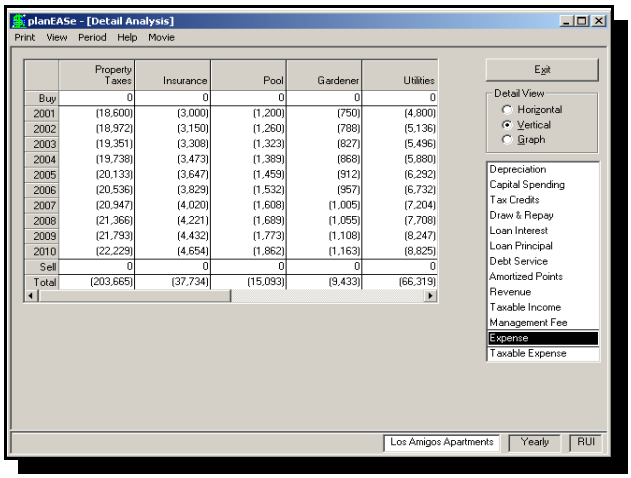
Horizontal View organizes the Cash Flow Projection in a one page spreadsheet format, with the years running horizontally across the top of the page, and each of the 3 (or 5) pages presented as a separate horizontal section of the spreadsheet.

Graph View (available if you have purchased the optional *Graphics Extension*) allows you to display/print four different graphs of data contained in your Basic Analysis. Any Debt Funding or Repayment and/or any Capital Spending planned during the Holding Period is eliminated from these graphs so that they reflect the results of ongoing operations rather than such one time events. The Graphs are: ***Allocation of Effective Income***, ***Cash on Cash***, ***Debt Coverage Ratio*** , and ***Net Capitalization Rate***.

Monthly and Quarterly Analysis may be produced here *instantly* if you have purchased the planEASe *Monthly Extension*. You may switch between Yearly, Quarterly and Monthly Analysis (and add/delete yearly totals) using the *Period* menu on the menu bar. In Basic and Detail Analysis, the Period menu is also available in Graph View, so you may switch between period views there as well.

Detail Analysis

Each planEASe Model contains several Multiple Page Types. Typically, you enter several pages of each type in an Assumption Set. Basic Analysis adds the results for all the pages of a particular type together, and displays the **total** of these pages in the appropriate column. Detail Analysis allows you to examine and report the detail results for each group of pages of any Page Type. This screen shows the Expense Detail (in Vertical View) for the *Los Amigos Apartments*, an investment on your planEASe System Disk saved under the Assumption Set name *apartments.ru*. The Detail Analysis Screen contains two controls on the right hand side of the screen that you can use to control the Detail Analysis display:



	Property Taxes	Insurance	Pool	Gardener	Utilities
Buy	0	0	0	0	0
2001	(18,600)	(3,000)	(1,200)	(750)	(4,800)
2002	(18,972)	(3,150)	(1,260)	(788)	(5,136)
2003	(19,351)	(3,308)	(1,323)	(827)	(5,496)
2004	(19,738)	(3,473)	(1,389)	(868)	(5,880)
2005	(20,133)	(3,647)	(1,459)	(912)	(6,292)
2006	(20,536)	(3,829)	(1,532)	(957)	(6,732)
2007	(20,947)	(4,020)	(1,608)	(1,005)	(7,204)
2008	(21,366)	(4,221)	(1,689)	(1,055)	(7,708)
2009	(21,793)	(4,432)	(1,773)	(1,108)	(8,247)
2010	(22,229)	(4,654)	(1,862)	(1,163)	(8,825)
Sell	0	0	0	0	0
Total	(203,665)	(37,734)	(15,093)	(9,433)	(66,319)

Detail Page List shows a list of the detail reports available for the Model you are using, such as Depreciation, Capital Spending, et cetera. To view any of these reports, just click on the corresponding list item, and the report will be displayed in the current Detail View.

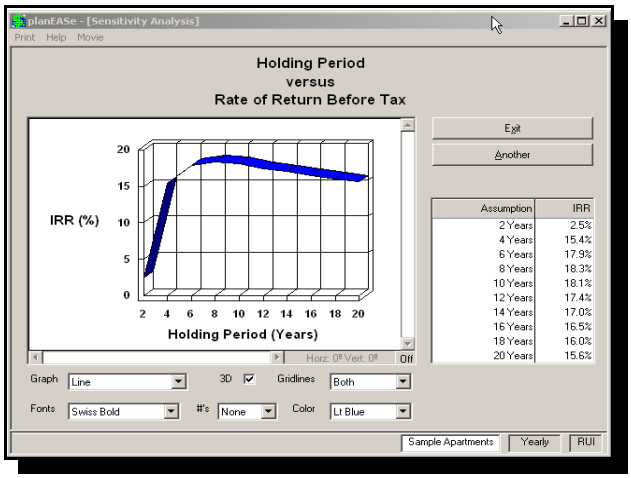
Detail View allows you to view the current Detail Page List item in Horizontal, Vertical, or Graph View by clicking on the corresponding option button. The Graph View is available if you have purchased the optional *Graphics Extension*.

Reimb Detail checkbox is located at the bottom right of the screen if you have chosen to Separate Reimbursements (see page 7), and there are reimbursements in the current Assumption Set, and you have chosen to view Revenues. This checkbox controls whether the reimbursements are shown in detail (expense by expense) or in total.

When you request Detail Analysis, it will originally display the details for the Page Type currently being displayed in the *Assumption Edit Screen* using the same Detail View that you last used in Detail Analysis. Thus you may put a Detail Analysis Expense Graph on screen, return to the Assumption Edit Screen, edit the assumptions for one of the expense pages, and when you again request Detail Analysis the Expense Graph will automatically be the first Detail Analysis displayed.

Monthly and Quarterly Analysis may be produced here *instantly* if you have purchased the planEASe *Monthly Extension*. You may switch between Yearly, Quarterly and Monthly Analysis (and add/delete yearly totals) using the *Period* menu on the menu bar. In Basic and Detail Analysis, the Period menu is also available in Graph View, so you may switch between period views there as well.

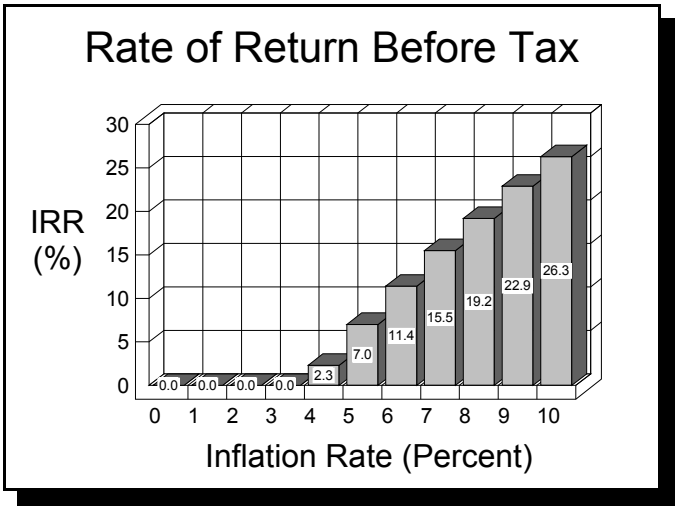
Sensitivity Analysis



Example Sensitivity Analysis

In any planEASe projection, there are several assumptions whose values are inherently uncertain. For instance, you enter the inflation rate that will prevail during the time you own the real estate. Additionally, you enter the number of years you will hold the property before selling and the capitalization rate (or other method) determining the sale price. These values are uncertain. As you perform the analysis, the worth of the investment is measured by the system in terms of rates of return and net present values. Additionally, you may choose the Capital Accumulation and the Capitalization Rate, Cash on Cash Before Tax, or Debt Coverage Ratio shown in the Ratio Analysis section of the ProForma Income Statement and Annual Statements for the Sensitivity Measure. The concept of Sensitivity Analysis is to investigate how these measures vary with a change in one of the assumptions. **Any** measure and **any** assumption may be chosen for the Sensitivity Analysis.

Sensitivity Analysis provides a one page table and graph which describes the relationship between the assumption value and the resulting measure, as shown in this "Example Sensitivity Analysis" screen. Here the user has asked how the Rate of Return Before Tax changes as the Holding Period is varied. The analysis shows the Rate of Return which would result if the property were held for two through twenty years. The graph of these results shows that the rate of return increases in a curved line, with the highest rate of return at eight years. Before that time, the appreciation on the property does not sufficiently overcome the costs of acquisition and selling. After that time, the buildup in the equity position overcomes the continuing appreciation, leading to the conclusion that this particular property should be sold or refinanced at that time.



Inflation Rate Sensitivity Analysis

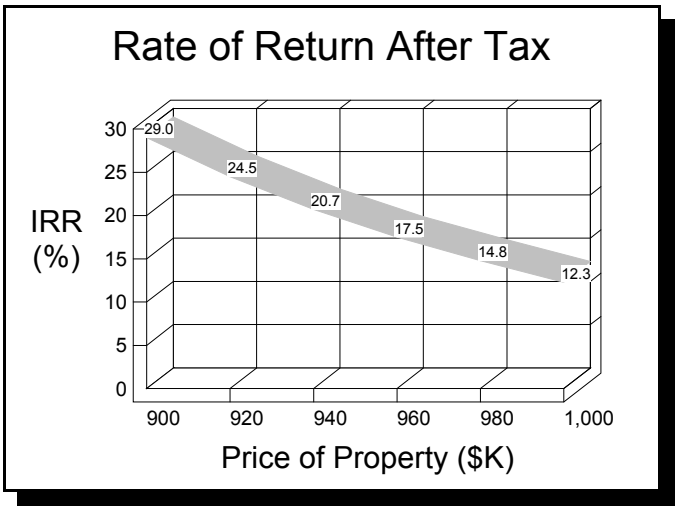
Here is the graph from another Sensitivity Analysis. This time the user has asked how the Inflation Rate affects the Rate of Return Before Tax. The assumptions provide that the rents, expenses and property value change in line with inflation, so it is intuitive that the rate of return increases as inflation increases. This is what is meant by the commonplace that leveraged real estate is an excellent inflation hedge. It is one thing to simply state that an investment is a good hedge against inflation, but the Sensitivity Analysis capability in planEASe enables you to **quantitatively evaluate** that hedge and show graphically how the individual investment benefits from inflation. Here the rate of rate of return increases approximately 3.5% to 4% for each 1% change in the inflation rate, which is typical of highly levered real estate investments (80% Loan to Value in this case). The graph is flat before 3%

inflation because the rate of return is negative in this area and planEASe reports a zero rate of return value in such cases.

These are but two examples of how you might want to use Sensitivity Analysis. For instance, how about a graph showing the after tax rate of return versus the vacancy factor or the sale price? Graphs like this provide one page visual answers to common questions about financial projections. Going further, suppose you're syndicating a property. How about a graph of your fee on sale versus the Limited Partners' Rate of Return After Tax? Could that help you plan your fee structure better? We think so.

The basic premise of Sensitivity Analysis is that the chosen assumption is "independent" of the other assumptions. That is, in performing the analysis, only the chosen assumption is varied, while the others remain as they were in the Basic Analysis. This can lead to some problems. For instance, the average inflation rate expected over ten years may well differ from that expected for the first year, and both those rates may be different from the rates assumed in both the Basic Analysis and the Sensitivity Analysis. For this reason, you should use care in choosing the assumption for a Sensitivity Analysis and interpreting the results.

The foregoing examples represent just the tip of the iceberg as to what you can do with this extraordinary Sensitivity Analysis capability. This graph shows the Rate of Return versus the Price of Property for the *Sample Apartments*. If the investor wants an After Tax Rate of Return of 15%, a graph like this tells him immediately that he'll have to negotiate a price in the area of $980,000 for the *Sample Apartments*, all else being equal. You can use this capability to "back into" the property price which justifies a desired return, and then, if you want, substitute that price into the Assumption Set to print your reports with the desired return.



Property Price Sensitivity Analysis

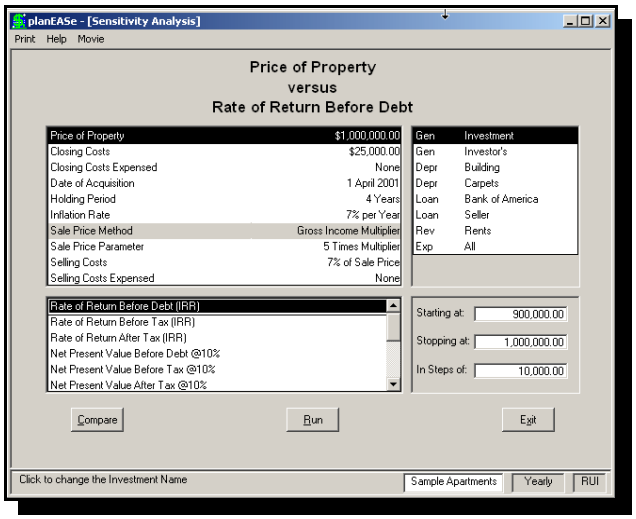
You must, of course, consider any dependencies in the Assumption Set when running Sensitivity Analysis. There are two loans assumed for the *Sample Apartments*: a $600,000 first and a $200,000 second. This graph assumes that these will be the loan amounts regardless of the price paid for the property, which may or may not be realistic. Alternatively, you could specify either or both of these loans to be a percentage of the purchase price in the Assumption Set, in which case the loan amounts in the calculations would change as the price is varied.

There are some assumptions that are inappropriate for Sensitivity Analysis, and planEASe will not allow you to use them in a Sensitivity Analysis. An example is the Sale Price Method. If you were to specify this assumption, and run for values from 1 to 10 in steps of one, you would end up with some very strange results indeed, because the Sale Price Parameter is "dependent" on the Sale Price Method. Thus if you have a value of 5 in the Sale Price Parameter, the Sensitivity Analysis for a Sale Price Method of one would treat the 5 as a Gross Income Multiplier, the value of two would treat the 5 as a Capitalization Rate, and so on.

Doing Sensitivity Analysis

To do a Sensitivity Analysis, you simply:

- select the particular assumption that you want to vary
- select the particular measure you want to use
- set the range and step value for varying the chosen assumption
- run and view the Sensitivity Analysis on the screen
- print the Sensitivity Analysis with Graph, if desired
- print the Sensitivity Analysis Graph by itself, if desired



Starting Sensitivity Analysis

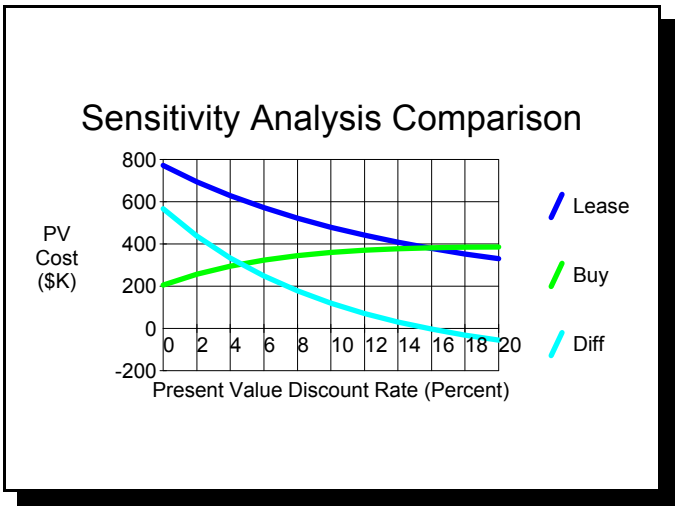
As shown on this screen, which appears when you choose Sensitivity Analysis, selecting the Sensitivity Assumption and Measure is simply a matter of clicking on the appropriate Assumption and Measure names. If the Assumption is not on the first Assumption Page, click the Assumption Page List to display the Assumption Page you want. The measure list is scrollable, so to choose Lender Yield, Capital Accumulation (MIRR Models only), Capitalization Rate, Cash on Cash Before Tax, Debt Coverage Ratio or Loan Amount, scroll the list to the desired area.

When you choose an Assumption, planEASe will suggest a range and step value for varying the Assumption in the lower right hand box. You may change the suggested range and step value, if desired. The total number of steps is restricted to be no more than 11. For example, if you choose to vary the inflation rate between 0% and 20%, you must specify a step value of 2 (or greater) to be within the maximum eleven step range.

When you have set these values as you want, press the *Run* button to run and view the Sensitivity Analysis and Graph. When the Analysis is complete, the graph appears, and you may pull down *Print/Print* to print the Sensitivity Analysis (with Graph), or pull down *Print/Print Graph* to print the Sensitivity Analysis Graph (by itself).

Comparing Sensitivity Analyses

You can combine two or more Sensitivity Analyses into one graph or report, which is very useful for Lease/Buy Analysis and other purposes. A sample of such a comparison is shown here.

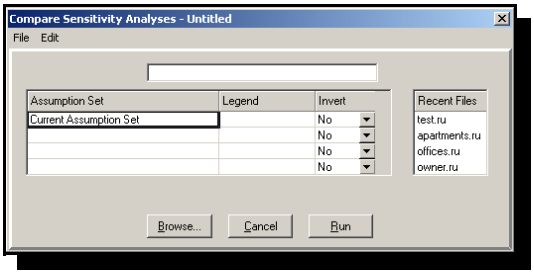


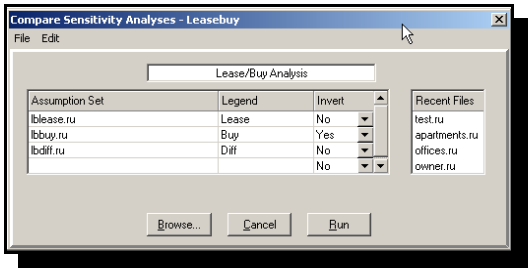
Comparison Sensitivity Analysis

A fast and easy way to produce this comparison is to, first, choose the Sensitivity Assumption and Measure (the Present Value Discount Rate After Tax and Present Value After Tax here). Second, enter the Starting at, Stopping at, and In steps of values (0, 20, and 2 here).

After making these choices, press the *Compare* button. When you do so, this Compare Sensitivity Analyses dialog appears, allowing you to specify the Assumption Sets on which to perform the analysis. In this case, we have saved the Lease analysis in the *lblease.ru* Assumption Set, the Buy

Analysis in the *lbbuy.ru* Assumption Set, and the Difference between the two in *lbdiff.ru*. Therefore, these are the specifications we want to enter.





The completed Specification Grid is shown here. We could type the Assumption Set names into the grid, but two other methods are both quicker and more reliable. First, the *Recent Files* list on the right side of the dialog will typically contain several of the Assumption Sets you want. Just click on the desired name and it will be added to the grid. Second, the *Browse ...* button allows you to choose any file on disk. Here you see the completed dialog leading to the Comparison Sensitivity Analysis on the previous page.

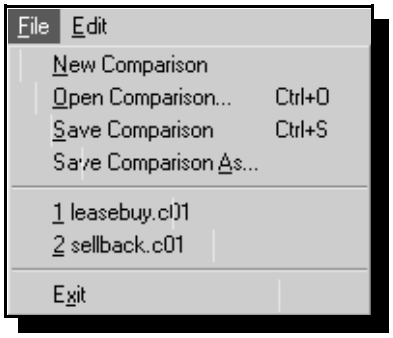
You may insert and delete rows using *Edit/Delete Row* and *Edit/Insert Row*. There is no limit on the number of files you may compare, although the complexity of the analysis and the page width of the printed report typically means you probably will use no more than five files.

The first column of the Specification Grid contains the names of the Assumption Sets to compare. By default, the first row contains the text "Current Assumption Set" which means that the Sensitivity Analysis will first be performed on the Assumption Set you are now analyzing. If you do not want that to be so, specify the first Assumption Set (in row 2), click on the first row, and use *Edit/Delete Row* to delete the first row.

The *Legend* Column in the Specification Grid is where you enter the name to be shown in the Graph Legend for the analysis (Lease, Buy, and Diff here). If you do not enter a Legend for a particular line, planEASe will, by default, use the Assumption Set name (lblease, lbbuy, and lbdiff) when producing the graph, which can be useful for "quick and dirty" comparisons.

The *Invert* column in the Specification Grid allows you to change the sign of the cash flows in a particular Assumption Set. Here, the *lbbuy.ru* Assumption Set shows the Costs of Purchase (negative Cash Flows) and the *lblease* shows the Revenues due to the Lease (positive Cash Flows). In fact, the Lease alternative is really costs rather than revenues. Therefore, in order to match Costs versus Costs you would Invert *lblease.ru*. To match positive Cash Flows versus positive Cash Flows, you would invert *lbbuy*.ru, as we have done here.

Above the Specification Grid is the Title Box, in which we have entered Lease/Buy Analysis". The text you enter here is presented as the default title when you choose to print the analysis or the graph.



After completing your Comparison Specification, you may save it for later use with *File/Save Comparison As ...* (shown here). *leasebuy.c01* and *sellback.c01* are two comparison files we saved and ship with planEASe to enable you to perform the comparisons in those sample analyses. The menu shows the last four comparison files you have used, for fast reloading and reruns.

Risk Analysis

planEASe Risk Analysis is based on a recognized technique in the literature of Operations Research known as "Monte Carlo Simulation". The basic concept of the technique is best described through illustration. We all know that a normal six-sided die with the numbers one through six on each of the faces has an equal chance of showing any of the six numbers on any one roll. Statisticians would say that the results of a roll are "uniformly distributed" between one and six, and that the results of any one roll of the die represented a "random number" sampled from that uniform distribution. This is very fancy language for a very simple concept, but the language becomes more useful as we get deeper into the Monte Carlo method.

Now, suppose that you wanted to know what the chances were that the numbers on a normal pair of dice would total seven when rolled. While there are many ways to solve this question mathematically, one simple method would be to roll the dice many times and count the proportion of times that the total is actually seven. If for instance, you rolled them 36 times and they totaled seven on six occasions, you might deduce that the chances of getting a seven were one in six, or 16.7%. As it happens, you would be exactly right in this instance. However, the dice could have shown seven on ten occasions. In this case, the results of your "simulation" would have been misleading, unless you had the judgment to take the results with a grain of salt. The results of rolling a pair of dice are random after all, and the chances of rolling a seven the precise six times required here are rather small.

If, however, we were interested in the **average** number shown on the dice in the same 36 rolls, you typically would find that the total of the numbers on the dice divided by the 36 rolls was close to seven. In other words, your simulation was a rather good predictor of the average result, while not necessarily giving you accurate information about the probability of any individual result occurring.

To continue the illustration, suppose that you were interested in describing the "spread" of your simulation results. One common method of doing this is to show the results in what is known as a "bar graph" or "histogram". Suppose that the results of your 36 rolls were:

1	two
3	threes
3	fours
3	fives
6	sixes
6	sevens
5	eights
3	nines
1	ten
3	elevens
2	twelves

Dice Simulation Histogram

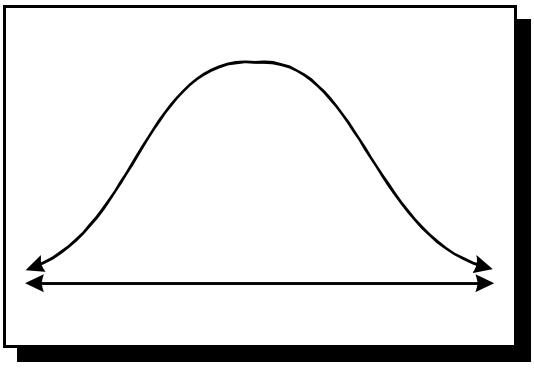
The bar graph of these results is
shown to the right of the table. Each bar is proportionally as high as the number of times that the result occurred, so that the bar for the result of three is three times as high as the bar for the result of two. Such a graph is a useful tool to describe the results of your simulation, although you would not believe that it accurately represented the chances of rolling a particular total, since the results are random. One thing you might do, however, is draw a smooth line over the results, as has been done here, and think that such a line might come close to the tops of a bar graph of a "perfect" simulation". In this case, you would be right, since the triangle shape is the actual underlying "probability distribution" of the sum of two die.

While the bar graph is a good picture of the results of the simulation, statisticians typically use two particular numbers to describe the same thing in summarized form. The first statistic is the "mean" or average result. This is determined by adding all the results, and dividing the total by the number of trials. In this case, the average result is 290/36 or 8.06. The second statistic is called the "standard deviation". It is a measure of the "spread" of the distribution, and is, mathematically, the square root of the sum of the squares of the deviations from the mean divided by the number of trials. While that is a confusing definition, the use of the statistic in the context of Risk Analysis is quite simple. Since the standard deviation measures the spread of the results, it is a good measure of the amount of risk in the simulation results.

Although the dice illustration is quite simple, a statistician would say that we have just conducted a Monte Carlo Simulation for 36 trials in order to describe the probability distribution of the total shown on a pair of dice. In order to do so, we have sampled two random numbers from a uniform probability distribution between one and six, and performed a mathematical operation (adding the two numbers together) on the pair of random numbers. The Risk Analysis of Analytic Associates is performed in exactly this fashion. However, there are a few differences due to the nature of the real-life situation we are simulating.

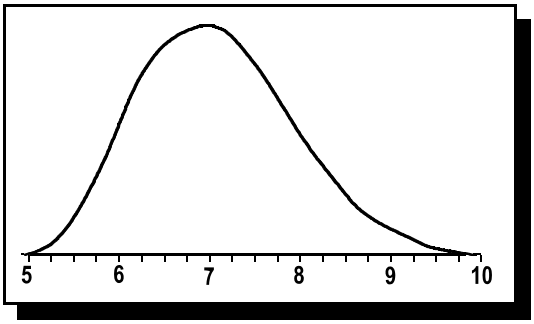
The uniform probability distribution for the number on a die is relatively unusual in real life. First, the sum can only assume integer values, whereas most variables are "continuous" values. The inflation rate in the economy, for instance, can be 7.033% or 9.445% ... it is not restricted to integers. Secondly, the shape itself is unusual in that most uncertain variables in real life are distributed as some kind of "bell shaped curve".

There are several bell shaped curves defined in the mathematics of probability. The most commonly known is the "normal" distribution, shown here. It is "symmetric", in that the left side of the curve is a mirror image of the right side. Another characteristic is that the curve never crosses the bottom line, but rather trails away endlessly. In other words, if we were to say that the inflation rate were normally distributed with an average of 7%, we would implicitly be saying that there was a real possibility, however slight, that inflation could be -1,000%.



Normal Probability Distribution

Another bell shaped curve in mathematics is the "beta" distribution. This distribution has three characteristics that make it useful for Monte Carlo Simulations. First, it is not necessarily symmetric: it can be "skewed" to the left or right side. Secondly, the "tails" of the bell do touch the bottom (zero probability) line. Thirdly, a beta distribution is completely determined by naming the two points where the tails hit the bottom line and the point where the curve is at its highest. If, for instance, we were to say that we believe inflation would be 7% next year, but certainly would be between 5% and 10%, the beta distribution for this would look like the distribution shown here.



Beta Probability Distribution

In other words, the beta distribution curve has its highest point at the "most likely" amount for the random variable, seven percent, and there is no possibility under this distribution of inflation amounts lower than five percent and higher than ten percent. Note that the distribution is slightly "skewed" because the most likely point is not midway between the outside limits.

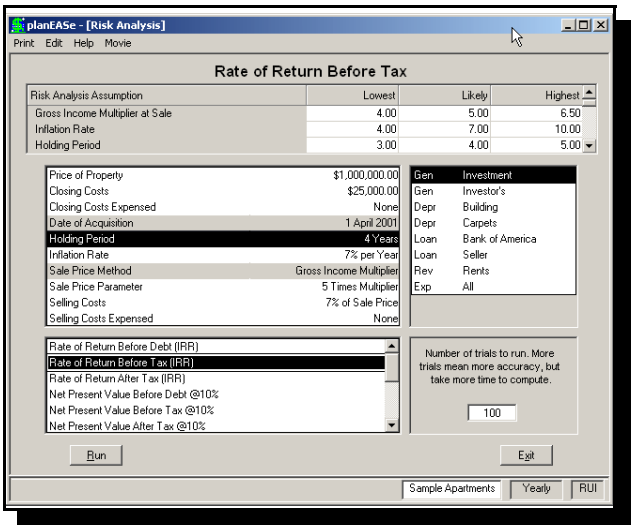
planEASe Risk Analyses use beta distributions to describe the user's uncertain assumptions, just as the illustration used a uniform distribution to describe the number on the die. Thus, when a random number is

sampled from the beta distribution, it is more likely to be close to the most likely value than the tails of the distribution. The reason that we use beta distributions is not at all mathematical. Quite simply, we believe that this distribution best describes the **shape of what the user really means** when he says that inflation will be about 7% and certainly between 5% and 10%.

Monte Carlo Simulation for Risk Analysis is conducted almost exactly as in the dice illustration. First, the random numbers are sampled for each of the uncertain assumptions. This is analogous to rolling the dice. Secondly, the random numbers obtained are used together with the other assumption values to perform the basic analysis. This mathematical operation is analogous to totaling the numbers on the dice in the illustration. The measure requested by the user is then recorded in a table for display in a bar graph, just as we did for the total shown on the dice.

Before discussing Risk Analysis as performed by planEASe, we should define what is meant by the term "risk" itself. Most investors think of the risk in their investments in terms of whether there is a significant chance of losing money. Such an investment is termed "risky". However, in a more general sense, risk relates to the range of possible results of the investment. In this sense, an investment with possible rates of return between 10% and 50% is "riskier" than an investment in a bond with a guaranteed 8% rate of return held to maturity. The purpose of Risk Analysis here is to evaluate the range and probability for the rate of return on the investment, so "risk" is treated here in the more general sense.

As you enter assumptions into a planEASe analysis, there are many whose values are inherently uncertain. For example, look at the *test.ru* assumption set for the RU models shipped with planEASe. Some of the values in this assumption set are shown in the table at the top of this "Example Risk Analysis Specification" screen in the "Most Likely" column. For instance, the *test.ru* Assumption Set assumes that the user will hold the *Sample Apartments* for four years, and then sell the property for five times its Gross Income at that time. However, it would be sheer happenstance if the property were sold for **exactly** five times the gross income in exactly four years. These assumption values represent educated guesses, not accurate predictions.



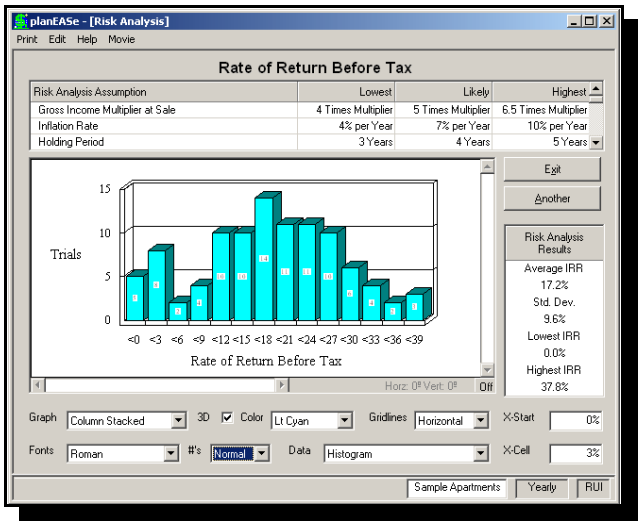
Example Risk Analysis Specification

In the case of the *Sample Apartments*, the user has recognized this weakness in the Basic Analysis, and has asked for a Risk Analysis to investigate the risk involved in the Rate of Return Before Tax. He has examined his assumption values and selected those which he considers to be subject to uncertainty. For example, although he thinks that the Gross Income Multiplier assumption value of five times is a good estimate, he believes that the eventual multiple could be anywhere from four times at the lowest, to six and a half times at the highest. The list of all of these risk assumptions selected by the user is shown in the upper portion of the Example Risk Analysis Specification. The list shows the lowest, most likely, and highest values that the user believes are possible for the assumptions. Implicitly then, he is also saying that the values for the other assumptions in the analysis are fixed, and will not vary.

While the quantified range of the user's uncertainty for his assumed values is certainly useful information, it does not answer the question with which he is most concerned ... **what does the uncertainty for the assumptions mean in terms of the ultimate rate of return**. Obviously, he would like to see all of these assumption values **combined** in some fashion to see the **range** of possible rates of return considering those

uncertainties. This is where "Monte Carlo Simulation" comes into play. planEASe Risk Analysis uses this technique to project the **probability distribution of the rate of return after tax** from the assumed values.

This "Example Risk Analysis Results" screen has been obtained after conducting a Monte Carlo Simulation of the *Real Estate Investment Analysis* for one hundred trials. For each of these trials, the risk analysis process selects a random number from the beta probability distribution for each of the uncertain assumptions. The selection of these random numbers is such that each number can assume any value within the lowest to highest range for that assumption, but more likely will be around the most likely value. Thus a bar graph of the one hundred random numbers selected for any one assumption would look like the corresponding beta distribution, subject to the randomness of the process.



Example Risk Analysis Results

When the random numbers for the uncertain assumptions have been selected for one of the trials, the basic analysis is completed using those assumption values. In this case, the user has requested that the Risk Analysis be performed for the Rate of Return Before Tax (just as with Sensitivity Analysis, Risk Analysis may be conducted for any of the measures in the model). Accordingly, that rate of return is recorded in a table after each of the hundred trials. A bar graph of the rates of return obtained in the one hundred trials is shown in the Example Risk Analysis Results screen. It shows, for example, that there were six rates of return below zero, seven between 0% and 3%, and two more between 3% and 6%.

Some useful statistics for the hundred trials on the right side of the screen. The average rate of return was 17.2% as opposed to the 15.4% for the same measure in the Basic Analysis (see the Model Documentation). Some of this variation can be ascribed to the randomness of the simulation. Additionally, some of the distributions for the uncertain assumptions are skewed, or asymmetrical. It is a characteristic of such distributions that the means of the distributions are different from the most likely or highest points. Mathematically, this means that the average of our hundred trials **should** be different than the 15.4%.

The last two statistics shown are the lowest and highest rates of return obtained in the hundred trials: 0.0% and 37.8% in this case. While these are useful numbers, they should be interpreted with **extreme** care. For instance, if we had conducted the simulation a thousand times, we almost surely would have obtained rates of return higher than 37.8% In other words, these two numbers do **not** show the lowest and highest rates of return possible under the assumptions. Those lowest and highest rates could only be obtained by requesting basic analyses using only the most pessimistic and most optimistic assumption values from the list at the top of the page. Even then, those rates of return would represent the possible range of rates of return only if the assumption ranges were all correct in actual fact, which is extremely unlikely. In short, the **Risk Analysis is not intended to show the entire range of possible investment results**, but rather is meant to give you an **approximate** picture of the probability of those results.

The lowest rate of return obtained in this simulation was 0.0%. planEASe does not compute a rate of return if the sum of the cash flow involved is negative, but rather records zero percent for that case. In this case, six of the hundred trials resulted in the investor not recovering his invested funds. Users interested in how much money was lost by the investor in such cases may request a Risk Analysis for the appropriate Net Present Value of the same cash flow using a zero discount rate.

Some useful conclusions may be drawn from the bar graph itself. For instance, there are 20 rates of return less than 9%. One could say, then, that there is about a 80% chance of making at least a 9% rate of return on the investment. Similarly, there is an even chance of obtaining a rate of return greater than 17%, and a 6% possibility of losing money on the investment. Considering the wide ranges chosen for the assumption values, this analysis should provide considerable comfort for the user who is worried about the possible "downside" risk in the investment.

There are some limitations in Monte Carlo Risk Analysis which should be of concern to you. For instance, Monte Carlo Simulation uses random numbers for the risk assumption values. This causes the results of the simulation to be slightly unreliable. This unreliability becomes smaller and smaller as the number of trials is increased. Experience with the technique indicates that one hundred trials gives a good prediction for the mean and standard deviation of the resulting probability distribution, but does not, typically, show the distribution shape or the length of the tails accurately. Two hundred trials typically results in a smoother distribution, and five hundred trials typically give an extremely smooth distribution with good definition of the tails.

Another limitation of the process is that the simulation assumes that all the assumption values and ranges are accurate, and also assumes that the assumptions are independent of one another. Accuracy in the all the assumption values is obviously impossible. Independence of the assumption values is also typically questionable. For instance, on any single trial, the simulation could choose a 4% Inflation Rate and a 6.5 sale multiple to go with it. Clearly, the chances of selling the property for 6.5 times gross when inflation has been low would be extremely unlikely.

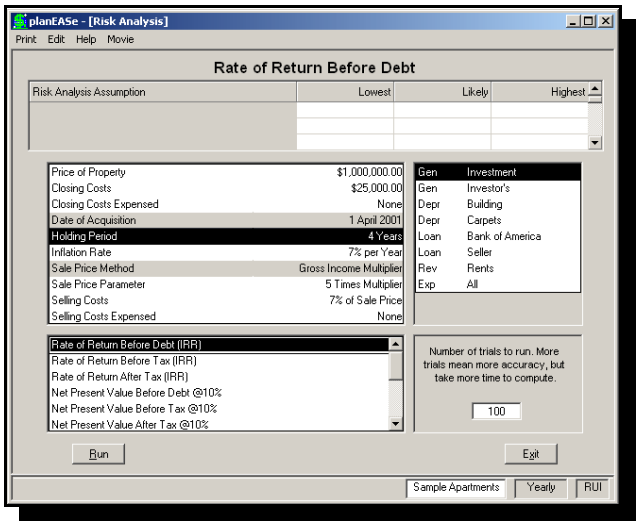
While Risk Analysis has some significant limitations due to the technique involved, it is an extremely useful tool for investigating the amount of risk involved in an investment. By quantifying the variability of the results of the investment, it allows you to properly portray the real nature of the investment. It is a truism that real estate investments are "risky", but Risk Analysis allows you to quantitatively **measure** that risk.

The Risk Analysis process seeds the random number generator the same way for each session, but not for each run. This is by design. It means the random numbers selected by Risk Analysis are the same for each session, and consequently you may repeat an analysis exactly, given that it is the first Risk Analysis you attempt during that session and that all the assumption values are the same. We consider this repeatability to be desirable and a design feature. If you want to repeat an analysis with different random numbers, simply specify a short spurious Risk Analysis first in order to displace the original random number seed, and proceed as normal.

Doing a Risk Analysis

To perform a Risk Analysis, you simply:

- select the assumptions you want to include in the Risk Analysis
- enter the lowest and highest possible values for the chosen assumptions
- choose the measure for which you want to perform the Risk Analysis
- set the number of trials required for the Risk Analysis
- run the Risk Analysis to view the Graph and a summary of the results
- print the Risk Analysis and Graph, if desired
- print the Graph itself, if desired



Starting Risk Analysis

As shown on this screen, which appears when you choose Risk Analysis, to select the Risk Assumptions and Risk Measure, simply click on the appropriate Assumptions and Measure names. If the assumption is not on the first assumption page, click the Assumption Page List to display the Assumption Page you want. When you select the assumption, it is posted to the Risk Assumption List together with suggested lowest, likely and highest values. You may doubleclick on any of these values to edit/change them. Due to limitations in the sampling process, the Likely value must be no closer to the Lowest and Highest values than 20% of the range between them. For example, a specification for the Inflation Rate of Lowest 0%, Likely 2%, and Highest 10% is OK, but 0%, 1.5% and 10% is not allowed, since 1.5% is within 15% of the Lowest value. Likewise, a specification of Lowest 0%, Likely 4.5% and Highest 5% is not allowed, since the 4.5% is within 10% of the Highest value. You may use the *Edit* menu to delete the last Risk Assumption from the list if you change your mind while building the Risk Assumption List. The Risk Measure list is scrollable, so to choose Capital Accumulation (MIRR Models only), Lender Yield, Capitalization Rate, Cash on Cash Before Tax, or Debt Coverage Ratio, scroll the list to the desired area.

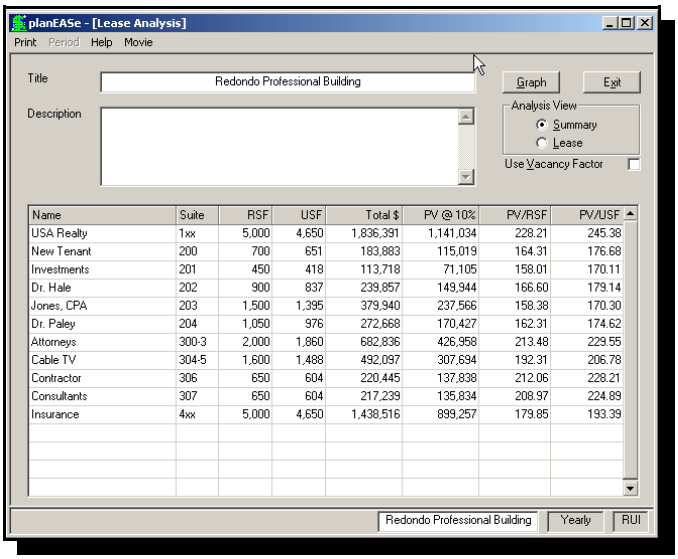
When you have specified the Risk Assumption List and Risk Measure set the number of trials required for the Risk Analysis (in the lower right box). In general, 100 to 200 trials will give you an acceptably shaped probability distribution, and 500 trials will result in a smoothly shaped distribution with well defined tails.

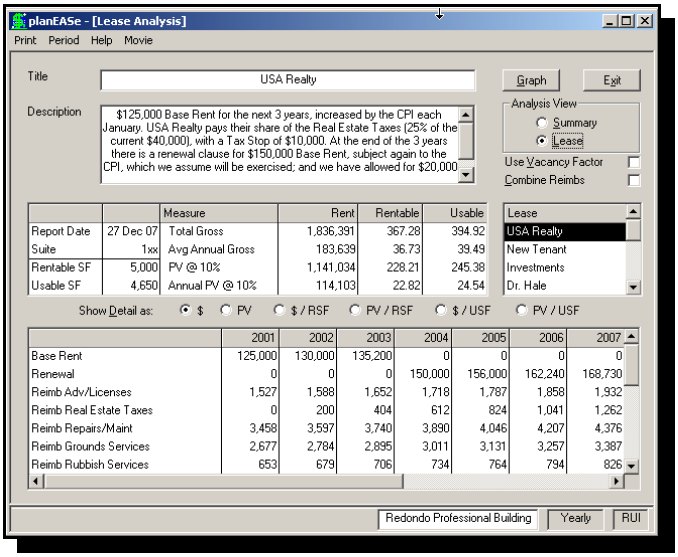
Press the OK button to run the Risk Analysis and view the Risk Analysis Results and Graph. When performing each trial, planEASe is calculating the complete model and then computing the measure, so you can expect each trial to take a little time. You may cancel the Risk Analysis while in progress by pressing the Cancel button. When the Risk Analysis is complete, the Risk Graph is drawn, and the screen will appear as shown in the "Example Risk Analysis Results".

If you have purchased the *Graphics Extension*, you can adjust the Graph in several ways. The *Data* Control below the Graph may be set to show a *Histogram* (as shown in the example), a *Probability Distribution*, a *Cumulative Histogram*, or a *Cumulative Probability Distribution*. The Risk Analysis Graph also has two controls at the right bottom of the screen (X-Start and X-Cell) that allow you to control the units shown on the X-axis of the Graph. Setting X-Start to 11 and X-Cell to 2 means, for example, that the X-axis will show 11%, 13%, 15%, 17%, et cetera.

When you're ready to print, pull down *Print/Print* to print the Risk Analysis (with Graph), or pull down *Print/Print Graph* to print the Risk Analysis Graph (by itself).

Lease Analysis





Lease Analysis is automatically produced from the Revenue Pages in your Assumption Set, as shown here (in *Summary* View) for the *Redondo Professional Building*. Leases can be sorted in on any column's values by clicking the column header and choosing ascending or descending order.

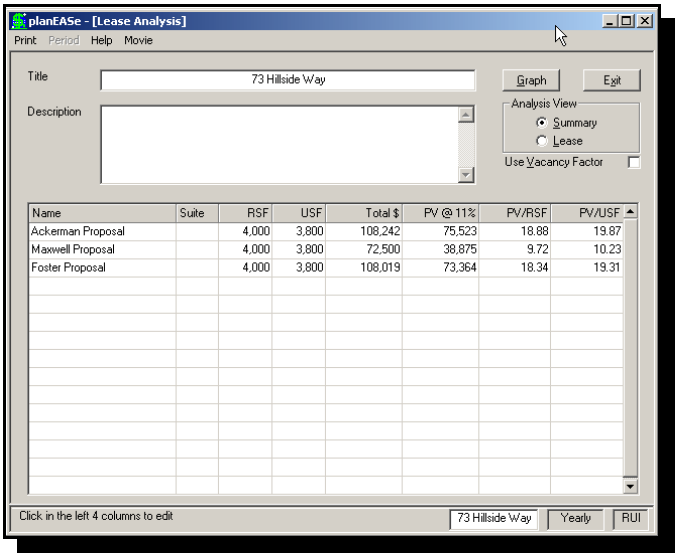
Checking the *Use Vacancy Factor* check box toggles between Gross and Effective values. Suite Number is obtained from the Page Title of the first assumption page of the lease, if it begins with a number (all text through the first space is assumed to be a Suite Number).

You may edit any of the values in the first four columns in the summary view grid (and the description as well), and the edits will be effective while you are in this lease analysis function. Any edits are discarded when you exit Lease Analysis.

Clicking the *Lease* option button changes the screen to the *Lease* View, as shown here. To the right middle of the screen is the Lease List, and clicking on a particular lease (as we have done for the USA Realty lease here) causes the projection for that lease to be displayed. The *Page Notes* for the first page of the lease are automatically entered in the *Description* text. While you may change these notes here for printing purposes, any changes will be lost when you return to the Assumption Edit Screen. The text in the Description box prints in the Lease Analysis Report. If your Lease contains reimbursements (see page 103), they will be shown here (as in this USA Realty lease) and you may combine them into one line by checking the *Combine Reimbs* checkbox at the middle right of the screen.

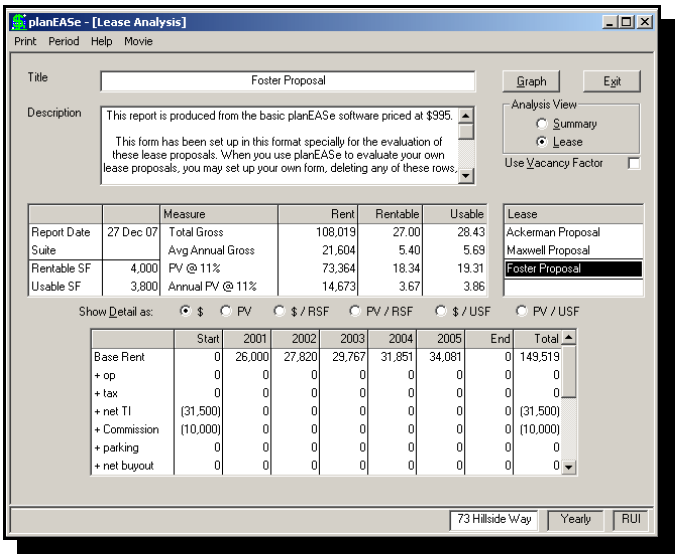
Clicking on one of the *Show Detail as* buttons (in the middle of the screen) changes the detail lines in the lower grid from the $ shown below to PV, $/RSF, PV/RSF, etc. You can print single leases or all the leases at once. If you have purchased the *Monthly Extension*, the *Period* Menu Option allows Quarterly and Monthly views of the lease. If you have purchased the *Graphics Extension*, the *Graph* button shown on these screens will be present, and you may press it to choose between several available graphs of each View.

The Lease Analysis function may also be used for Tenant Representation and Owner Representation analysis and presentation.



This Summary View of *73 Hillside Way* shows the proposals side-by-side for comparison purposes, making it very clear that the Maxwell Proposal is the most attractive from the Tenant perspective.

If you have purchased the *Graphics Extension*, the *Graph* button will be present, and you may press it to choose between several available graphs comparing the proposals.

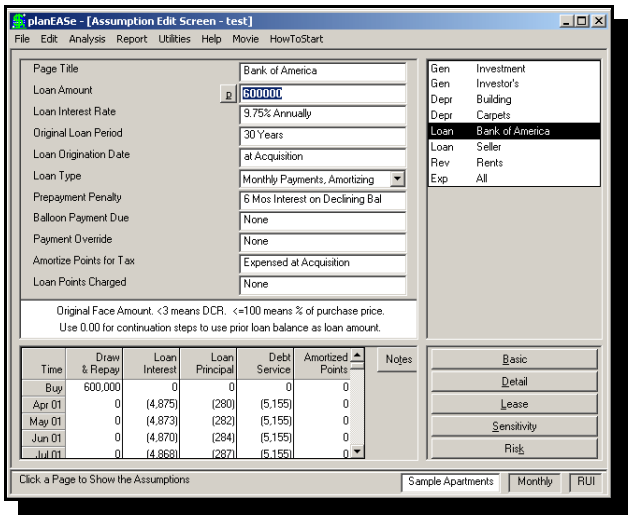


As described on the previous page, clicking the *Lease* option button changes the screen to the *Lease* View, as shown here. Note that the *Foster Proposal* shows a *Start* and *End* column for the lease projection. If you specify Tenant or Owner Representation in your Assumption Set (by entering a 1 or 2 in the *Price of Property*), these columns are shown in *Lease* View. You may enter starting and stopping values for an item by specifying one-time growth and either 0 for *Start* or 99 for *End* in the Revenue Start Date (see the *tenant.ru* Assumption Set for the *73 Hillside Way* example).

Monthly and Quarterly analysis may be produced here if you have purchased the planEASe *Monthly Extension*. You may switch between Yearly, Quarterly and Monthly analysis (and add/delete yearly totals) using the *Period* menu on the menu bar while in Lease (not Summary) View. Graphs in Lease View reflect the current Period chosen.

Choose *Print/Preferences* to set several preferences. The *Adjust $/RSF & $/USF for Partial Periods* preference (checked by default) adjusts the rate for a 6-month year of $10,000 for 500 SF from $20/sf to $40/sf, allowing easier comparison to the following (full) year.

Monthly Extension



Many users want to analyze development projects, commercial properties with existing leases and new leases, and some imaginative syndications involving staged investments and/or capital additions where annual values are simply not enough to show what is happening to the cash flows. Other users have found that their variable rate loans, refinancing, et cetera, were difficult to understand when presented annually. For these users, we have developed the planEASe *Monthly Extension*, an optional expansion to planEASe which produces Monthly (and Quarterly) Basic, Detail and Lease Analysis reports (and Monthly/Quarterly Income Statements as well as Monthly/Quarterly Annual Statements if you have the *Reporting Extension)* from the same assumptions that you use to produce the normal planEASe annual reports. In addition to the considerations below, the Unit Sales Dialog (see Page 186) is part of the *Monthly Extension* and you will not be able to properly analyze Subdivisions, Land Development, Condo Conversions or Marina Slips without it.

No matter whether you have purchased the *Monthly Extension* or not, *Cash Flow, IRR, MIRR, and NPV calculations in planEASe are **all** based on **Monthly** Cash Flows*, the ***"Gold Standard"*** in the industry.

If you have purchased the *Monthly Extension*, you may change from *Yearly* processing to *Monthly* or *Quarterly* processing (and vice versa) by checking the *Monthly* or *Quarterly* options on the Analysis Menu (as has been done in the screen above). In Spoke Functions (like Basic and Detail Analysis), you may access the *Period* Menu Item to instantly change between *Monthly, Quarterly* or *Yearly* analysis, When you do so, the word *Yearly* in the Status Bar will change to *Monthly* or *Quarterly* (or vice versa), and all following computations (including audits) will be made and displayed in the corresponding mode. The screen above shows a *Monthly* Audit for the Bank of America Loan in the *Sample Apartments* Analysis. You may also click on the *Year Total* Item on the Period Menu to change between showing *Yearly* Totals on the *Monthly* and *Quarterly* reports and not showing them.

Monthly, Quarterly and *Yearly* computations take the same amount of time for the same Assumption Set. In *Yearly* mode, planEASe responds as it always has and you wouldn't know that the *Monthly Extension* existed. In *Monthly* or *Quarterly* mode, planEASe still responds as it always has, except that the Audit, Basic, Detail Lease, Annual and Income Statement reports while you are working in *Monthly* or *Quarterly* Mode are *Monthly* or *Quarterly* Reports rather than *Yearly* Reports (and correspondingly, all graphs are also shown in the chosen time mode). Cash flows in the *Monthly* or *Quarterly* reports exactly match the cash flows in the *Yearly* reports for the same Assumption Set.

The *Monthly Extension* also works with the *Partnership / LLC Models*. We have a particular assumption in the *Partnership / LLC Models* which works with the *Monthly Extension* ... the *Cash Distribution Pattern*. This assumption allows you to specify monthly, quarterly, semi-annual or annual distribution of cash from your Partnership / LLC, and further specify the months when distribution will occur. As you would expect, if you hold cash in the Partnership / LLC with this assumption, interest is earned on the balance. While you can use

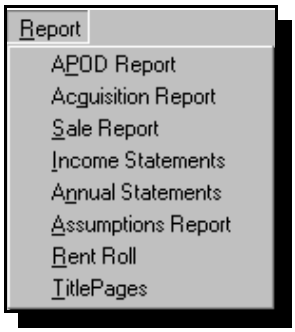
this assumption without the *Monthly Extension*, it will confuse your analysis without the Monthly and Quarterly reports that make it's use visible and useful.

Because the monthly reports match the yearly reports, they can be used in a number of ways to augment your use of the system. At the least, monthly reports become useful back-up detail when discussing the yearly reports. More often, the monthly reports will become the reports you use for an analysis because they are so much more understandable for complex analyses, despite their added bulk. The fact that the yearly and monthly report dollar amounts match allows you to mix the time frames in an analysis. For instance, in a development analysis, you might want to show the first 3 years by month, followed by 4 years on an annual basis. Just export both reports, and most word processors and/or spreadsheets will allow you to combine the monthly and yearly reports into one mixed-time-frame report.

The *Monthly Extension* lends itself to new uses for which the yearly planEASe isn't suitable. For instance, the monthly reports, when transferred to a spreadsheet, become an ideal budget for a property after acquisition. With the Detail Reports, these budgets can be in whatever depth you want. Just insert lines for actual and variance and a few simple formulas to set up a rudimentary control system. As another example, if you're creating a loan package to sell your banker, you can analyze the loan yield for the bank by entering the loan amount as negative, yielding monthly cash flows for the loan (before and after tax) together with the IRR and MIRR before and after tax (the lender's yields in this case). Vary the Holding Period in Sensitivity Analysis, and you can even graph your banker's yield versus your loan payoff date!

Let us stretch your concept of the system even a little further, if we may be so bold. Nothing says you just have to plan **properties** with planEASe. Nothing says you have to include depreciation and loans in an analysis. You don't even have to include a purchase price. Perhaps you'll find that you can easily plan out revenues and expenses for your business, in consummate detail, transfer that "budget" to a spreadsheet or accounting system program using the Export function, and proceed along your way. Such budgeting can be done on a monthly or quarterly basis with the *Monthly Extension*.

Reports Menu



The Reports Menu is available only if you have purchased the optional planEASe *Reporting Extension*. It provides the following reports:

APOD Report
allows you to display/print an Annual Property Operating Data (APOD) report for your property. The APOD is a very useful snapshot of the status of a property investment as of the projected Acquisition Date, showing most of the information relevant to the investment, absent any projections of performance. If you have purchased the *Graphics Extension*, the APOD Report offers several Pie Charts of the information contained in the report.

Acquisition Report
shows the cash requirement at acquisition considering price, closing costs, and loan proceeds. If you have purchased the *Graphics Extension*, the Acquisition Report offers several Pie Charts of the information contained in the report.

Sale Report
presents the determination of the projected sale price, together with the cash proceeds (and Capital Gain calculations) at sale. The report can be prepared either before or after tax. If you have purchased the *Graphics Extension*, the Sale Report offers several Pie Charts of the information contained in the report.

Income Statements
allows you to produce ProForma Income Statements. These reports can be prepared either before or after tax. They combine the Basic and Detail Analysis report information into a very readable format familiar to real estate professionals and accountants. Further, the reports offer information not shown in the Basic and Detail Analysis Reports, such as Ratio Analysis, projected Sale Proceeds by year, and Return and NPV measures by year, as well as a Common Size Statement and a Dollars/Square Foot or Dollars/Unit Statement. If you have purchased the *Graphics Extension*, Income Statements offers more than a hundred Graphs of the information contained in the reports.

Annual Statements
allows you to display/print an Annual Statement in Annual Property Operating Data (APOD) report format for your property. The information displayed in the report is exactly the same as the information in the 3 Income Statements (ProForma, Common Size and SqFt/Units) Reports for a particular year. Thus, even though the report looks like an APOD, the amounts are those covering the results of an entire year, rather than the "snapshot at acquisition" represented by the APOD. If you have purchased the *Graphics Extension*, Annual Statements offers several Pie Charts of the information contained in the report.

Assumptions Report
produces a report showing (in English) the assumptions used to generate the other reports. It was created with the idea of generating an assumptions report which can be presented to an investor or other concerned party to explain the assumptive basis of the other planEASe reports.

Rent Roll

produces Rent Roll reports and graphs for either commercial multi-tenant properties (like Office Buildings or Retail Centers), or Unit oriented properties (like Apartments or Mini-Storage). If you have purchased the *Graphics Extension*, the Rent Roll offers several Pie Charts of the information contained in the report.

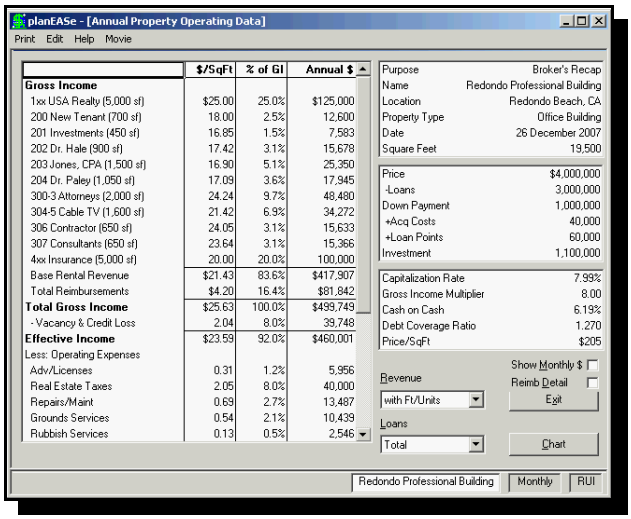
TitlePages

planEASe/TitlePages is a Multiple Document Interface (MDI) WSIWYG word processor incorporated into planEASe to enable you to process and print documents and Web Pages that use the same Page Setup as your planEASe Reports and Graphs. Thus you may produce planEASe documents, reports, graphs and/or Web Pages bearing consecutive page numbers with the same appearance so that the entire presentation package appears to have been produced by the same software (as indeed it has).

Report Packages

allows you to create and save packages of as many planEASe reports and graphs as you desire. Once created, packages may be recalled from file and printed or saved as webpages whenever you wish using the Assumption Set presently in memory.

APOD Report



This function allows you to display/print an Annual Property Operating Data (APOD) report for your property. The APOD is a very useful snapshot of the status of a property investment as of the projected Acquisition Date, showing most of the information relevant to the investment, absent any projections of performance. Here we see the APOD for the *Redondo Professional Building* (on your planEASe System Disk in the Assumption Set named *offices.ru*). The following controls (located to the bottom right of the screen) allow you to configure your APOD Report in many ways to conform both to your needs and the characteristics of the property.

Revenue may be set to *Total*, *With SqFt,* or *Without SqFt. Total* summarizes all revenue into one Gross Income figure, *With SqFt* details each revenue and prints the $/SqFt (if Square Footage is positive), *Without SqFt* details each revenue and does not print $/SqFt for the revenue even if Square Footage is positive. This is useful for properties where the revenue detail for individual leases does not include the lease footage so dividing the amount by the total footage is nonsense for revenues, but meaningful for expenses.

Loans may be set to *None*, *Total* or *Detail*. *None* omits Debt Service, so the report stops at NOI. In this case the Cash on Cash and Debt Coverage Ratio are not printed. *Total* shows the total payment for all loans in the Assumption Set. *Detail* shows the payment for each loan on a separate line. Zero payments (for non-zero loan amounts) will show.

Show Monthly $ can be checked, controlling whether the dollar amounts in the APOD will be expressed as Annual or Monthly amounts.

Reimb Detail will be shown if Reimbursements (see Page 103) are included in the Assumption Set and you have chosen to show Reimbursements *Separately* (see *Preferences* on Page 7). In this case, the box is not checked, so Reimbursements are shown in total. If this box is checked, the Reimbursements will be shown expense by expense.

APOD Titles The top grid on the right of the APOD screen is the APOD Titles Grid. The text and values shown there may be entered directly into the grid and will be saved with the Assumption Set. Another way to enter these text and values is to click at any time on the Investment Name in the Status Bar at the bottom of the screen, which brings up a dialog box for entering the Investment Name and the other data in the APOD Titles Grid.

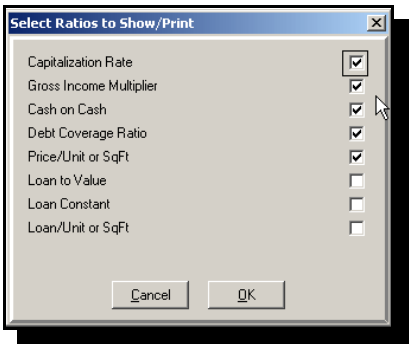
APOD Purpose allows you to enter whatever text you want in the "Purpose" line of the APOD titles. Typical purposes are "Broker's Recap" and "Owner's Statement".

Property Location allows you to enter whatever text you want in the "Location" line of the APOD titles.

Property Type allows you to enter whatever text you want in the "Property Type" line of the APOD titles.

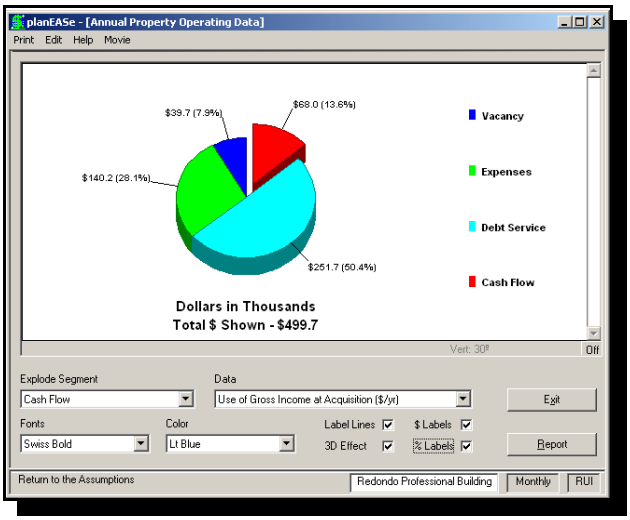
Square Feet or Units if 2000 or less, is assumed to be the number of units in the property and the second APOD Column is titled *$/Unit*. If this value is greater than 2000, it is treated as the Square Feet in the property, and the second APOD column is titled *$/SqFt*. This value also directs whether the Income Statement function produces a Square Footage Income Statement or a Dlrs/Unit Income Statement. If you enter zero here, the APOD will omit $/SqFt (and the column heading, as well as the Price/SqFt measure). Likewise, the Square Footage or Dlrs/Unit Income Statement will not be available. The default 2,000 value is adjustable by requesting *File/Preferences* at the *Assumption Edit Screen*.

The APOD, Annual Statement, and Income Statement report generators examine all expense pages for the characters "Management Fee" (caps don't matter). If they find one or more, the corresponding expenses (including any following pages whose Page Titles start with an "&") are added to any Management Fee planned for the property. This allows you to plan management fees either with the Management Fee percentage in the Revenue Pages or as explicit separate expenses, or both.



The *Print/Ratios ...* menu choice brings up the dialog shown here, allowing you to set the Ratios to show / print. Your choice of the Ratios is saved and repeatedly used until you change it. In addition the ratios defined elsewhere, *Loan to Value* is simple the Total Loan(s) Amount as a percent of the Price of Property. *Loan Constant* is the total loan payment(s) as a percent of the Loan Amount(s), and *Loan / Unit or SqFt* is the total Loan Amount(s) divided by either the total number of units or SqFt.

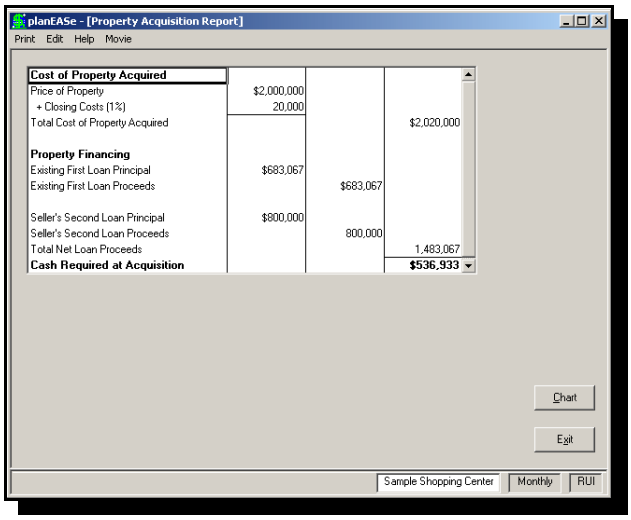
If you have purchased the *Graphics Extension*, the *Chart* button shown in the APOD screen on the previous page will be available, offering several Pie Charts of the information contained in the APOD. Here you see the result of pressing that *Chart* Button --- a *Use of Gross Income at Acquisition* Pie Chart. Note that the *Chart* Button has been renamed to *Report*, providing a path back to the APOD Report. Additional Pie Charts are available for *Use of Effective Income at Acquisition*, *Operating Expenses at Acquisition*, and *Source of Gross Income at Acquisition*.



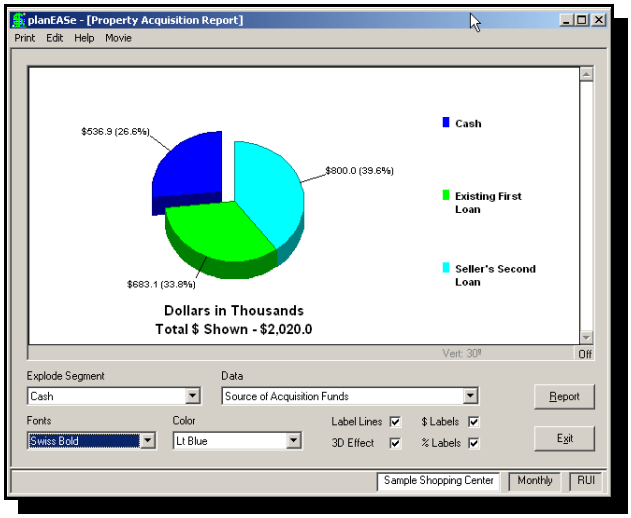
The APOD is a "snapshot" of the investment at acquisition, so it only considers revenues, expenses and loans **in effect at the Acquisition Date**. Items beginning after the Acquisition Date (or ending before that date) **are not shown**. Likewise, measures relating to unshown items (like Cash on Cash or Debt Coverage Ratio when the Loans are not shown) are not shown either. If you want to show the results of the first year (rather than at Acquisition), ask for *Reports/Annual Statements* for that year rather than the APOD.

Acquisition Report

This simple report shows the cash requirement at acquisition considering price, closing costs, and loan proceeds. Here we see the Acquisition Report for the *Sample Shopping Center* (on your planEASe System Disk in the Assumption Set named *shops.ru*). Only loans in effect at the Acquisition Date are shown. For instance, if you have a refinancing planned in your Assumption Set, it will not affect this report. Similarly, if you have planned an assumption of an existing loan, the report will compute the loan balance assumed (and subtract any points).

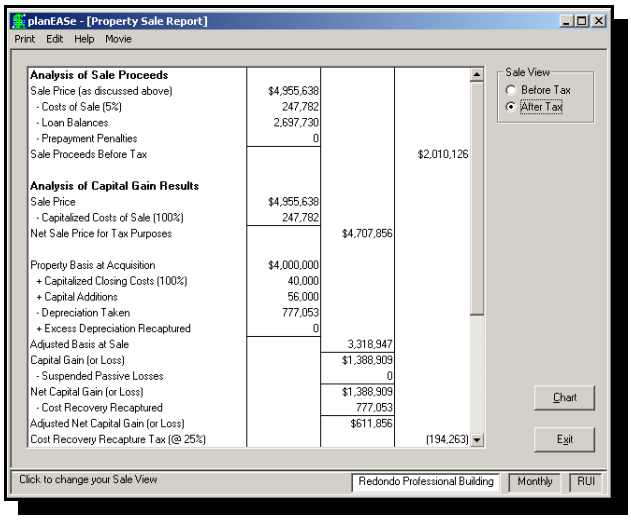


If you have purchased the *Graphics Extension*, the *Chart* button shown in the upper screen here will be available, offering several Pie Charts of the information contained in the report. Here you see the result of pressing that *Chart* Button --- a *Source of Acquisition Funds* Pie Chart. Note that the *Chart* Button has been renamed to *Report*, providing a path back to the Acquisition Report. We have chosen to "explode" the Cash segment of the pie here to emphasize it for presentation purposes. Additional Pie Charts are available for *Use of Cash at Acquisition* and *Acquisition Profile*.



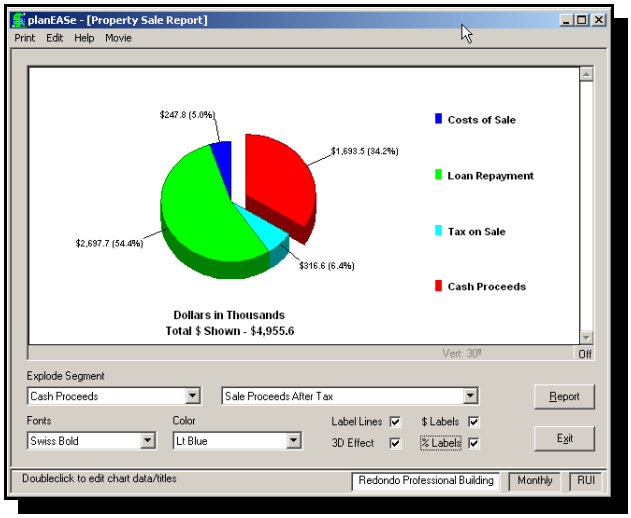
Sale Report

This report presents the determination of the projected sale price, together with the cash proceeds at sale before and after tax. The Sale Proceeds Before Tax always ties to the Cash Flow Before Tax at Sale in Basic Analysis. Likewise, Net Taxable Income and After Tax Cash Proceeds of Sale also tie to Basic Analysis. Here we see the Sale Report for the *Redondo Professional Building* (on your planEASe System Disk in the Assumption Set named *offices.ru*).



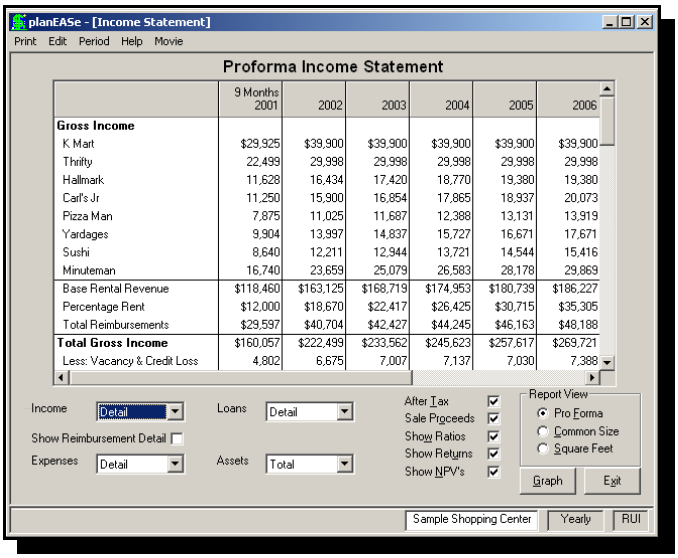
Report View allows you to display/print the report on either a Before Tax or After Tax basis. Choosing either option sets a flag so that your ProForma Income Statements and Annual Statements are displayed in the corresponding manner.

If you have purchased the *Graphics Extension*, the *Chart* button shown here will be available, offering Pie Charts of the information contained in the report. Here you see the result of pressing that *Chart* Button --- a *Sale Proceeds After Tax* Pie Chart. Note that the *Chart* Button has been renamed to *Report*, providing a path back to the Sale Report. We have chosen to "explode" the Cash Proceeds segment of the pie here to emphasize it for presentation purposes. A *Sale Proceeds Before Tax* Pie Chart is also available.



Income Statements

This function allows you to produce ProForma Income Statements and, if you have purchased the *Graphics Extension*, graphs of the reported information. These statements combine the Basic and Detail Analysis report information into a very readable format familiar to real estate professionals and accountants. Further, the reports offer information not shown in the Basic and Detail Analysis Reports, such as Ratio Analysis, projected Sale Proceeds by year, and Return and NPV measures by year, as well as a Common Size Statement and a Dollars/Square Foot or Dollars/Unit Statement. Here we see the Income Statement for the *Sample Shopping Center* (on your planEASe System Disk in the Assumption Set named *shops.ru*).



These reports are compatible with the *Real Estate Investment Analysis*, either RUI or RUM. They are not compatible with the *Limited Partnership / LLC Investment Analysis*, but if you are planning with the RP Model Series you may use the *Convert Assumptions* menu option on the *File* Menu at the Assumption Edit Screen to convert your RP Assumption Sets into RU Assumption Sets and produce ProForma Income Statements for the property in that fashion.

Monthly and Quarterly ProForma Statements may be produced here *instantly* if you have purchased the planEASe *Monthly Extension*. These Statements are in the same format, but do not show information beyond Cash Flow After Tax. That is, these reports do not have Sale Proceeds, Ratio Analysis or Analysis Measure sections. You may switch between Yearly, Quarterly and Monthly Statements (and add/delete yearly totals) using the *Period* menu on the menu bar

Before Tax Analysis is facilitated by the After Tax Results switch (discussed below) which allows you to eliminate (or add), with one click, all tax considerations in these reports.

Appraisal versions of the Income Statements may be obtained by entering a zero Price of Property (and zero Closing Costs) for a property and turning off the Return Measures switch discussed below. The resulting ProForma Income Statements eliminate all ratios depending on Acquisition Price and show only Present Values of the projected future income and reversion as an appraiser would want.

Development versions of the Income Statements are facilitated by the detailed Capital Spending section which follows the Net Operating Income report line if any Capital Spending has been planned (Depreciation Assumption pages with Depreciation Start Dates after the Date of Acquisition). A Debt Draw and Repay section following the Net Operating Income report line is added if any loan is drawn down or repaid during the Holding Period, so this section will be shown if there is any refinancing, as is typical for development projects.

All detail lines in these reports are checked, before display, to see if any non-zero values are shown during the projected Holding Period. Lines which are all zeroes are suppressed from display, so changing the Annual

Expense or Annual Revenue assumption value to zero for an item automatically eliminates it from the reports without your having to delete the entire assumption page.

The Statement of Income Specifications are the controls (checkboxes and listboxes) displayed at the bottom of the screen when you are viewing your Income Statements. These control settings determine how your ProForma Income Statements are displayed. The settings are saved when you save the Assumption Set, so if you set up a property for an appraisal report format (and subsequently save the Assumption Set), the default report settings will be in the same configuration when you recall the Assumption Set in future sessions.

Income may be set to *Detail* or *Total*. *Detail* lists each income individually, with Total Gross Income shown at the end. *Total* simply shows the Total Gross Income, with no detail. Revenues which are zero throughout the projected period are not shown.

Show Reimbursement Detail will be shown if Reimbursements (see Page 103) are included in the Assumption Set and you have chosen to show Reimbursements *Separately* (see *Preferences* on Page 7). In this case, the box is not checked, so Reimbursements are shown in total. If this box is checked, the Reimbursements will be shown expense by expense.

Expenses may be set to *Detail* or *Total*. Detail lists each expense individually, with Total Expenses shown at the end. Total simply shows the Total Expenses, with no detail. Expenses which are zero throughout the projected period are not shown. Management Fee is determined the same way as for the APOD. That is, the report generator examines all expense pages for the characters "Management Fee" (caps don't matter). If it finds one or more, the corresponding expenses (including any following pages whose Page Titles start with an "&") are added to any Management Fee planned for the property. This allows you to plan management fees either with the Management Fee percentage in the Revenue Pages or as explicit separate expenses, or both.

Loans may be set to *Detail*, *Detail/AT*, *Total* or *None*. *Detail* lists each loan individually. *Detail/AT* adds tax details for each loan, including interest payments and amortized points sections in the tax section, if they apply and are not zero. *Total* shows only the Total Debt Service with no detail after tax, and *None* eliminates all Loans from the reports. If you specify *None* for this option, *After Tax is* automatically unchecked because the tax calculations would be incorrect if the loan information were not included.

Assets may be set to *Detail*, *Detail/AT*, *Total* or *None*. *Detail* lists each asset individually. *Detail/AT* adds tax details for each asset, including depreciation and tax credits sections in the tax section, if they apply and are not zero. *Total* shows only the Total Capital Spending, Depreciation, and Tax Credits (if any). *None* eliminates all Assets from the reports. If you specify *None* for this option, *After Tax is* automatically unchecked because the tax calculations would be incorrect if the assets were not included.

After Tax may be checked or not. If *Loans* or *Assets* are set to *None*, or if the *Partnership Models* are being used, this is automatically unchecked. If checked, the After Tax section of the report is printed. If unchecked, all tax information is suppressed, including, for instance, ratios depending on tax information and after tax measures. Uncheck this switch for Before Tax Analyses. This setting also controls whether the Property Sale Report shows After Tax Calculations. This Specification only applies to the ProForma Income Statement, and does not affect the Common Size or Square Footage Statements.

Sale Proceeds may be checked or not. If checked, the section showing the Sale Proceeds is shown. If unchecked, that section is suppressed, as are the Ratios that depend on use of the Sale Proceeds. The Sale Prices are computed as of the end of the Calendar Year, so they will be different from the results of a Holding Period Sensitivity Analysis unless that analysis is set up to vary the Holding Period values at calendar year-end. This Specification only applies to the ProForma Income Statement, and does not affect the Common Size or Square Footage Statements.

Show Ratios may be checked or not. If checked, the section showing the Ratio Analysis is shown. If unchecked, that section is suppressed. Only ratios that can be computed from displayed information are shown. For example, if there is no Debt Service shown, no debt coverage ratio will be shown. This Specification only applies to the ProForma Income Statement, and does not affect the Common Size or Square Footage Statements. For definitions of the ratios shown in this section, see the *Glossary of Terms* on page 226.

Show Returns may be checked or not. If checked, the section showing the Rates of Return is shown. If unchecked, that section is suppressed. Unchecking is appropriate if no property price is input, as for appraisal reports. If checked, only IRR's and MIRR's that can be computed from displayed information are shown. For example, if After Tax Results is unchecked, the IRR or MIRR After Tax is not displayed. This Specification only applies to the ProForma Income Statement, and does not affect the Common Size or Square Footage Statements.

Show NPV's may be checked or not. If checked, the section showing the Net Present Values is shown. If unchecked, that section is suppressed. If no Property Price or closing costs are input, this shows the PV of future cash flows, which is useful for Appraisal Reports. If checked, only NPV's that can be computed from displayed information are shown. For example, if After Tax Results is unchecked, the NPV After Tax is not displayed. This Specification only applies to the ProForma Income Statement, and does not affect the Common Size or Square Footage Statements.

Report/Graph Button, which is available if you have purchased the *Graphics Extension*, alternates between *Report* and *Graph* allowing you to view either the report or graphs of the information in the report. The graphs offered depend on the control settings for the corresponding report. For instance, if *Income* is set to *Detail*, the Graphs offered include *Gross Income Detail,* but if Income is set to Total, the Graphs offered include *Gross Income* (in total). Likewise, if *After Tax* is turned off, the Graphs offered do not include any After Tax Ratios, etc. Graphs in the Income Statements include unique capabilities to add and overlay additional variables, described in the next page.

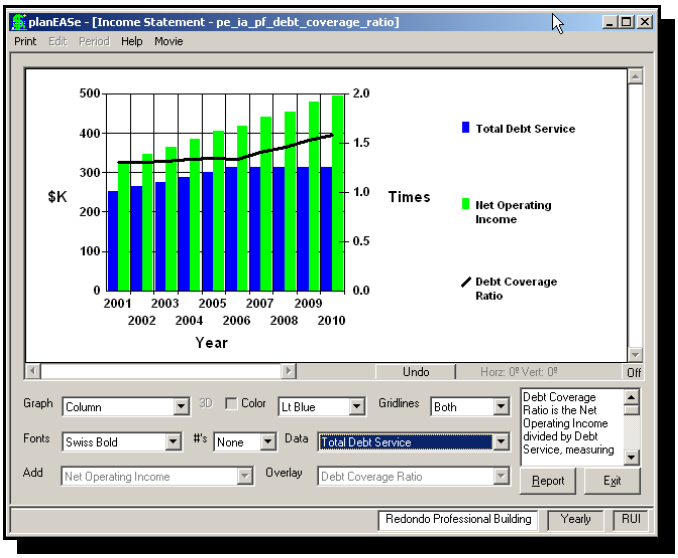
Report View may be set to *Income*, *Common Size*, or *Square Feet* (or *Dlrs/Unit*), controlling which report is shown. The *Square Feet* (or *Dlrs/Unit*) Report will only be available if you have entered a positive amount in the APOD Square Feet or Units Specification. If you change your *Report View* while a Graph is showing, the corresponding report is shown and you must then re-press the *Report/Graph* button to view graphs of the corresponding report.

Print/Ratios menu option allows you to specify which of the 16 available ratios will be shown in the Ratio Analysis. This setting is also used for Annual Statements, and is applied to all Income and Annual Statements until you change it. Thus you may eliminate Gross Income Multiple from all such reports forever by unchecking it here.

Graph Additions/Overlay

In addition to the capabilities described above, the *Graphics Extension* adds the capability to add two or more graphed items within the same graph, and overlay another graphed item within that same graph when using the *Graphics Extension* in the Income Statements. This section adds to the discussion of the *Graphics Extension* on page 66, and should be read together with it.

In order to support the Graph Additions/Overlay capability, two new Drop-down Lists (Adds and Overlay) have been added below the normal graph controls, as shown in this screen. This screen shows Net Operating Income with Debt Service added and the Debt Coverage Ratio overlaid. To construct this graph, the user first chose Net Operating Income from the Data Drop-down List, then added Debt Service from the Add Drop-down List (you may choose as many additions from this list as you want). **The list of items that may be added includes all major items available in the report with the same unit of measure as the item chosen from the Data Drop-down List**. In this case, the unit of measure for Net Operating Income is *$K*, so the Add Drop-down List includes all items measured in *$K*, but no ratios or IRR's since they are percentages. If you are displaying a Detail Graph (one with the word "detail" in the title) neither the Add or Overlay Drop-down list will be available.



Finally, the user chose the Debt Coverage Ratio from the Overlay Drop-down List (only one Overlay may be chosen, it is always shown as a line, and it must be chosen last, after all additions). If the item overlaid has the same unit of measure as the underlying data and additions, there is no right-side scale added. In this case, however, the unit of measure for the Debt Coverage Ratio is *Times*, so a right-side scale is added for *Times*.

Overlays are not compatible with the *3D* effect, so that is turned off automatically when an Overlay variable is chosen. You may turn the *3D* effect back on, but the Overlay Line will disappear while the graph is displayed with the *3D* effect on. Likewise, if you turn on Graph Perspective (see discussion on page 67) with the On/Off button at the bottom right of the graph window, the 3D effect will automatically turn on and the overlay display disappears. To make the overlay display reappear, you must turn Graph Perspective off (the 3D effect will turn off automatically).

There is a *Undo* button located at the bottom of the graph window that becomes available when you have chosen to add to or overlay a graph. Pressing this button reverses the last add or overlay chosen, pressing it twice in this case would first remove the Debt Coverage Ratio overlay and then remove the Debt Service addition to restore the starting Net Operating Income graph.

Graph Overlays and Additions are available in the Quarterly and Monthly period views as well as Yearly. They are available in the Common Size and Square Feet / Unit Statements as well. Graphs with Additions and Overlays may be edited by double-clicking on them just as the other planEASe graphs may be.

Graph Library

A Graph Library is available for your use when you are displaying a graph in the Income Statements function, allowing you to recall and save **Graph Specifications** for Graphs of your choice which use the Adds and Overlay Lists. You may access the Graph Specifications (when displaying a graph) pulling down the Print menu and clicking *Open Graph Specifications ...* A ***Remarks*** text box is shown at the screen bottom right (overwriting the Report View box) when you open a Graph Specification, and showing the remarks entered the last time you saved the recovered graph. You may save whatever text you want here, and it is presented as the default Graph Commentary in the Graph Print Options.

Graph Specifications that you save are valid, and may be used/opened, regardless of the current settings for the Period Menu (Yearly / Quarterly / Monthly) and regardless of the View Setting (ProForma / Common Size / SqFt/Unit). This capability allows you to save literally **millions** of graphs of your own design for future recall and production with any of your analyses.

The Graph shown when you open a specification will agree with the current values for the Period Menu and View Setting, and the data shown in the graph will agree with the current data shown in the report specified by these controls. Therefore, if you open a graph which calls for (and shows, for instance) the Cash on Cash Before Tax Ratio, that ratio must be shown in the report currently specified (and shown), or you will receive an Error Message telling you that the data cannot be found, and the graph to be opened cannot be produced.

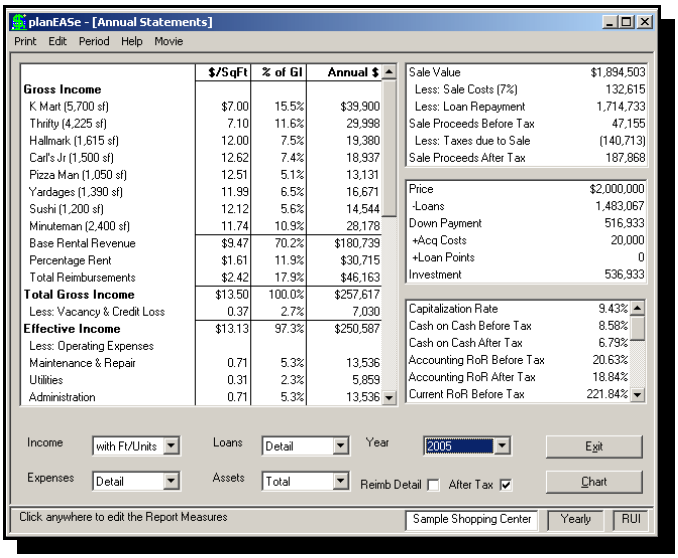
The Graph Specifications that you save use the Line Title (for instance "Cash on Cash Before Tax") to find the data to produce in your graph. Editing these Line Titles will cause the loaded Graph Specification to be unable to find the required data, causing an Error Message unless you edit the Line Title in the current report accordingly. We suggest you avoid editing Line Titles if you want to use the Graph Library.

We ship planEASe with a small library of Graph Specifications you may want to use for your analyses. To distinguish between our graphs and those you may want to add yourself, all our Graph Specification files begin with the letters "pe". Beyond that, we add, for example:

pe_us_pf for Unit Sales Graphs preferring the ProForma view
pe_ia_cs for Investment Analysis Graphs preferring the Common Size view
pe_ds_sf for Development Spending Graphs preferring the Unit/SqFt view

Annual Statements

This function allows you to display/print an Annual Statement in Annual Property Operating Data (APOD) report format for your property. The information displayed in the report is exactly the same as the information in the 3 Income Statements (ProForma, Common Size and SqFt/Units) Reports for a particular year. Thus, even though the report looks like an APOD, the amounts are those covering the results of an entire year, rather than the "snapshot at acquisition" represented by the APOD. Here we show the 2005 Annual Statement for the *Redondo Professional Building*. (on your planEASe System Disk in the Assumption Set named *offices.ru*).



The Annual Statement Specifications are the controls (checkboxes and listboxes) displayed at the bottom of the screen when you are viewing your Annual Statements. These control settings determine how your Annual Statements are displayed. The settings are largely the same as those for the Income Statements, and the settings are shared with those controls, so, for example, if you set ***Expenses*** to *Total*, they will be shown in total in both Annual and Income Statements. The control settings are saved when you save the Assumption Set, so the default report settings will be in the same configuration when you recall the Assumption Set in future sessions.

Income may be set to *with Ft/Units*, *Total*, or *w/o Ft/Units*. *Total* summarizes all revenue into one Gross Income figure. *with Ft/Units* details each revenue and prints the $/SqFt (if Square Footage is positive). If you have used the Calculator to enter SqFt or Units for this Revenue, that SqFt or Unit value is displayed and used. *w/o Ft/Units* details each revenue and does not print $/SqFt for the revenue even if Square Footage is positive. This is useful for properties where the revenue detail is for individual leases and the Calculator has not been used so dividing the amount by the total footage is nonsense for revenues, but meaningful for expenses. Revenues which are zero throughout the projected period are not shown.

Expenses may be set to *Detail* or *Total*. *Detail* lists each expense individually, with Total Expenses shown at the end. *Total* simply shows the Total Expenses, with no detail. Expenses which are zero throughout the projected period are not shown. Management Fee is determined the same way as for the APOD. That is, the report generator examines all expense pages for the characters "Management Fee" (caps don't matter). If it finds one or more, the corresponding expenses (including any following pages whose Page Titles start with an "&") are added to any Management Fee planned for the property. This allows you to plan management fees either with the Management Fee percentage in the Revenue Pages or as explicit separate expenses, or both.

Loans may be set to *Detail*, *Detail/AT*, *Total* or *None*. *Detail* lists each loan individually. *Detail/AT* adds tax details for each loan, including interest payments and amortized points sections in the tax section, if they apply and are not zero. *Total* shows only the Total Debt Service with no detail after tax, and *None* eliminates all Loans from the reports. If you specify *None* for this option, ***After Tax*** is disabled because the tax calculations would be incorrect if the loan information were not included.

Assets may be set to *Detail*, *Detail/AT*, *Total* or *None*. *Detail* lists each asset individually. *Detail/AT* adds tax details for each asset, including depreciation and tax credits sections in the tax section, if they apply and are not zero. *Total* shows only the Total Capital Spending, Depreciation, and Tax Credits (if any). *None* eliminates all Assets from the reports. If you specify *None* for this option, ***After Tax*** is disabled because the tax calculations would be incorrect if the assets were not included.

Year (or ***Month*** or Quarter with the *Monthly Extension*) allows you to choose the year (or quarter or month) you want to display.

Reimb Detail will be shown if Reimbursements (see Page 103) are included in the Assumption Set and you have chosen to show Reimbursements *Separately* (see *Preferences* on Page 7). In this case, the box is not checked, so Reimbursements are shown in total. If this box is checked, the Reimbursements will be shown expense by expense.

After Tax may be checked, not checked, or disabled. If *Loans* or *Assets* are set to *None,* or the *Partnership Models* are being used*,* this is disabled. If checked, the After Tax section of the report is printed. If unchecked, all tax information is suppressed, including, for instance, ratios depending on tax information and after tax measures. Uncheck this switch for Before Tax Analyses. This setting also controls whether the Property Sale Report defaults to After Tax Calculations.

Print/Ratios menu option allows you to specify which of the 16 available ratios will be shown in the Measures Grid. This setting is also used for Income Statements, and is applied to all Income and Annual Statements until you change it. Thus you may eliminate Gross Income Multiple from all such reports forever by unchecking it here.

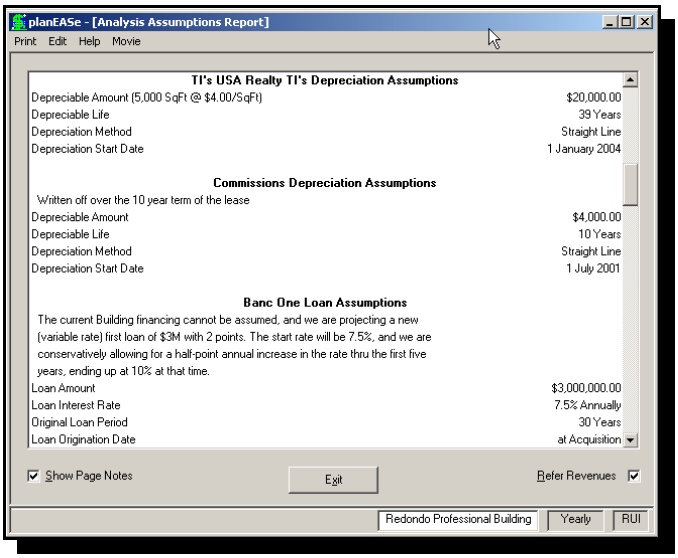
Print/Measures menu option allows you to specify which of the available measures will be shown in the Measures Grid.

Monthly and Quarterly Statements may be produced if you have purchased the planEASe *Monthly Extension*. Monthly/Quarterly Statements are in the same format, but do not show Sale Proceeds or Measure grids. You may choose to show Monthly/Quarterly/Yearly Statements using the *Period* menu on the menu bar.

Graphs If you have purchased the *Graphics Extension*, a Chart button will be available, offering Pie Charts of the information contained in the report. Pie Charts are available showing *Use of Gross Income, Use of Effective Income, Operating Expenses,* and *Source of Gross Income.* Graph data reflects the values for the current period chosen with the *Period* menu

Printing When you choose to print your Annual Statement, the Print Options Dialog allows you to whether or not to print the Acquisition and Sale Grids at the top of the report, and the Measures Grid at the bottom of the report. The Measures Grid may optionally be printed alone on an added Page 2 of the report. planEASe sizes the print font to fit the available space on the printed page. Thus, widening the margins (top and bottom), printing to legal size paper, or eliminating one or more Measures (like Gross Income Multiple) will increase the font size. Likewise, you can set the Income ListBox to *Total*, and explain your Revenues with the RentRoll and/or Lease Analysis Reports. Yet another way to increase the font size is to eliminate printing either the top two grids or the Measures Grid, or both.

Assumptions Report



This report shows (in English) the assumptions used to generate the other reports. It was created with the idea of generating an assumptions report which can be presented to an investor or other concerned party (NOT a planEASe user) to explain the assumptive basis of the other planEASe reports.

The phrase "Until Projected Sale" is used for any Revenue/Expense Period of 99 (or more) years. Any depreciation, loan, revenue or expense page for which the assumed amount is zero is ignored in this report.

The Assumption Section Title is constructed from your Page Titles and the Assumption Page Type. Thus, a Revenue Page with a Page Title of "& 2004" following a page with a Page Title of "Suite 104" will generate an Assumption Section Title of "Suite 104 2004 Revenue Assumptions"

The Assumptions Report looks for the value of 99 in the Revenue/Expense Period and, finding it, uses the phrase "Until Projected Sale" for the Revenue/Expense Period in the report. If, for instance, it finds 98.00 there, it prints "98 years".

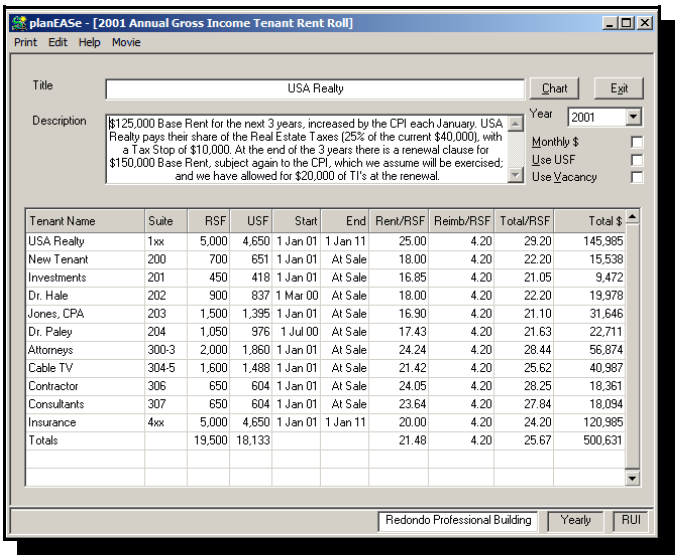
As with all our reports, if you want to edit any part of the report before printing, just click that part to highlight it (and press Enter↵ to edit it) or doubleclick the report part to edit it directly.

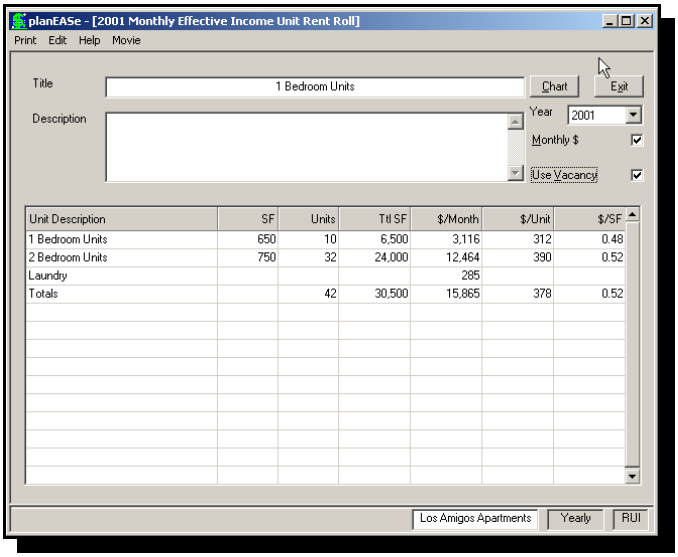
You may **insert or delete report rows** by pulling down the *Edit/Insert* or *Edit/Delete* menu options. This is useful, for instance, to eliminate the tax assumptions when publishing a Before Tax analysis.

Show Page Notes controls whether or not the Page Notes for the Assumption Page are printed in the Report. If checked, the Notes are shown. The screen version of the report shows them left justified, but the printed report centers and justifies the Notes for an attractive presentation.

Refer Revenues controls whether the assumptions for the Revenue Pages will be shown or, alternatively, the note "Please refer to the accompanying Lease Analysis reports" is shown in their place. This is useful if you want to include the reports from the Lease View of Lease Analysis to explain your revenue projections.

Rent Roll





The Rent Roll Report is automatically produced from the values in your Assumption Set, as shown here for the *Redondo Professional Building*.

If you have used the Revenue Calculator in Unit mode or entered the Square Feet or Units field as less than the crossover value, the Unit Rent Roll will be displayed, as shown below for the *Los Amigos Apartments*. Otherwise, this Commercial Rent Roll is displayed.

You may sort the Rent Roll on any column by clicking the column heading and choosing ascending or descending order. If you have purchased the *Graphics Extension*, the *Chart/Report* button shown at the top right will be present, and you may press it to choose between several Pie Charts. The Pie Chart data and legend is presented in the same sort you choose for the Rent Roll.

Year ListBox allows you to choose the Year for which the Dollar values are shown.

Monthly if checked, shows all dollars as monthly amounts on the report and the Title Bar displays *Monthly* instead of *Annual*.

Use USF if checked in the Commercial Rent Roll, changes the Rent, Reimb and Total Columns to be per USF rather than per RSF.

Use Vacancy if checked, adjusts the dollar numbers to be before or after allowing for vacancy and the Title Bar displays *Effective Income* instead of *Gross Income.*

The *Description* Box above the report grid shows the Assumption Page Notes for the first Revenue Page for the Highlighted Tenant / Unit. When printing (or saving the report as a Web Page) you may optionally include these notes in the report by checking the *Include Lease Description Text* CheckBox in the Print Options Dialog.

TitlePages

planEASe/TitlePages is a Multiple Document Interface (MDI) WSIWYG word processor incorporated into planEASe to enable you to process and print documents that use the same Page Setup as your planEASe Reports and Graphs. Thus you may produce planEASe documents, reports and graphs bearing consecutive page numbers with the same appearance so that the entire presentation package appears to have been produced by the same software (as indeed it has). This section of the documentation was prepared in *TitlePages*, put on the Windows Clipboard, and pasted into this WordPerfect document. The original document is available for your review and experimentation by opening *capable.txp* in *TitlePages*. Remember when you do, it was formatted with margins of .75 all around. Other margins will cause the document to appear different.

Formatting

TitlePages is capable of **bold**, *italic*, and underlined text. These effects are implemented by pressing the B, I, and U buttons in the toolbar, or pressing Control-B, Control-T or Control-U while typing. Additionally, right-clicking (whether text is selected or not) brings up a pop-up menu allowing you to cut / copy /paste text and choose from bold, italic, and underline effects. If a section of text is highlighted (selected) when you do this, the selected effect is applied to the text. You may use superscripts or subscripts by selecting the text, pulling down *Format/Font*, and selecting the appropriate treatment and font size. You may also select different fonts either by selecting text and choosing the font from the font list in the toolbar, or by choosing the font without selecting text, which uses the selected font for all following text (until you choose another font). You may also select text color by selecting the text and pulling down *Format/Text Color*. Choosing *View/Control Characters* makes Paragraph markers, spaces, and Page Breaks visible. Re-choosing it eliminates them.

An unique aspect of this word processor is that, as long as you are viewing a *TitlePages* or *.txp file, Page Setup (margins, fonts, back colors, and font colors) is controlled by your Page Setup settings in planEASe....that is, your printed page appearance for these files is the same as all other planEASe reports and graphs you print with this Page Setup. If you have chosen to number your pages and /or use the other page footer options, your printed pages will use your settings (and page numbers) when you print. While the page presentation on screen recognizes the Page Setup margins, etc., it is not feasible to show the top title box, text surround box, and footer information on screen, although they are, of course, added to the printed page as long as you are printing a *TitlePages* or *.txp file.

Communicating

TitlePages can open and save files in four formats:

- *TitlePages* proprietary *.txp
- Rich Text Format most word processors *.rtf
- Microsoft Word *.doc
- Text Editors such as NotePad *.txt

The default is the planEASe *.txp format which has the advantage of retaining the Title and Subtitle text for the Title Box at the planEASe page top, but *.rtf files can be read (and written) by other word processors such as Microsoft Word and WordPerfect. Text and RTF files can be inserted into a *TitlePages* or *.txp file by using the *Insert/Text File...* menu option. Text files (*.txt) will ***not*** retain your formatting (bold / italic / underline, etc) information, but, in general, the other filetypes will. You may, of course, import and export to and from other word processors and editors by using the Windows Clipboard. You may cut / copy selected text to the Windows Clipboard by using *Edit/Cut* (Ctrl-X) or *Edit/Copy* (Ctrl-C). Pasting anything on the Windows Clipboard **into** *TitlePages* is simply *Edit/Paste* (Ctrl-V). An extensive Undo and Redo capability is available at *Edit/Undo* and *Edit/Redo*, allowing you to Undo and Redo virtually all formatting. The Undo and Redo menu options are constantly re-titled to show you what is to be undone or redone.

Spelling / Thesaurus

Doubleclicking on any word pops up a menu with either suggested replacements from the built-in Dictionary (if the word is misspelled) or suggested synonyms from the built-in Thesaurus (if the word is properly spelled). Choosing the *SpellCheck* option on the popup menu checks the spelling for the entire text in the textbox. During the *SpellCheck*, you can *Add* new words to your personal Custom Dictionary, *Select* a replacement word from the suggested list, *Change All* occurrences of a word, or *Ignore All* occurrences of a word. This same Spelling / Thesaurus capability is available throughout planEASe in the multi-line text boxes.

Paragraph Effects

The *Format / Paragraph...* menu option allows you to choose several effects for a paragraph, such as the frame surrounding this and indenting the paragraph (either left or right). 1 inch left and right was chosen here.

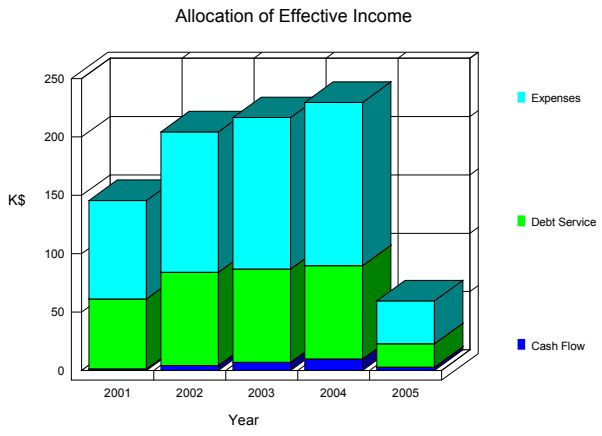
MDI Interface

Due to its MDI capability, *TitlePages* can open more than one document at a time. The open documents are listed in the *Window* menu, which is where you may arrange and/or switch between the open documents. To close a single document, access *File/Close* or click the ⊠ button at the top right of the document window. When *TitlePages* is opened (by requesting *Reports/TitlePages* at the *Assumption Edit Screen*), the first document (the *TitlePages* for the current Assumption Set) is automatically opened for your editing. You may then, if you wish, open additional documents by pulling down *File/Open.* When you are finished with a document you should pull down *File/Close.* Pulling down *File/Exit* or pressing the *Exit* button located at the screen bottom right or pressing the ESCape key when in any document will close **all** documents (including the current *TitlePages*) and return to the Assumption Edit Screen, just like all other "spoke" functions in planEASe.

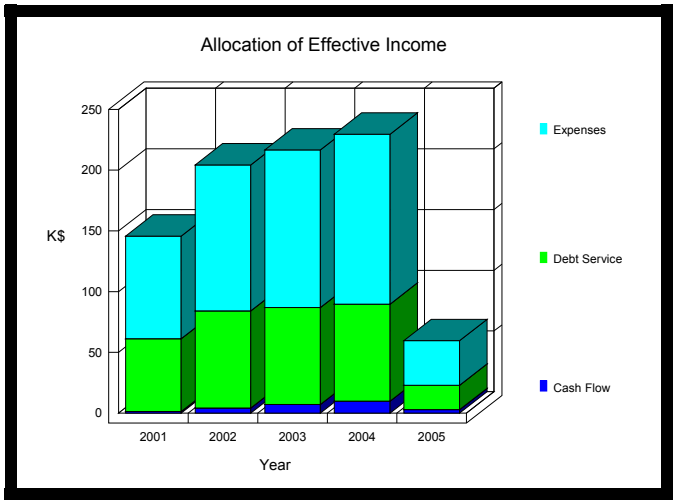
Graphics / Images

You may insert graphics in *TitlePages* from a file in either of two ways. The ⊠ button here has been inserted at the cursor by pulling down *Insert / Image / At Caret Position* and specifying the filename. When a graphic has been placed *At Caret Position*, it is treated as a character in the text stream, and cannot be sized. *TitlePages* reads TIFF (*.tif), Bitmap (*.bmp), Graphics Image Format (*.gif), Portable Network Graphic (*.png) and Windows Metafile (*.wmf) graphics.

The second way to insert a graphic from a file is *Insert / Image / As Fixed Object*. Graphics inserted this way first appear at the top left of the paragraph currently containing the cursor and you may drag them to the desired location by clicking on the graphic (handles appear around the graphic, showing that it has been selected), and dragging it with the mouse, as has been done here to place the graph at the top right of the paragraph. Once selected, the graphic may be sized by dragging one or more of the handles.



Another way to insert a graphic is to first insert a Frame using the *Insert/Frame* menu option. The Frame appears at the top left of the paragraph currently containing the cursor and you may drag it to the desired location by clicking on the Frame (handles appear around the Frame, showing that it has been selected), and dragging it with the mouse, as has been done here to place the Frame at the paragraph top right. Once selected, the Frame may be sized by dragging one or more of the handles. After this, choose the *Format/Frame* menu option, select the *Frame and Color* Tab, and choose a 3 point *Frame Line* width to obtain the frame shown here. Since the graph we are going to insert in the frame has a white background, we selected a *Background Color* of white at the same time. Finally, place the cursor inside the Frame, and choose *Insert/Image/As Fixed Object* to place the image in the Frame. Graphics also may be pasted into your document or a Frame from the Clipboard by pulling down *Edit/Paste* or pressing Control-V to place it into your document as described here.



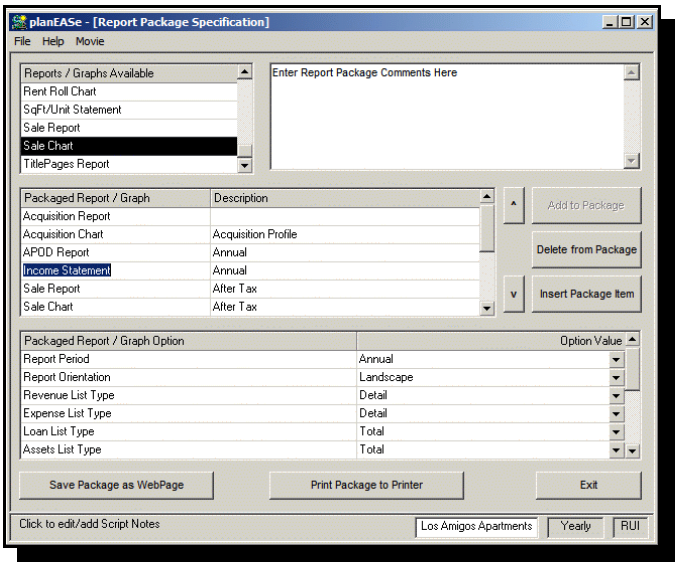
Tables

You can insert tables into your documents using the *Table / Insert / Table* menu option which displays a dialog allowing you to set the initial number of column and rows (additional rows and columns may be added and deleted later using the same Table menu option. Once the table is inserted, you may size the columns by placing the cursor over one of the column dividing lines and dragging the line to the new desired width. Rows size automatically as you add text to the table cells. You may also insert a table formatted in another word processor by putting the formatted table on the Windows Clipboard, and pasting it into your *TitlePages* document using *Edit/Paste*. The table below has been pasted in this fashion from a WordPerfect document. The *Table / Properties*... menu option allows you to set various properties such as the gray header and white body backcolors here.

Tenant	Lease Terms
1xx RE/MAX	$125,000 Base Rent for the next 3 years, increased by the CPI each January. RE/MAX pays their share of the Real Estate Taxes (25% of the current $40,000), with a Tax Stop of $10,000. At the end of the 3 years there is a renewal clause for $150,000 Base Rent, subject again to the CPI, which we assume will be exercised; and we have allowed for $20,000 of TI's at the renewal.
200 New Tenant	Now vacant, we project renting this suite with a long term standard COL lease at $12,600 by July. We have allowed $7,000 for TI's and $4,000 for the Leasing Commission.
201 Investments	$7,583 annual rent with a COL increase each January at the Inflation Rate.
202 Dr. Hale	$15,678 annual rent with a COL increase each March at the Inflation Rate.
300-3 Attorneys	$48,480 annual rent with a COL increase each January at the Inflation Rate.
304-5 Cable TV	$34,272 annual rent with a COL increase each January at the Inflation Rate.
306 Contractor	$15,633 annual rent with a COL increase each January at the Inflation Rate.
307 Consultants	$15,366 annual rent with a COL increase each January at the Inflation Rate.
4xx Insurance	100,000 annual rent with a COL increase every second January at the Inflation Rate. Tenant pays their share of the Real Estate Taxes (25% of the current $40,000), with a Tax Stop of $10,000.

Report Packages

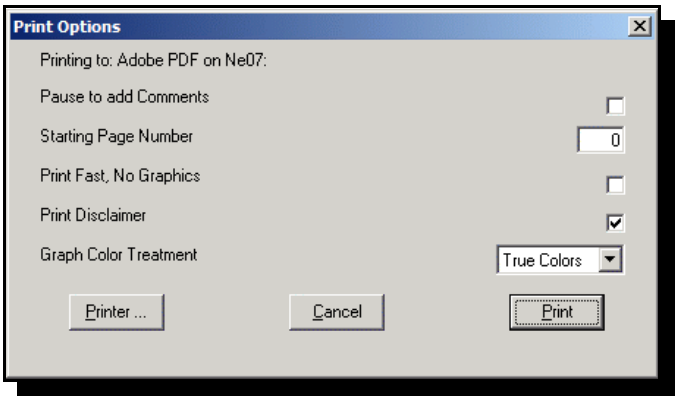
The Report Packages menu option allows you to specify, modify, save, recall and print lists (packages) of planEASe reports and graphs either to any printer you have (including Acrobat PDF printers) or as WebPages (a .html file), where the WebPages or PDF reports become one file that you can email. The packaged reports and graphs will be for the Assumption Set (or Portfolio) currently loaded in planEASe. All planEASe reports (other than Sensitivity and Risk Analysis) are available to be listed, and all Graphs and Charts (other than those for the Income Statements) are available to be listed in a package. The screen here shows a Report Package under construction for the *Los Amigos Apartments*, asking for the Acquisition Report, an Acquisition Chart, etc.



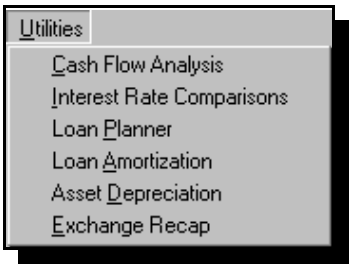
Since the requested Income Statement is currently highlighted in the list, the options for this report are shown and available for change in the Options Grid below. Options are defaulted to the values you have previously set for these reports and graphs and, if they are reset here, the original settings will be restored once the package has been executed. Your option settings are saved with the saved Report Package, so re-outputting a saved Report Package will retain the same appearance. The page colors, margins and fonts are controlled by the current settings in Page Setup however (see page 73), so you can easily output a Package in the *Influential* Page Style and re-output it in *Blue Carrara* for another client.

Buttons to the right of the Package List allow you to add, delete and insert reports and graphs to and from the list. The up and down arrow buttons move the highlighted report (the Income Statement here) up and down in the list. The reports and graphs are output in the order listed. Report Packages can be saved and recalled using the Open and Save Options on the File Menu.

When you click on either of the two left side buttons at the bottom of the screen to execute the package, this Print Options dialog will appear to further specify the appearance of the packaged reports / graphs. The only unusual option here is *Pause to add Comments*, which, if checked, will allow you to add comments to each and every report and graph as it is output. For the other options you are referred to pages 71 and 72.



Utilities Menu



The Utilities Menu is available only if you have purchased the optional planEASe *Financial Utilities*. It provides the following functions:

Cash Flow Analysis
allows you to enter (or import from your planEASe Basic Analysis with the *File/Import* menu option) a cash flow stream together with the dates of receipt or disbursement, and display/report the discounting process used to compute the IRR, MIRR, NPV and/or the CpA resulting from those cash flows. Cash flows you enter or import may be saved and opened in later sessions.

Interest Rate Comparisons
allows you to compare interest rates quoted on different bases.

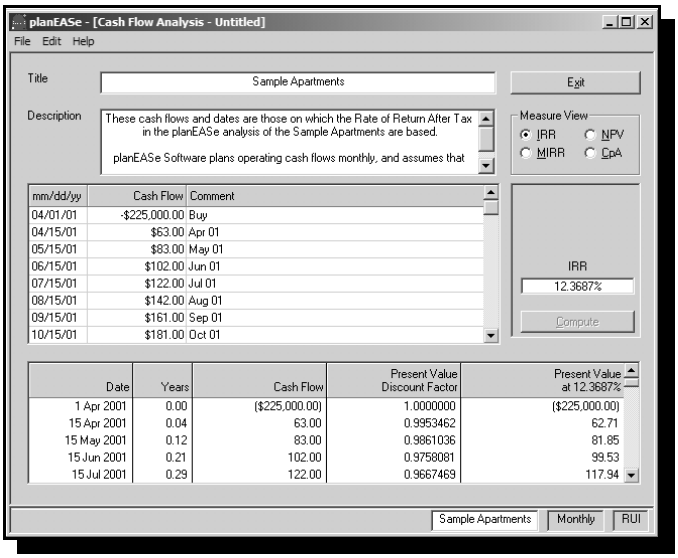
Loan Planner
is useful for analyzing loans with a single payment and interest rate. It displays/prints a table showing amortizing payments for a range of loan amounts and interest rates and/or an amortization schedule for the chosen loan. When you request this function, you may fill in the loan values you want in the data entry boxes in the left side of the screen. As you do so, the loan amounts, interest rates, and payments shown in the table are updated to reflect the values you enter.

Loan Amortization
is useful for analyzing loans with variable payments and/or interest rates. It allows you to enter the terms for a loan with variable monthly payments and/or interest rates, and display/print amortization schedules for the loan. After you have entered the loan terms, you may review the results for any or all years on the screen without spending the time to print reports. You also may save loan terms on disk for easy recall and adjustment of the loan terms.

Asset Depreciation
allows you to generate/print asset depreciation schedules. When you have entered the information about an asset, you have the choice of saving that information on disk. If you save it, you can recall it at any time in the future, change anything you want, and put the depreciation amounts on the screen for easy transfer to your tax return or tax plan.

Exchange Recap
allows you to enter and balance a 1031 Exchange transaction on either a 2 party (Exchanger - Exchanger) or a 3 party (Exchanger - Buyer - Seller) basis. You may print the Recap Form, a Recap Report for each of the parties, and a Basis Adjustment Report for the Exchanger(s). You may save exchanges on disk, and open them for re-processing at a later time. Exchanges involving more parties are processed as multiple instances of 2 and/or 3 party exchanges.

Cash Flow Analysis



This function allows you to enter (or import from your planEASe Basic Analysis with the *File/Import* menu option) a cash flow stream together with the dates of receipt or disbursement, and display/report the discounting process used to compute the IRR, MIRR, NPV and/or the CpA resulting from those cash flows. Cash flows you enter or import may be saved and opened in later sessions by using the *File/Save* and *File/Open* menu options. Here we see the screen immediately after using *File/Import* to import the Rate of Return After Tax for the *Sample Apartments*.

Since this function accepts dates for the cash flows, it's clear that it is NOT limited to equally spaced cash flows (as are spreadsheet programs and calculators). Because real life investments rarely throw off cash in equally spaced time periods, this is a real convenience (if not a necessity). This is just one of the conveniences in this software versus calculators and/or spreadsheets. Other advantages include easy save and retrieval, comments associated with each cash flow, customization of measures and parameters, verification reports, et cetera.

Cash Flow Entry

Enter your cash flows into the Cash Flow Grid at the center of the screen. You must enter them sequentially, row by row, and you may not skip rows. You may enter as many as 200 cash flows. When you are in the Cash Flow Date column (mm/dd/yy), pressing (W), (M), (Q), (S), (A), or (Y) will enter a date of next week ((W)), next month ((M)), quarter ((Q)), half year ((S)), or year ((A) or (Y)), as measured from the date in the row above the cursor. When you are in the Cash Flow column, entering either the quote mark (") or the apostrophe (') enters the dollar amount from the row above, so constant cash flow streams are easily entered.

If you want to Insert a new Cash Flow in the middle of an existing stream, put the cursor in the row below the row where you want to insert and choose the *Edit/Insert Row* menu option (or (Ctrl)-(I)). Delete a row with the *Edit/Delete Row* menu option (or (Ctrl)-(D)).

Compute

When you enter or change Cash Flows or Dates, the Verification Grid at the bottom of the screen turns gray, signifying that it has not been updated for your edits. You may update the Verification Grid by pressing the Compute Button at any time. Alternatively, if you have few cash flows or a fast machine, you may want to check the *Edit/AutoCalc* menu option which updates the Verification Grid automatically whenever a Cash Flow Date or Amount is entered or edited.

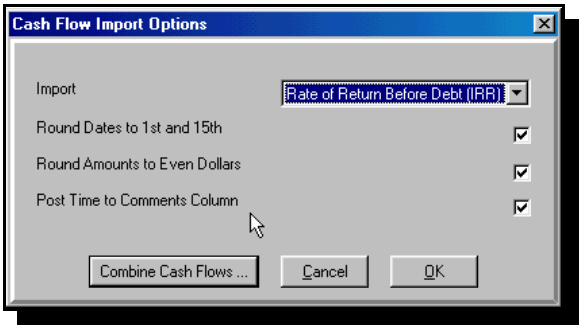
We do not compute an IRR or an MIRR where the total of the cash flows is negative (you lose money). In such cases, these rates are shown as "Zero or Less". Likewise, we don't compute rates of return above 999.9% ... such rates are simply shown as "Above 1,000%". In the incredibly unusual case where multiple positive IRR's are defined, we report the lowest positive rate.

Measure View
For any Cash Flow stream, you may view the IRR, MIRR, NPV or CpA of the stream by clicking the corresponding view. The Discount Rate (NPV), Safe Rate (MIRR), and Reinvestment Rate (MIRR and CpA) can be edited by clicking on the rate (shown in the Compute Button Window below the Measure View Frame).

File/Print Menu Option
allows you to print "Verification Reports" for any and all of the computations shown on the screen. Report Commentary is automatically generated to explain the measure being verified, and you may edit the commentary if you want.

File/Save and File/Save As Menu Options
allows you to save all the relevant information about the cash flows for retrieval at a later time.

File/Import Menu Option
This option allows you to import the cash flows from the planEASe Assumption Set currently being processed into this Cash Flow Analysis function, so that you may produce Verification Reports for these cash flows. Requesting this menu option displays this Cash Flow Import Options dialog box, allowing you to set the following Import Specifications:



Import specifies the particular cash flows that you want to import. The cash flows to be imported correspond to the measure selected, so choosing either Rate of Return Before Tax or Net Present Value Before Tax will import the Cash Flow Before Tax, since both measures are computed based on those cash flows.

Round Dates to 1st and 15th, normally checked, does exactly that. If you uncheck this option, the dates will be set to the corresponding decimal equivalents of the fractional year. Thus a fractional year of .5000 will be set to July 2 rather than July 1.

Round Amounts to Even Dollars, normally checked, does exactly that. If you uncheck this option, the amounts will be shown accurate to the penny.

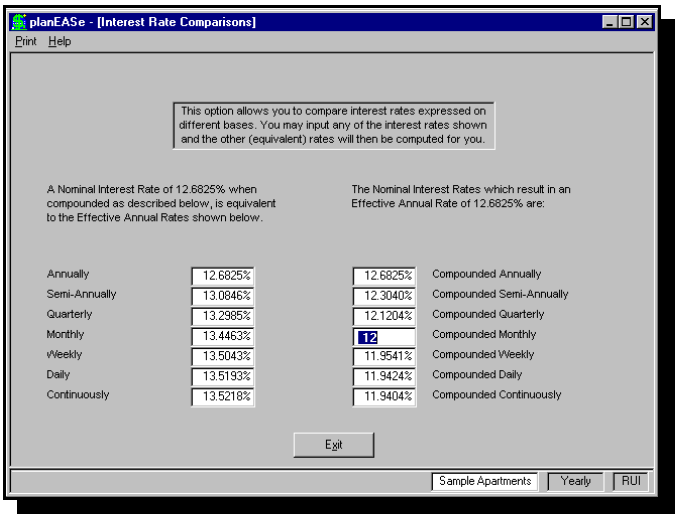
Post Time to Comments Column, normally checked, controls whether the cash flow comments column is filled with the month and year the cash flow occurs. If you are importing Combined Cash Flows (see the next paragraph), checking this option inserts the Investment Name of the Assumption Set being imported into this column. If you uncheck this option, the comments column is left blank.

Convert to Year-End Cash Flows will be shown if your Acquisition Date is in January and your Holding Period is an even number of years. Normally unchecked, when checked this will post the imported cash flows as annual, occurring at the end of the year. This is useful for comparing with the results of CCIM cases which always start in January, end at year-end, and use antiquated (and incorrect) IRR measure techniques now replaced by the (correct) XIRR and XNPV measures within Microsoft Excel.

Clicking *OK* imports the requested cash flows, placing them in the Cash Flow Grid, and computing the specified measure. You may import and **combine Cash Flows from more than one Assumption Set** by choosing the *Combine Cash Flows ...* button at the bottom of this dialog.

When cash flows have been imported, they may be edited, saved, reported, et cetera, just as if you had entered them from scratch.

Interest Rate Comparisons



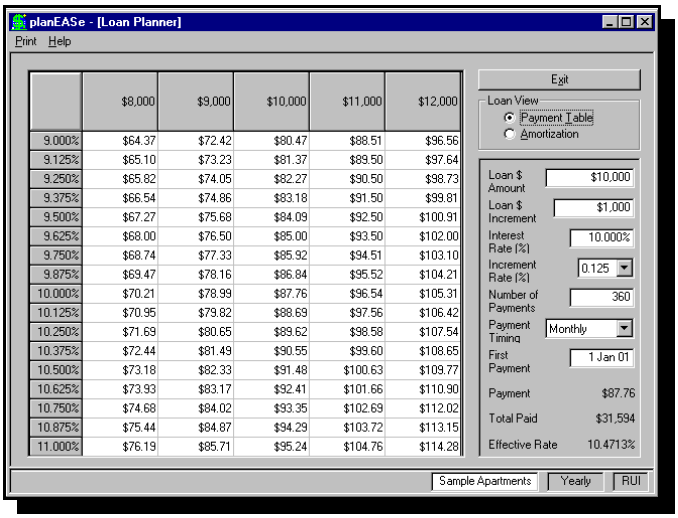
This function allows you to compare interest rates quoted on different bases. Interest rates are typically quoted as a rate together with a compounding period, such as "12% compounded monthly", or "10% compounded quarterly". Rates quoted in this way are called *Annual Nominal Rates*. In practice, the *Annual Nominal Rate* is divided by the compounding period, and that percentage of interest is paid or received each period. For instance, investing in a savings account paying 12% compounded monthly means that you receive 1/12 of 12%, or 1%, interest each month.

This 12% Nominal Rate is different from the *Effective Annual Rate*, which measures the annual rate of increase in an investment. In the 12% investment example, if you reinvested the 1% interest you receive each month, the monthly compounding (interest on interest) means that the amount in the account at the end of a year is 12.6825% greater than at the beginning of the year. Thus, 12% compounded monthly is "equivalent" to 12.6825% compounded annually.

This function shows 14 equivalent rates, expressed as Annual Nominal Rates in the left hand column, and Annual Effective Rates in the right hand column. You may type any rate of 60% or less into any of the rates, and the corresponding equivalent rates will be computed and filled in on the screen.

As an example of using this function in real life, banks try to convince us to save at their institution because it is safe and they offer the "best" interest rates. They usually tell us the current rate and method of compounding interest. One may say they pay 12% compounded monthly and another compounds daily at 11.8%. Which is the better deal? This function shows you that 12% compounded monthly is equivalent to 11.9424% compounded daily, so 12% compounded monthly is better than 11.8% compounded daily.

Loan Planner



	$8,000	$9,000	$10,000	$11,000	$12,000
9.000%	$64.37	$72.42	$80.47	$88.51	$96.56
9.125%	$65.10	$73.23	$81.37	$89.50	$97.64
9.250%	$65.82	$74.05	$82.27	$90.50	$98.73
9.375%	$66.54	$74.86	$83.18	$91.50	$99.81
9.500%	$67.27	$75.68	$84.09	$92.50	$100.91
9.625%	$68.00	$76.50	$85.00	$93.50	$102.00
9.750%	$68.74	$77.33	$85.92	$94.51	$103.10
9.875%	$69.47	$78.16	$86.84	$95.52	$104.21
10.000%	$70.21	$78.99	$87.76	$96.54	$105.31
10.125%	$70.95	$79.82	$88.69	$97.56	$106.42
10.250%	$71.69	$80.65	$89.62	$98.58	$107.54
10.375%	$72.44	$81.49	$90.55	$99.60	$108.65
10.500%	$73.18	$82.33	$91.48	$100.63	$109.77
10.625%	$73.93	$83.17	$92.41	$101.66	$110.90
10.750%	$74.68	$84.02	$93.35	$102.69	$112.02
10.875%	$75.44	$84.87	$94.29	$103.72	$113.15
11.000%	$76.19	$85.71	$95.24	$104.76	$114.28

This function displays/prints a table showing amortizing payments for a range of loan amounts and interest rates and an amortization schedule for the chosen loan. When you request this function, you may fill in the loan values you want in the data entry boxes in the left side of the screen. As you do so, the loan amounts, interest rates, and payments shown in the table are updated to reflect the values you enter. You may move any payment shown in the table (and the associated Loan Amount and Interest Rate) to the center of the table by clicking on the Payment Amount shown in the Table.

Loan View is normally set to *Payment Table*, but you may click on *Amortization* at any time to show an Amortization Schedule for the Loan Amount, Interest Rate and Payment at the center of the Payment Table. Changing any of the values in the entry boxes to the left side automatically recalculates the Payment Table.

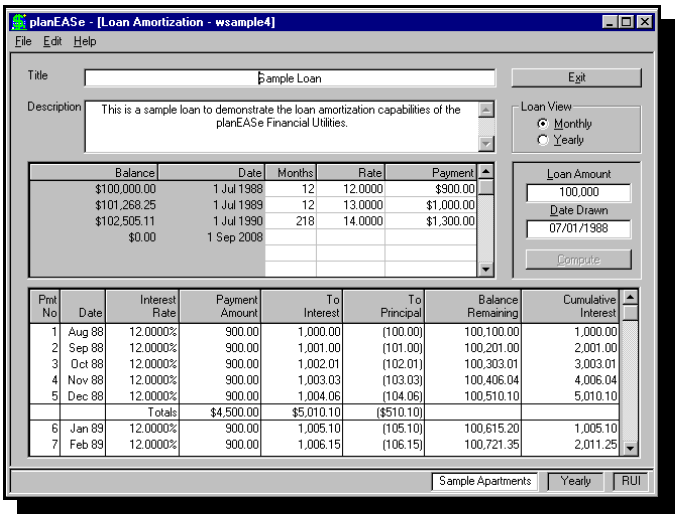
Loan $ Amount and ***Loan $ Increment*** control the top row of the payment table. Loan $ Amount is used as the **middle** loan amount in the top of the table. Loan $ Increment is used to generate the other loan amounts on the loan amount line of the table. For example, if you enter a Loan $ Increment of $1,000, the loan amounts on the top line will differ by $1,000, as shown in this screen.

Interest Rate and ***Increment Rate*** control the rate column along the left side of the table in a similar fashion. Entering 10 as the Interest Rate means that 10% will be the middle rate in this column, and a .125 Increment Rate means that each rate in the column will be .125% greater than the rate above, as shown in this screen.

Number of Payments and ***Payment Timing*** allow you vary the length of the loan and the payment frequency. Payment Timing may be set to *Weekly*, *BiMonthly*, *Monthly*, *Quarterly*, *SemiAnnual* or *Annual* Payments. When you change the Payment Timing, Number of Payments is automatically recomputed to make the loan length the same, so resetting the Payment Timing from Monthly to Quarterly when the Number of Payments is 360 will cause the Number of Payments to be reset to 120.

First Payment sets the date of the first payment (for use in the Amortization Schedule).

Loan Amortization



This function allows you to enter the terms for a loan with variable monthly payments and/or interest rates, and display/print amortization schedules for the loan. The function handles balloon payments, negative amortization, final payments, and up to 200 changes in either payment amount or interest rate (or both) during the life of the loan. After you have entered the loan terms, you may review the results for any or all years on the screen without spending the time to print reports. You also may save loan terms on disk for easy recall and adjustment of the loan terms.

You enter loan payment terms as "steps" in the Loan Terms Grid shown at the center of the screen. A step occurs whenever the loan payment or interest rate changes. Thus a standard fixed rate 30 year mortgage at 12% with a $1,000 monthly payment has the single step of:

Payments of	1,000.00 for	360 months, at annual interest of	12%

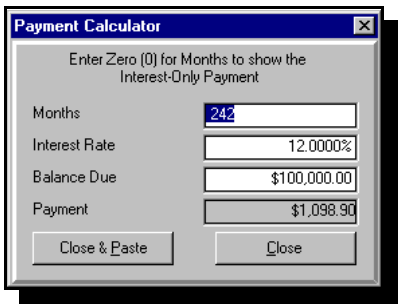
A more complicated variable loan might have three steps of:

Payments of	900.00 for	12 months, at annual interest of	12%, then
Payments of	1,000.00 for	12 months, at annual interest of	13%, then
Payments of	1,300.00 for	360 months, at annual interest of	14%.

These loan terms have been saved on the shipped diskette under the name *wsample.ut4* so that you may recall them (with the *File/Open* menu option) and generate the loan amortization to familiarize yourself with the operation of this function. This is the loan showing on the screen above. Notice that the software has automatically corrected the last step to 218 months/payments, since the balance has been entirely repaid with that payment.

To insert a new step, press Ctrl-I (or choose the *Edit/Insert* menu option) when the cursor is on a step, and a line will open up to insert the new step. Pressing Ctrl-D (or choose the *Edit/Delete* menu option) deletes the step where the cursor is currently placed. The Remaining Balance and Date columns are automatically updated for you as you add, change, delete and insert steps. If you enter a step where the payment is sufficient to completely pay off the loan during that step, the software knows that the loan has been paid off, and will not allow entry of additional steps after the remaining balance is reported as zero. You may, however, insert and delete steps before the last step, if you wish.

Payment Calculator You are probably familiar with the concept of "balloon", "amortizing", and "interest-only" payments. When you are entering loan steps and place the cursor in the Payment column, you may press either (P) (for Payment) or (C) (for Calculate) to bring up this payment calculator allowing you to compute any of these payment amounts for your loan. Entering 0 (zero) for the months in the calculator will give you the interest-only payment amount. Entering 1 (one) for the months yields the balloon payment, and any other value yields the amortizing payment over the number of periods entered.



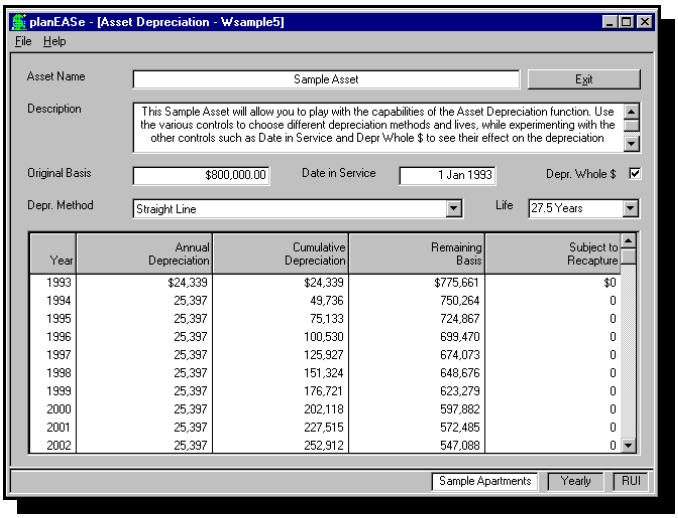
"Negative amortization" occurs when the payment amount is not sufficient to pay the interest due. We handle negative amortization by adding the shortfall to the balance due on the loan and counting the unpaid interest as interest. The *wsample.ut4* loan amortizes negatively for the first two years, so you may look at this loan amortization to see exactly how this situation is treated. Deductibility of unpaid interest is governed by the status of the taxpayer (accrual versus cash basis) and the tax laws in effect, so you should consult your tax counsel in such cases.

Compute When you enter or change any loan step value, the Amortization Grid in the lower portion of the screen will turn gray, indicating that the amortization shown, if any, has not been updated to show your changes. You may, at any time, press the Compute button to recalculate the Amortization Grid for your current loan terms.

Loan View allows you to display either a Monthly or Yearly amortization in the Amortization Grid.

Asset Depreciation

This function allows you to generate/print asset depreciation schedules. When you have entered the information about an asset, you have the choice of saving that information on disk. If you save it, you can recall it at any time in the future, change anything you want, and put the depreciation amounts on the screen for easy transfer to your tax return or tax plan. This can be very useful at tax time, particularly if you've misplaced the printed report.

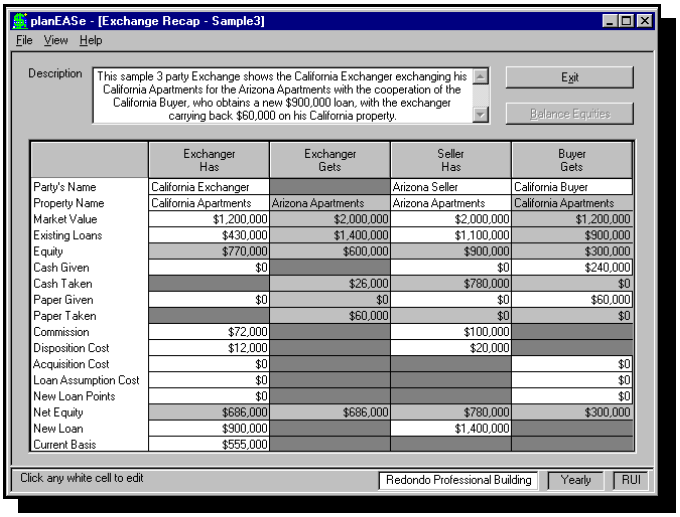


The depreciation methods built into this function are:

Straight Line	using any life you specify. Half Month, Half Year and Half Quarter rules are utilized as required in the current law.
Sum of the Years Digits	using any life you specify. Half Month, Half Year and Half Quarter rules are utilized as required in the current law.
Declining Balance	by any factor previously allowed in the law, including 125%, 150%, 175% and 200% using any life you specify. Optional automatic switchover to Straight Line is provided. Half Month, Half Year and Half Quarter rules are utilized as required in the current law.
ACRS Personal Property	using any of the 3, 5, 10, and 15 year life tables. A short year option for personal property is provided.
ACRS Real Estate	using any of the 15, 18, and 19 year tables by month
ACRS Low Income Housing	If you use Low Income Housing ACRS depreciation, the amount shown as "Subject to Recapture" is reduced by 1% for each month greater than 100 months, as currently allowed in the tax law.

The depreciation schedule shows the amount "Subject to Recapture". This amount is computed simply as the excess depreciation above the straight line depreciation amount at the end of the year involved. Depending on the situation, this MAY NOT be the actual amount subject to recapture under the law. For instance, use of ACRS depreciation for commercial property may cause the entire amount of depreciation to be recaptured regardless of what is computed here.

Exchange Recap



This function allows you to enter and balance a 1031 Exchange transaction on either a 2-party (Exchanger - Exchanger) or a 3-party (Exchanger - Buyer - Seller) basis. You may print the Recap Form, a Recap Report for each of the parties, and a Basis Adjustment Report for the Exchanger(s). You may save exchanges on disk, and open them for re-processing at a later time. Exchanges involving more parties are processed as multiple instances of 2 and/or 3 party exchanges. The Exchange Grid is shown in three colors (typically white, gray and dark gray). The white cells are for your entry of the exchange data. The gray cells are for display of the computed values when the exchange is balanced, and the dark gray cells are never used. If the screen is showing a 2 party form and you want to enter a 3 party exchange (or vice versa), pull down *File/New Exchange* and specify the other format.

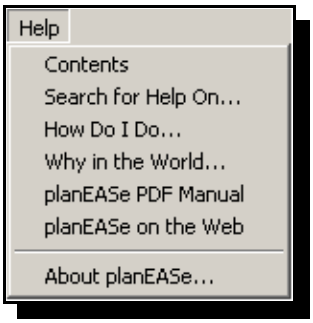
Data Entry

You must explicitly enter **something** (even $0) into each **white** cell of the Recap Form shown on the screen. For cells with amounts that you might think of as a percentage (like a 6% commission), you may enter a number less than 100 and the corresponding $ amount will be computed and shown (assuming the percentage basis number, like the Market Value for a commission, has already been entered). **Items relate to the party named in the Column Heading**, so Acquisition Cost in the Exchanger column in the example is the Acquisition Cost he must pay for the Seller's Property. If a party has cash to balance the exchange, enter the maximum cash he has available, and you will be offered the opportunity to net out his cash contribution if the maximum amount is not required. For 3 party exchanges, the Buyer's Cash Given and Paper Given must total to the Net Equity he is purchasing, or you will be prompted to adjust the entered values before proceeding.

Balance Equities

If you have entered values into all the white cells, pressing this button will balance the exchange and display the balanced values in the gray cells, as shown in the screen above. If there is not sufficient cash in the Exchange to pay transaction costs, the costs not covered are paid in paper and shown in red for identification. If any party is both taking and giving cash in the balanced position, you are given the opportunity to net out that position. This is also true for paper in 2 party exchanges. Once the Equities have been balanced, the *Balance Equities* Button will become unavailable, and you may view the various reports by using the *View* option on the Menu Bar. Choosing *View/Exchange Form* will return you to the Exchange Form where you may change any of the assumed exchange values and choose Balance Equities again. At any time, you may use *File/Print Form* to print the form as shown on screen, whether data has been entered or not. Printing a blank form is useful for filling out the exchange by hand away from the computer. *File/Print Recap* and *File/Print Basis* print the Exchange Recapitulation and Basis Adjustment reports. You must press the *Balance Equities* button before printing these reports.

Help Menu



The Help Menu gives you many many ways to get help while running planEASe, from Context Sensitive help on the task you are performing (always available on F1) to help on the individual assumptions when entering them and extensive **How To** help on particular financial situations. The planEASe Help System includes all relevant information from this manual, indexed and organized for your immediate access to instructions immediately relevant to what you're doing.

Contents
brings up planEASe Help with the Contents Tree Window in the left pane, allowing you to easily branch off into any area of the planEASe Help system.

Search for Help on
brings up planEASe Help with an alphabetical index of the topics in the help system so you can highlight and go to any topic listed in the index. Any time you are elsewhere in planEASe Help, you can search the same index by choosing the Search tab in the left pane of the Help Window.

How Do I Do
brings up a list of common things that we get asked about doing in planEASe, like **Lease Forecasting**, or **Variable Rate Loans.** This is roughly the same information as shown in the *How Do I Do* section of this manual on page 207.

Why in the World
brings up a list of common problems when running an analysis, like **Revenue/Expense is wrong in first year**, or **Printing Problems**. This is roughly the same information as shown in the *Why in the World* section.

planEASe PDF Manual
brings up this complete Manual (bookmarked and linked) in your Acrobat Reader. Very useful if you're traveling without your printed Manual.

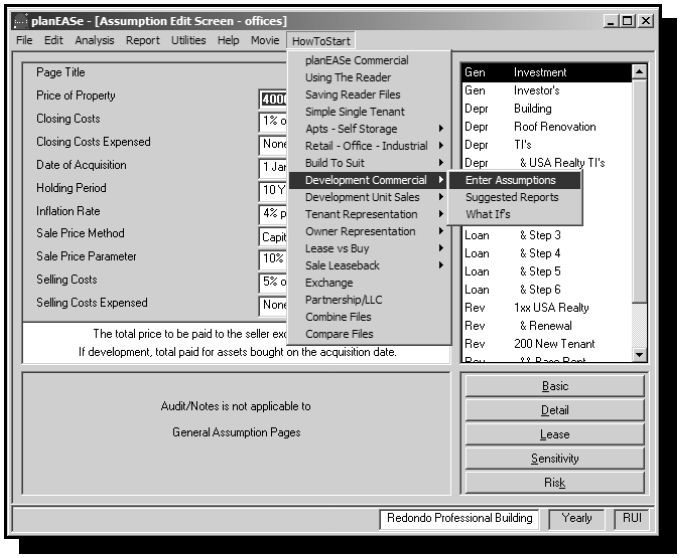
planEASe on the Web
lets you access the planEASe Website from within planEASe.

Assumption Help
is always available at the Assumption Edit Screen by doubleclicking on the two line help message shown below the assumption values. Assumption Help is Context Sensitive, so the help window starts out containing help for the current (highlighted) assumption.

Context Sensitive Help
is always available by pressing F1. For instance, if you are performing Detail Analysis and press F1, the Help Window displays help on Detail Analysis. Pressing F1 is typically the fastest way to get relevant Help.

Movie (and HowToStart) Menu

planEASe (and the Trial Version) contains short movies on *Movie* menus throughout the software, showing you how to perform many analysis functions at the time you are doing them. At the Assumption Edit Screen, shown here, the *Movie* menu is augmented by a *HowToStart* movie menu, displaying movies showing you how to start the various types of analysis of which planEASe is capable. Here, the *HowToStart* menu is being used to call the movie showing how to Enter Assumptions for a Commercial Development. There are about 300 movies available to help you to use planEASe. When you request a movie by pulling down a *Movie* menu and clicking on your choice, the *planEASe MoviePlayer* (Patent Pending) is called, initiating a search for your choice in the following order:



FIRST: We search for your movie choice on our Web Site. If you are connected to the Web and our site is available, the movie found there is played for you. This assures that you will be served the most current version of the movie you request, if available. You can tell that your movie is playing from our Web Site by reading the Title Caption in the movie window, which is "planEASe Web Movie Player" in this case.

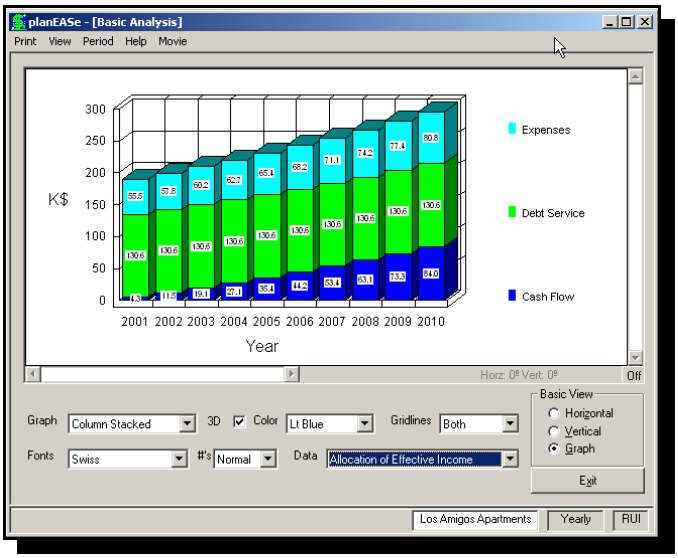
SECOND: If you are NOT connected to the Web or our site is NOT available, we search for your movie choice on your CD (or DVD) drive. You can tell that your movie is playing from your CD Drive by reading the Title Caption in the movie window, which is "planEASe CD Movie Player" in this case. You can place the movies on your CD (or DVD) drive by inserting the Trial Version CD-ROM available free from us.

THIRD: If your movie choice is not found using the first two methods, we search for your movie choice in the *Videos* folder contained in the folder on your Hard Disk where planEASe is installed (by default, this is C:\planwin). If the movie is found there it is played for you. You can tell that your movie is playing from your Hard Disk by reading the Title Caption in the movie window, which is "planEASe Movie Player" in this case. To install the *Videos* folder on your Hard Disk, you may copy it from the Trial Version CD-ROM. It requires approximately 520 megabytes (ie: half a gigabyte) of storage.

FOURTH: If the planEASe MoviePlayer cannot locate the movie in any of the locations above, it displays a window telling you that, and suggests how you can fix the problem by inserting the Trial Version CD-ROM, or copying the Videos folder to your Hard Disk.

Graphics Extension

The optional planEASe *Graphics Extension* adds the *Graph View* to Basic and Detail Analysis, adds the *Report/Graph* button to the Income Statements, adds *Graph Controls* to the graphs in Sensitivity and Risk Analysis, adds Pie Charts to the Acquisition Report, Sale Report, APOD Report, Annual Statements, and Rent Roll, and allows the printing, editing, and exporting of any graphs shown on the screen. In total, the Graphics Extension adds **millions** of Graphs and Charts to planEASe, each of which is filled **automatically** with data, and properly labeled titles and axes. All these graphs and charts can be edited and further formatted with different fonts, graph formats, grids, perspective, et cetera; and all can be printed in many beautiful color formats with three mouse clicks.

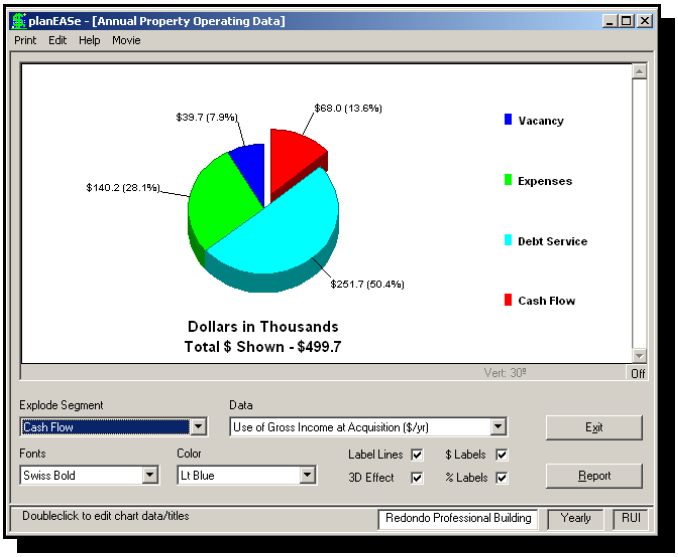


This screen shows the *Allocation of Effective Income* graph from the Basic Analysis of the *Los Amigos Apartments*. Below is an example of the available Pie Charts. This one is taken from the APOD Report for the *Redondo Professional Building*. There are two types of graphic styles in the *Graphics Extension*: Graphs and Pie Charts. Below (or above in some cases) either of these styles are the *Graph Controls*. These controls allow you to customize the graph or chart's appearance to your specifications, as described below.

Graph (graph only) allows you to choose between 10 different graph types to present your data:

Column	*Bar*	*Area*
Column Stacked	*Bar Stacked*	*Area Stacked*
Column Stacked %	*Bar Stacked %*	*Area Stacked %*
Line		

The graph above is shown as a Column Stack. Experiment with this control to become familiar with the various graph types. The percentage formats are only appropriate when multiple variables (like Expenses, Debt Service and Income here) are being graphed. Choosing *Column* when graphing a single variable provides a very colorful graph that many prefer.



3D (graph or chart) adds an attractive 3D effect to the graph, but can obscure accurate reading of the data. This effect can also interfere with the proper graphing of negative values.

Color (graph or chart) specifies the first color shown. The remaining colors are automatically

generated from the internal color list. Thus *Lt Blue* above specifies that Income will be shown in Light Blue.

Gridlines (graph only) allows you to set grid lines to Horizontal, Vertical, None or Both.

Font (graph or chart) controls the typeface used to display the graph labels and numbers. The *Body* font corresponds to the Body font you choose in the Page Setup Dialog.

#'s (graph only) lets you include the numeric values inside the graph. The *Cum*ulative setting shows the total value plotted (in stacked graphs), whereas the *Normal* setting (used here) shows the internal value.

Data (graph or chart) allows you to choose between various available graphs or charts.

Explode Segment (chart only) allows you to explode any segment of the Pie Chart to emphasize it for presentation.

$ Labels (chart only) adds $ values to the segment labels of the Pie Chart, as shown in the example.

% Labels (chart only) adds percentage values to the segment labels of the Pie Chart, as shown in the example.

Label Lines (chart only) adds lines leading to the segment labels of the Pie Chart, as shown in the example.

Perspective

In addition to these effects, you may add Perspective to your graphs by using the scrollbars you see at the left (chart or graph) and bottom (graph only) of the graph/chart window. Vertical Perspective allows you to look down at the top of the graph from above , or up at the graph from below, by rotating it on an invisible horizontal axis. Likewise, Horizontal Perspective allows you to look at the graph from either the left or right side by rotating it on an invisible vertical axis.

For all graphs and charts, perspective is automatically turned *Off* when first viewing the Chart or Graph. You may turn it *On* by clicking the *Off* Button at the bottom right of the window. Turning it *Off* at any time will eliminate all Perspective and return the Chart or Graph to its appearance before Perspective was applied.

You add Perspective by sliding the scrollbars to the desired position when the bottom/right Button says *On*. After you have added Perspective, and while it is shown, printing the Graph/Chart will show your Perspective in the printed graph/chart.

Adding Perspective may only be performed with graphs/charts when the ***3D*** checkbox has been checked. Likewise, the ***#'s*** display is not compatible with graphs shown in Perspective. Therefore, ***3D*** is automatically turned on when you turn the Perspective Button *On*, and ***#'s*** is automatically turned off. When you return the Perspective Button to *Off,* these controls are returned to their former settings.

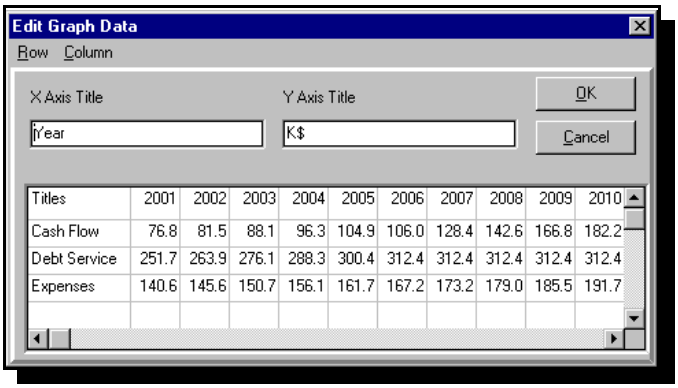
You may edit and export graphs and charts, as discussed on the following pages. All settings discussed here, including Perspective, will be shown on exported graphs/charts.

Graph Additions/Overlay

In addition to the capabilities described above, the *Graphics Extension* adds the capability to add two or more items within the same graph, and overlay another item within that same graph when using the *Graphics Extension* in the Income Statements function of the *Reporting Extension*. Please see the description of these capabilities in the Income Statements section on page 44.

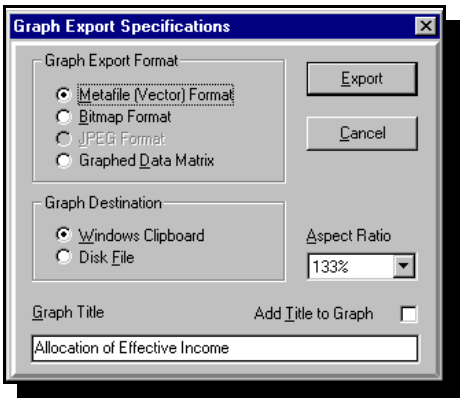
Edit Graph

Doubleclicking on any graph or chart displays an Edit Graph (or Chart) Dialog (here showing the values for the Allocation of Effective Income from the previous page), allowing you to edit the graph contents (the dialog is slightly different for charts). All edits are reflected in the graph on screen when you press OK, and the edited graph is what is printed if you request printing. Editing is useful to change X or Y Axis titles and/or text when the planEASe default values are inappropriate.



Row and ***Column*** (On the Menu Bar) allow you to Cut, Copy, Paste, Add, Insert, and Delete Rows and Columns in the Graph Data Grid. The first row and column (the Titles) may not be deleted, and you may not insert rows and columns in front of them.

Exporting Graphs and Grids



You may Export any Graph or Grid showing on screen to either the Windows Clipboard or to a disk file of your choice by choosing the *Print/Export* (or *File/Export*) Menu Option. If a Graph is being displayed, this Dialog appears, so you may specify the way in which you want to export the graph. If you export the graph to the Clipboard, you can switch to any other Windows program accepting graphs (like *Word*, *WordPerfect*, *Ami Pro*, *Excel*, *Quattro*, *Lotus 123, Publisher*, et cetera) and paste the graph into that application using the *Edit/Paste* command in the application (typically, the *Edit/Paste* shortcut key is Ctrl-V).

Graph Export Format may be set to:

Metafile (Vector) Format which copies the graph as a collection of sizable lines which many drawing and graphing programs (like *CorelDraw*) will allow you to edit. This is a smaller file than a Bitmap file, and it responds better to being sized in the receiving application, so it is typically the preferred format for transfer to other programs.

Bitmap Format Copies the graph as a picture (that you can edit pixel by pixel with *Paintbrush* and other picture editing programs). This is typically not the preferred transfer format, but you may want to use it for applications where a bitmap format is required.

JPEG Format copies the graph as a picture which is compatible with the Internet and Web Browsers. This format is not compatible with the Windows Clipboard, so it is not available (as shown here) when the Graph Destination is the clipboard. The planEASe *Save as Web Page* menu option saves all graphs as JPEG files.

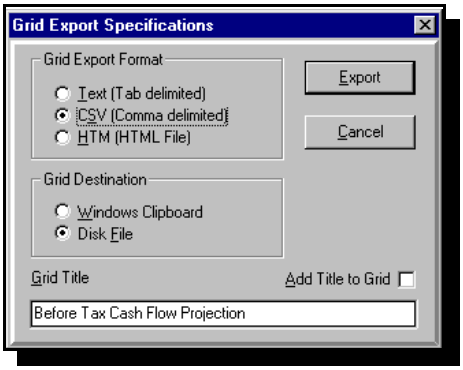
Graphed Data Matrix Copies a Table of the data in the graph, rather than the graph itself. Use this when you want to transfer the data to, for instance, *Excel*, and then use *Excel*'s graph capabilities to graph the data.

Graph Destination may be set to *Windows Clipboard* or *Disk File*, controlling where the Graph is exported. If you choose *Disk File*, you are asked to set the file name and directory.

Aspect Ratio allows you to control the width to height ratio for the exported graph. A graph twice as wide as high has an aspect ratio of 200%, whereas a graph twice as tall as it is wide has an aspect ratio of 50%. The aspect ratio of your computer screen is 4:3 or 133%. For the best results with your exported graph in its new home, you should set this value as close to the final aspect ratio in the receiving application as possible, although the exported graph will accept some sizing in that application.

Add Title to Graph allows you to add a title (normally printed in the shaded title box when printed by planEASe) to the Exported Graph by checking this (and entering/editing the title you want). The added title consumes space at the top of the graph that changes its appearance slightly when exported.

If you ask to export a Grid, the Dialog shown here is displayed, allowing you to specify whether you want to export to the Clipboard or a Disk File. If you export the grid to the Clipboard, you can switch to most other Windows programs (like *Word*, *WordPerfect*, *Ami Pro*, *Excel*, *Quattro*, *Lotus 123*, *Publisher*, and many others) and paste the grid into that application using the *Edit/Paste* command in the application (typically, the *Edit/Paste* shortcut key is Ctrl-V). No matter whether you export to a file or to the Clipboard, you may choose three alternative ways to export or save the Grid contents:



Text (Tab Delimited) uses a file structure well recognized by word processors for conversion of the file data into tables. To use this file with either *Word* or *WordPerfect*, open it, select all the text, and choose *Table/Create* with *WordPerfect* or *Table/Convert Text to Table* with *Word*

CSV (Comma Delimited) uses a file structure which virtually all Windows spreadsheets read and automatically convert to a spreadsheet.

HTM (HTML File) uses a file structure compatible with the Internet, all Browsers, and most Word Processors and Spreadsheets. If you use this format, your Page Setup settings for the body font and grid colors will be maintained and used in the receiving program(s).

Print Options

When you ask to print either a report or graph, you may set many of the Print Options listed below. Which particular options will be presented depends on the report or graph you have requested. If you are saving a Web Page, many of these options will be presented as well, to similar purpose.

Report Title is the text that prints in the first line of the shaded box at the top of the report.

Report SubTitle is the text that prints in the second line of the shaded box at the top of the report.

Copies set to the number of copies you require.

Starting Page Number set to the Page Number you want to print at the bottom of the report. If zero (0), page numbering is turned off. The default value for this field is incremented by one for each printed page if page numbering is turned on, so all your reports will be consecutively numbered.

Print Fast, No Graphics if you check this option, the printed page will show all letters and numbers (AND the graph, if this is a Sensitivity or Risk Analysis), but the shaded boxes, shadowed boxes, and any lines will not be printed. This saves a lot of time in printing the reports. If you are printing for internal purposes and simply want a report for the files, save printing time by checking this option.

Print Disclaimer check this to print the Disclaimer (see Preferences) at the bottom of the first report page. Omitting the Disclaimer allows more room for report data.

Report Commentary enter any comments you want here, and they will be printed at the top of the report page. If comments are already in this box, they have been generated by planEASe and you may edit or eliminate them as you desire. The *TransferComment* menu option causes a dialog to appear allowing you to cut, copy and paste comments from and to your Assumption Set and this Report Commentary.

Report Orientation most planEASe Reports are meant to be printed in Portrait Orientation, which means that the top of the Report is written along the short side of the paper (so the Report is long and thin). However, most printers can also print in Landscape Orientation, which means that the top of the Report is written along the long side of the paper (so the Report is wide and short). Some planEASe Reports (like Income Statements) can appear better when printed in Landscape Orientation. When the Print Options Dialog appears for these Reports, you are allowed to set the Orientation to either Portrait or Landscape before printing.

Printer... Button allows you to switch printers and/or configure printer options. planEASe uses a "Session Printer". When you begin your planEASe session, the Session Printer is set to your default printer. If you access the *Printer...* Button and change to another printer, planEASe remembers this printer as your "Session Printer", and all output is written to that printer until you again access the *Printer...* Button to change to another printer.

Printing Problems

Report doesn't Fit Page planEASe reports are "smart", in that they examine the size of the page allowed to them by your Paper Size and your margins (as set in *Page Setup*), together with the size of the numbers in the report, the size of your commentary (if any), the font typeface (as set in *Page Setup*) and, in some cases, the desirable number of columns/page (for the Horizontal Reports) to determine the font size used to print the report body. Widening your margins, using wider paper, using less commentary, and/or using a condensed True Type font may well result in your report fitting nicely when it didn't before.

Graph Print Options

If you are printing a Graph (or a Sensitivity or Risk Analysis, which includes a Graph), you may set some or all of these Graph Print Options, in addition to any Print Options that pertain.

Output to allows you to direct the graph to the **Printer**, or to a file in either vector (WMF) file format or Bitmap (BMP) file format. If you select to save a graph file, you will be asked for the file name. Graph files are useful when you want to put the graph into another application **at a later time**. If you want to transfer the graph to another application **now**, you should use the *Export* option on the *Print* or *File* Menu.

Print Format may be set to *Half Page Portrait*, *Full Page Portrait*, *Full Page Landscape*, *Portrait/Grid Above*, or *Portrait/Grid Below*. The portrait options with a grid print a grid of the graphed data in addition to the graph.

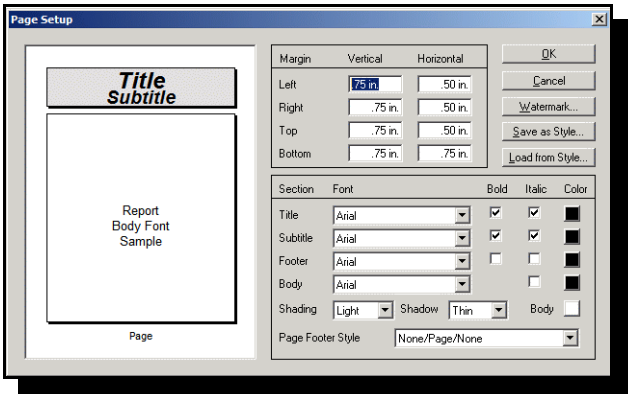
Color Treatment may be set to *Gray Scale*, *Use Patterns*, or *True Colors*. **Gray Scale** prints the graph using three shades of gray. **Use Patterns** prints with a different pattern for each variable. **True Colors** prints with the colors shown on screen, and is appropriate for color printers. Experiment with these controls to find the best for your particular printer. If your graph prints too dark on your B/W printer using *Gray Scale*, try setting the on-screen color to light gray and using *True Colors*.

Optimize Graph for Resolution is shown only when saving Web Pages. It allows you to vary the size of the graph shown on the Web Page. It is rare that you will want to change this from the 640x480 setting. Even on high resolution monitors, this setting is attractive, and larger settings cause higher file sizes (therefore longer times to download) and will not display attractively if you send the page to others who may not have larger resolution monitors.

Show Graph Data Grid is shown only when saving Web Pages. The routine we use to put numbers into graphs does not work well with graphs saved in Web Pages (the fonts are too small to be read). Therefore, you probably will want to use this option to display the numbers graphed. This option is not displayed (or necessary) for Pie Charts.

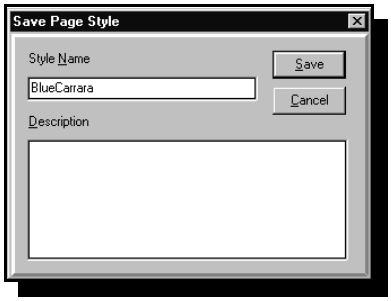
Aspect Ratio is shown only when saving Web Pages. It controls the width versus height of the graph displayed on the Web Page. 200% means that the Graph is twice as wide as high (a good and normal setting). 133% means that is is 4 unit wide and 3 units high (4/3 is 133%) Depending on the nature of the Graph and the data in it, you may want to set this to unusual values, but 200% or 175% should be pleasing 99% of the time.

Page Setup Dialog

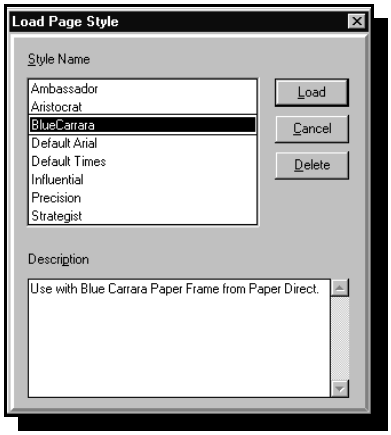


The *Page Setup* Dialog is available on the Lefthand Menu (either *File* or *Print*) in all planEASe *Spoke* functions. It allows you to set and save the margins, fonts, shading and shadowing and page footer specifications for your printed reports, graphs and Web Pages. The settings you make here are permanent until you again access this Menu Option and change the settings. All the settings you make, (with the exception of the Horizontal Margins) are reflected in the Page Preview window on the left side of the Dialog

The *Watermark* button brings up the Watermark Dialog (see the next page) allowing you to choose a Graphic file to use as a Watermark for your reports. Watermarks print centered in the Body area, allowing you to further brand your planEASe Reports. If you choose a Watermark, it is shown in the body area of the Page Preview.



The *Page Setup* dialog has two style buttons (*Save as Style* and *Load from Style*), as well as a color specification for each font and for the report body. Clicking any of the five color boxes at the bottom right of the dialog brings up a color dialog where you may choose any of 32 million colors. Clicking the Shading control and choosing Color from the list brings up the same color dialog so that you can specify the color of the report Title Box. Thus you may specify a Dark Blue Title Box with White Title and SubTitle Fonts (as we have for the Blue Carrara style). Color choices are reflected in the page preview at the left side of the dialog and are also effective for Web Pages saved with *Save As Web Page*.

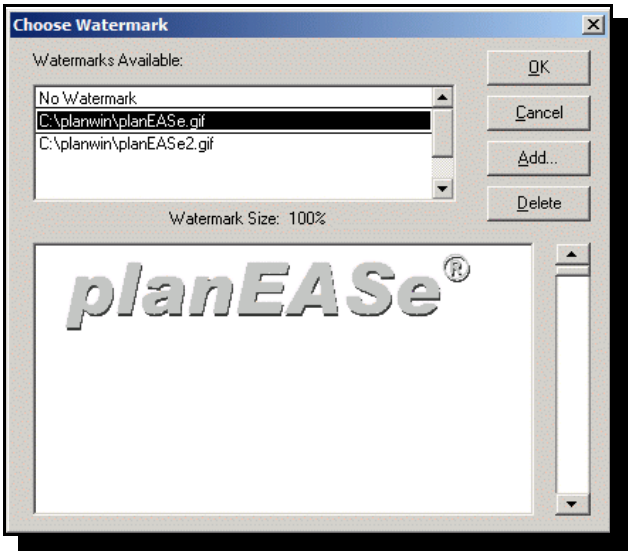


When you want to create and save a Page Style, just set the margins, colors, fonts and the other values on the *Page Setup* dialog to the values you want to save, and then press the *Save as Style* button. The *Save Page Style* dialog shown here will appear, and you should enter the Style Name you want, together with any descriptive text. If you choose a Style Name which is the same as an existing style, the existing style will be changed to the current settings (and the old settings will be discarded).

You may load a Page Style from your list of styles by pressing the *Load from Style* button. The Load Page Style dialog shown here will appear, and you may choose from your list of styles by clicking on the Style Name you want. The styles shown are those we have developed here and are shipping with planEASe.

The color specification for any color, including those in our shipped styles, may be obtained by opening the corresponding color dialog, pressing the *Define Custom Colors...* button, and copying the Red Blue Green values shown there. If you add that color to the Custom Colors palette, the color can be used later in the session.

Watermark Dialog



This Dialog allows you to specify a Watermark that will print in the middle of the body of planEASe Reports. You can choose from any Bitmap (*.bmp), Windows Metafile (*.wmf), Tagged Image Format (*.tif), JPEG (*.jpg), or Graphics Interchange Format (*.gif) files. Any chosen Watermark File can be sized to occupy anywhere from the full width of the printed Report to 5% of that width. **Watermarks do not show in planEASe Graphs or in reports that are saved as WebPages.**

The **Watermarks List** at the top of the Dialog shows the Graphics you have chosen to be available for use as Watermarks, and a box at the bottom of the Dialog shows a preview of the Graphic you have currently chosen in that list. First in the list is always the **No Watermark** choice, which, if chosen, eliminates any Watermark from the Reports (and the preview box).

The **Background Color** of the preview box is set to the background color of the Body chosen in the Page Setup Dialog so that you can see how it meshes with the chosen graphic. The RGB specification for this Body background color is available in the Page Setup Dialog (see Page 73) by clicking on the Body Color shown there and then clicking on the *Define Custom Color* Button in the resulting Color Dialog. Several Graphics programs (such as Photoshop Elements or CorelDraw) will allow you to set the background color of your chosen graphics to match this color specification if you choose to do so.

A **Size ScrollBar** at the right side of the preview box allows you to set the size of the Watermark that will be shown in the Body of the planEASe Reports. 100% means the Watermark will occupy 100% of the width of the Body. Dragging the ScrollBar down lowers the 100% to the level reflected in the label above the preview box. The size specification is saved with the graphic for future reference, but is not reflected in the watermark preview box. It is, however, reflected in the Page Setup Preview Box.

Four buttons allow you to control Watermark usage:

OK Button selects the currently highlighted graphic in the Watermark List and uses it as the planEASe Watermark for all planEASe Reports, exiting this Dialog and returning to the Page Setup Dialog (see Page 73), where the chosen Watermark is shown in the Body section of the preview). If the *No Watermark* choice is highlighted when this button is pressed, no watermark will be used.

Cancel Button exits this Dialog, ignoring all work performed here.

Add... Button brings up a File Dialog allowing you to add graphics to the Watermark List. We ship a graphic, *planEASe.gif*, with planEASe which you can add to the Watermarks List to experiment with this capability.

Delete Button simply deletes the currently highlighted graphic from the Watermark List.

Real Estate Investment Analysis

A planEASe Model Series

Introduction

The purpose of this section is to serve as an explanation of the *Real Estate Investment Analysis*. In order to do this, we will look at an analysis of the fictitious *Sample Apartments* investment. The accompanying explanations discuss the meaning of the assumptions in the analysis and the methods used in computing the results.

There is no way that we can **fully** describe all of the ways in which this model may be used. That use depends on your imagination and the particular situation you are analyzing. We try to describe some of the methods for handling some common needs such as Capital Expenditures, Expense Reimbursements, and so on within these pages; but no manual can be both brief and comprehensive at the same time unless the process being described is trivial, and such is not the case here. Accordingly, if you have unique aspects associated with your investments which you believe cannot be properly reflected in the analysis as described, we stand ready to discuss how you might accomplish your needs and we urge you to call us to do so.

This Model Documentation is organized in two major sections:

The first section discusses the assumptions and their meaning. The purpose of this section is to serve as a complete reference whenever you are looking at an assumption value and want to know what it means. There are, of course, the two line help messages on the screen, as well as the extensive help file, but the explanations in this section go into full detail. For your convenience, the explanations are organized in the same order as the assumptions are presented on the screen. Most people are not concerned with this area initially, being primarily interested in the reports produced by the system (the second major section). **We urge that you reverse this thinking!!** The primary determinant of whether a software system can satisfy your needs is the inputs (or assumptions) that you are allowed to make. For instance, if the software does not request Investment Tax Credit assumptions, you are not going to be able to handle Historic Rehabilitations, no matter what the reports may look like. Likewise, you are not going to be able to determine whether you can assume an existing loan or handle negatively amortizing loans or project a refinancing by looking at the reports. Only the description of the assumptions can answer these questions, and the answers are vital to whether the software can handle your needs both now and over the long term.

The second section discusses the output reports and their interpretation. Again for your convenience, the explanations are organized in the same order as they are presented on screen.

There are two models in the *Real Estate Investment Analysis*: RUI and RUM. This Model Documentation is prepared with the RUI model, which uses Internal Rates of Return. The only differences between the RUI and RUM Models are that the RUM Model uses Modified Internal Rates of Return instead of IRR's and the Assumption Set includes the Safe and Reinvestment Rates necessary to compute them. Otherwise, the two models are identical.

It is **extremely important** that you understand that the Depreciation, Loan, Revenue, and Expense assumptions described represent *multiple page types*. This means that you may **enter as many of these assumptions as you want** for any property or analysis. This is a **primary** flexibility in planEASe. If you consider the implications, this means that you can analyze a property in virtually any detail you wish!!

All dates in your planEASe Assumption Sets must be entered as MM.YY where MM is the month, and YY is the year and they are **separated by a decimal point**. Thus 4.01 means the fourth month (April) of 2001.

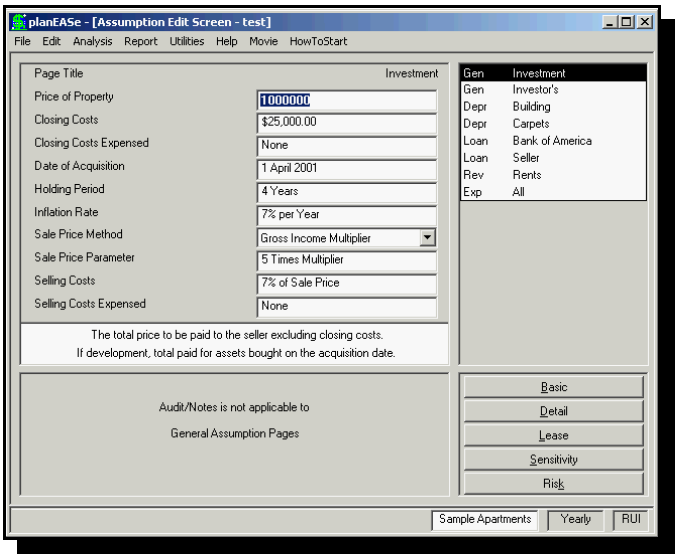
As you will read, any Depreciation, Loan, Revenue or Expense may start on any date you wish. If you enter a date of 0.00 for any of these Assumption Pages, the starting date defaults to the Acquisition Date. Try to use this date default of 0.00 for these Start Dates when appropriate, rather than entering the actual date. If you do, whenever you change the Acquisition Date, all Multiple Page Type pages with 0.00 dates **automatically** adjust to start on the new Acquisition Date, and you avoid having to remember to change all the dates. This discipline also assures you of not making mistakes by failing to change dates.

Time is a continuum in planEASe. If you include cash flows that begin **before** the Acquisition Date, the system knows it, and only includes the cash flows which affect the time **during** the holding period. Likewise, if you include assumption pages that start **after** the holding period ends, the system senses that as well, and ignores the page. Why would you include such cash flows? One very good reason ... if you vary the Holding Period in Sensitivity or Risk Analysis, the Revenues, Expenses, etc. to cover those holding periods had better be in the Assumption Set or you're going to have some very strange results indeed!!

Each Multiple Page Type page contains a *Page Title* as the first assumption in the schedule. The Page Title is any thirty characters you want to use to remind yourself what you are using the page for. This Page Title is printed on many reports for that page. There is one **very important** significance to the Page Title text. If (and **only** if) you begin a Page Title with the ampersand character (&), the Detail Reports, APOD, Income and Annual Statements, and Rent Rolls that show projections based on that page's assumptions are **added** to the projection for the previous assumption page. This is very useful when planning for a single item requires more than one assumption page. For instance, a variable rate loan requires one Loan Page for each change of payment and/or interest rate. Such a loan might require four or more Loan Pages to enter the assumptions. If you use a Page Title like *Bank of America* for the first page, and then use Page Titles like *& Step 2*, *& Step 3*, and *& Step 4* for the remaining pages, the Detail Reports summarize the computed results for these four loan pages into one line (for the horizontal format) or one column (for the vertical format) denoted with the Page Title of the first Loan Page (*Bank of America* in this case). The Page Title text is also used in the Assumption Page List, so we don't allow it to be blank because this would probably confuse you later.

The Lease Analysis function makes use of Page Titles beginning with **two** ampersands (&&). Since Lease Analysis' Lease View shows Detail for each component (the & Page Titles) of a lease, the double ampersand is used to combine pages for the Lease Analysis grids and reports, which is useful for things like expense stops. See the *tenant.ru* and *owner.ru* Assumption Sets for examples of this usage.

Investment Assumptions



Investment Assumptions

These assumptions deal with the purchase and subsequent sale of the property. The individual assumptions are:

PRICE OF PROPERTY is $1,000,000 for the *Sample Apartments*. If you are projecting a development project, this amount should only include the assets acquired on the Acquisition Date (typically just the land and existing improvements). Any new improvements you project adding after the Date of Acquisition would be treated as Capital Spending with Depreciation Pages. Appraisers (and others) may want to leave this assumption as $0 here and use the computed Present Values to establish value (which may later be substituted back into this assumption).

Enter a "1" to make a Tenant Representation Assumption Set (see Page 130), and "2" for Owner Representation (see Page 131). See the *tenant.ru* and *owner.ru* Assumption Sets shipped with planEASe and the Lease Analysis description on page 32 for an example of this type of analysis.

CLOSING COSTS are the costs of closing in escrow ($25,000 for the *Sample Apartments*). Amounts of 100 or less are treated as a percent of the Price of Property, so a value of 2.5 entered here would have the same result as the example. Loan points are included in the loan computations, and should **not** be included in these closing costs or you will double count them in the analysis.

CLOSING COSTS EXPENSED is the percent of the closing costs expensed for tax purposes in the initial tax year of operations. In the example, none of the $25,000 are expensed. The remaining closing costs are added to the cost of the property to determine the tax basis for capital gain purposes. Amounts greater than 100 are treated as a dollar amount (which is limited to no more than the Closing Costs entered).

DATE OF ACQUISITION is the numerical month (1-12) and last two digits of the year in which the property is being acquired. The entered value of 4.01 for the *Sample Apartments* means the escrow closes on 1 April 2001. planEASe presumes that the acquisition occurs on the **first day of the month**.

HOLDING PERIOD is the number of years that the investor plans to hold the property before selling (four years for the *Sample Apartments*). Fractional years such as 4.75 are permitted. The minimum value is one year, and the maximum is 99 years.

INFLATION RATE is the annual inflation rate expected during the Holding Period (7% for the *Sample Apartments*). This assumption is used in conjunction with the assumed growth in expenses and revenues to project property income and expenses (and for sale price if you are using a Sale Price Method of *Continuous Growth (%>Inflation)*).

SALE PRICE METHOD is the method that you choose to compute the sale price. Each method (other than *No Sale Price Computed*) requires a Sale Price Parameter (described on the following page) to operate. The methods are:

Capitalize Current NOI computes sale price as a Net Capitalization Rate against the Gross Income less Operating Expenses (with subtraction of both vacancies and management fees) in effect at the time of sale. The Capitalization Rate is taken from the Sale Price Parameter, and is presumed to be an annual percentage. Thus if the Sale Price Parameter were 8, planEASe would compute sale price based on an 8% Net Capitalization Rate. While this method is the default, it should NOT be used for analysis of Multi-Tenant properties where you are using Market Profiles to plan the leases on expiration. Rather, you should use either of the next two Methods for such analyses.

Capitalize Last Year's NOI computes sale price as a Net Capitalization Rate against the Gross Income less Operating Expenses (with subtraction of both vacancies and management fees) projected to occur during the 12 months prior to the projected sale. The Capitalization Rate is taken from the Sale Price Parameter, and is presumed to be an annual percentage. Thus if the Sale Price Parameter were 8, planEASe would compute sale price based on an 8% Net Capitalization Rate.

Capitalize Next Year's NOI computes sale price as a Net Capitalization Rate against the Gross Income less Operating Expenses (with subtraction of both vacancies and management fees) projected to occur during the 12 months after the projected sale. The Capitalization Rate is taken from the Sale Price Parameter, and is presumed to be an annual percentage. Thus if the Sale Price Parameter were 8, planEASe would compute sale price based on an 8% Net Capitalization Rate.

Continuous Growth (@ Growth Rate) computes sale price based on an Annual Percentage Growth from a base of the purchase price entered. The percentage growth used is the Sale Price Parameter. In other words, this method is the same as the next method, with the exception that the Growth Rate is independent of the Inflation Rate.

Continuous Growth (@ %>Inflation) computes sale price based on an Annual Percentage Growth from a base of the purchase price entered. The percentage growth used is the Inflation Rate entered plus the value entered as the Sale Price Parameter. In other words, an Inflation Rate of 7% with a Sale Price Parameter of 1 would result in 8% annual growth in Sale Price from the original purchase price, and a Sale Price Parameter of -1 (minus 1) would result in 6% annual growth in the same situation. We use the Inflation Rate as the base to facilitate Sensitivity and Risk Analyses which name the Inflation Rate as an assumption. This means that the sale price is dependent on the Inflation Rate in such analyses, which is desirable in general. It also means that the sale price automatically changes in Basic Analysis when you change the Inflation Rate

Specified $ Price computes sale price as exactly the Dollar Amount you enter in the Sale Price Parameter. This option is provided as an "escape hatch" in case none of the other Sale Price Methods are appropriate for your particular analysis. You should use care in performing Sensitivity and Risk Analysis if you choose this method, since changes in the Holding Period, Revenues and Expenses associated with the analysis do not affect the sale price computed in this fashion. In most cases this is not realistic.

Net Cap Rate without Management Fee computes sale price as a Capitalization Rate against the Gross Income less Operating Expenses (with subtraction for vacancies but not management fees) in effect at the time of sale. This method is the same as Gross Capitalization Rate and Capitalize Current NOI, with the exception of the treatment of vacancies and management fee.

Gross Income Multiplier computes sale price with a Gross Income Multiplier against the Gross Income (without subtraction for vacancies) in effect at the time of sale. The Gross Income Multiplier is taken from

the Sale Price Parameter, so a Sale Price Parameter of 5 means a Gross Income Multiplier of 5 times the Gross Income. This method is used in the *Sample Apartments* Assumption Set, and the Gross Income Multiplier is taken from the Sale Price Parameter assumption value of 5.

Gross Capitalization Rate computes sale price with a Capitalization Rate against the Gross Income less Operating Expenses (without subtraction for vacancies or management fees) in effect at the time of sale. The Capitalization Rate is taken from the Sale Price Parameter, and is presumed to be an annual percentage. Thus if the Sale Price Parameter were 8, planEASe would compute sale price based on an 8% Gross Capitalization Rate.

No Sale Price Computed results in no sale price (i.e. $0), and the contents of the Sale Price Parameter are ignored.

For Sale Price Methods *Gross Income Multiplier*, *Gross Capitalization Rate*, *Net Cap Rate without Management Fee*, and *Capitalize Current NOI*, planEASe projects those items **ON THE DAY OF SALE** in computing sale price. If you have items of Revenue or Expense which are growing, that growth is therefore taken beyond the amounts shown for the last year (which are inflated to the middle of that year). This method of computation is used to allow for revenue and expense changes in the last part of the sale year. After all, if you raise the rents in October and sell in December, surely the sale price should reflect the October increase. If we computed based on the average revenues for the year or some other method, that increase would be largely ignored. If you are using Market Profiles to re-lease expiring space (see Page 108), we recommend that you use other Sale Price Methods to avoid having excess vacancies on the day of sale inappropriately affect the projected Sale Price.

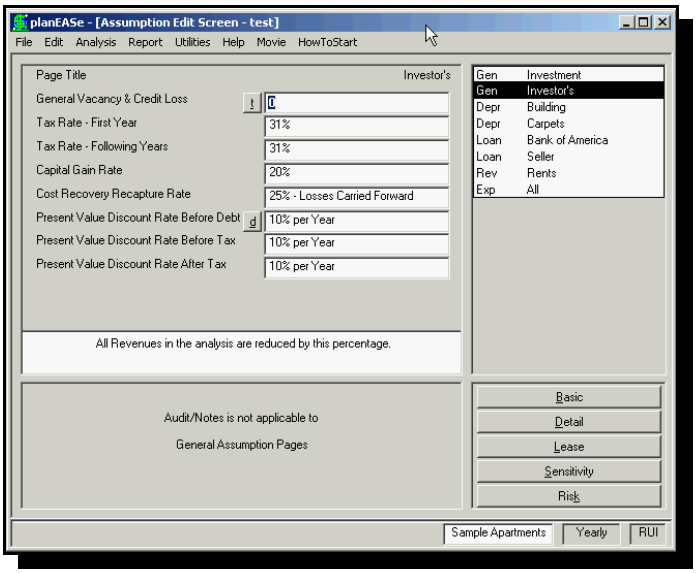
Revenue and Expense Pages which end prior to the sale date or start after the sale date have no effect on the sale price (with the exception of *Capitalize Next Year's NOI, and Capitalize Last Year's NOI* which do take into account items starting within one year respectively before and after the projected sale). This makes obvious sense, but can cause unintended changes in the computed sale price when you change the Acquisition Date or the Holding Period assumptions in Basic, Sensitivity or Risk Analysis.

SALE PRICE PARAMETER operates together with the Sale Price Method to produce the projected sale price for the property. The Sale Price Method of *Gross Income Multiplier* for this property means that a Gross Income Multiplier will be used to compute sale price, so the value of 5 here means the user wants a Sale Price of 5 times Gross Income for the *Sample Apartments*.

SELLING COSTS is the percent of the sale price which must be paid by the investor as closing costs at the time of sale, including all commissions and other closing costs such as Title Insurance, etc (7% for the *Sample Apartments*). A value greater than 100 is treated as a dollar amount for selling costs.

SELLING COSTS EXPENSED is the percent of the selling costs to be expensed for tax purposes (0% for the *Sample Apartments*). The remaining closing costs are subtracted from the selling price to compute the capital gain on the sale of the property.

Investor's Assumptions



Investor's Assumptions

These assumptions describe the investor rather than the property itself. Because of the speed of planEASe in performing an analysis, it is easy to rerun analyses customized to individual investors if necessary. The individual assumptions are:

GENERAL VACANCY & CREDIT LOSS allows you to specify a percentage which will lower all revenues in an analysis. This lowering will be **in addition to** any revenue losses due to physical vacancies specified through the use of the Vacancy Factor on Revenue Pages. This allowance also affects the calculation of physical vacancy for determining reimbursements. In all cases, the total of this General Credit Loss & Vacancy and the Vacancy Factor on Revenue Pages is limited to be no greater than 100%. That is, entering a 50% here and a 60% Vacancy Factor for a particular Revenue will result in zero revenue for that particular Revenue. This assumption only affects revenues from pages with a Vacancy Factor assumption of their own. In other words, revenues from Rev-us (Unit Sales) pages are **NOT** affected (use the Price Multiplier on the Rev-usp Page for this).

TAX RATE - FIRST YEAR is the incremental rate at which the last dollar of the investor's current income is being taxed during the first year of the analysis. This tax rate can be combined with state tax to yield a combined rate (see the Tax Calculator section on Page 84). In the example, the investor has a first year tax rate of 31%. There is a $25,000 annual loss allowed for certain real estate investments. If this tax rate is entered as a negative number, planEASe allows up to $25,000 of loss in the first year. In such case, all taxes are computed as if the entered rate was positive (that is, minus 31% is treated as a positive 31% rate).

TAX RATE - FOLLOWING YEARS is used to compute taxes for following years. In the example, the investor has a tax rate of 31% for years following the first year. There is a $25,000 annual loss allowed for certain real estate investments. If this tax rate is entered as a negative number, planEASe allows up to $25,000 of loss in the years following the first year. In such case, all taxes are computed as if the entered rate was positive (that is, minus 31% is treated as a positive 31% rate).

CAPITAL GAIN RATE is used to compute the tax on the Capital Gain at sale (over and above the Recapture of Cost Recovery). In 2003, the Federal Capital Gain Rate was lowered to 15%.

COST RECOVERY RECAPTURE RATE is the statutory tax rate applied at sale to the Cost Recovery (Depreciation) taken during the Holding Period. In 1997, this rate was created and enacted at 25%. It is applied to the smaller of the total Cost Recovery taken and the total Capital Gain. That is, if the Capital Gain is smaller than the total Cost Recovery, the 25% rate entered here will be applied to the Capital Gain amount (and the Capital Gain Rate becomes irrelevant).

Normally, planEASe considers all tax losses to be Passive and carries them forward until there is taxable income or gain from a sale against which to use the losses. However, if this Cost Recovery Recapture Rate is entered as a negative number, the system ignores the Passive Loss Limitation entirely and allows all losses as incurred, which may be appropriate if the investment is part of a portfolio where other passive income or gains are available to offset losses here. In such case, all taxes are computed as if the entered amount was positive (that is, minus 25% is treated as a positive 25%).

PRESENT VALUE DISCOUNT RATE BEFORE DEBT is used whenever planEASe is discounting cash flows computed before debt (and taxes). This is typically an extremely safe investment, and the rate should be set equivalent to long term returns expected of safe, long term, investments. One such measure is the interest rate being charged on prime commercial real estate loans, since they are backed by the collateral of the property itself.

PRESENT VALUE DISCOUNT RATE BEFORE TAX is used whenever planEASe is discounting cash flows computed after debt (and before taxes). This is typically an investment involving risk, since failure of the NOI to cover Debt Service can cause negative cash flows and possible loss of the property and investment. The rate should be set to be greater than prevailing interest rates, equivalent to long term returns expected of such risky investments

PRESENT VALUE DISCOUNT RATE AFTER TAX is used whenever planEASe is discounting cash flows computed after debt and taxes. The After Tax Rate is lower than the Before Tax Rate, since you expect to be taxed on your profits. For instance, an investor in a 30% tax bracket buying a bond yielding 10% expects a 7% return after tax.

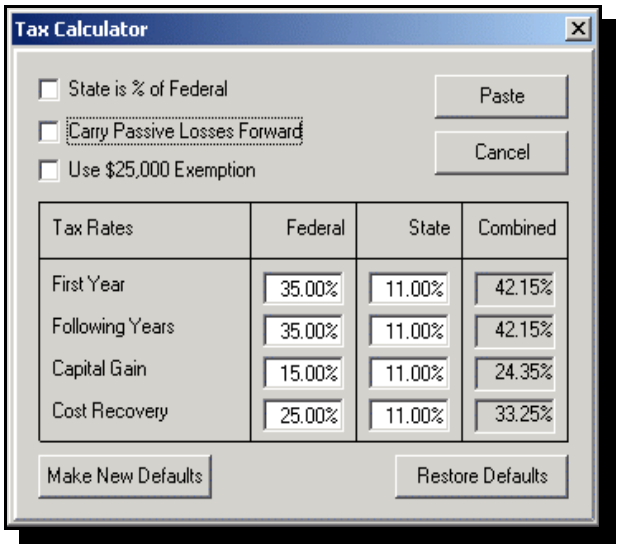
REINVESTMENT RATE is requested if you are using the RUM Model and is not shown here. This is the rate at which the investor can reinvest cash thrown off by the property during the holding period. If you are performing after tax analysis, you should enter a rate here that reflects the investor's expectations after tax. Correspondingly, if you are looking at the investment on a before tax basis, the rate should reflect expectations before tax. There is a full discussion of using the Reinvestment Rate to compute the Modified Internal Rate of Return (MIRR) in the *Discounted Cash Flow Theory* Appendix on page 220.

SAFE RATE is requested if you are using the RUM Model and is not shown here. This is the rate at which the investor can safely invest money to fund negative cash flows generated by this investment during the holding period. If you are performing after tax analysis, you should enter a rate here that reflects the investor's expectations after tax. Correspondingly, if you are looking at the investment on a before tax basis, the rate should reflect expectations before tax. There is a full discussion of using the Safe Rate to compute the Modified Internal Rate of Return (MIRR) in the *Discounted Cash Flow Theory* Appendix on page 220.

The tax section in planEASe is merely meant to be **representative** of the results of the investment. For instance, the analysis does not account for crossing of tax brackets, or the possible application of the alternative minimum tax. The capital gain at the end of the investment, as an example, is taxed at the marginal rate even though the large size of the gain may well cause some or all of the gain to be taxed at a higher rate. The purpose of planEASe is to forecast the cash flows from, and tax liabilities of, investment real estate. If you are performing tax and/or financial planning for investors, that is properly the province of advisors in that area and/or tax planning software rather than this system. planEASe provides sufficient information in regards to the cash flows and tax consequences of the investment for input to such plans and/or software.

Tax Calculator

A Tax Calculator as shown here is available from the (T) button alongside the top assumption on the Investor's Page (or the Limited Partner's / Members' Page in the Partnership / LLC Models), allowing you to easily combine State and Federal Tax Rates and post them to your Assumption Set. The controls in this Calculator are:



Tax Calculator

State is % of Federal checkbox: Some States charge Income Tax as a percentage of the Federal Tax owed. If your investor is in such a State, check this box and enter the State percentage in the State tax rate boxes below.

Carry Passive Losses Forward checkbox: In 1986, Congress changed the Tax Law to require that losses on real estate investments be re-classified as "Passive" losses, and that passive losses must be carried forward to offset income from other such investments, given that the taxpayer has insufficient passive income currently. If your investor is subject to this provision (ie: is not a user of the property), and does not have sufficient passive income to offset the passive losses from this investment, check this box.

Use $25,000 Exemption checkbox: There is a $25,000 annual passive loss exemption allowed for certain real estate investments if passive losses are carried forward. If your investor is qualified to take this loss for this investment, check this option.

Tax Rates refers to the incremental rate at which the last dollar of the investor's current income is being taxed during the analysis. Currently, the maximum Federal Tax Rate is 35%. Federal tax rates can be combined with State tax rates to yield a combined rate. For instance, given a 35% Federal tax bracket for the investor, his California tax rate might be 11%. Since state taxes are deductible for federal tax purposes, his combined marginal tax rate would be 11% plus 35% of (100% minus 11%) or 42.15%.This table performs this combination for you, and posts the results to your Assumption Set when you press the *Paste* button. Specifically, the equations used to calculate the combined rates are:

- If State is not a % of Federal:
- **(1-State) x Federal + State**, and
- If State is a % of Federal
- **(1-State x Federal) + State x Federal**
- where State and Federal are both expressed as decimals (i.e.: 50% is .50)

The following buttons in the Calculator allow you to control how your work is (or is NOT) posted to your Assumption Set:

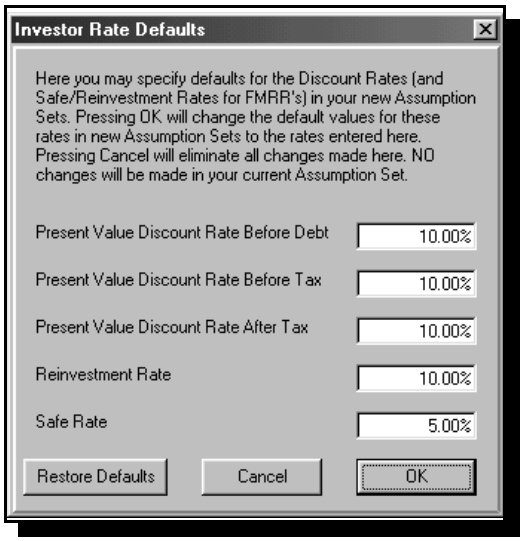
- **Paste** posts your calculations to the Assumption Set They are shown there in Italics to show you that there are calculations in this Calculator that lie in back of the values shown, and may, in turn, be accessed and changed by pressing the "t" button again. If there are NO calculations in this calculator, pressing Paste will return you to the Assumption Set, with the Tax Assumptions shown in normal font, denoting the lack of underlying calculations in this Calculator.
- **Cancel** cancels all current calculations in this calculator, and returns you to your Assumption Set with no changes. Another way to cancel the calculated tax rates while retaining them in your Assumption Set is to type a rate into one of the four tax rate fields in the Investor's Page of assumptions. Changing

any of these rates there will post the same rates to the other rate fields while clearing the calculator of the entries generating them.

- **Restore Defaults** restores the Federal Rate values to the default Federal Tax Rates and sets the State Rates to zero. If you do press the Restore Defaults button, it will also destroy any previous tax calculations that existed in your Assumption Set previously, unless you later press the *Cancel* Button.
- **Make New Defaults** takes the current calculated values and makes them the defaults for all **new** Assumption Sets. Concurrently, it sets the starting values for the Tax Calculator to the current values. This is useful if you regularly prepare analyses for investors or clients located in the same state. You may reset the default values for new Assumption Sets to the default planEASe values by accessing this calculator and pressing *Restore Defaults* and then this *Make New Defaults* button (in that order).

Investor Rate Defaults

An Investor Rate Defaults Dialog as shown here is available from the (D) button alongside the Present Value Discount Rate Before Debt Assumption, allowing you to change the Default Values used in NEW Assumption Sets for the Investor's Preferences for various Discount Rates. These are the Starting Values for Rates shown on the Investor's Page (for the RU Model Series) and the Limited Partner's / Member's Page (for the RP Model Series).



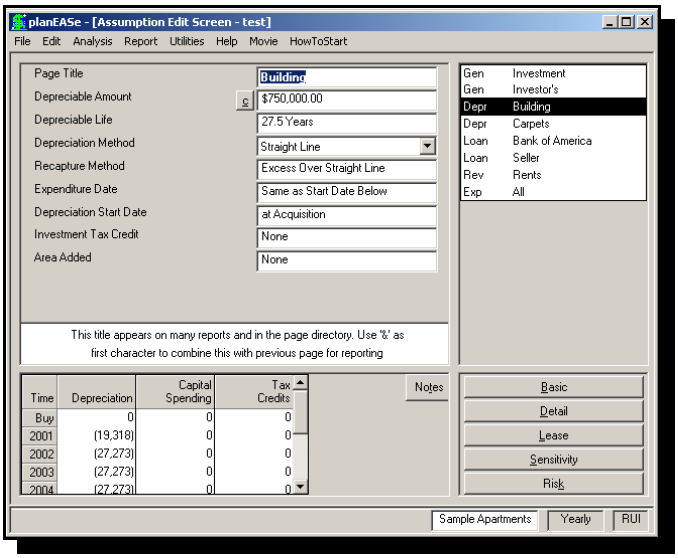
Investor Rate Defaults Dialog

The Buttons below the Rates function as follows:

- **OK** posts the rates as shown as the Default values for all new Assumption Sets.
- **Cancel** quits the Dialog without making any changes.
- **Restore Defaults** restores the Default Rates shipped with planEASe, ignoring any changes made in this Dialog.

Depreciation Assumptions

These assumptions are used to calculate the depreciation amounts shown in the *Taxable Income Projection* page of the analysis. While depreciation is not a cash flow item, it is a deductible expense, and therefore affects the tax amounts and both the Rate of Return and Net Present Value After Tax. Additionally, Depreciation Pages are used to set up any **amortization** schedules and **capital expenditures** you want to plan. There are several examples of these and other uses of Depreciation Pages in the *How Do I Do* section of this manual. Depreciation is a *multiple page type*, so **you may include as many Depreciation Pages as you desire**. For each Depreciation Page, the individual assumptions are:



Building Depreciation Assumptions

DEPRECIABLE AMOUNT is the dollar amount to be depreciated or amortized. If an amount of 100 or less is entered, the system treats it as a percent of purchase price. Thus the example amount of $750,000 for the *Building* shown here could just as well be entered as 75, and the results would be the same. Depreciation Pages starting **after** the Acquisition Date are assumed to be **Capital Expenditures**, and this amount is added to the "Investment and Sale" column of the output as an addition to the tax basis of the property and also as an expenditure of the corresponding amount of cash. Negative amounts may be entered, and the depreciation computes normally except reversed in sign.

The little Ⓒ button to the immediate left of the Depreciable Amount field signifies that a Calculator is available for your use. Pressing the button or the Ⓒ key opens the calculator, allowing you to enter the SqFt and $/Ft for the amount, which is useful for entering TI's, Commissions, and other SqFt or Unit related values.

DEPRECIABLE LIFE is the number of years over which the amount is depreciated or amortized. Lives less than 1 year may be used, and result in no depreciation being computed. This is useful for Capital Expenditures for non-depreciable assets such as land. There are situations where the addition to tax basis discussed above is not appropriate, such as **amortization**. In these cases, you should avoid the addition to basis and the expenditure of cash by entering the Depreciable Life as a **negative** number. In this case depreciation is calculated as if the Life were the same positive number, but the addition to basis and cash expenditure does not occur. In other words, **all amortization schedules should be planned using negative values for the life**. For some depreciation methods, such as 15 and 18 year ACRS, life is a constant defined by our government. In these cases, planEASe corrects the life you enter here to the life required by the method you have chosen.

DEPRECIATION METHOD planEASe allows many depreciation methods, most of which are irrelevant under today's tax laws. The two methods used in analysis of today's investments are:

Straight Line all current tax laws use Straight Line Depreciation, no matter what the life or asset.

Straight Line, No First Half Period is useful when analyzing the continued hold of an owned property.

The 1986 Tax Reform Act mandated several averaging conventions which change the way depreciation is taken. Specifically, all personal property depreciation is subject to a "half year" convention where the first year depreciation amount is one half the amount allowed for the full year no matter when the property is placed into service. A half year deduction is allowed in the year of disposition again without regard to the actual time of disposition within the year. Similar rules apply to real estate depreciation except that the period is a "half month" instead of a half year. To further confuse things, personal property placed in service during the last three months of the year is subject to a "half quarter" rule rather than the half year rule if that property constitutes more than 40% of the aggregate basis of property placed into service that year (without regard to whether the asset is real estate or real estate related).

planEASe computes straight line, declining balance, and sum of the years digits according to these rules. To tell which convention to use, planEASe looks at the Depreciable Life. If the life is greater than 20 years, the half month rule is used. Otherwise the half year rule is used unless the depreciation starts in October or later, in which case the half quarter rule is used.

The following Depreciation Methods are NOT ALLOWED under Current Tax Law

Theoretical methods, included for your examination of their effects should they be contemplated for future tax laws are:

Sum of the Years Digits
125%, 150%, 175%, and 200% Declining Balance.

ACRS Methods listed below use ACRS tables in prior tax laws which have now been superseded by the straight line 27.5 and 31.5 year lives of the 1986 Tax Act beginning in 1987. The earlier tables are included in planEASe to facilitate planning for existing property which was acquired during the times that those tables were in effect.

ACRS personal property. The life used for the depreciation calculation is the Depreciable Life if you choose a depreciation life (3, 5, 10, or 15 years) for which there is a corresponding table. In accordance with the then current tax law, the system does not allow a cost recovery deduction in the year of sale for property being depreciated with the personal property method.

ACRS Real Estate Methods use the corresponding ACRS tables in effect during the early eighties. A proration of the cost recovery deduction is computed in the year of sale for these four depreciation methods.

Short Year Personal Property is meant only for taxpayers who come into being during the course of a tax year, and therefore have a "short year" in their first year of existence as defined by the IRS. Typically, this only relates to Partnership / LLC analysis. In this case, the corresponding ACRS Personal Property table relating to the life chosen is used, and the deductions are pro-rated as required by the IRS.

RECAPTURE METHOD controls depreciation recapture according to the methods shown in this table. The Low Income Housing method recaptures all depreciation in excess of straight line, but lowers the recapture amount by 1% for every month the property is held beyond 100 months. Therefore there is no recapture under this method if the holding period is 200 months or more. While Method 2 is not a recapture method, it is included for convenient use with amortization schedules, since unamortized amounts are typically deductible on sale. If you enter any negative number, planEASe will write off the remaining amount at the end of that number of years (or the end of the Holding Period, whichever is first). See the Tenant Improvement example on page 211

Value	Recapture Method
0	Recaptures excess over straight line.
1	All depreciation is recaptured.
2	Remaining Depreciable Amount is depreciated.
3	No recapture is computed.
4	Low Income Housing Recapture.
neg x	Writeoff after x years

EXPENDITURE DATE is the date that planEASe uses to record the expenditure of the Depreciable Amount in the Investment and Sale column for a Depreciation Page starting after the Acquisition Date. If depreciation starts on or before the Acquisition Date, this assumption value is ignored. Otherwise, planEASe looks at this date. If this date is zero, planEASe records the expenditure on the Depreciation Start Date. If this date is not zero, planEASe records the expenditure on this date. This is useful for Capital Expenditures where the expenditure of funds spans two or more years. (See the Development Spending example on page 210).

DEPRECIATION START DATE is the month and year that depreciation starts, denoted as a planEASe Date. Enter zero for all Depreciation Pages starting on the Acquisition Date. For Capital Expenditures, enter the date when the depreciation is to start (typically the completion date or in-service date for the asset), and remember that in this case the depreciation amount is shown as spending in the Investment and Sale column of the reports unless you use a negative Depreciable Life.

INVESTMENT TAX CREDIT This assumption lowers the computed taxes in the year of the Depreciation Start Date by an amount equal to the entered percentage value times the Depreciable Amount. The amount of the Credit is subtracted from the "Taxes" column of the reports. Amounts greater than 100 are treated as dollars. If dollars are entered, the Depreciable Amount can be zero and the ITC will still be computed.

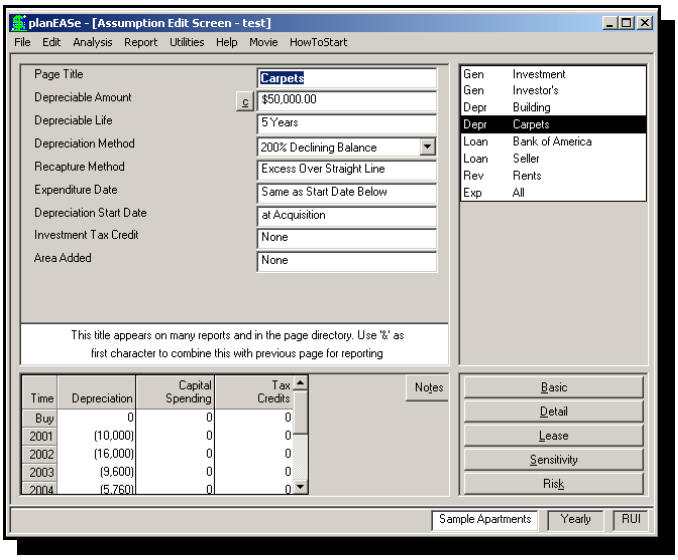
planEASe does **not** automatically reduce tax basis for the Investment Tax Credit (ITC). You must do this, if required by the tax law. For instance, if you have a Capital Expenditure of $50,000 subject to ITC of 10%, and you elect to take the entire Credit rather than reducing the Credit by two points to avoid the basis reduction, you should set up a Depreciation Page for $47,500 rather than the $50,000. At the same time, you must "gross up" the ITC in the Page from 10% to 10.526316% ($5,000/47,500). This takes care of the ITC just fine, but you must also remember that you've spent $50,000, and planEASe only sees $47,500 in Capital Expenditure. Therefore you must add a non-taxable Expense Page for $2,500 in the year of the Capital Expenditure to "balance the books".

ITC is recaptured as follows: If the Depreciable Life is exactly three years and the Holding Period ends less than three years from the start of the Depreciation Page, recapture is computed and subtracted from the "Taxes" column of the *After Tax Cash Flow Projection*. The amount of recapture is 33% of the ITC if at least two years exist between the start of the Depreciation Page and the sale date, 66% if at least one year, and 100% if less than one year. If the Depreciable Life is five years or more and the Holding Period ends less than five years from the start of the Depreciation Page, recapture is computed as 20%, 40%, 60%, 80%, and 100% of the ITC if at least 4, 3, 2, 1, or less years respectively exist between the Depreciation Start Date and the date of sale. A zero Depreciable Life eliminates any recapture.

Two Depreciation Pages have been entered for the *Sample Apartments*. The first page, shown in the *Building* Depreciation Assumptions screen on page 86, depreciates $750,000 for the building over a 27.5 year life by

the straight line method. While 27.5 year depreciation is not exactly exciting, you might notice the amounts shown in this audit in the first and last years are not as much as you might expect. This is due to application of the half month rule. Because of this rule, the depreciation in the first year (covering the nine months from April through December) is prorated for eight and a half months rather than nine. Likewise in 2005, since the sale occurs on March 31, the deduction allowed is for two and a half months rather than three.

The second page, shown here, depreciates $50,000 of personal property (*Carpets*) for five years by the Double Declining Balance method (Depreciation Method 2.00). Again you can see the application of several of the assumptions and rules. Double Declining Balance of $50,000 normally means a $20,000 deduction in the first year, but the application of the "half-year" rule reduces the first year amount to $10,000. In 2005, application of the same rule allows a $2,880 deduction even though there are but three months of ownership in that year. The zero value for recapture causes all depreciation in excess of straight line to be recaptured at sale. Since the holding period is 4 years, we are entitled to $40,000 straight line depreciation during that time, and $4,240 of depreciation (shown as a **positive** amount) is recaptured.



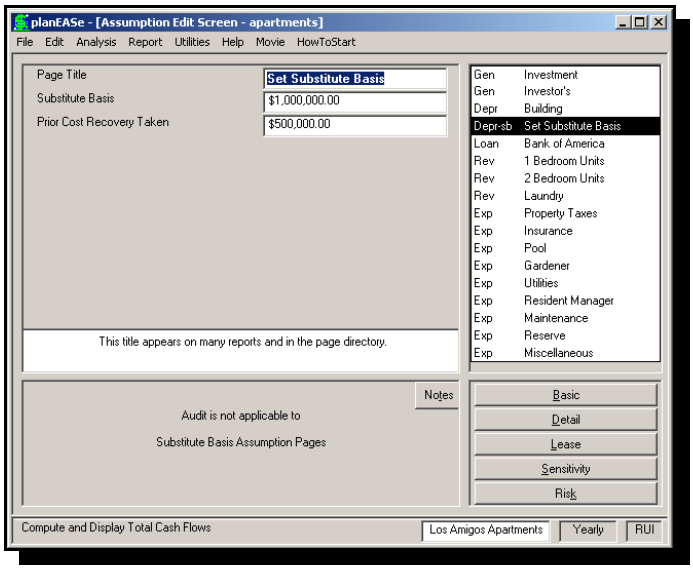
Carpets Depreciation Assumptions

Page SubTypes

Each Multiple Page Type in planEASe, (Depreciation, Loan, Revenue, Fee and Funding) may have one or more Page SubTypes associated with it. In addition to the Depr-dev page detailed in the Development Spending Section at page 177, the following Page SubTypes are currently available for Depreciation Pages:

Substitute Basis Page

A Substitute Basis Page is a Depreciation Page SubType which allows you to set the Substitute Basis and previous Cost Recovery Taken for the property. You may have only one Substitute Basis page in your Assumption Set. This page is typically used when the buyer is emerging from a 1031 Exchange. To add a Substitute Basis page, click on any depreciation page in the Assumption Page List and choose *Edit/Add Substitute Basis Page.* The assumptions on the page are:



Substitute Basis Assumptions

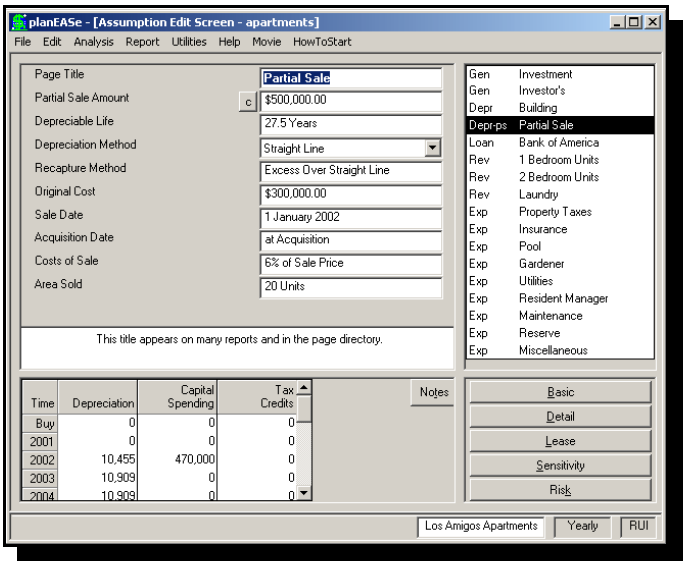
SUBSTITUTE BASIS You may set the initial basis of the acquired property to whatever value you enter here. You may want to use the Exchange Recap module of the Financial Utilities to determine the Substitute Basis. Here we have chosen to enter a $1,000,000 Substitute Basis.

COST RECOVERY TAKEN Under the 1997 Tax Act, depreciation taken on an exchanged property should be taken forward and recaptured on the sale of the property exchanged into. If you have such depreciation for an exchanged property, you may enter it here. The amount will then be added to the Cost Recovery Recaptured in the Sale Report, together with a note showing the amount. $500,000 has been entered here.

Partial Sale Page

A Partial Sale page is a Depreciation Page SubType which allows you to sell a piece of the property during the Holding Period, leaving the remainder to be sold at the end of the Holding Period. You may have as many Partial Sale pages in your Assumption Set as you require. Typical usage might be for dispositions of extra land or structures during the Holding Period.

To add a Partial Sale page, click on any Depreciation page in the Assumption Page List, and choose *Edit/Add Partial Sale Page.* The assumptions on the page are:



Partial Sale Assumptions

PARTIAL SALE AMOUNT is the dollar sale price of the asset. $500,000 has been entered here.

DEPRECIABLE LIFE is as described in the Depreciation Assumptions section on Page 86.
For dispositions of non-depreciable assets such as land, enter zero for the life.

DEPRECIATION METHOD and **RECAPTURE METHOD** are as described in the Depreciation Assumptions section on Page 86.

ORIGINAL COST is the $ cost of the property sold (as of the date of the asset acquisition)

SALE DATE is the Month and Year when the sale closes. Example - (4.02 is April 1, 2002). The date entered must be AFTER the Date of Acquisition. Dates on or before the Date of Acquisition cause the Partial Sale to be ignored in the analysis results.

ACQUISITION DATE is the Month and Year when the asset was acquired. Enter zero if it was acquired on the Date of Acquisition.

COSTS OF SALE is the percentage of the selling price paid out as costs of the sale. Amounts >100 are treated as dollars, so entering 6 means 6% of the Sale Price, as entered here.

AREA SOLD is interpreted as either Square Feet or Units, depending on the property type (as determined by the Square Feet / Unit Changeover value (see Page 7)). The **AREA SOLD** updates the Size used for the Square Foot / Unit Income Statement on and after the **SALE DATE**

In calculating Partial Sales, planEASe treats the net proceeds of the sale before tax as "negative" Capital Spending. For instance, the proceeds will be seen as negative amounts in the "Investment and Sale" area in Basic Analysis and in the Capital Spending area in Income and Annual Statements. The Capital Gain and Taxes on the Capital Gain appear in the Capital Gain and Taxes area of Basic Analysis and the Taxes Due line

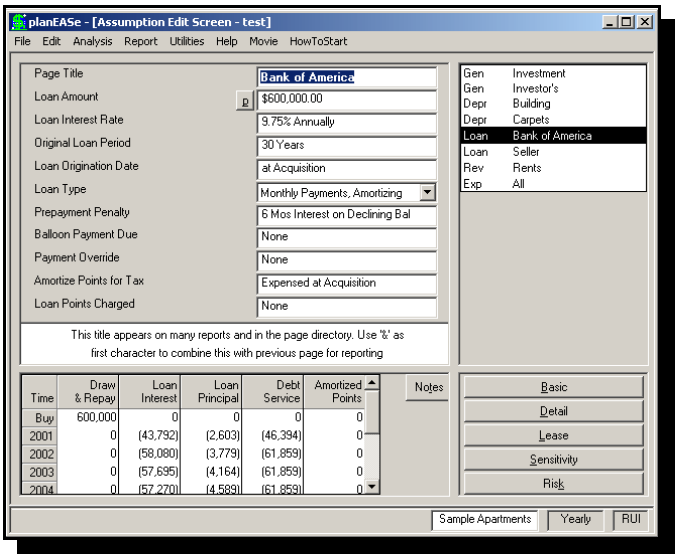
in Income and Annual Statements. If the asset sold is being depreciated, planEASe computes "negative depreciation" for the asset after disposition so as to "cancel out" the corresponding depreciation.

See also the following topics: **Page**

Land Acquisition 210
Development Spending 210
Tenant Improvements 211
Exchange Basis 140

Loan Assumptions

Loan assumptions are used to calculate the Interest Payments shown in the *Taxable Income Projection* page, and the Debt Service shown in the *Before Tax Cash Flow Projection* page of the analysis. planEASe can handle variable rate loans, refinancing, assumption of existing loans, negatively amortizing loans, deposit reserves, and many other financing situations through use of these assumptions. There are several examples of these and other uses of Loan Assumption Pages in the *How Do I Do* section of this manual. Loan is a *Multiple Page Type*, so **you may include as many Loan Pages as you desire**. For each Loan Page, the individual assumptions are:



Bank of America Loan Assumptions

LOAN AMOUNT is the face value of the debt instrument, or the amount borrowed. The *Sample Apartments* are financed by a $600,000 first trust deed (*Bank of America*), and a $200,000 second trust deed (*Seller*, shown later in this section). Amounts less than 3 are treated as a desired Debt Coverage Ratio, and cause planEASe to compute and use a Loan Amount that will result in that DCR in the first year of the loan. Amounts of 3 or greater and 100 or less are treated as a percentage of the purchase price, so a Loan Amount of 60 would achieve the same result as the $600,000 shown here. A negative value for this assumption computes normally, but with negative values. This feature may be used to include loans **from** the investor to other parties (such as deposit or other reserves) if desired. A Loan Amount of 0.00 will normally cause the loan to not be computed except for Continuation Pages where a zero Loan Amount causes planEASe to use the ending balance of the last loan page for the Loan Amount of the current schedule. See the discussion of variable rate loans on page 212 for examples of this capability.

LOAN INTEREST RATE is the percentage interest rate stated in the note. For the example, the *Bank of America* loan is being taken at 9 3/4%. This interest rate is divided by the payments per year specified in the Loan Type (see below) to determine the interest charged per payment. Thus a 12% interest rate implies 1% per month for monthly payments, 3% per quarter for quarterly payments, and so on.

ORIGINAL LOAN PERIOD is the number of years until maturity for the note. The *Bank of America* loan is a 30 year loan. This assumption value must be greater than zero, or the Loan Page is ignored. This assumption value is used in conjunction with the Loan Amount and the Interest Rate to establish the monthly payment for the loan for Amortizing Loans unless the Payment Override is used. If the Payment Override is used, that payment amount is used instead, and this assumption is used only to establish when the loan is due. planEASe can handle assumption of existing notes. In this case, this assumption value should state the **original** maturity rather than the number of years remaining until maturity, and the Loan Amount should be the **original** face amount of the loan. For such cases, planEASe amortizes the loan up to the Date of Acquisition and assumes the amount outstanding at that time.

LOAN ORIGINATION DATE is the month and year the note originated. The *Bank of America* loan is new at acquisition, so the origination date is the same as the purchase date, April of 2001 (just as with depreciation,

this date defaults to the Date of Acquisition if a zero value is entered). If *Bank of America* were an existing loan to be assumed, this assumption should show the original month and year in which the note was created. planEASe can also project refinancing by use of this assumption. For instance, if an origination date of 5.02 were used, the loan would start in May of 2002, even though the analysis would start in 2001. A Loan Origination Date of -1.00 is used to designate Continuation Pages, and causes planEASe to start the loan at the end of the prior Loan Page. See the discussion of variable rate loans on page 212 for examples of this usage.

LOAN TYPE is one of the following, where, for any type, you may choose monthly payments, quarterly payments, semi-annual payments, or annual payments.

Amortizing designates a normal amortizing mortgage, where the payment is computed to fully amortize the Loan Amount at the given Loan Interest Rate over the Original Loan Period. However, if you enter a non-zero Payment Override the computed payment is overridden by the entered payment, and the loan is amortized according to the entered payment amount and interest rate.

Interest-Only designates a loan where the computed payment exactly pays the interest due, and principal therefore remains constant. As with *Amortizing* loans, if you enter a non-zero Payment Override the computed payment is overridden by the entered payment, and the loan is amortized according to the entered payment and interest rate.

Accruing loans are rarely useful, and only for accrual based taxpayers such as some Partnership / LLC's when planning a negatively amortizing loan where the payments do not cover the interest due, and they interpret the tax code to allow them to deduct the interest as accrued rather than as paid. These loans require a Payment Override to specify the periodic payment amount.

Variable is used for loans with changes in interest rate or payment amounts during their life where the payment amounts are not sufficient to cover the interest charged (negative amortization). This loan type computes exactly the same as *Amortizing* and *Interest Only* with a Payment Override except that the tax deduction for the accrued interest is made at the end of the holding period rather than at the end of each step of the loan. See the example variable rate loan for an example of this.

No Payments designates a loan with no payments (so a non-zero interest rate implies "Negative Amortization"). Although there are no payments, interest due may be chosen to be posted at monthly, quarterly, semi-annual or annual periods, which affects the amount due at the end of the loan (due to compounding).

360/365 Conduit designates a loan where the amount of interest each month is proportionate to the number of days in the month, with the remainder of the payment going to defray principal. For Amortizing Conduit Loans, the payment is determined in the same way, and in the same amount, as Amortizing Loans (see above). For Interest Only Conduit Loans, the monthly payment is variable, reflecting the daily interest rate times the days in the month concerned.

For the *Sample Apartments*, the *Bank of America* loan is normal *Amortizing* over 30 years with a monthly payment computed from the 30 year life and 9.75% interest rate assumptions. The *Seller* loan is *Interest-Only* over 10 years with a monthly payment computed from the 9% interest rate assumption.

PREPAYMENT PENALTY A value of exactly one (1.00) for this assumption causes a prepayment penalty to be computed equal to six months interest on an amount computed by subtracting 20% of the original loan amount from the outstanding balance at the time of the prepayment. A value of zero eliminates any prepayment penalty. A negative value between 0 and 100 specifies a percentage of the loan balance due at the time of the

prepayment. **ANY** other value (including negative values) specifies a prepayment penalty equal to the dollar amount of the assumption value.

BALLOON PAYMENT DUE only affects amortizing loans. This assumption is entered in periods (months if Monthly Payments, quarters if Quarterly Payments, etc.), and handles three situations:

- First, you can project refinancing in, for example, three years by assuming a balloon due in April of 2004 (36 months) and entering another set of loan assumptions for a loan beginning at that time.
- Second, some amortizing loans call for a balloon payment, for example, in five years even though the amortization is based on a longer period of time. In such cases you should set the Original Loan Period to the amortization period (so that the payment amount is computed properly) and use a value of 60 months for this assumption to call the loan after five years.
- Third, an assumed loan is a loan where the Loan Origination Date is before the Acquisition Date. If such a loan has a Balloon Payment Due, the number of periods to be entered here is measured from the Loan Origination Date rather than the Acquisition Date.

A zero value here eliminates any consideration of a balloon payment.

PAYMENT OVERRIDE is the periodic payment amount for the loan, entered as $/period where the payment period is as specified in the Loan Type. If this assumption is zero it has no effect. If it is any other amount planEASe assumes the assumption value is the payment for the loan, overrides any computed payment (for *Amortizing* and *Interest-Only* loans), and amortizes the loan according to the entered payment amount and interest rate (for ALL Loan Types). This allows you to enter "negatively amortized" loans where the payment does not cover the interest due, and therefore the principal amount grows over time. On such loans, the accruing interest compounds each payment period. If the Loan Origination Date is before the Date of Acquisition, the system uses the payment amount to amortize the loan up to the acquisition date, and starts the loan at the amortized principal amount. If the Payment Override is less than or equal to 25.00 planEASe treats the amount as a **percentage** (Payment Constant) of the Loan Amount. Thus a value of 1.00 causes a periodic payment of 1% of the Loan Amount. For continuation loans, the Loan Amount used is the original (first page) Loan Amount, but using a **negative** amount of 25 or less during a continuation loan causes the payment to be a percent of the then current loan balance.

AMORTIZE POINTS FOR TAX handles the tax treatment of any loan points as shown in this table. The tax deduction for the points, whether amortized or not, is added to the "Interest Payments" column of the reports. If the Holding Period ends before all the points have been amortized, the remaining amount is deducted at sale in the "Interest Payments" column. The use of values of 2 or more to amortize over a specified life is meant specifically for loans with changing interest rates and/or changing payment amounts. Such loans are planned in planEASe as separate consecutive Loan Pages (Continuation Pages), one for each change in payment or interest rate. In such a case, the loan points should be entered in the **first** page for such a loan and amortized over the **total** life of the loan rather than the life of that Loan Page.

Value	Treatment
0	Points are expensed at the time of loan drawdown
1	Points are amortized over the loan life (considering any balloon payment)
2+	Points are amortized over a life (in years) equal to the assumption value. Thus an assumption value of 5 causes the points to be amortized over 5 years regardless of the length of the loan.

LOAN POINTS CHARGED is the loan fee sometimes charged by the loan originator for handling the loan. Values greater than 100 are assumed to be a dollar amount, while values of 100 or less are treated as a percentage of the Loan Amount. Thus an assumption value of 1.5 means that the borrower is to pay 1.5% of the loan amount to the originator. Points are subtracted from the loan proceeds for cash flow purposes in the analysis, but the balance amortized internally is not affected. Thus a $100,000 note with one point shows $99,000 being received from the lender, but planEASe still believes that you owe him $100,000 and amortizes

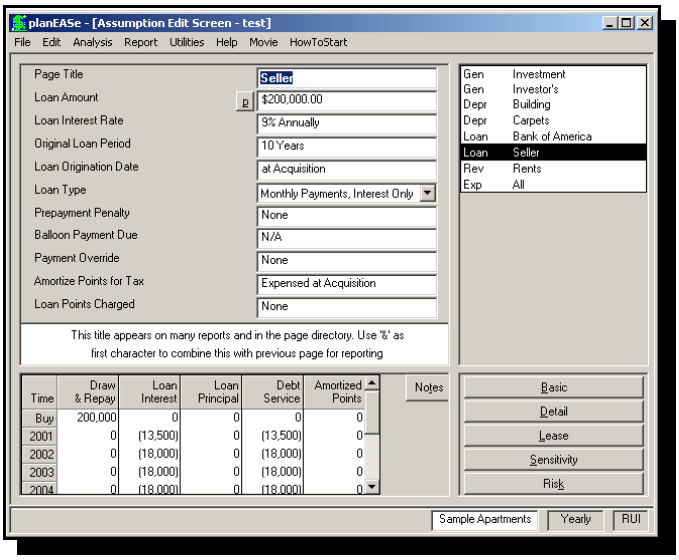
that amount in computing the loan. For assumption of existing loans, planEASe computes any percentage points based on the loan balance outstanding at the time of the loan assumption.

There are two Loan Pages for the *Sample Apartments*. The first, shown in the *Bank of America* Loan Assumptions screen on page 92, is for a $600,000 first mortgage from *Bank of America*. This is a new loan (Loan Origination Date of 0.00) taken at 9.75% interest for 30 years. The *Amortizing* Loan Type specifies a monthly payment amortizing the loan over that 30 year period, with the payment amount to be computed by planEASe. There are no points on this loan, but a prepayment penalty applies.

The Audit Window for the *Bank of America* loan shows the $600,000 loan proceeds as a positive cash flow at the Buy time. planEASe computes a $5,154.93 monthly payment for this loan (which you can verify with any financial calculator), so the annual Debt Service is 12 times that, or $61,859. The amounts in the first and last years represent nine and three months of debt service, due to the April Date of Acquisition and four year Holding Period. End of Year Payments are paid on December 31 rather than January 1, under the assumption that the normal taxpayer pays such payments in this fashion to get the earlier tax deduction. Thus the first and last years show nine and three payments where you might expect eight and four.

The prepayment penalty for the *Bank of America* loan is $22,603, which is shown in the Sell line as Loan Interest. This amount is six months interest at 9.75% on the outstanding balance at sale of $583,647 less $120,000 which is 20% of the original $600,000 loan amount.

The second Loan Assumption page, shown here, specifies a $200,000 *Interest-Only* loan with monthly payments from the *Seller* at 9% for ten years. Since the payment is interest-only, it is entirely deductible, and the Loan Interest is the same as the Debt Service.



Seller Loan Assumptions

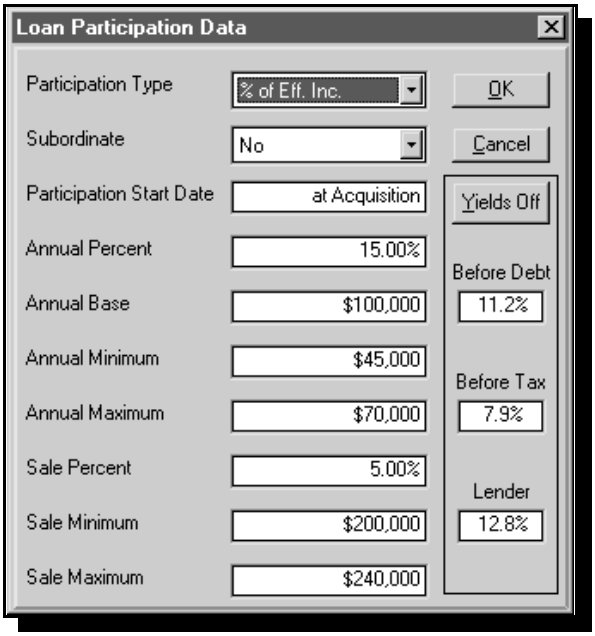
Page SubTypes

Each Multiple Page Type in planEASe, (Depreciation, Loan, Revenue, Fee and Funding) may have one or more Page SubTypes associated with it. Loan Page SubTypes are Loan-drw and Loan-prm, detailed in the Development Spending section on pages 179 and 181, respectively, and Loan-us, detailed on page 190. In addition, planEASe handles Participating Loans, as detailed on the following page.

See also the following topics: **Page**

Original Issue Discount Implied Interest . . . 209
Note Discounting 209
Partial Loan Payments 211
Split Down Payments 211
Compensating Balances / Reserves 211
Variable Rate/Payment Loans 212

Loan Participation



Loan Participation refers to additional loan payments (interest) which may be negotiated with the lender and depend on the performance of the property or investment. On the left side of the Loan Amount field, there is a (P) button which allows you to enter Loan Participation terms. The button is only shown for Loan Pages where the Page Title does not begin with an "&" character. Pressing the (P) button brings up the Loan Participation Dialog shown here, allowing you to set the values for annual and/or sale participation:

Annual Participation

Participation Type allows the amount of participation to be based on *Effective Income*, *NOI*, or *Cash Flow Before Debt* (NOI less Capital Spending). Additionally, any of these bases may be lowered by the amount of Debt Service for earlier loans and this loan by setting **Subordinate** to *Yes*. The Participation Base you set may be further adjusted by specifying an additional amount to be subtracted in the **Annual Base** field. Setting the **Participation Type** to *None* eliminates all participation for this loan, no matter what the settings for the other fields in this Dialog. You may delay the start of participation by setting **Participation Start Date** to a planEASe Date after the start of the loan.

In all years, the Participation Base (if positive in that year) is multiplied by the amount you enter in the **Annual %** field to determine the Participation Amount to be added to Debt Service (and Interest Expense) for the loan. If you enter non-zero amounts in the **Annual Minimum** and/or **Annual Maximum** fields, the Participation Amount is appropriately adjusted. In case of partial first or last years for the loan participation, the **Annual Base**, **Annual Minimum** and **Annual Maximum** amounts are prorated for the partial year.

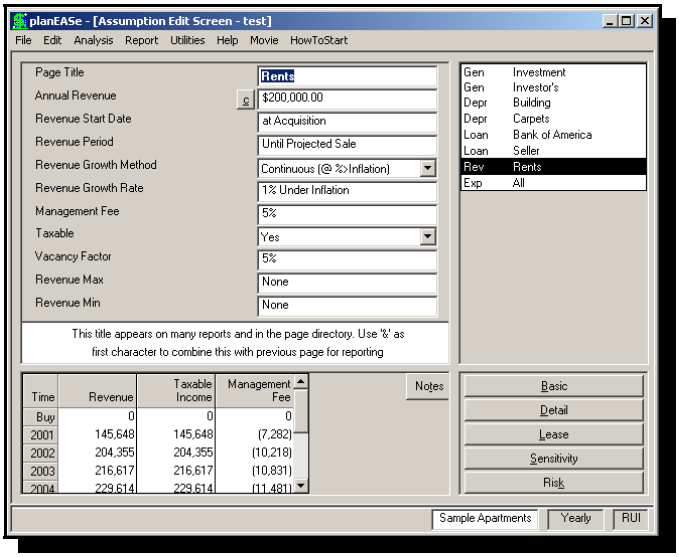
Sale Participation

If you specify a non-zero **Sale %**, planEASe adds that percentage of the Sale Price to Debt Service and Interest Expense at the sale. If you enter non-zero amounts in the **Sale Minimum** and/or **Sale Maximum** fields, the Sale Participation Amount is appropriately adjusted. The Sale Participation Amount is treated exactly the same as a Loan Prepayment Penalty, and is reported in the same places.

Yields

The Yields area on the right side of the Dialog shows the Rate of Return Before Debt, Rate of Return Before Tax (After Debt) and the Lender Yield for the investment, allowing you to instantly see the effect of increasing or decreasing participation as you enter the values. Rates are either IRR's or MIRR's depending on the Model in use. Lender Yield is computed on the combination of all loans, so if you want to see the yield for this particular lender, you should set the loan amounts for all other loans to zero before entering this Dialog. For exceptionally complex Assumption Sets, the time to compute the yields may be eliminated by clicking the **Yields Off** toggle button. Yields are automatically On when you enter this dialog, and may be reactivated by clicking the **Yields On** toggle.

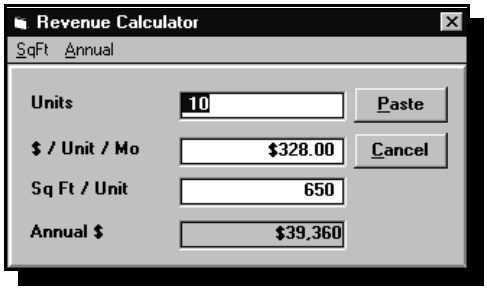
Revenue Assumptions



Rents Revenue Assumptions

These assumptions are used to calculate the Effective Income and Management Fee displayed in the *Taxable Income Projection* and *Before Tax Cash Flow Projection* pages of the Basic Analysis. Using Revenue Pages, you may plan revenues that grow at variable rates, lease forecasts for each lessee in the property, variable vacancies and vacancy rates, and pass-through revenues. There are examples of how to accomplish these and other purposes with your Revenue Pages in the *How Do I Do* section of this manual. Revenue is a *multiple page type*, so **you may include as many Revenue Pages as you desire**. For each Revenue Page, the individual assumptions are:

ANNUAL REVENUE is the amount of revenue expressed as an **annual** (**NOT** monthly) amount. Amounts of 100 or less are treated as a percentage of the purchase price. Negative amounts may be used, and subtract from total revenues. An Annual Revenue of 0.00 causes the revenue to not be computed, except for Continuation Pages where a zero value causes planEASe to use the ending amount of the previous Revenue Page for the Annual Revenue of the current page.



The little Ⓒ button to the immediate left of the Annual Revenue amount signifies that a Calculator is available for your use. If you click on the button (or press the Ⓒ key) the Calculator window shown here appears. As shown in the menu bar, you can set the calculator to operate with either $/SqFt or $/Unit, and either Annual or Monthly rates. Once set, if you recall the calculator it remembers how you want to calculate (and your latest entries). The amount shown on the Assumption Page is changed into *italics* so you can tell that a calculated amount lies in back of the amount shown.

REVENUE START DATE is the month and year when the revenue starts, denoted as described in the Date of Acquisition assumption. If entered as zero, the revenue starts on the Date of Acquisition. A Revenue Start Date of -1.00 is used for Continuation Pages, which causes planEASe to start the revenue at the end of the previous Revenue Page. When you are processing a Tenant or Owner Representation Assumption Set (Price Of Property is set to 1 or 2), entering a value of "99" in this Revenue Start Date field causes a date of "at End of Lease". This is used together with the One-Time Growth Method to enter an Amount in the Annual Revenue field that occurs at the end of the lease being entered.

REVENUE PERIOD is the number of years that the revenue continues. A fractional value less than one, such as .5 years, causes planEASe to compute that fraction of the Annual Revenue and receive it starting on the Revenue Start Date. If the Revenue Period extends fractionally into a year, planEASe assigns that fraction of

the Annual Revenue to the year involved. Alternatively, you may enter a **negative** number here (like -7.04), and planEASe will interpret it as the **date** when the revenue ends (July 1, 2004 in this case).

A value of "99" is interpreted as "Until Projected Sale", insuring that the Revenue will last throughout the Holding Period. A zero value establishes the Revenue Page as a Start Date for a Revenue stream that you may follow with Continuation Pages (see page 226)and/or To Market Pages (see page 108) to describe the further revenues for the space. Additionally, you may establish a reimbursement pattern for the space in the Reimbursements Dialog (see page 103) and that pattern will be followed by the revenues described in these following Pages (and modified as directed by the Reimbursements field in the appropriate Market Profiles (see page 108). In order to use a Revenue Page in this fashion, it must have a Zero Revenue Period, a SqFt or Unit Value and a positive Dollar Rate entered in the Annual Revenue Calculator, and a Revenue Start Date at or after the Acquisition Date. In this case, The $ amount shown in the Annual Revenue field is irrelevant, and does not show in any reports.

REVENUE GROWTH METHOD You may choose any of the growth methods detailed in the Growth Method Discussion section on page 114.

REVENUE GROWTH RATE controls revenue growth during the Revenue Period. Depending on the Revenue Growth Method chosen, this value is treated either as an annual percentage growth rate (for Growth Methods denoted as (@ Growth Rate)), as an addition to the Inflation Rate (for Growth Methods denoted as (@ %>Inflation)), or as a Dollar Amount (for Growth Methods denoted as (@ $/Year)) . For the *Sample Apartments*, the assumed value of **minus** 1% together with the specified Continuous Revenue Growth Method means that planEASe inflates the revenue at the assumed Inflation Rate of 7% **less** 1%, or 6% annually, so whenever the Inflation Rate assumption is varied, the growth rate of these revenues **automatically** varies correspondingly. A zero value is treated either as zero growth, or as growth at exactly the Inflation Rate, depending on the Revenue Growth Method chosen.

MANAGEMENT FEE handles the situation where the investor hires a property management firm to manage the property. In the example, the investor plans to hire a firm to manage the property for a fee of 5% of the revenues. Management Fees are included in the "Operating Expense" column of the output, even though they are specified as part of the Revenue Assumptions. Because of this, the Management Fee assumption can also be used to specify expenses as a percent of revenues. For instance, an assumption value of 30.00 here would result in Operating Expenses of 30% of the Revenues due to this Revenue Page, growing at the same rate. Management Fee may also be planned as a separate expense not linked to Revenue Pages. See the *Apartments.ru* Assumption Set for an example of this.

TAXABLE Choosing *No* **excludes** these revenues from the Taxable Revenue in the *Taxable Income Projection*. This should be used to plan any revenues which are not taxable. The usual (and default) choice is *Yes*

VACANCY FACTOR is the average percentage of the space expected to be vacant during the Revenue Period. The *Sample Apartments* are assumed to be 5% vacant during the entire holding period, thus lowering the projected revenue by that percentage. Variable vacancy rates may be planned by using Continuation Pages. In all cases, the total of this General Credit Loss & Vacancy on the Investor's Page and the Vacancy Factor on Revenue Pages is limited to be no greater than 100%. That is, entering a 50% there and a 60% Vacancy Factor for a particular Revenue will result in zero revenue for that particular Revenue.

REVENUE MAX allows you to specify an amount which is the maximum annual dollar amount or annual growth rate for this Revenue Page, no matter what the other assumption values. If this assumption is zero, there is no maximum amount. If this assumption is greater than 100, the amount of revenue computed for this page never exceeds the amount of this assumption. If this assumption is not zero and 100 or less, the value is treated as a cap on the Revenue Growth Rate. That is, a value of 8 entered here assures that the growth rate for these

revenues never exceeds 8% annually no matter what values are entered for the Inflation Rate and Revenue Growth Rate. This is useful for analyses involving Rent Control areas. If the Annual Revenue is negative, a negative amount here greater than 100 caps the negative revenue.

REVENUE MIN is the same as Revenue Max except that it specifies the minimum amount or growth rate for this Revenue Page. If this assumption value is greater than the non-zero Revenue Max, then neither assumption will affect the analysis.

Only one Revenue Assumption Page has been entered for the *Sample Apartments*, and those assumptions are shown in the "*Rents* Revenue Assumptions" screen on page 97. As shown there, the current rents as of the April 1 acquisition are $200,000 per year, planned to grow continuously at 1% **less** than the Inflation Rate (Continuous (@ %>Inflation)). Since the Inflation Rate is 7% (see the Investment Assumptions), this revenue increases 6% each year. The "at Projected Sale" shown for Revenue Period is caused by entering 99 for this assumption, and is simply a conveniently large number to indicate that the revenues from this page should continue to the date of sale (as long as that date is within 99 years of the Revenue Start). A 5% vacancy allowance is subtracted from the Annual Revenue and a 5% Management Fee is planned. These assumptions cause the revenue and management fee amounts shown in the Audit Window. The amounts are computed using the methodology for Continuous Growth detailed in the Growth Method Discussion on page 114.

Page SubTypes

Each Multiple Page Type in planEASe, (Depreciation, Loan, Revenue, Fee and Funding) may have one or more Page SubTypes associated with it. Revenue has twelve Page SubTypes:

- **Unit Sales Pages (Rev-us)** Described in detail in the Unit Sales Development section on page ?, these Pages allow you to enter individual sales of units in a Unit Sales Analysis Assumption Set.

- **Market Profile Pages** use ten different Page SubTypes to store and display the Market Profiles in your Assumption Set (see the discussion of Market Profiles starting on page 108).

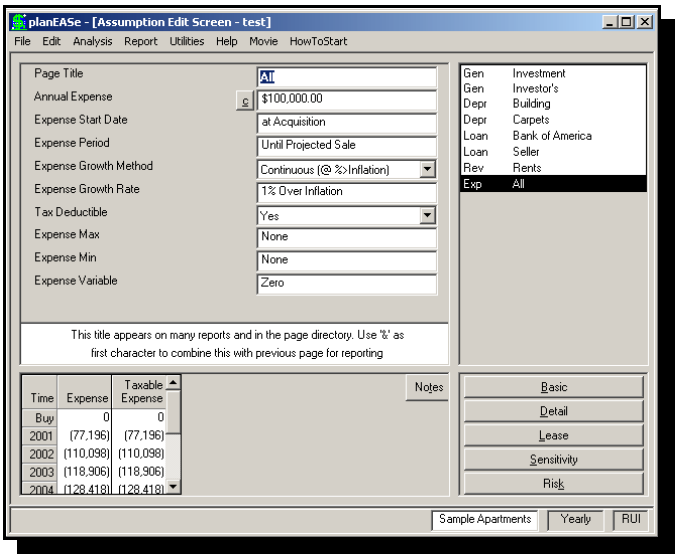
- **To Market Pages (Rev-mkt)** A To Market page allows you to choose the Market Profile you want a particular lease to revert to after the planned Base Rent for that lease expires (see the discussion of Market Profiles - and To Market Pages - starting on page 108).

See also the following topics: **Page**

Percentage Rents **103**
Expense Reimbursements **103**
Market Profiles **108**
Lease Forecasting **207**
Import NOI **207**
Variable Growth Rates **208**
Chart of Accounts **208**
Use 99 for the Revenue/Expense Period . . . **207**
Continuation Pages are wrong **207**
Vacancy/Credit Loss is wrong **169**
Entering Leases into planEASe **112**

Expense Assumptions

These assumptions are used to calculate the operating expenses displayed in the *Taxable Income Projection* and *Before Tax Cash Flow Projection* pages of the analysis. Using Expense Pages, you can plan as many different expenses as you want for a property, and each expense can grow or change in its own manner during the projection period. Variable growth rates are possible. Each expense can start and stop at any time you want, so planning for non-recurring expenses is easy. There are examples of how to accomplish these and other purposes with your Expense Pages in the *How Do I Do* section of this manual. Expense is a *multiple page type*, so **you may include as many Expense Pages as you desire**. For each Expense Page, the individual assumptions are:



All Expense Assumptions

ANNUAL EXPENSE is the amount of expense for this item, expressed as an **annual** (**NOT** monthly) amount. Amounts of 100 or less are treated as a percentage of the purchase price. Negative amounts may also be used, and subtract from total expenses. An Annual Expense of 0.00 causes the expense to not be computed except for Continuation Pages where a zero Annual Expense Amount causes planEASe to use the ending amount of the previous page for the Annual Expense of the current schedule.

The little Ⓒ button to the immediate left of the Annual Expense field signifies that a Calculator is available for your use. Pressing the button or the Ⓒ key opens the calculator, allowing you to enter the SqFt and $/Ft for the amount, which is useful for entering SqFt or Unit related values.

EXPENSE START DATE is the month and year when the expense starts, denoted as described in the Date of Acquisition assumption. If entered as zero, the model starts the expense on the Date of Acquisition. An Expense Start Date of -1.00 may be used for Continuation Pages, which causes planEASe to start the expense at the end of the prior Expense Page

EXPENSE PERIOD is the number of years that the expense continues. A zero value eliminates the expense from the calculations. A fractional value less than one, such as .5 years, causes planEASe to compute that fraction of the Annual Expense and receive it starting on the Expense Start Date. If the Expense Period extends fractionally into a year, planEASe assigns that fraction of the Annual Expense to the year involved. Alternatively, you may enter a **negative** number here (like -7.04), and planEASe will interpret it as the **date** when the expense ends (July 1, 2004 in this case). A value of "99" is interpreted as "Until Projected Sale", insuring that the Expense will last throughout the Holding Period.

EXPENSE GROWTH METHOD You may choose any of the methods of growth shown in the Growth Method Discussion section on page 114.

EXPENSE GROWTH RATE controls expense growth during the Expense Period. Depending on the Expense Growth Method chosen, this value is treated either as an annual percentage growth rate (for Growth

Methods denoted as (@ Growth Rate)), as an addition to the Inflation Rate (for Growth Methods denoted as (@ %>Inflation)), or as a Dollar Amount (for Growth Methods denoted as (@ $/Year)). In the case of the example, the assumed value of 1% together with the specified Continuous (@ %>Inflation) Growth Method means that the analysis inflates the expense at the Inflation Rate of 7% plus 1%, or 8% annually. Therefore whenever the Inflation Rate assumption is varied the growth rate of the expenses **automatically** varies correspondingly. A zero value is treated either as zero growth or as growth at the Inflation Rate depending on the Expense Growth Method chosen.

TAX DEDUCTIBLE Choosing *No* causes planEASe to **exclude** the expenses for this Expense Page from the Taxable Expense in the *Taxable Income Projection*. The usual (and default) choice is *Yes*

EXPENSE MAX caps the expense amount for this Expense Page in exactly the same manner as the Revenue Max assumption described previously.

EXPENSE MIN caps the expense amount for this Expense Page in exactly the same manner as the Revenue Min assumption described previously.

EXPENSE VARIABLE allows you to adjust the Annual Expense amount for vacancy by dividing it into fixed and variable components. Normally zero, a non-zero percentage here is the percentage of the expense that will vary with the average occupancy each year. Vacancy from months vacant (between lease terms and during absorption) is used to determine the average physical occupancy for the year. Vacancy entered through the Vacancy Factor in Revenue Pages for lessees with SqFt or Units specified (through the calculator) is included as well. For instance, for an Expense Page with an Annual Expense amount of $100,000 and a 75% Expense Variable specified (no growth), the Expense would be as shown in the table.

Year	Vacancy	Fixed	Variable	Total
1	100%	$25,000	$0	$25,000
2	75%	$25,000	$18,750	$43,750
3	50%	$25,000	$37,500	$62,500
4	25%	$25,000	$56,750	$81,750
5	0%	$25,000	$75,000	$100,000

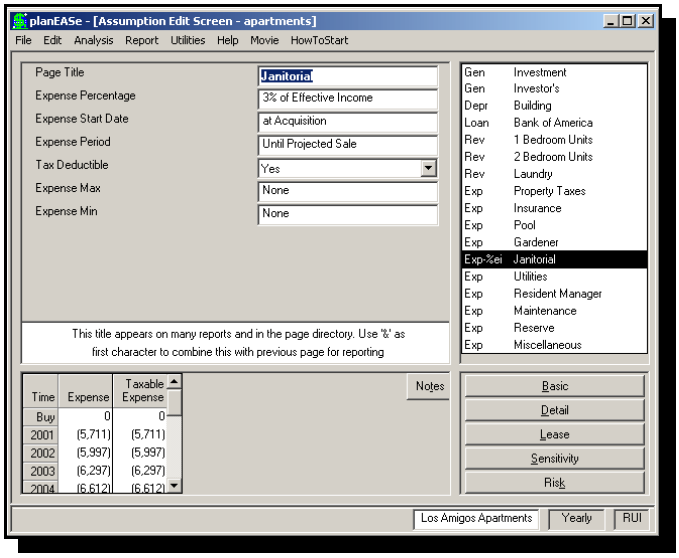
There is only one Expense Page (titled *All*) entered for the *Sample Apartments*, shown in the "*All* Expense Assumptions" screen on page 100. As shown there, the expenses as of the April 1, 2001 Acquisition Date are $100,000 annually, planned to grow continuously at 1% **greater** than the Inflation Rate, or 8% annually in this case. As with the Revenue Period, The "at Projected Sale" shown for Expense Period is caused by entering 99 for this assumption, and is simply a conveniently large number to indicate that the expenses from this page should continue to the date of sale (as long as that date is within 99 years of the Expense Start). Normally, of course, you would want to enter several Expense Pages for a property, breaking out the individual expense items and forecasting them separately on individual Expense Pages.

See also the following topics: **Page**

Reimbursements Dialog 103
Expense Pass-throughs 207
Import NOI 207
Variable Growth Rates 208
Chart of Accounts 208
Use 99 for the Revenue/Expense Period . . . 207
Continuation Pages are wrong 207

Expense as Percentage of Effective Income Page

Each Multiple Page Type in planEASe, (Depreciation, Loan, Revenue, Fee and Funding) may have one or more Page SubTypes associated with it. Expense has one Page Subtype: Expense % of EI (or Exp - %ei) .



Expense as % of Effective Income Assumptions

An Expense as Percentage of Effective Income page is an Expense Page SubType which allows you to specify a expense that varies with Effective Income. An example might be Janitorial or Electrical expense. You may have as many Expense as Percentage of Effective Income pages in your Assumption Set as you require. You may also expand the use of these pages by choosing *Edit/Add SubPage* and *Edit/Add Continuation Page* when a page of this SubType is displayed. To add an Expense as Percentage of Effective Income page, click on any Expense page in the Assumption Page List, and choose *Edit/Add Expense % of Income Page.* The assumptions on the page are:

EXPENSE PERCENTAGE is the percentage of Effective Income for this expense. Here we have chosen 3% of Effective Income for Janitorial Expense

EXPENSE START DATE is the Month and year expense starts. Example - (4.01 is April 1, 2001). Use zero for the Acquisition Date, as we have done here.

EXPENSE PERIOD is the number of years the expense is to continue. Enter 99 if it is to continue for the entire holding period, as we have done here.

TAX DEDUCTIBLE *Yes* means treat this expense as tax deductible. *No* means do not deduct this expense for taxes

EXPENSE MAX means that the expense associated with this page is limited by this amount. Zero means ignore. An entry other than zero specifies the maximum $ amount. Zero has been entered here.

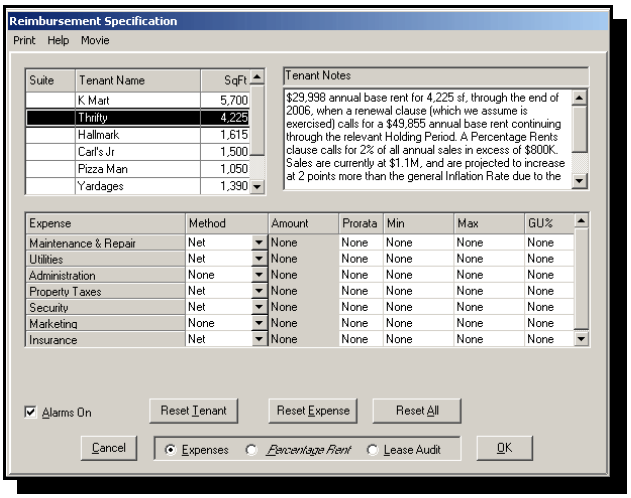
EXPENSE MIN means that the expense associated with this page is limited by this amount. Zero means ignore. An entry other than zero specifies the minimum $ amount. Zero has been entered here. A value greater than a non-zero Expense Max means that neither assumption value will affect the analysis.

Reimbursements Dialog

Many leased properties, such as Retail and Office investments, involve leases with expense reimbursement provisions. Additionally, Retail leases may well call for Percentage Rent to be paid by one or more tenants. The Reimbursements Dialog allows you to enter the Expense Reimbursements and/or Percentage Rents associated with each lease you enter for the property. This Dialog will only be available (at *Edit / Reimbursements*) if:

- You have entered one or more leases, and have used the Calculator to specify the SqFt occupied by the lessee, and
- You have entered one or more expenses for the property, and
- You have NOT specified Tenant or Owner representation for the Assumption Set (Price of Property is NOT 1 or 2), and
- You have NOT entered Unit Sales Specifications for the Assumption Set.

When you click on *Edit / Reimbursements*, this Reimbursements Dialog appears. The *Tenants List* at the top left is not editable, but rather allows you to display the Reimbursements and/or Percentage Rent for any of the listed tenants by highlighting the tenant with a mouse click or an arrow key. As you highlight a tenant, any Notes you have entered for that tenant at the Assumption Edit Screen are displayed in the *Tenant Notes* window to the right of the *Tenant List*, and you may edit them there. Any changes you make are posted to the Notes area of the tenant's first revenue assumption page in the Assumption Page List when you press the *OK* button. Pressing the *Cancel* button cancels any note changes as well as any other changes you have made in the Dialog.



Reimbursements Dialog

At the center bottom of the Dialog are three view options for you to choose from (*Expenses*, *Percentage Rent*, or *Lease Audit*). These views, which vary the information presented in the lower portion of the Dialog, are described below.

Expenses View

On entry to this dialog, or if you choose the *Expenses* View, the Reimbursement Grid is shown in the lower portion of the Reimbursement Dialog, displaying one line for each expense entered in the Assumption Set, excluding any expenses entered as *% of EI* expense pages (which are not reimbursable in planEASe). For each expense in the grid, you may specify a reimbursement method (for the tenant highlighted in the *Tenant List* above) as follows:

- ***Method*** allows you to specify the Method of determining the reimbursement of the expense on each line. Your choices are:

  None - this expense will not be reimbursed. Use this method to eliminate previously planned reimbursement. While the other fields retain their values when you choose *None*, the **next** time you enter this Dialog, the values will have been zeroed out.

  Net - all of this expense will be reimbursed.

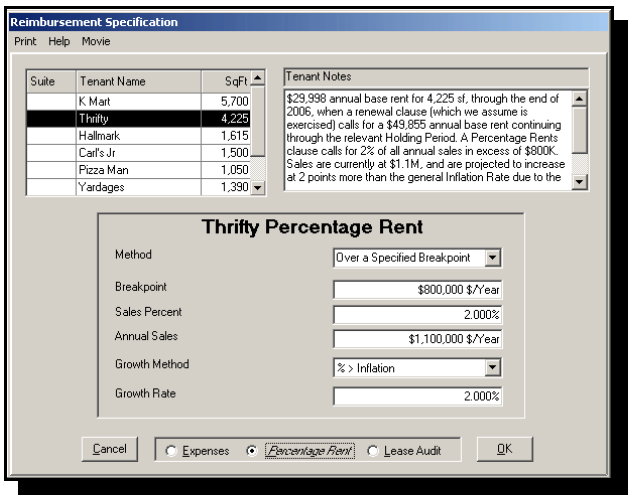
$ Stop - all of this expense less the amount entered in the *Amount* field will be reimbursed.
BY Stop - all of this expense less the expense amount in the first lease year will be reimbursed.
$ - the amount entered in the Amount field will be reimbursed

- ***Amount*** - this amount is used only when the *$ Stop* or *$* method above has been chosen (to remind you of this, the Amount cell background is colored gray and the cell becomes inaccessible when a Method not requiring an amount is chosen). It provides the dollar amount required by these methods. If you enter an amount >=100, it is treated as $/Year. Amounts <100 are treated as $/SqFt/Year.
- ***Prorata*** - normally expense reimbursements are allocated on a percentage of space occupied. For instance, a tenant occupying 1,000 RSF in a 10,000 RSF building is allocated 10% of an expense for reimbursement, no matter the method. This happens automatically and dynamically within planEASe, without your intervention. If, however, you enter a non-zero percentage in this column, it will **override** the natural pro-rata percentage. The reimbursed amounts for the other tenants for this expense will not be affected by this override.
- ***Min*** - allows you to specify a minimum reimbursement amount for this expense. If you enter an amount >=100, it is treated as $/Year. Amounts <100 are treated as $/SqFt/Year.
- ***Max*** - allows you to specify a maximum reimbursement amount for this expense If you enter an amount >=100, it is treated as $/Year. Amounts <100 are treated as $/SqFt/Year.
- ***GU%*** - allows you to specify a Gross Up Percentage for this expense. **This only affects expenses planned with a positive Expense Variable assumption**. Such expenses respond to planned vacancies by varying the variable portion of the expense in accordance with the Property Occupancy rate. An example of such an expense would be Janitorial, where 50% vacancy would cause the expense to be substantially lower due to not having to clean the vacant space. In such a situation, if Janitorial were planned as $100,000 and 75% variable, with only 50% of the space occupied the resulting $62,500 expense would only be reimbursed $31,250. For this reason, some leases allow some or all expenses to be "grossed up" for reimbursement to some specified occupancy level (for example 95%). With a 95% assumption here, Janitorial would be grossed up to $100,000 * 25% + $100,000 * 75% * 95% or $96,250. If the tenants occupying 50% of the space all reimbursed Net, they would reimburse $48,125 of the total instead of $31,250, with the remainder of the $62,500 being paid by the owner.

Three buttons appear at the bottom of this view to facilitate mass changes to reimbursement methods and or Gross Up Percentages:

- **Reset Tenant** sets all expense reimbursement methods for the displayed Tenant to the method chosen for the highlighted expense, regardless of the previous settings.
- **Reset Expense** sets all expense reimbursement methods for the highlighted expense to the method chosen for the highlighted expense for all Tenants, regardless of the previous settings.
- **Reset All** sets all expense reimbursement methods for all tenants and all expenses to the method chosen for the highlighted expense, regardless of the previous settings.

For example, you may easily set all tenants to *Net* reimbursements by setting one expense to the *Net* method and then pressing *Reset All*. You may set all expense reimbursements for the current Tenant to *None* by setting one expense for the Tenant to *None*, and then pressing *Reset Tenant*. As a special case, if you have highlighted the last column, *GU%*, the Reset buttons will change the Gross Up Percentage for the current Tenant, Expense, or All tenants and expenses, respectively, rather than changing the Method.



Percentage Rents View

If the tenant highlighted in the Tenant List has a Percentage Rent clause entered, and you are looking at the Reimbursement Grid or the Lease Audit Grid,

the Percentage Rent caption on the Percentage Rent View option below the Reimbursement Grid will be shown in Italics to alert you to this. Choosing the Percentage Rent View option reveals the Percentage Rent definitions, as shown in the screen at the top of the next page.

- ***Method*** allows you to specify the Method of determining the percentage rent. Your choices are:

  None Eliminates all Percentage Rent calculations for this tenant. Use this method to eliminate previously planned Percentage Rent for a tenant. While the other fields retain their values when you choose *None*, the **next** time you enter this Dialog, the values will have been zeroed out.

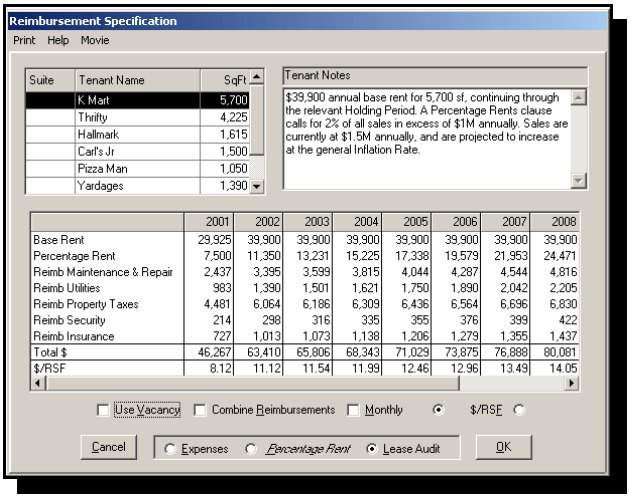
  Over a Natural Breakpoint allows you to specify the use of a *Natural* Breakpoint, which is derived by dividing the Sales Percent into the Base Rent (taken from the First Page and all following Continuation Pages for the Tenant) for the year involved. Thus the Natural Breakpoint will be different whenever the Base Rent changes.

  Over a Specified Breakpoint allows you to enter a specified Breakpoint in the Breakpoint field.
- ***Breakpoint*** is relevant only for the Specified Breakpoint Method, and is expressed as $/SqFt/Year if an amount less than or equal to 2,000 is entered, and $/Year if greater than 2,000.
- ***Sales Percent*** is the negotiated percentage of sales to be paid.
- ***Annual Sales*** is the expected level of sales for the first lease year, and is expressed as $/SqFt/Year if an amount less than or equal to 2,000 is entered, and $/Year if greater than 2,000.
- ***Growth Method*** allows you to link the growth in the Annual Sales to inflation, or not. Your choices are *% / Year* or *% > Inflation*.
- ***Growth Rate*** allows you to control the Growth Rate of the Annual Sales, according to the *Growth Method* specified.

The example in the screen shot above shows the Percentage Rent provision for *Thrifty* in the *shops.ru* Assumption Set.

Lease Audit View

When you choose the *Lease Audit* View, the Lease Audit Grid for the tenant currently chosen in the *Tenant List* is shown in the lower portion of the Dialog, as displayed here. Clicking on another tenant in the *Tenant List* displays the Lease Audit for that tenant. Here we are displaying a Lease Audit View for the *K Mart* tenant in the *shops.ru* Assumption Set. Below the Lease Audit Grid, the following controls allow you to customize your view of the Lease Audit Grid.



Use Vacancy - this checkbox allows you to toggle between using the Vacancy factor for the tenant and not. Since all computations in planEASe (other than optionally in Lease Analysis) use Vacancy, this should be checked if you want the results to agree with other planEASe reporting.

Combine Reimbursements - this checkbox allows you to toggle between showing the reimbursed expenses individually or combining them into one line.

Monthly - if you have purchased the optional *Monthly Extension*, this checkbox allows you to toggle between Monthly and Annual Views of the Audit.

$ or $/RSF - these option buttons allow you to choose whether the Grid amounts are shown as Dollars or as Dollars/RSF.

Physical Occupancy

The calculation of Expense Reimbursements, and Gross Up of expenses with the Expense Variable assumption specified as greater than zero requires that planEASe compute and track the Physical Occupancy of the entire property, as well as the Physical Occupancy of each individual space. The Physical Occupancy of any space at any time within planEASe is defined as the space entered as RSF in the Revenue Calculator on the first (Base Rent) page for the lease, times the General Credit Loss and Vacancy on the Investor's Page PLUS the Vacancy Factor entered on that Revenue Page (or following Continuation Pages for different later times) divided by the RSF in the Revenue Calculator on the first (Base Rent) page for the lease. Thus, for any individual lease, Physical Occupancy at any time is the space RSF times the sum of the two Vacancy Factors applying to that time, divided by the constant space RSF specified on the first Revenue Page for that space. The allowance for varying Vacancy Factors for individual spaces through the use of Continuation Pages allows for reimbursement of expenses during lease-up as well as dark time between leases.

The Physical Occupancy for the entire property is simply the sum of the Property Occupancy for the individual spaces. Note that in this case, the denominator for Property Occupancy may be varied by planning additional space added after acquisition or subtracting space due, perhaps, to a Partial Sale.

These definitions of Physical Occupancy have **major implications** you should consider and allow for when entering your Assumptions for leases:

- When planning the lease for any space, you must use the SqFt Calculator for (at least) the first Revenue Page, or the Lease will **NOT** be included in the Tenant List (or the calculations of Physical Occupancy).
- It is **absolutely essential** that you plan all spaces for the entire length of the Holding Period (including all extensions used by Sensitivity and Risk Analyses). If you fail to include a plan for any space, planEASe

assumes it **no longer exists**, and allocates reimbursements across the smaller space implied, therefore **mis-stating the reimbursements**. **This means you must plan a vacant space as 100% vacant during the time it is vacant.**

- If further Revenue Pages are necessary to describe changes in Base Rent during the lease, they **MUST** be Continuation Pages so that planEASe can add the planned Revenue Periods to the calculations of Physical Occupancy.
- Dark periods between leases can be handled either by planning the time as a Continuation Page with a 100% Vacancy Factor, or by entering a new lease starting as 100% vacant for the dark period. The first method continues the revenue stream under the old tenant name, whereas the second allows you to specify a new tenant name. In EITHER case, the time periods must be continuous, or the Physical Occupancy will be mis-stated, resulting in wrong reimbursement amounts
- Revenues for items other than leases to be included in the reimbursement specifications should **NOT** use the Revenue Calculator on the first Revenue Page for the item.

Tenant Reimbursement Alarms

Tenant Reimbursement Alarms indicate that you should examine the plan for a particular Tenant's space closely, because it violates one or more of the rules above. The fact that an alarm is on does NOT mean any calculations are affected. Rather, the alarm is meant to direct your attention to the plan for the space, **which may be correct**.

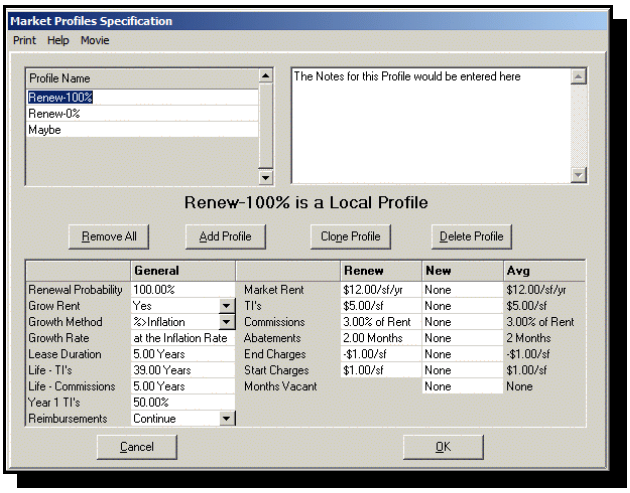
In the Expenses View of the *Reimbursement Dialog*, whenever a Space's Occupancy Plan begins after the Acquisition Date, the Tenant's row in the Tenant grid is colored **YELLOW** to notify you of that fact. Of course, in Development projects, it is totally normal that space occupancy for at least a few of the spaces would begin after acquisition, and there are other reasons for this, such as changing Tenants during the Holding Period. In other words, the yellow color represents just a **warnin**g that you should consider whether the planned situation is correct or not.

Whenever a Space's Occupancy Plan is interrupted after it begins and before the end of the Holding Period, the Tenant's row in the Tenant grid is colored **RED** to notify you of the fact. While this is not normal, it can certainly be valid in the case of a Partial Sale or a combination of two or more spaces into one (or a splitting of one space into two or more). In other words, red is simply a different kind of **warning** that you should evaluate the space plan. Additionally, a tenant will be colored RED if the first page for the tenant ends before the Acquisition Date, which is **always** wrong.

The *Alarms On* checkbox at the bottom left of the Dialog allows you to turn the alarms off (and on). If you turn them off, they will remain off while you are processing the current Assumption Set. When you process another Assumption Set, or begin another session they are turned on by default.

Market Profiles Dialog

Market Profiles allow you to specify, in general, how leased space will be re-leased when the lease you have entered expires. This decreases the amount of time you spend entering leasing assumptions because, instead of typing the same values for every tenant, you can enter the projected market values once and reference them (through To Market Pages) for all tenants who share similar characteristics. You may access this Market Profiles Dialog by pulling down *Edit/Market Profiles...* at the Assumption Edit Screen. The first Profile (named Main by default) is automatically generated for you the first time you access this Dialog in an Assumption Set. You may rename Main if you prefer by clicking on it in the Profile List and typing the new name.



Market Profiles Dialog

Profile Types

- **Local** Profiles are part of the Assumption Set.
  There must be at least one Local Profile in an Assumption Set before you will be allowed to direct any leases to any Profile. If you delete any Profile to which a lease is directed, the lease will be redirected to the first Local Profile in the Assumption Set.
- **Global** Profiles are part of the planEASe installation, and will be made available to you for any multi-tenanted property. If you change a Global Profile, it will be changed in all of your properties. Global Profiles are stored in a file called *Global_Profiles.dac*, saved in your C:\planwin (or other) home folder. You may move this file to another planEASe installation as you wish, to make your Global Profiles available on another computer. Only one such file is allowed for each planEASe installation. Within *Global_Profiles.dac*, you may save as many Global Profiles and % Variant and $ Variant Profiles depending on them as you want.
- **% Variant** profiles vary from the specified Local or Global Profile by the specified % amount. For example, a Market Rent value of 60% in the New Column of this profile type causes the Market Rent of any leases directed to it to be 60% of the New Market Rent in the specified Local or Global Profile.
- **$ Variant** profiles vary from the specified Local or Global Profile by the specified $ amount (either positive or negative). For example, a Market Rent value of minus .60 $/sf in the New Column of this profile type causes the Market Rent of any leases directed to it to be .60/sf less than the New Market Rent in the specified Local or Global Profile.

Profiles contain the following Information

- **Renewal Probability** is used to weight the new and renew values for this profile. eg:60% means 60% of the Renew TI's value will be weighted with 40% of the New TI's value. Renewal Probability is used to compute weighted values for Market Rent. TI's, Commissions, Abatements, End and Start Charges, as well as Months Vacant. In the case of Months Vacant, the Renew value in the weight is assumed to be zero.
- **Grow Rents** You may inflate the Market Rent during the lease or leave it constant. If you choose *No*, the Market Rent will be constant during the Lease Duration. Choosing *Yes* will cause the Base Rent to increase annually during the Lease Duration at the rate chosen below.
- **Growth Method** can be *%* , *%>Inflation*, or *$/sf/year*. *%* will grow the profile dollar values at the chosen Growth Rate. *%>Inflation* grows the profile dollar values at the chosen Growth Rate PLUS the Inflation Rate. *$/sf/year* grows the profile dollar values at the specified $/sf/year annually.

- **Growth Rate** the interpretation of this value depends on the Growth Method chosen. If the Growth Method is *%*, then this field is interpreted as the Annual Growth Rate, regardless of inflation. eg: entering 3 means 3% per year no matter what the Inflation Rate is. If the chosen Growth Method is *%>Inflation*, this field is interpreted as an addition to the Inflation Rate You may choose a negative rate here, and the rate will be SUBTRACTED from the Inflation Rate to get the Growth Rate.
- **Lease Duration** is the number of years (may be fractional, and fractional amounts will be rounded up to the nearest month) the lease (either new or renewal) will last. After the end of the projected lease, if the Holding Period has not expired, the space will be re-leased according to the same rules, with dollar values inflated to the new re-lease time.
- **Life - TI's** is the number of years over which the TI's specified by this profile will be depreciated. Normally this is 39 years, but you may enter any number of years you wish (including 1 year to write them off currently).
- **Life - Commissions** is the number of years over which the Commissions specified by this profile will be depreciated. Normally this is the term of the lease plus any scheduled renewals, but you may enter any number of years you wish (including 1 year to write them off currently).
- **Year 1 TI's** is the percentage of the TI's permitted to be written off in the year in which they are completed. In 2002, Congress passed the tax law allowing 30% of certain TI's to be written off in the year of completion. In the tax law passed in 2003, this was increased to 50%. See Tenant Improvements on page 211
- **Reimbursements** may be set to either *Continue* or *None* or *Cont w/BY Adj* or *Cont w/BY&$ Adj*. *Continue* simply continues the same reimbursement pattern previously specified for this space. *None* turns off all reimbursements for the space. *Cont w/BY Adj.* continues the same reimbursement pattern previously specified, adjusting the Base Year stop amount for any Base Year reimbursed expenses to the first year of the new Lease Duration. *Cont w/BY&$ Adj* does the same thing as *Cont w/BY Adj*, but also adjusts any $ Stop reimbursed expenses to a Base Year stop amount of the first year of the new Lease Duration. This is useful for correcting $ Stop amounts to Base Year Stops at lease end.

The following Rates, contained in all profiles, are combined in determining the Rates to continue the leasing of the specified space, by weighing the Renewal Rate times the Renewal Probability plus the New Rate times (1 minus the Renewal Probability). For example, a Renewal Rate of $4.00 and a New Rate of $5.00 is combined with a Renewal Probability of 60% as $4.00 x .60 plus $5.00 x .40 , or $4.40. When combining rates, planEASe will not allow any rate (before combining) to be less than zero. Thus, a Local Profile Rate of $4.00/sf for New TI's, when combined with a $Variant Profile Rate of ($6.00)/sf will be recorded as $0.00/sf before being weighted with the corresponding rate for Renewal TI's. The combined number of months for Abatements and Months Vacant is rounded to the nearest month (eg: 4.6 months is rounded to 5 months). For your reference, the combined rates computed by these rules are shown in the final (Avg) column of the Profile.

All dollar rate values listed below should be entered in TODAY'S dollars, since planEASe will automatically inflate them to the start date of the lease using the Growth Rate and Method chosen.

- **Market Rent (Renew & New)** is the Market Rent to be used for New or Renewed Tenants. If you choose Yes for the Grow Rents option above, the annual Base Rent for the space will grow according to your chosen Growth Method option. Otherwise, the Base Rent will be constant until the next Renewal/New option after the chosen Lease Duration.
- **TI's (Renew & New)** is the TI's to be used for New or Renewed Tenants.
- **Commissions (Renew & New)** is the Commissions (expressed as % of Base Rent for the Lease Duration) to be used for New or Renewed Tenants.
- **Abatements (Renew & New)** is the Abatements (expressed in Months) to be used for New or Renewed Tenants (also known as Free Rent).
- **End Charges (Renew & New)** is the charges incurred at the end of the lease to be used for New or Renewed Tenants. If you choose *Yes* for the *Grow Rents* option the End Charges will grow according to your chosen *Growth Method* option.

- **Start Charges (Renew & New)** is the charges incurred at the start of the lease to be used for New or Renewed Tenants.
- **Months Vacant (New Only)** is the Months Vacant to be used for New Tenants. Renewed Tenants are presumed to be renewed with zero Months Vacant.

Profiles may be controlled by

- **Profile List** (at the top left of the Dialog) controls which profile you are viewing. You may choose the profile viewed by clicking on the profile name.
- **Profile Comments** (at the top right of the Dialog) shows the comments (if any) you have entered to describe the profile. Profile Comments are saved with the first Assumption Page for the profile, and displayed in the Assumptions Report (if the show notes checkbox is checked when viewing the Assumptions Report).
- **Profile Grid** (occupying the center bottom of the Dialog) shows the values entered in the profile viewed, so that you may review and/or change them.
- **Remove All Button** allows you to remove all profiles from your Assumption Set. At the same time, all To Market Pages will be removed, so there will be nothing remaining of the Local and To Market Pages previously entered. The Global Profiles (and variants depending on them) will be removed from the current Assumption Set, but will still be available for other Assumption Sets (and this one if you later access *Edit/Market Profiles* from the Assumption Edit Screen.
- **Add Profile Button** allows you to add a profile to those already existing. Unlike other areas of planEASe, you may only add profiles to the end of the Profile List rather than inserting them.
- **Clone Profile Button** allows you to copy all values in an existing profile to a new profile under a new name, thereby saving you the time of setting the values if the new profile values are close to the profile being cloned. Variant Profiles may not be cloned.
- **Delete Profile Button** deletes the Profile currently highlighted in the Profile List. If a Local or Global Profile is currently highlighted, you must delete all Variant Profiles varying that Local/Global Profile before deleting the Local/Global Profile. You are not permitted to delete Market Profile Pages through *Edit/Delete Page* at the Assumption Edit Screen, so the only way to delete a profile is from this button.
- **Cancel Button** cancels all changes made since the Dialog was opened and restores your Assumption Set to its status prior to opening the Dialog.
- **OK Button** posts all changes to the profiles in your Assumption Set.

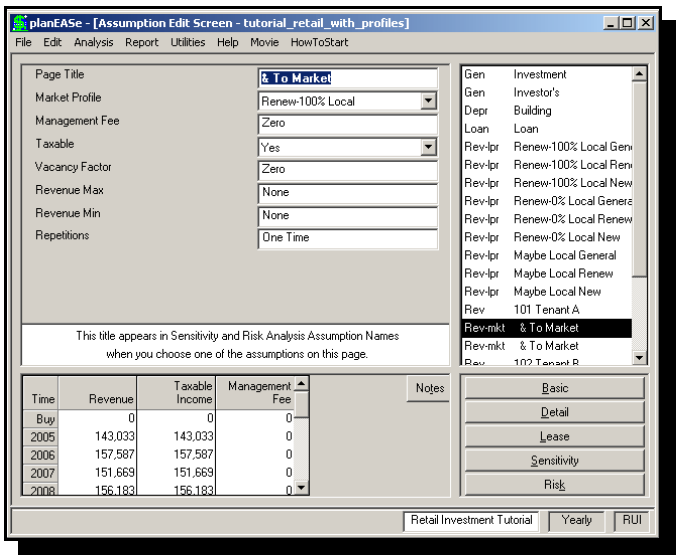
When you press the *OK* button, the Dialog disappears, and the Profiles, as currently defined, are entered into your Assumption Set. Local and Global Profiles are posted as 3 Pages each: one for the values entered in the General column of the Grid, one for the values in the Renew column, and the last one for the values in the New column. All 3 pages are denoted as **Rev-lpr** for Local Profiles, and **Rev-gpr** for Global Profiles. The Page Titles show the difference between the General, New and Renew Pages.

Any %Variant and/or $Variant Profiles are entered into your Assumption Set as 2 Pages each, the first for the values in the Renew column, and the second for the values in the New column. Both pages are denoted as **Rev-%pr** for %Variant Profiles, and **Rev-$pr** for $Variant Profiles. The Page Titles show the difference between the New and Renew Pages.

The Profile Pages in your Assumption Set are treated differently from the other Pages. First, you may not move, copy, cut or paste these Pages. Secondly, you may not use *Edit/Transfer Pages*... to copy these pages from one Assumption Set to another (you may, however, use the *Profiles* Menu Option in *Edit/Transfer Pages*... to copy all Local Profiles from one Assumption Set to another ... see page 17) . Finally, you may not change the Page Title for these pages from the title automatically assigned by planEASe. You may, however, change any of the values displayed on these Pages, and the changes will be reflected in the Profiles whenever you recover them into the Market Profiles Dialog. You may also choose them as Sensitivity or Risk Variables when specifying a Sensitivity or Risk Analysis.

When using Market Profiles for a property analysis, we suggest you should **NOT** use the default *Capitalize Current NOI* Sale Price Method. Since this Method capitalizes the NOI in existence at the Sale Date, it may well occur at a time when the Profiles have scheduled vacancies, and therefore understates average NOI. The preferable approach is to use either *Capitalize Last Year's NOI* or *Capitalize Next Year's NOI* for the Sale Price Method.

Implementing Market Profiles - Adding To Market Pages



It is not enough to specify Market Profiles. Without directing the leases in your Assumption Set to a particular Profile, the Profiles will not affect your calculations. You direct leases to Market Profiles by adding one or more To Market Pages to the Base Rent specification for each lease you want to be calculated via the chosen Market Profile after the expiration of your Base Rent specification. You will be offered the opportunity to add a To Market Page (via *Edit/Add To Market Page*) whenever the following conditions are met:

- There are Market Profiles in your Assumption Set, and
- You have highlighted a Revenue Page in the Assumption Page List, and
- The Page after the Highlighted Page is not a Continuation Page, and
- The highlighted Page is either a Continuation Page, another To Market Page, or the first Page for the concerned lessee and there are no Continuation Pages following.

Despite these restrictions, it is still possible (through *Edit/Page Delete* and other instructions) to wind up with Continuation Pages immediately following a To Market Page. Any such Continuation Pages will not affect calculations, since the To Market Pages continue until the end of the Holding Period, and therefore, the following Continuation Page(s) occur after the end of the Holding Period. The assumptions on a To Market Page are:

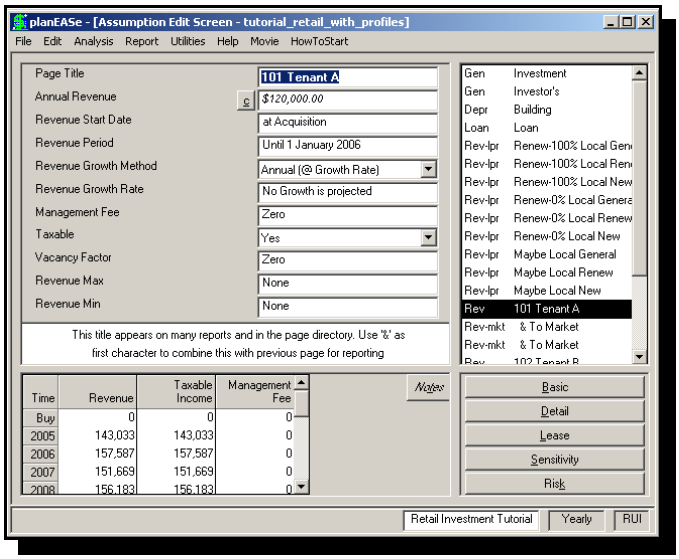
MARKET PROFILE offers you a list of the Market Profiles in your Assumption Set so you may choose the appropriate one.

The **MANAGEMENT FEE**, **TAXABLE**, **VACANCY FACTOR**, **REVENUE MAX**, and **REVENUE MIN** assumptions have the same usage as the correspondingly named assumptions discussed in the Revenue Assumptions section beginning on Page 97

REPETITIONS allows you to choose how many times the Market Profile will be applied before the next To Market Page profile (if any) is applied. A value of 99 (the default) is interpreted as *Until Projected Sale*.

When using Market Profiles for a property analysis, we suggest you should **NOT** use the default *Capitalize Current NOI* Sale Price Method. Since this Method capitalizes the NOI in existence at the Sale Date, it may well occur at a time when the Leases have scheduled vacancies, and therefore understated average NOI. The preferable approach is to use either *Capitalize Last Year's NOI* or *Capitalize Next Year's NOI* for the Sale Price Method.

Entering Leases into planEASe



When using either or both Reimbursements or Market Profiles, it is necessary to enter Leases in a particular fashion, with the Revenue Pages describing the lease in a particular order, as described below. **Failure to do this will result in an incorrect Revenue projection for the lease**.

The First Revenue Page for the lease must:

- Have an Assumption Page Title **not** beginning with "&". If the Title begins with a number, planEASe will treat the number and all characters that follow until the first space as the Suite Number in reports and all characters after that space as the Tenant Name.
- Have the Square Feet and $/sf/year (or /month) entered in the Revenue Amount Calculator (otherwise planEASe doesn't know the SqFt of the space, and assumes it doesn't exist!)
- Have a Revenue Start Date of either the Acquisition Date or, if the space is not available at the Acquisition (such as in a development project) the first month that the space is available for occupancy. If the space is not occupied on that date the space should be entered with a 100% Vacancy Factor.
- The Revenue Period should end after the Acquisition Date and the Revenue Start Date must be before the end of the Holding Period. If either of these requirements are not met, the Tenant cash flows associated with the lease **will not appear** in any of the reports.

If the Revenue Period on the first Revenue Page for the lease does not end on or after the end of the Holding Period, **the next and following Revenue Pages must be Continuation Pages** (see the definition on Page 226), planning the Base Rent for the lease, and continuing either **until the lease ends or the end of the Holding Period** is reached. A new Continuation Page must be used (added) every time any of the Revenue Assumptions changes. For instance, a change in Vacancy Factor or Revenue Growth Rate, or any other Revenue Assumption causes you to add a new Continuation Page starting at the date of the change and lasting until the next change.

If the end of the Holding Period has not been reached after planning the Base Rent for the lease as above (ie: the lease ends), the lease planning should continue until the end of the Holding Period in one of several ways:

- Take the lease to Market using a To Market Page as described above, or
- enter more Continuation Pages (describing a renewal) until the end of the Holding Period is past, or
- cease planning for the space (perhaps due to a Partial Sale), or
- continue planning the space as 100% vacant, or
- continue planning the space with a new First Revenue Page reflecting a new tenant (starting at that future date) and following the rules above. In addition to new tenants, a new lease must be begun at any time the space changes Square Footage, whether the tenant changes or not. **planEASe picks up the Square Footage from the Calculator on the First Revenue Page for the lease, and that is the only way to change the Square Footage for a lease.**

Following all this, if there are other costs associated with the lease, (for instance, deposits or one-time costs/revenues or parking fees) you may add SubPages following the last Base Rent page, be it a To Market or Continuation Page.

In all this section the Holding Period cited should be construed as the **maximum** Holding Period Assumption Value you will use while analyzing the project/property (plus one year if using the *Cap Next Year's NOI* Sale Price Method)

Continuation Pages start when the previous Page ends, so they are "Order Dependent". That is, if you move a Continuation Page from its spot in the Assumption Page List, you completely change when it occurs and what it does.

When using Reimbursements, you must plan every space for every period of time. If, for instance, you simply start planning for a lease 6 months after acquisition, the following things happen:

- the space will not show up on your APOD and RentRoll Reports
- the space "disappears" in planEASe, and all other tenants' "ProRata" share of the property is therefore overstated.

Instead, start the lease at Acquisition with a 100% Vacancy Factor for a 6 month Revenue Period and add a Continuation Page (or To Market Page) to plan the initial lease, and both problems disappear.

Growth Method Discussion

As may be seen from the assumption descriptions, revenues and expenses are treated in roughly the same fashion in the Assumption Set, and the following comments relate to both items. There are five Growth Methods available in planEASe: Annual, Continuous, One-Time, Ramp, Accrue by Year, and Accrue by Period, as shown in this Sample Growth Table, which shows how each of these Growth Methods would compute the growth in a $10,000 item growing at 10% annually, starting January 1, 2001 and lasting for four years. The following discussions of each of these Growth Methods show the assumptions that would be entered to cause these results and describe the details of the computations, as well as providing additional examples.

Growth Method	2001	2002	2003	2004	Growth Treatment
Annual	10,000	11,000	12,100	13,310	compound or linear growth occurs every 12 months from the Start Date
Continuous	10,488	11,537	12,691	13,960	compound growth occurs continuously from the Start Date
Ramp	10,500	11,500	12,500	13,500	linear growth occurs from one time you name to another time you name
One-Time	10,000	0	0	0	a specified $ amount is placed in the month and year entered
Accrue by Year	10,000	10,000	10,000	13,310	compound or linear growth occurs at odd (contractual) times
Accrue by Period	10,000	10,000	10,000	11,000	growth occurs at the end of the specified period

Sample Growth Table

Annual Growth

Annual Growth schedules the Revenue/Expense Amount to change every 12 months, like stair steps. The month in which the amount change occurs (the "riser" in the "step") is determined by the month portion of the Revenue/Expense Start Date. Thus, if you use Annual Growth with a Start Date of 8.01, the increase in the amount will always occur in August. If you use 0.00 for the Start Date, growth occurs in the month used in the Date of Acquisition.

The Annual Growth line in the Sample Growth Table shows the results for this Growth Method using the *(@ Growth Rate)* choice, according to the assumptions shown here. The Start Date of 1 January 2001 causes the annual step to occur on January 1 of each year. The amount of each change is 10% of the previous year's amount, so 2004, for instance, is the $12,100 for 2003 times 110%, or 13,310. Using the *(@ Growth Rate)* choice rather than *(@ %>Inflation)* means that the Growth Rate used is 10%, regardless of the value of the Inflation Rate in the Assumption Set.

Page Title	Annual
Annual Revenue	$10,000.00
Revenue Start Date	1 January 2001
Revenue Period	4 Years
Revenue Growth Rate	10%
Revenue Growth Method	Annual (@ Growth Rate)

The risers in the steps of Annual Growth are exactly 12 months apart, and all "treads" are 12 months long, starting from the Start Date. Thus, with an Acquisition Date of 4.01, if you enter $100,000 growing at 7% starting in 7.01, you will get $50,000 in 2001, $103,500 in 2002, et cetera. When the Start date is **earlier** than the Acquisition date, the first "tread" starts in the month of the Start date rather than in the month of the Acquisition date. Using this capability, you can make the number of months in the first "tread" any number you want, which is **very useful in planning leases with annual COL increases**. For example, if the Start date in the previous example were 1.01, you would get $75,000 in 2001, and $107,000 in 2002. In other words, by use of this technique, the first tread is shortened to 9 months, and the annual increase therefore occurs on

January first of each year. The Growth Rate for Annual Growth may be related to the general Inflation Rate *(@ %>Inflation)*, or not *(@ Growth Rate)*, or may simply be a fixed annual dollar amount *(@ $/Year)*.

Continuous Growth

Continuous Growth changes the Revenue/Expense Amount every month. For this reason, if you use this Growth Method, the amount shown in the first year of operations will contain growth, and therefore will be higher than you might expect. For instance, an amount of $100,000 growing at 5% with continuous growth shows as $102,470 in the first year due to the month-by-month growth. The Growth Rate for Continuous Growth may be related to the general Inflation Rate *(@ %>Inflation)*, or not *(@ Growth Rate)*.

The Continuous Growth line in the Sample Growth Table on page 114 shows the results for this Growth Method, according to the assumptions shown here. The Start Date of January 2001 causes the annual step to occur on January 1 of each year. The amount of each change is 10% of the previous year's amount, so 2004, for instance, is the $12,691 for 2003 times 110%, or 13,960. Using Continuous (*@ Growth Rate*) (rather than *@ %>Inflation*) means that the Growth Rate used is 10%, regardless of the value of the Inflation Rate in the Assumption Set. The $10,488 amount in the first year of the Sample Growth Table requires a bit of explanation. Because revenues and expenses occur continuously during the year, the **average** time they occur is **halfway** through the year. Accordingly, planEASe inflates the first year amount with six months of inflation (the computation is $10,000 times $1.10^{0.5}$).

Page Title	Continuous
Annual Revenue	$10,000.00
Revenue Start Date	1 January 2001
Revenue Period	4 Years
Revenue Growth Rate	10%
Revenue Growth Method	Continuous (@ %>Inflation)

The *Rents* Revenue and *All* Expense projections for the *Sample Apartments* both use Continuous Growth. Since the *Sample Apartments* are being acquired on 1 April 2001 there are nine months of operations in that year. Because revenues and expenses occur continuously during those nine months, the **average** time they occur is **halfway** through the time period, or four and a half months from the beginning of operations. Accordingly, planEASe increases the inflating expenses by 4.5 months of inflation in 2001. For example, the assumed value for the operating expense in this case is $100,000, growing at 8% per year. The value in the analysis for this item in 2001 is nine months of $100,000 (or $75,000) times $1.08^{(4.5/12)}$, or $77,196. Similarly, the average expense in 2002 is paid on 1 July 2002, 15 months from the 1 April 2001 start of operations. Therefore the $110,098 expense shown in 2002 is computed as the original $100,000 times $1.08^{(15/12)}$. The *Rents* Revenue projection is computed in the same way.

Ramp Growth

Ramp Growth is typically used in projecting development startups. Here you tell planEASe the starting amount (in the Revenue/Expense Amount), the time length of the ramp (in the Revenue/Expense Period), and either the ending amount, for *Ramp (Begin$ to End$)* or the dollar increase per month, for *Ramp (@ $/Month)* (in the Revenue/Expense Growth Rate).

Page Title	Ramp	Ramp2
Annual Revenue	10,000.00	10,000.00
Revenue Start Date	1 January 2001	1 January 2001
Revenue Period	4 Years	4 Years
Revenue Growth Rate	$14,000.00	$83.33
Revenue Growth Method	Ramp (Begin$ to End$)	Ramp (@ $/Month)

The Ramp Growth line in the Sample Growth Table on page 114 shows the results for this Growth Method, according to the assumptions shown here. This table shows two alternative Pages which both plan the same growth shown in the table. The *Ramp* Page uses *Ramp (Begin$ to End$)*, and specifies that the $10,000 amount

should ramp up to $14,000 in four years. The *Ramp2* Page accomplishes the same thing by specifying that the $10,000 amount should grow by $83.33 per month for the next four years.

This table shows the how you might use Ramp Growth in the assumptions for a *Lease-Up* situation where the revenues are to grow from the $10,000 annual level as of January 2001 to the $55,000 annual level nine months (.75 years) later, or October 2001. Thus the projected annual revenue level will increase $5,000 per month during this nine month period. When the $55,000 level is reached, revenues are to increase at the *Slower* rate of $3,000/month for the next 6 months (.50 years), or until April 2002. At that time, annual revenues will be at the $73,000 annual level ($55,000 plus 6 months of $3,000 increases). The *Inflate* page then calls for that $73,000 annual revenue to increase continuously at the inflation rate for 10 years thereafter.

Page Title	Lease-Up	& Slower	& Inflate
Annual Revenue	$10,000.00	Continuation	Continuation
Revenue Start Date	1 January 2001	Continuation	Continuation
Revenue Period	.75 Years	.50 Years	10 Years
Revenue Growth Rate	$55,000.00	$3,000.00	At the Inflation Rate
Revenue Growth Method	Ramp (Begin$ to End$)	Ramp (@ $/Month)	Continuous (@ %>Inflation)

You may, of course, plan each of the pages as independent pages with discrete Revenue Start Dates and amounts rather than using the Continuation Page capability. The advantage to using continuation is that varying one of the Revenue Periods or dollar amounts in a page automatically adjusts the start date or starting amount for the following pages.

As you may remember, planEASe does not compute any assumption page for which the Annual Revenue or Annual Expense amount is zero (unless it is a Continuation Page). Therefore, if you wanted to ramp up *Lease-Up* from zero rather than $10,000 as shown, you should enter a very small amount (for instance, 0.0000001) as the Annual Revenue or Annual Expense amount. Entering an otherwise small amount such as 1.00 or 0.01 leads to wrong results because, since it is less than 100, it will be interpreted as a percentage of the Price of Property and be converted into a correspondingly large number.

One-Time Growth

One-Time Growth is used when you want to simply place a particular amount of revenue or expense into a particular month in your projection. Here you tell planEASe the amount of money (in the Revenue /Expense Amount), the date received/expended (in the Revenue/Expense Start Date), and the growth rate (in the Revenue/Expense Growth Rate). Since the amount is placed into the month named, the Revenue/Expense Period assumption is irrelevant, and is ignored by planEASe in this case. Although you typically will not use a Growth Rate with this Method, One-Time Growth may be related to the general Inflation Rate *(@ %>Inflation)*, or not *(@ Growth Rate)*. In the *windfall* example here we have used one-time growth to place $10,000 of revenue in March of 2001.

Page Title	Windfall
Annual Revenue	$10,000.00
Revenue Start Date	1 March 2001
Revenue Period	irrelevant
Revenue Growth Rate	No growth is projected
Revenue Growth Method	One-Time (@ Growth Rate)

Accrue by Year Growth

Page Title	Accrue	& Step 2
Annual Revenue	$10,000.00	Continuation
Revenue Start Date	1 January 2001	Continuation
Revenue Period	3 Years	Until Projected Sale
Revenue Growth Rate	10%	10%
Revenue Growth Method	both are Accrue(@ Growth Rate)	

Accrue Growth is used in situations where you would otherwise want to use Annual Growth, but the "steps" are not 12 months apart. This is primarily useful for leases with COL Clauses applied at other than annual determination times. Accrue Growth allows you to specify the time length of each "step" rather than defaulting to a step length of one year. In order to do this, you use the Continuation Page capability, and set up a separate page for each step, specifying the length of the step and the growth rate. The Growth Rate for Accrue by Year Growth may be related to the general Inflation Rate *(@ %>Inflation)*, or not *(@ Growth Rate)*, or may simply be a fixed annual dollar amount *(@ $/Year)*.

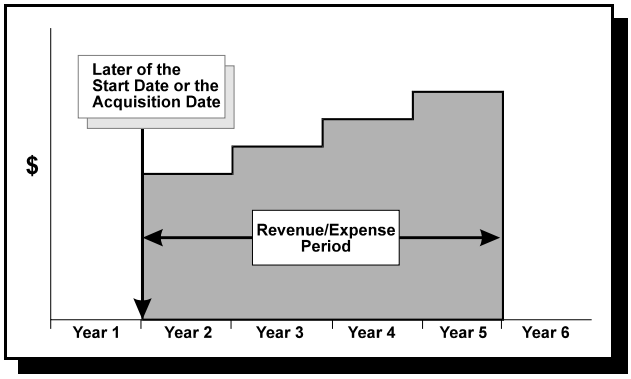
The Accrue by Year Growth line in the Sample Growth Table on page 114 shows the results for this Growth Method, according to the assumptions shown here. The Start Date of 1 January 2001 causes the annual step to occur on January 1 of each year. The amount of each change is 10% of the previous year's amount, but Accrue by Year Growth "saves" these changes until the end of the Revenue Period (3 years here). Thus, the planned revenue is a flat $10,000 until 2004, when three years of compounded growth is applied to change the revenue level to $13,310 (computed as 10,000 times 1.10^3). Using *Accrue by Year (@ Growth Rate)* means that the Growth Rate used is 10%, regardless of the value of the Inflation Rate in the Assumption Set. There is a very good example of the use of Accrue by Year Growth in the *4xx Insurance* lease in the Redondo Professional Building analysis (*offices.ru*.) sample shipped with planEASe.

Accrue by Period Growth

Accrue by Period Growth is like Accrue by Year Growth, except that the amounts in the Growth Rate field relate to the Revenue/Expense **Period** rather than being an **annual** amount. *Accrue by Period (@ $/Period)* allows you to specify that the Revenue / Expense Amount in the following Continuation Page will be a specified $ amount greater than the current page, **no matter how long** the Revenue/Expense Period. *Accrue by Period (@ %/Period)* allows you to specify that the Revenue / Expense Amount in the following Continuation Page will be a specified % greater than the current page, **no matter how long** the Revenue/Expense Period. *Accrue by Period (@ %>Inflation)* allows you to specify that the Revenue / Expense Amount in the following Continuation Page will be a specified % greater than the current page, no matter how long the Revenue/Expense Period. Linking the growth to the Inflation Rate (an annual rate) may at first appear strange, but this method allows you to, for instance, vary the Inflation Rate in Sensitivity Analysis to investigate the effect of 5 year bumps of 4% thru 8%.

Growth in General

You can think of revenue or expense forecast for your property as being like a wall of differently shaped blocks. Both the revenue and expense assumption pages enable you to, in general, place a "block" of **any** amount of money into your revenue or expense projection at **any** time for **any** duration. The figure to the right shows a revenue/expense building "block" (the shaded area) that you specify when you enter the assumptions for a revenue or expense assumption page. Your Start Date and Period specify the left and right edges of the block. The Annual Revenue or Expense amount specifies the height of the block at the left-hand side, and the Growth Rate and Method



Basic Revenue/Expense Building "Block"

specify the shape and slope of the top of the block. The block shown here uses Annual Growth. A Continuous Growth block has a smooth sloping top. Projecting a revenue or expense forecast for a property consists of stacking as many of these blocks as you want both side by side in time and on top of each other to build your total forecast for the property or revenue/expense item.

Basic Analysis Reports - Introduction

Basic Analysis for the *Real Estate Investment Analysis* consists of three pages, which are:

Before Tax Cash Flow Projection
This page shows the cash flows associated with the property and the loan package. The purpose of this page is to analyze the attractiveness of the property as an investment without any consideration of the tax implications.

Taxable Income Projection
This page shows the details of the net income the investor would report for this investment for tax purposes.

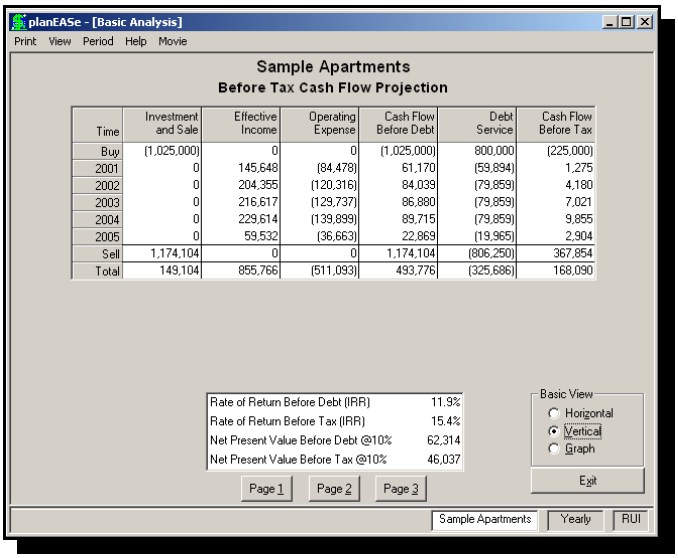
After Tax Cash Flow Projection
This page shows the after tax effect of the investment. The purpose of this page is to analyze the attractiveness of the investment after tax. Additionally, this page gives you information which should be of use in tax and net worth planning.

In the Basic Analysis Vertical View, shown in this section, each row of numbers represents a particular year of operations, as labeled along the side of the grid (2001, 2002, etc.), excepting the first and next to last rows, labeled *Buy* and *Sell*. These rows show the events associated with the **acquisition and sale** of the property, whereas the rows labeled as years show the events associated with **operating** the property for the year shown. The "Total" row represents the arithmetic total of each column, which is interpreted differently depending on the meaning of the column. Where these totals are useful, they are discussed in the following pages.

The vertical reports are very useful for presenting analyses with long holding periods or *Monthly Extension* reports simply because of the length of paper involved in the horizontal format printout. Additionally, the vertical pages each address a particular subject and therefore conveniently segment a presentation.

As a convention in all our reports, expenses, cash outflows and tax deductions are shown as negative numbers, while revenues and cash inflows are displayed as positive numbers. Thus, the -120,316 shown as Operating Expense for 2002 means that $120,316 was **spent** as operating expense in that year. Correspondingly, the 204,355 shown as Effective Income in 2002 means that the investor **received** $204,355 in rental income in that year.

Before Tax Cash Flow Projection



Time	Investment and Sale	Effective Income	Operating Expense	Cash Flow Before Debt	Debt Service	Cash Flow Before Tax
Buy	(1,025,000)	0	0	(1,025,000)	800,000	(225,000)
2001	0	145,648	(84,478)	61,170	(59,894)	1,275
2002	0	204,355	(120,316)	84,039	(79,859)	4,180
2003	0	216,617	(129,737)	86,880	(79,859)	7,021
2004	0	229,614	(139,899)	89,715	(79,859)	9,855
2005	0	59,532	(36,663)	22,869	(19,965)	2,904
Sell	1,174,104	0	0	1,174,104	(806,250)	367,854
Total	149,104	855,766	(511,093)	493,776	(325,686)	168,090

This page shows the cash flows associated with the property and the loan package. The purpose of this page is to analyze the attractiveness of the property as an investment without any consideration of the tax implications. The following discussion treats each column of information in order, from left to right.

Investment and Sale
shows the capital cash results of the acquisition and sale of the property. At the *Buy*, the total capital cash outlay is $1,025,000, which consists of $1,000,000 spent for the property, plus $25,000 closing costs, capitalized for tax purposes. When the property is sold, the capital receipts are five times the gross income of $200,000 annually inflated for four years at 6%, less the 7% closing costs incurred then. This amounts to $1,174,104. If there were any Capital Expenditures planned during the holding period, those amounts would also be shown in this column as negative amounts (additional investments). The total of the negative amounts in this column then is the Adjusted Basis of the property, and the sale amount represents the Net Sales Price for Capital Gain determination.

Effective Income
shows the cash receipts from your Revenue Assumption Pages in each year of operation, with any specified vacancies subtracted. The amounts in 2001 and 2005 are lower than in other years because there are only 9 months of operation in 2001 and three months in 2005 due to the assumed four year holding period.

Operating Expense
shows the cash expenses from your Expense Assumption Pages, **including any Management Fees specified in Revenue Pages**. Thus the $120,316 in 2002 is $100,000 inflated at 8% for 15 months plus 5% of the Effective Income as the property management fee. Any expensed closing costs (there are none here) are shown in the *Buy* line in this column. Similarly, any expensed selling costs (there are none here) are shown in the *Sell* line here.

Cash Flow Before Debt
is simply the sum of the first three columns. This is the cash flow that would occur **if there were no financing**. The operating numbers in this column, then, represent what many call the Net Operating Income, and the $493,776 total of this column represents the total profit made over the four year holding period on the property itself. Going across the total line, you can see that this profit is made up of $149,104 in property appreciation, and $855,766 less $511,093 in operating profit.

Debt Service
is taken from the Loan Assumptions, and shows the total results of the two loans. A total of $800,000 has been borrowed. The annual payments of $79,859 are made up of 9% of $200,000, or $18,000, plus the payment on a 30 year mortgage of $600,000 at 9.75%, or $61,859. The $806,250 repayment upon sale represents the outstanding principal plus the assumed prepayment penalty on the mortgage. Any loan points are subtracted

from the loan proceeds shown here. For this reason, **loan points should not be included in the assumed closing costs**.

Cash Flow Before Tax
is the sum of the Cash Flow Before Debt and the Debt Service, thus showing the effect of debt leverage in that the required investment is lowered from $1,025,000 to $225,000. This $225,000 represents the down payment on the property and is derived, as you can see by going across the *Buy* line, by adding the property price ($1,000,000) to the closing costs ($25,000) and subtracting the amount borrowed ($800,000). The $168,090 total of this column represents the profit made over the four year holding period before tax. It is made up of the $493,776 profit on the property itself less $325,686 in interest and other debt charges.

Rate of Return Before Debt (IRR)
of 11.9% means that you would earn that rate of return on your $1,025,000 investment if you did not finance the property. Since the IRR is defined as the discount rate where the Net Present Value of the cash flows is zero, you know that, had you entered a Present Value Discount Rate Before Debt of 11.9% in your Assumption Set, the Net Present Value Before Debt would have been (close to) zero.

Rate of Return Before Tax (IRR)
is 15.5%. The calculation of this particular IRR is discussed in detail as an example in the *Discounted Cash Flow Theory* section. Here the investor is borrowing at an effective rate of about 10% to finance a property with a 11.9% rate of return. Thus **by this use of leverage** the rate of return is increased to 15.5%.

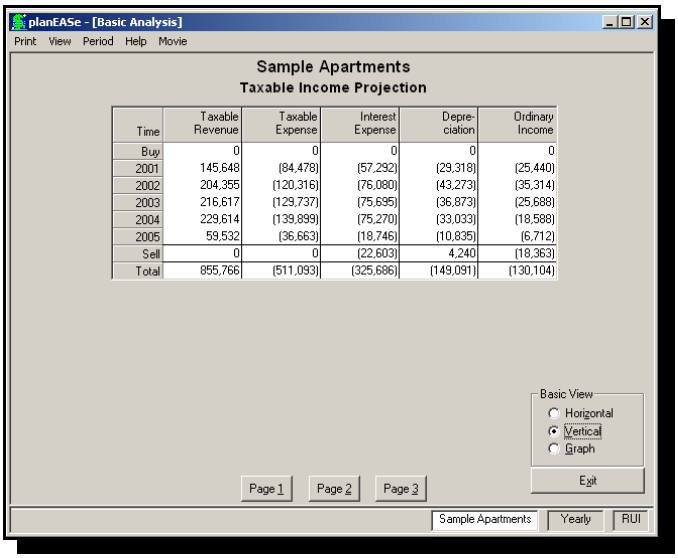
The difference between the before debt and before tax rates of return is an important measure of the risk associated with the investment. If these two rates of return are close to each other, there is a significant possibility that unanticipated changes in revenues, expenses, or sale price could lower the Rate of Return Before Debt below the cost of debt, thus making the investment unattractive. The cost of debt is generally controlled by the marketplace. For this reason, successful investors concentrate on finding properties where the Rate of Return Before Debt is greater than the cost of debt, as is true in this case. A good rule of thumb is that the IRR before debt (11.9% here) should be at least 2 points greater than the cost of debt, which is almost true in this example.

Net Present Value Before Debt
is computed using the Present Value Discount Rate Before Debt you enter in the Assumption Set (10% in this case), and represents the Net Present Value of the Cash Flow Before Debt discounted at that rate. If you had entered a zero discount rate, for instance, the Net Present Value Before Debt here would be $493,776. The Net Present Value Before Debt of $62,314 shown here means that you could afford to pay that much more for the property, and still have a 10% rate of return before debt. Viewed another way, it means that if you placed $1,025,000 plus $62,314 in a bank paying 10% interest compounded annually, and withdrew the positive amounts shown in the Cash Flow Before Debt column at the times shown, the bank would have paid you $493,776 in interest over the four year period.

Net Present Value Before Tax
of $46,037 is slightly lower than the Net Present Value Before Debt because the effective cost of debt (due to the prepayment penalty) is just above 10%. Since the discount rate for the Net Present Value is 10%, borrowing at a higher rate than 10% lowers the Net Present Value before tax. The interpretation here is that you could afford to pay $46,037 more for this property and still obtain a 10% IRR before tax.

Taxable Income Projection

This page shows the details of the net income the investor would report for this investment for tax purposes.



Time	Taxable Revenue	Taxable Expense	Interest Expense	Depre-ciation	Ordinary Income
Buy	0	0	0	0	0
2001	145,648	(84,478)	(57,292)	(29,318)	(25,440)
2002	204,355	(120,316)	(76,080)	(43,273)	(35,314)
2003	216,617	(129,737)	(75,695)	(36,873)	(25,688)
2004	229,614	(139,899)	(75,270)	(33,033)	(18,588)
2005	59,532	(36,663)	(18,746)	(10,835)	(6,712)
Sell	0	0	(22,603)	4,240	(18,363)
Total	855,766	(511,093)	(325,686)	(149,091)	(130,104)

Taxable Revenue
in this case is the same as the Effective Income in the *Before Tax Cash Flow Projection* because the Assumptions call for all revenues to be taxable. If some revenues were entered as non-tax items, the amounts in this column would be lower by the amount of non-tax items.

Taxable Expense
in this case is the same as the Operating Expense in the *Before Tax Cash Flow Projection* because the Assumptions call for all expenses to be taxable. If some expenses were entered as non-tax items, the amounts in this column would be lower by the amount of non-tax items.

Interest Payments
represents the portion of debt service which is interest as opposed to return of equity. This amount declines annually since more of the payment for the $600,000 mortgage is return of equity as the outstanding principal declines. The $22,603 in 2005 at the sale is the amount of the prepayment penalty paid at that time. If any points had been charged for the loans, the charge would be shown in this column in the *Buy* line if they were not amortized. If the points were amortized, they would be added to the interest payments shown here over the life of the loan. Any points not amortized at the end of the holding period are expensed for tax purposes at the sale, and would show here as an addition to interest expense at the sale.

The total $325,686 in Interest Expense is the same as the total of the Debt Service in the *Before Tax Cash Flow Projection*. This is always true, but it's not immediately obvious that it should be. Lenders give you the money borrowed at the start of the loan, and require that you repay that total principal over the life of the loan. Any other charges (such as interest, points, or prepayment penalties) are deductible as interest. Since the $800,000 principal is both received and repaid, it cancels out in total, and the total of Debt Service is always equal to the Interest Expense.

Depreciation
is derived from the Depreciation Assumptions, and shows the total depreciation for all depreciation (and amortization) schedules. The annual depreciation for the building is $750,000 divided by 27.5 years, or $27,273. In the first year, according to the half month convention, 8.5 months of depreciation are allowed for a total building depreciation of $19,318 in 2001. The $50,000 double declining balance depreciation for the carpets is subject to the half year rule, giving $10,000 in 2001, $16,000 in 2002, $9,600 in 2003, et cetera. Adding the $19,318 for the building in 2001 to the $10,000 for the carpets gives the $29,318 shown for 2001. Likewise $27,273 plus $16,000 for 2002 gives the $43,273 shown for 2002.

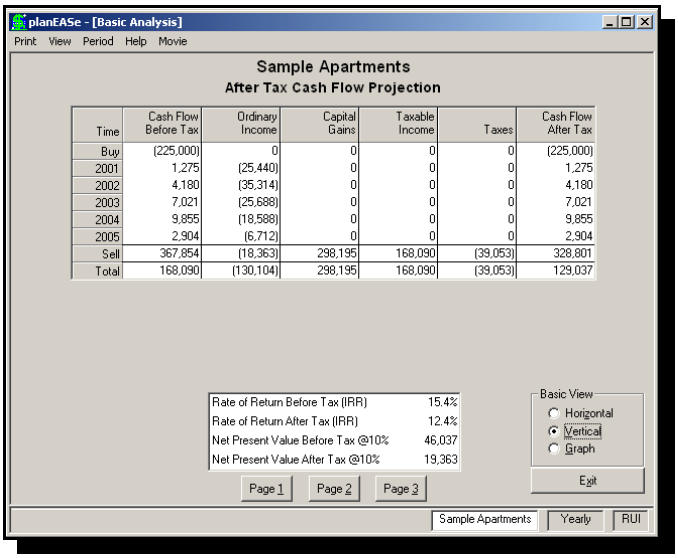
Due to the use of the straight line method, no depreciation is recaptured for the building. However, use of the double declining method for the carpets causes $4,240 more depreciation to be taken over the four year

holding period than would have been taken by the straight line method. This amount is recaptured and shown as a **positive** amount of $4,240 in the *Sell* line.

Ordinary Income
is simply the sum of the first four columns, and represents the amounts to be reported to the IRS as "Ordinary Income" for this investment. The term "Ordinary Income" is not common in the real estate business, but is well known to tax professionals as the IRS definition of income other than Capital Gains.

After Tax Cash Flow Projection

This page shows the after tax effect of the investment. The purpose of this page is to analyze the attractiveness of the investment after tax. Additionally, this page gives you information which should be of use in tax and net worth planning.



Time	Cash Flow Before Tax	Ordinary Income	Capital Gains	Taxable Income	Taxes	Cash Flow After Tax
Buy	(225,000)	0	0	0	0	(225,000)
2001	1,275	(25,440)	0	0	0	1,275
2002	4,180	(35,314)	0	0	0	4,180
2003	7,021	(25,688)	0	0	0	7,021
2004	9,855	(18,588)	0	0	0	9,855
2005	2,904	(6,712)	0	0	0	2,904
Sell	367,854	(18,363)	298,195	168,090	(39,053)	328,801
Total	168,090	(130,104)	298,195	168,090	(39,053)	129,037

Cash Flow Before Tax
is the same as the final column on the first page of the analysis, shown here again for your convenience in interpreting the results of the analysis. The Net Present Value and Rate of Return Before Tax is also shown again here for easy comparison of the before and after tax results.

Ordinary Income
is the same as the final column on the second page of the analysis, shown here again for your convenience in interpreting the results of the analysis.

Capital Gains
is the amount of the capital gain on the sale of the property. The amount of the gain is computed as the Net Sale Price less all additions to basis (this is the Total of the "Investment and Sale" column) plus the total of all depreciation taken for assets which add to basis (have a positive Depreciable Life specified). Thus any amortization schedules which have a negative life specified (and therefore do not add to basis) do not affect the gain even though the amortization amounts are included in the depreciation column.

Taxable Income
is the sum of the allowable Ordinary Income and the Capital Gain. In the *Sample Apartments*, the losses generated are not allowable due to the passive loss limitation, and they are therefore "carried forward" until there is taxable income available to offset them. This occurs at the projected sale, and all previous losses are taken at that time. Note that the total Taxable Income ($168,090) is the same as the total Cash Flow Before Tax. This is always true if no non-taxable revenues and expenses are in your Assumption Set.

Taxes
shows the taxes paid, calculated at the rate entered for that year in the Assumption Set. In this case, due to the application of the Passive Loss provision, the only tax owed is at the sale in 2005, computed on the $298,195 Capital Gain less the Ordinary Income deductions available at sale, as detailed in the Sale Report (not shown here). When Investment Tax Credits are assumed, the Credits are subtracted from the Taxes in this column in the appropriate year.

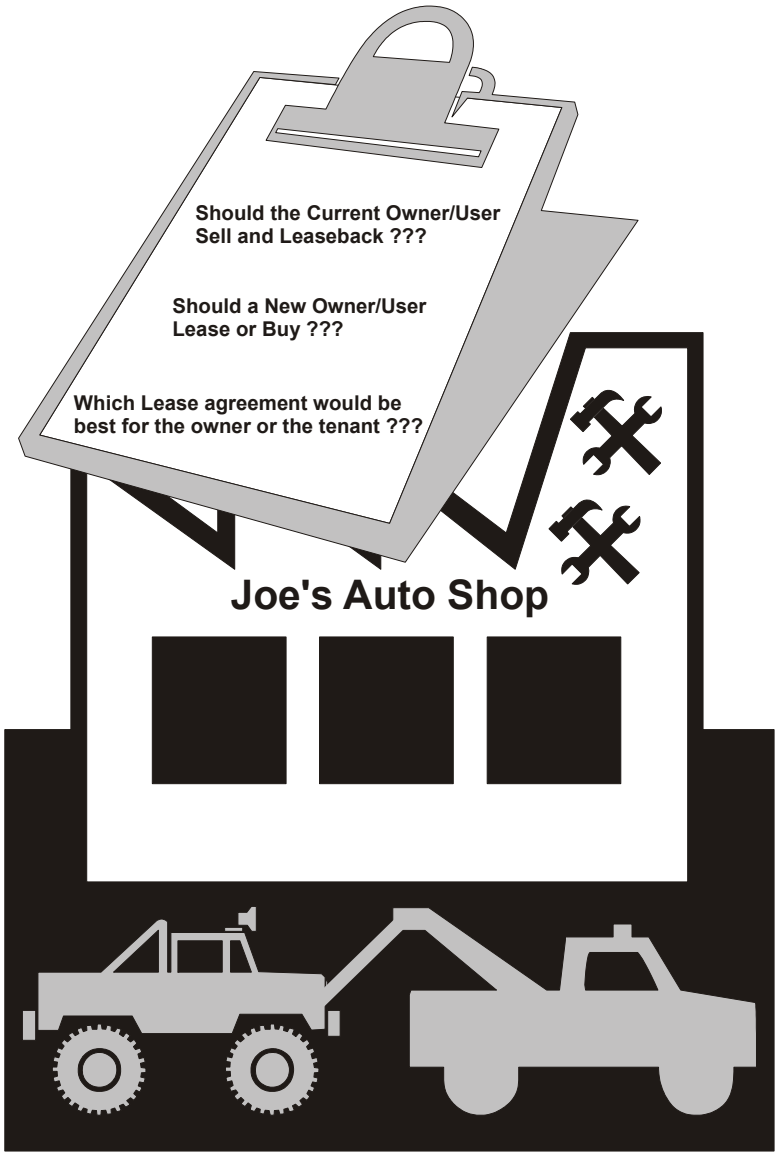
Cash Flow After Tax
is the sum of the Cash Flow Before Tax and the Taxes columns, and represents the money the investor keeps after taxes. The rate of return and net present value for this cash flow stream are shown on the lower portion of the page as the Rate of Return After Tax, and the Net Present Value After Tax.

Rate of Return After Tax (IRR)
is 12.4% in this case. As you can see, the difference between the 15.5% IRR Before Tax and the 12.4% IRR After Tax is simply the payment of $39,053 in taxes at the sale of the property. As discussed in the Investor Assumption section, you may allow passive losses to flow through to Taxable Income by setting the Cost Recovery Recapture Rate assumption to a minus value. If you do so in this case, you will find that the IRR After Tax improves to 14.4%.

Net Present Value After Tax
is $19,363, meaning that you could afford to pay $19,363 more for this property and still obtain a 10% IRR After Tax.

Owner / User

Analysis



Introduction

Owner / User Property Analysis refers to a class of various analysis techniques aimed at providing financial decision criteria both for businesses seeking space to occupy for business purposes and also for the owners providing such space.

Many times, such space is leased, and the analysis can be performed on a before-tax basis using planEASe *Tenant Representation* and planEASe *Owner Representation* techniques, because there typically are no unique tax considerations when comparing leases for the same or different spaces.

However, many times, ownership of the space is considered (perhaps in addition to leasing it), and such analysis MUST, responsibly, be performed on an after-tax basis, since ownership of real estate confers tax advantages in the United States. The best method for such analysis is planEASe *Cost Comparison*, since it is both an after-tax analysis method and also adapts to adding (and removing) different space alternatives to the analysis as time goes on. When considering ownership alternatives, the techniques of *Buy and Use* Analysis and/or *Build to Suit* Analysis may be used for particular alternatives in *Cost Comparison* Analysis.

There are two special cases of ownership potential that have generated special analysis techniques: *Lease / Purchase* Analysis in which the identified space may either be leased or purchased (by decision of the user) or *Sale / Leaseback* Analysis, where space currently owned by the user may either continue to be owned, or be sold and leased by the new owner to the current owner/user.

All these analysis techniques are discussed in this section.

Tenant Representation

planEASe Tenant Representation Analysis allows you to compare multiple lease proposals on a Before-Tax basis within one Assumption Set. A sample Assumption Set, *tenant.ru*, is shipped with planEASe showing a comparison of three different lease proposals for the same space. This Assumption Set shows you how to set up a template for lease proposals so that all proposals are shown with the same format.

You can compare proposals for different spaces with this technique, using either or both of $ per SqFt or Total $ measurements on a time-discounted basis. While you may show proposals of varying lengths with this technique, financial comparison is facilitated by making all proposals the same length of time.

There is a Tenant Representation Section on our Website in the *Samples* area with a movie showing a complete Tenant Representation Analysis based on the *tenant.ru* Assumption Set and a PDF of Sample Reports from the same Assumption Set. There is also Tenant Representation training under the planEASe Training area on the Website. You can access the Website from within planEASe by choosing the *Help / planEASe on the Web* menu option.

Suggested Movies within planEASe on Tenant Representation:

At the Assumption Edit Screen:

- *HowToStart / Tenant Representation / Enter Assumptions*
- *HowToStart / Tenant Representation / Suggested Reports*
- *Movie / Revenue / Tenant Rep / Enter Lease from Scratch*
- *Movie / Revenue / Tenant Rep / Copy and Modify Lease*
- *Movie / Revenue / Tenant Rep / SubPages for Free Rent, etc*
- *Movie / Revenue / Existing Leases / Annual Growth*
- *Movie / Revenue / Existing Leases / Lease with One Bump*
- *Movie / Revenue / Existing Leases / Accrue by Period*
- *Movie / Revenue / Existing Leases / Accrue by Year*

At the Lease Analysis Screen:

- *Movie / Lease Tenant Representation*

Owner Representation

planEASe Owner Representation Analysis allows you to compare multiple lease proposals on a Before-Tax basis within one Assumption Set. A sample Assumption Set, *owner.ru*, is shipped with planEASe showing a comparison of three different lease proposals for the same space. This Assumption Set shows you how to set up a template for lease proposals so that all proposals are shown with the same format.

You can compare proposals for different spaces with this technique, using either or both of $ per SqFt or Total $ measurements on a time-discounted basis. While you may show proposals of varying lengths with this technique, financial comparison is facilitated by making all proposals the same length of time.

There is a Owner Representation Section on our Website in the *Samples* area with a movie showing a complete Owner Representation Analysis based on the *owner.ru* Assumption Set and a PDF of Sample Reports from the same Assumption Set. There is also Owner Representation training under the planEASe Training area on the Website. You can access the Website from within planEASe by choosing the *Help / planEASe on the Web* menu option.

Suggested Movies within planEASe on Owner Representation:

At the Assumption Edit Screen:

- *HowToStart / Owner Representation / Enter Assumptions*
- *HowToStart / Owner Representation / Suggested Reports*
- *Movie / Revenue / Owner Rep / Enter Lease from Scratch*
- *Movie / Revenue / Owner Rep / Copy and Modify Lease*
- *Movie / Revenue / Owner Rep / SubPages for Free Rent, etc*
- *Movie / Revenue / Existing Leases / Annual Growth*
- *Movie / Revenue / Existing Leases / Lease with One Bump*
- *Movie / Revenue / Existing Leases / Accrue by Period*
- *Movie / Revenue / Existing Leases / Accrue by Year*

At the Lease Analysis Screen:

- *Movie / Lease Owner Representation*

Lease / Purchase Analysis

Lease / Purchase Analysis is performed with either of two methods in planEASe. The first, and preferred, method is *Cost Comparison* Analysis (described later in this section). It is preferred because it is more easily understood and presented, and it is also expandable to added alternatives for the owner / user. Doing Lease / Purchase analysis with the Cost Comparison technique requires two Assumption Sets, one for the lease, and another for the purchase. Two such Assumption Sets are shipped with planEASe as *lblease.ru* and *lbbuy.ru*.

The second method (called Simple (or Differential) Analysis) is performed in one Assumption Set that assumes the property is purchased and the lease payments that would otherwise have to be made if the property is leased are treated as revenues (ie: they are saved instead of being a cost). Since the analysis treats with a potential purchase, it is performed on an After-Tax basis, considering the depreciation benefits of ownership. The *leasebuy.ru* Assumption Set shipped with planEASe illustrates this method of analysis.

There is a Lease vs Buy Section on our Website in the *Samples* area with a movie showing a complete Lease / Purchase Analysis based on the *leasebuy.ru* Assumption Set shipped with planEASe and a PDF of Sample Reports from the same Assumption Set. You can access the Website from within planEASe by choosing the *Help / planEASe on the Web* menu option.

Suggested Movies within planEASe on Lease / Purchase Analysis:

At the Assumption Edit Screen:
- *HowToStart / Lease vs Buy / Simple / Enter Assumptions*
- *HowToStart / Lease vs Buy / Simple / Suggested Reports*
- *Movie / Investment / for Lease vs Buy - Lease File*
- *Movie / Investment / for Lease vs Buy - Buy File*
- *Movie / Revenue / Tenant Rep / Enter Lease from Scratch*
- *Movie / Revenue / Tenant Rep / SubPages for Free Rent, etc*
- *Movie / Revenue / Existing Leases / Annual Growth*
- *Movie / Revenue / Existing Leases / Lease with One Bump*
- *Movie / Revenue / Existing Leases / Accrue by Period*
- *Movie / Revenue / Existing Leases / Accrue by Year*

At the Sensitivity Analysis Screen:
- *Movie / Compare Overview*
- *Movie / Compare Saving*
- *Movie / Lease vs Buy / Simple*
- *Movie / Lease vs Buy / Compare Discount Rate*
- *Movie / Lease vs Buy / Compare Holding Period*
- *Movie / Lease vs Buy / Compare Sale Price*
- *Movie / Lease vs Buy / Compare Inflation*

Sale / Leaseback Analysis

The first task in a Sale / Leaseback Analysis is to determine whether you really want to do it!! Many clients ask for a Sale / Leaseback Analysis when they already have determined that they want to Sell and Leaseback, and are looking for help in finding an Investor to sell to. In other words, the Sale/Leaseback determination has already been made (by whatever analysis), and their request is for you to find an Investor willing to buy the property subject to their (assured) lease. In this case, the planEASe analysis technique that best applies is shown in the *HowToStart / Simple Single Tenant* Movie.

If, however, you or your client really does want a Sale / Leaseback Analysis, planEASe is more than ready to help you. Sale / Leaseback Analysis is very similar to Lease / Purchase Analysis, except that you must derive the Investment Base (then used for the Price of Property for the difference analysis) by finding the amount the current owner would realize from the sale.

There is a Sale / Leaseback Section on our Website in the *Samples* area with a movie showing a complete Sale / Leaseback Analysis based on the *slbase.ru* and *sldiff.ru* Assumption Sets shipped with planEASe and a PDF of Sample Reports from the same Assumption Sets. You can access the Website from within planEASe by choosing the *Help / planEASe on the Web* menu option.

Suggested Movies within planEASe on Sale / Leaseback Analysis:

At the Assumption Edit Screen:

- *HowToStart / Sale Leaseback / Overview*
- *HowToStart / Sale Leaseback / Investment Base*
- *HowToStart / Sale Leaseback / Stay and Continue to Own*
- *HowToStart / Sale Leaseback / Sell and Leaseback*
- *HowToStart / Sale Leaseback / Compare*
- *Movie / Investment / Forcing Investment Base as Equity*
- *Movie / Revenue / Existing Leases / Annual Growth*
- *Movie / Revenue / Existing Leases / Lease with One Bump*
- *Movie / Revenue / Existing Leases / Accrue by Period*
- *Movie / Revenue / Existing Leases / Accrue by Year*

Build to Suit Analysis

Build to Suit projects may be analyzed either as Investments (if the developed property is to be leased to a user) or as Owner / User property (using Cost Comparison Analysis) if the property is to be occupied by the Owner / User. In either case, you should use the Development Spending Dialog to enter the Development Costs, Draw Loan (if any) and Permanent Loan (if any). If the property is an Investment, then you should also enter the Lease as Revenue (and any expenses if the lease is not net).

There are two Build to Suit Assumption Sets (both are Investments) shipped with planEASe as *build1.ru* and *build2.ru*. They both analyze the same investment, with the Development Costs in *build2* in more detail. There is a Build to Suit Section on our Website in the *Samples* area with a movie showing a complete Build to Suit Analysis based on both Assumption Sets and a PDF of Sample Reports from the *build2* Assumption Set. You can access the Website from within planEASe by choosing the *Help / planEASe on the Web* menu option.

Suggested Movies within planEASe on Build to Suit Analysis:

At the Assumption Edit Screen:
- *HowToStart / Build to Suit / Enter Assumptions*
- *HowToStart / Build to Suit / Suggested Reports*
- *HowToStart / Build to Suit / What Ifs*

At the Development Spending Dialog:
- *Movie / Overview*
- *Movie / Development Items Quick*
- *Movie / Development Items Detailed*
- *Movie / Construction Draw*
- *Movie / Permanent Loan*
- *Movie / Construction Draw Fee*
- *Movie / Use of Loan Points in Adj Cash on Cash*
- *Movie / Where is the equity?*
- *Movie / After Tax Depreciation (Cost and Interest)*

Cost Comparison Analysis

The Cost Comparison Analysis technique should be used for Owner / User Analysis of space requirements whenever any ownership options may be considered, since, unlike Tenant Representation, it includes tax considerations. Cost Comparison Analysis allows you to contrast and compare the After Tax costs of as many Leases, Purchases (also known as Buy and Use), and/or Build to Suit opportunities as you want, all on the same easily explained graphs, varying many different assumptions.

Buy and Use Analysis may be one or more of the alternatives when performing a Cost Comparison Analysis for an Owner / User. Structuring a Buy and Use alternative is the same as a standard Investment Analysis, except that, since the Owner / User is the occupant, there are no Revenues. There is an example Buy and Use Analysis shipped with planEASe as the *cost_beach.ru* Assumption Set.

There is a Cost Comparison Section on our Website in the *Samples* area with a movie showing a complete Cost Comparison Analysis based on the *cost_beach.ru*, *cost_ocean.ru*, *cost_waterfall.ru*, and *cost_whale.ru*. Assumption Sets shipped with planEASe and a PDF of Sample Reports from the same Assumption Sets. You can access the Website from within planEASe by choosing the *Help / planEASe on the Web* menu option.

Suggested Movies within planEASe on Cost Comparison Analysis:

At the Assumption Edit Screen:
- *HowToStart / Lease vs Buy / Cost Comparison / Enter Assumptions*
- *HowToStart / Lease vs Buy / Cost Comparison / Suggested Reports*
- *Movie / Revenue / Tenant Rep / Enter Lease from Scratch*
- Movie / Revenue / Tenant Rep / SubPages for Free Rent, etc
- *Movie / Revenue / Existing Leases / Annual Growth*
- *Movie / Revenue / Existing Leases / Lease with One Bump*
- *Movie / Revenue / Existing Leases / Accrue by Period*
- *Movie / Revenue / Existing Leases / Accrue by Year*

At the Sensitivity Analysis Screen:
- *Movie / Compare Overview*
- *Movie / Compare Saving*
- *Movie / Lease vs Buy / Simple*
- *Movie / Lease vs Buy / Compare Discount Rate*
- *Movie / Lease vs Buy / Compare Holding Period*
- *Movie / Lease vs Buy / Compare Sale Price*
- *Movie / Lease vs Buy / Compare Inflation*

Installment Sale Analysis

A planEASe Model

Introduction

Generally, the entire gain on the disposition of property must be reported in the year the property is sold. However, if a significant portion of the price is represented by a purchase money mortgage of the buyer, the seller may receive less cash in the year of sale than the amount of tax, thus placing the seller in a liquidity bind. The installment method relieves this liquidity problem by permitting the seller to spread the income tax over the period during which payments of the sales price are received by him.

Basically, the installment method works as follows: A Gross Profit Ratio is determined at the time of sale (as reported in the Installment Sale Report), and that ratio is applied to all future payments of principal received from the buyer in order to determine the amount of Cost Recovery to be recaptured and the amount of Net Capital Gain to be reported by the seller each year (as reported in the Installment Sale Projection).

If you structure the installment sale by "wrapping" an existing loan, the wrapped loan should be entered in your Assumption Set as a normal planEASe loan (ie: with Loan Pages) using a negative Loan Amount. If you have more than one loan in your Analysis (for instance, a wrapped loan in addition to the Purchase Money loan), you can access the details of the individual loans with Detail Analysis.

Analysis of an installment sale is implemented in planEASe as the *Installment Sale Analysis* Model (RSA), which you may access from *File/Switch Model*s and choosing RSA - Installment Sale Analysis from the list. The Basic, Detail, Sensitivity, and Risk Analysis capabilities of planEASe are available with this model (Lease Analysis is not relevant here). If you have purchased the optional *Reporting Extension*, the Installment Sale Report and Assumptions Report are available on the Reports menu. We have built useful graphs into the Installment Sale Report and the Installment Sale Projection, which are available to you if you have purchased the optional *Graphics Extension*. The optional *Monthly Extension* will generate a monthly Installment Sale Projection, although we're not sure how you might find this useful.

The *Installment Sale Analysis* Model computes a Net Present Value After Tax, which may be compared to the Net Present Value of other offers to select the most profitable offer.

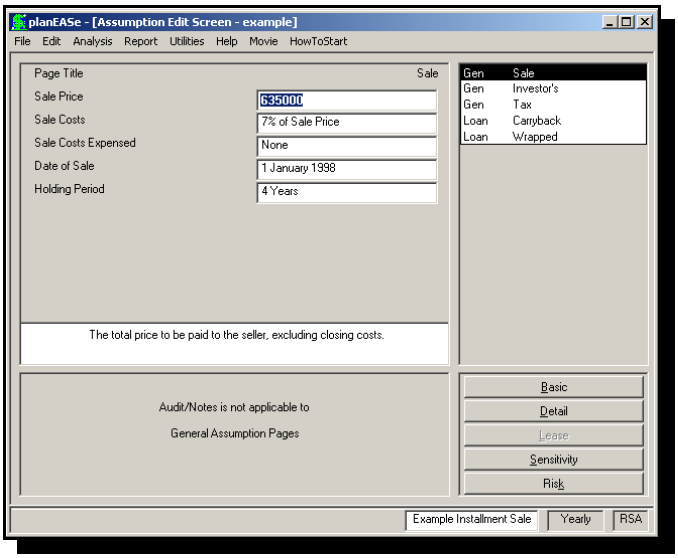
In order to document the analysis here, we show the assumptions and results from the *Example Installment Sale*, saved on your planEASe system disk as *example.rs*. The *Example Installment Sale* details the projected sale of an Apartment Building for $635,000 on 1 January 1998. There is an existing loan with a balance of $400,000 outstanding, at 7% with 22 of the original 30 years remaining and a monthly payment of $2,974. The seller projects wrapping this loan with a $515,000 purchase money note at 9%, 15 year amortization, all due in 4 years, requiring, therefore, a $120,000 Down Payment. Seller's transaction costs are estimated at 7%, or $44,450. The property was acquired years ago for a Net Sale Price of $525,000, and the seller has taken $300,000 of straight line Cost Recovery over the years, so the current Adjusted Basis is $225,000, with no suspended passive losses at this time. The seller is in the 35% tax bracket, and, as an individual taxpayer, is subject to a 25% Cost Recovery Recapture Rate and 15% Capital Gain Rate. The seller has a 9% before tax reinvestment (or "hurdle") rate, and a 6% rate after tax.

Installment reporting automatically applies to a sale of real estate as long as at least one payment is received after the close of the taxable year in which the disposition occurs. However, the seller may elect not to use the method. This is done by reporting the entire gain in the year of sale. Once such an election is made, it is irrevocable without the consent of the IRS. A seller may find it more beneficial to elect out of the installment method where the seller has expiring capital losses in the year of the sale that could offset the capital gain from the sale of the real estate. Another consideration is the likelihood of future tax rate increases, because gain reported in future years will be subject to the applicable tax rates for those years rather than the tax rates in effect at the time the real estate was sold.

In February 1999, the IRS published Proposed Regulation 1.453-12 governing reporting of Installment Sales of Depreciable Realty, implementing the dual-rate treatment of Capital Gain under the Taxpayer Relief Act of 1997. This Proposed Regulation requires that the Cost Recovery Recapture portion of the gain (taxed at 25%) be paid first, before the remainder of the gain (taxed at 20%). An alternative treatment, preferred by the industry and taxpayers, is that both elements of the gain be paid ratably during the Sale Period. The Proposed Regulation provides that, "the IRS will not challenge" taxpayers using the pro-rata method for installment sales reported before the enactment of the Proposed Regulation (if indeed enacted). This RSA Model allows you to choose either reporting method (see the *Tax Payment Treatment* assumption on the Tax Assumptions Page).

WARNING: When structuring an Installment Sale, seller and buyer must beware of specifying an interest rate for the Purchase Money Loan lower than the "Applicable Federal Rate" published monthly by the IRS and reflecting, in general, current market yields on US securities. If the loan uses an interest rate lower than this AFR the IRS may require a portion of each payment to be treated as interest (by both buyer and seller) rather than principal. The rules for determining the amount of such imputed interest are very complicated and beyond the scope of this *Installment Sale Analysis* model.

Sale Assumptions



These assumptions control the time frame and the Sale Proceeds in the Installment Sale Projection. The individual assumptions are:

SALE PRICE is the total amount the buyer paid for the property acquired on the Date of Sale, including balances on any loans assumed by buyer. Do not include any other costs, such as sale costs or loan points, which are entered elsewhere.

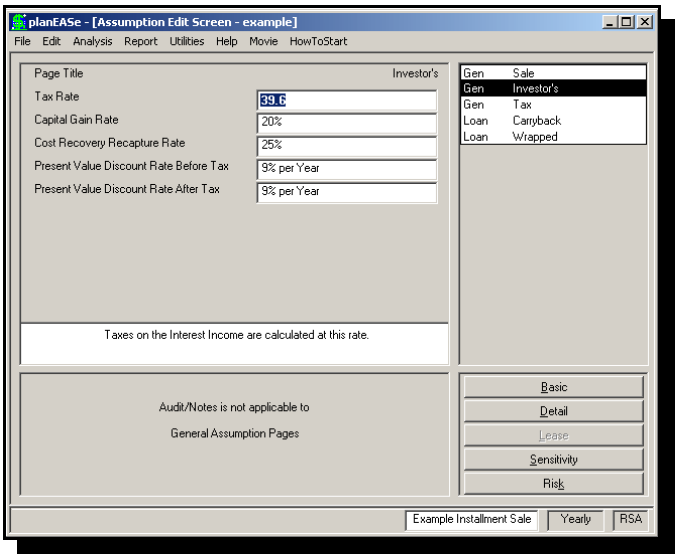
SALE COSTS are the costs of closing in escrow to be paid by the seller. Amounts of 100 or less are treated as a percent of the Sale Price, so a value of 2.5 entered here together with a $1,000,000 Sale Price would cause $25,000 of Sale Costs in the analysis. Loan points are included in the loan computations, and should not be included in these Sale Costs or you will double count them in the analysis.

SALE COSTS EXPENSED is the percent of the Sale Costs expensed for tax purposes. The remaining Sale Costs are subtracted from the Sale Price to determine Net Sale Price for capital gain computations, as shown in the Installment Sale Report. Amounts greater than 100 are treated as a dollar amount (which is limited to no more than the Sale Costs). Typically, all Sale Costs are capitalized (subtracted from the Sale Price), so you would normally enter zero here.

DATE OF SALE is the date the property is being sold, denoted as a planEASe Date. planEASe always presumes that the sale occurs on the first day of the month. The Holding Period and the Date of Sale together determine the time frame shown in all the projections.

HOLDING PERIOD is typically the number of years remaining in the loan(s) in the analysis. Since there can be more than one loan, and you may want to investigate the effect of the seller prepaying the loan, we provide the Holding Period to facilitate such analysis. Fractional years such as 4.75 are permitted. The minimum value is one year, and the maximum is 99 years. The Holding Period and the Date of Sale together determine the time frame shown in the Installment Sale Projection.

Investor's Assumptions



These assumptions describe the investor rather than the property itself.

The tax section in planEASe is merely meant to be representative of the results of the investment. For instance, the analysis does not account for crossing of tax brackets, or the possible application of the alternative minimum tax. The purpose of planEASe is to forecast the cash flows from, and tax liabilities of, investment real estate. If you are performing tax and/or financial planning for investors, that is properly the province of advisors in that area and/or tax planning software rather than this system. planEASe provides sufficient information in regards to the cash flows and tax consequences of the investment for input to such plans and/or software. The Individual Assumptions on this page are:

TAX RATE is the incremental rate at which the last dollar of the investor's current income is being taxed. In 2003, the maximum Federal Tax Rate was enacted at 35%. This tax rate can be combined with state tax to yield a combined rate. For instance, given a 35% Federal tax bracket for the investor, his California tax rate might be 11%. Since state taxes are deductible for federal tax purposes, his combined marginal tax rate would be 11% plus 35% of (100% minus 11%) or 42.15%.

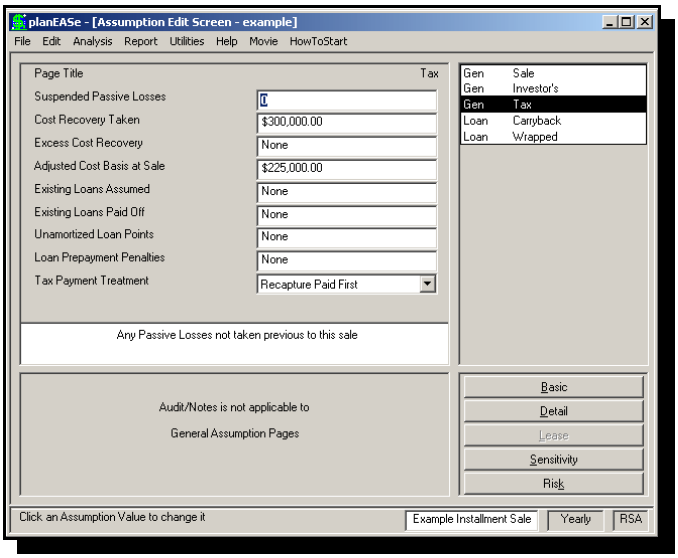
CAPITAL GAIN RATE is used to compute the tax on the Capital Gain at sale (over and above the Recapture of Cost Recovery). In 2003, the Federal Capital Gain Rate for individuals was lowered to 15%. The corporate rate remains at 34-35%.

COST RECOVERY RECAPTURE RATE is the statutory tax rate applied at sale to the Cost Recovery (Depreciation) taken during the Holding Period. In 1997, this rate was created and enacted at 25% for Capital Gains incurred by Individuals. The corporate rate remains at 34-35%. It is applied to the smaller of the total Cost Recovery Taken and the total Capital Gain. That is, if the Capital Gain is smaller than the total Cost Recovery, the 25% rate entered here will be applied to the Capital Gain amount (and the 15% Capital Gain Rate becomes irrelevant).

PRESENT VALUE DISCOUNT RATE BEFORE TAX is the discount rate used to compute the Net Present Value Before Tax in the analysis. It is also used as the Reinvestment Rate for the Capital Accumulation Before Tax Measure.

PRESENT VALUE DISCOUNT RATE AFTER TAX is the discount rate used to compute the Net Present Value After Tax in the analysis. It is also used as the Reinvestment Rate for the Capital Accumulation After Tax Measure.

Tax Assumptions



These assumptions deal with the tax information necessary to compute the Installment Sale Projection and Installment Sale Report for the property. The individual assumptions on this page are:

SUSPENDED PASSIVE LOSSES is the total amount (if any) of Passive Losses on the property that have not been claimed against prior income and remain in suspension at the time of sale. Suspended Passive Losses are subtracted from the Capital Gain on sale to determine the Net Capital Gain that is subject to tax, as shown in the Sale Report and the Installment Sale Report.

COST RECOVERY TAKEN is the total Cost Recovery (Depreciation) taken (including any Excess Cost Recovery and any Prior Cost Recovery transferred to this property from an earlier 1031 Exchange) against this property. Excess Cost Recovery is subtracted from this Cost Recovery Taken to determine the Cost Recovery Recaptured in the Installment Sale Report.

EXCESS COST RECOVERY is, generally, any Cost Recovery (Depreciation) taken in excess of what could be taken under the Straight Line method. This typically occurs on older properties where Cost Recovery was taken under the ACRS Methods. If this is the case, and the property is not residential, the entire amount of Accelerated Cost Recovery taken under ACRS may be treated as excess. planEASe subtracts Excess Cost Recovery from Cost Recovery Taken to determine the Cost Recovery Recaptured in the Installment Sale Report. Excess Cost Recovery is taxed (at the time of sale) at the Tax Rate for ordinary income.

ADJUSTED COST BASIS AT SALE is the sum of the original Purchase Price (or other basis substituted due to a 1031 Exchange), plus any Closing Costs capitalized at the purchase, plus the cost of any improvements capitalized during the Holding Period, less the total Cost Recovery (Depreciation) taken during that Holding Period. Adjusted Cost Basis at Sale affects many of the calculations shown in the Installment Sale Report, and, hence, the Installment Sale Projection in the *Installment Sale Analysis* Model.

EXISTING LOANS ASSUMED is the balance(s) outstanding on any loans to be assumed by the buyer as part of the sale. Do not include the balance(s) of any loans to be "wrapped" as part of the sale. Wrapped loans are entered as normal planEASe loans (on Loan Pages) with negative loan amounts. Existing Loans Assumed affects the calculation of Mortgage over Basis.

EXISTING LOANS PAID OFF is the balance(s) outstanding on any loans to be paid off by the seller as part of the sale. Do not include the balance(s) of any loans to be "wrapped" as part of the sale. Wrapped loans are entered as normal planEASe loans (on Loan Pages) using negative loan amounts. Do not include any Loan Prepayment Penalties or Unamortized Loan Points for these loans ... They are entered elsewhere on this Tax Page. Existing Loans Paid Off are subtracted from Sale Proceeds Before Tax in the Installment Sale Report and subtracted from the Cash Flow Before Tax in the Installment Sale Projection. Existing Loans Paid Off affect the Gross Profit Ratio, Profit Ratio and Recovery Ratio detailed in the Installment Sale Report.

UNAMORTIZED LOAN POINTS allows you to enter any Unamortized Loan Points on Existing Loans Paid Off by the seller at the sale and on any Existing Loans Assumed by the buyer at the sale. These unamortized points are written off (as Ordinary Income Deductions) at the time of the sale in the Installment Sale Projection, thereby causing decreased tax payments at that time.

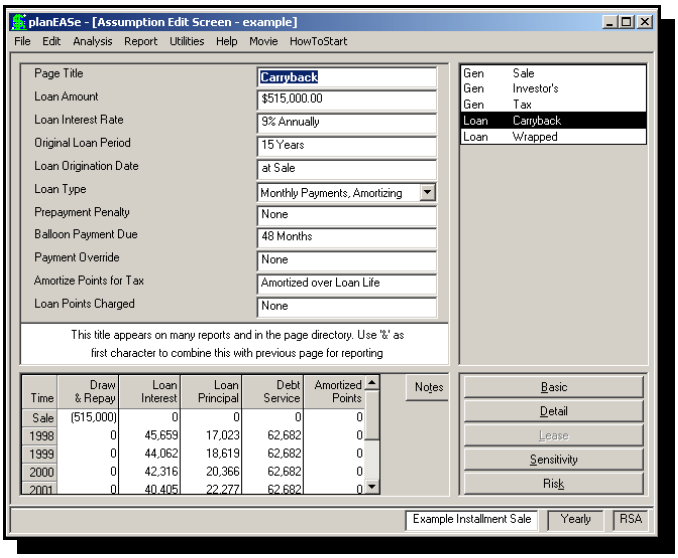
TAX PAYMENT TREATMENT In February 1999, the IRS published Proposed Regulation 1.453-12 governing reporting of Installment Sales of Depreciable Realty, implementing the dual-rate treatment of Capital Gain under the Taxpayer Relief Act of 1997. This Proposed Regulation requires that the Cost Recovery Recapture portion of the gain (taxed at 25%) be paid first, before the remainder of the gain (taxed at 20%). An alternative treatment, preferred by the industry and taxpayers, is that both elements of the gain be paid ratably during the Sale Period.

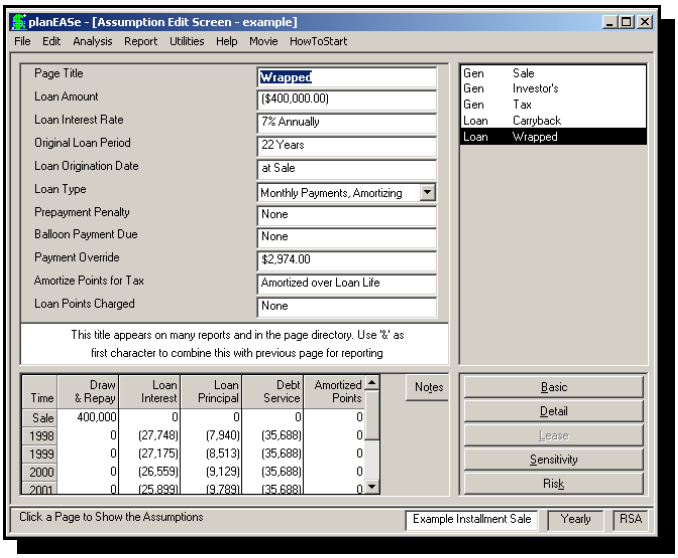
This Tax Payment Treatment field provides you with the choice of using the Proposed Regulation (the default, named Recapture Paid First) or the fair treatment (named Recapture Paid Prorata) which may eventually prevail. Use this field to compare the effect of this proposed regulation, and choose either (or both) treatments to counsel your clients.

Loan Assumptions

The loan assumptions for the *Installment Sale Analysis* are the same as those for the Real Estate Investment Analysis documented on the pages beginning at page 92, and you are referred to those pages for a full discussion. Both on screen and in the Assumptions Report, the only difference is that a Loan Origination Date of zero caused the assumption text to be "at Sale" rather than "at Acquisition".

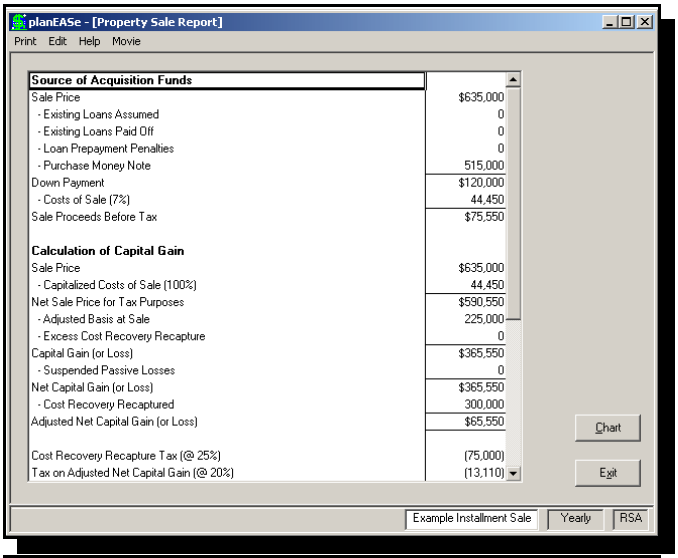
Wrapped Loans are entered just like any other loan, except that the Loan Amount is entered as a **negative** amount, as shown on the second screen here.





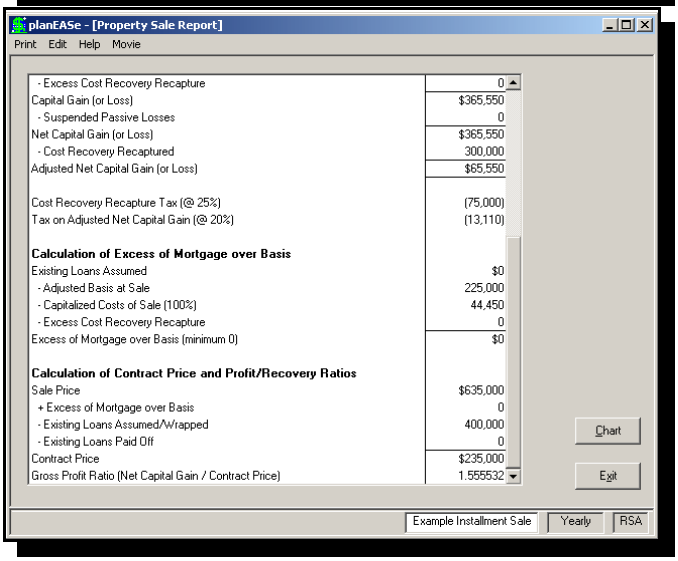
Installment Sale Report

This report shows the detail of the major elements of the Installment Sale used to make the Installment Sale Projection. The two screens here show the same report (for the *Example Installment Sale*) with the second screen scrolled to show the bottom of the report (not visible in the first screen).



The **Source of Acquisition Funds** area at the top of the report. This amount ($75,550) ties exactly to the Cash Flow Before Tax at Sale in the Installment Sale Projection.

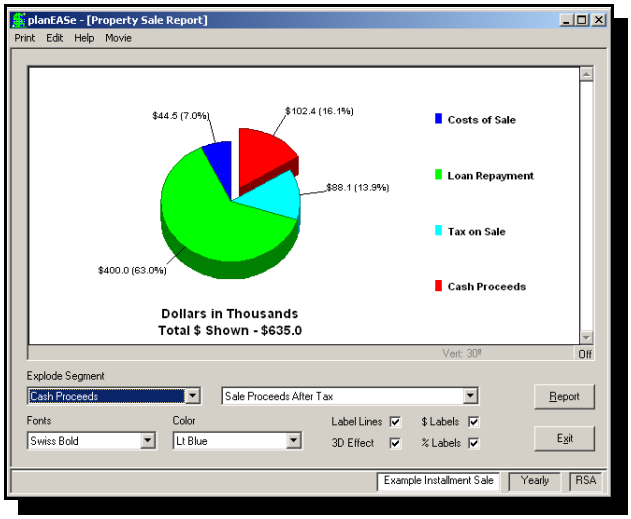
The **Calculation of Capital Gain** area shows the total amount of Cost Recovery Recapture and Net Capital Gain (and taxes on those amounts) allocated to the years in the Installment Sale Projection.



The sum of Excess of Mortgage over Basis (0) and the Down Payment ($120,000) shown here constitutes the Principal Received at Sale in the Installment Sale Projection.

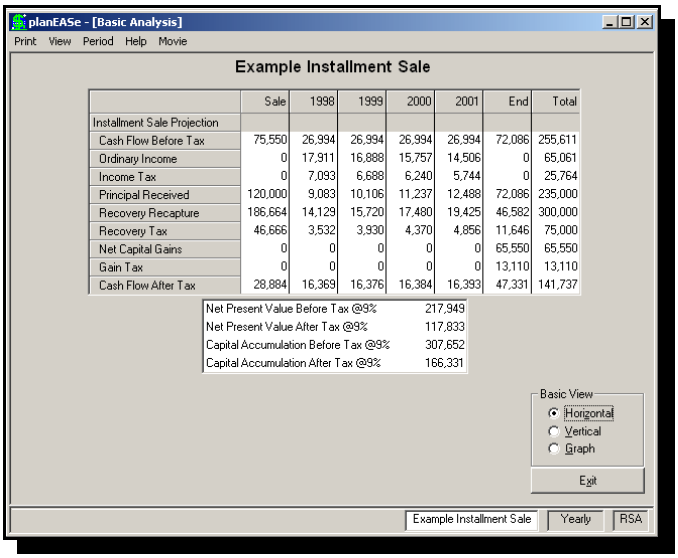
The Gross Profit Ratio computed here is used to compute the Recovery Recapture and Net Capital Gain amounts for each time period in the Installment Sale Projection. If Tax is paid Pro Rata, the Profit and Recovery Ratios are shown here.

If you have purchased the optional *Graphics Extension*, this Pie Chart of Sale Proceeds after tax is available by pressing the *Chart* button. It shows the after tax cash results of the same sale without the Installment provisions. Note the Cash Proceeds are shown as $102.4K, whereas the NPV After Tax in the Installment Sale Projection is $117.8K, so wrapping the $400K loan into an installment sale buys the seller an immediate $15.4K increase in Present Value.



Installment Sale Projection

This projection (accessible from the *Analysis / Basic* menu option or the *Basic* button) shows the before and after tax cash flows associated with the Installment Sale. If you have more than one loan in your Analysis (as we have here), the cash flows, interest expense and principal received is easily obtained by accessing the *Analysis/Detail* menu option or the *Detail* button at the Assumption Edit Screen.



	Sale	1998	1999	2000	2001	End	Total
Installment Sale Projection							
Cash Flow Before Tax	75,550	26,994	26,994	26,994	26,994	72,086	255,611
Ordinary Income	0	17,911	16,888	15,757	14,506	0	65,061
Income Tax	0	7,093	6,688	6,240	5,744	0	25,764
Principal Received	120,000	9,083	10,106	11,237	12,488	72,086	235,000
Recovery Recapture	186,664	14,129	15,720	17,480	19,425	46,582	300,000
Recovery Tax	46,666	3,532	3,930	4,370	4,856	11,646	75,000
Net Capital Gains	0	0	0	0	0	65,550	65,550
Gain Tax	0	0	0	0	0	13,110	13,110
Cash Flow After Tax	28,884	16,369	16,376	16,384	16,393	47,331	141,737

Cash Flow Before Tax
shows the Sale Proceeds Before Tax detailed in the Installment Sale Report at the time of Sale. The amounts following (after the Sale) show the Debt Service cash flows for the Loan(s) and the loan repayment(s) at the End.

Ordinary Income
at Sale shows the Excess Cost Recovery less Expensed Sale Costs less Unamortized Loan Points less Loan Prepayment Penalties. Following the Sale, the amounts show the Interest Expense (and Amortized Points) for the Loan(s).

Income Tax
is simply Ordinary Income times the Tax Rate.

Principal Received
at Sale is the Down Payment received as computed in the Installment Sale Report plus any Excess Mortgage over Basis. The amounts in following years represent the net principal payments on the loans in the analysis.

Recovery Recapture
is the Principal Received times the Gross Profit Ratio computed in the Installment Sale Report, until all the Cost Recovery has been recaptured. If tax is paid Pro Rata this is the Principal Received times the Recovery Ratio computed in the Installment Sale Report.

Recovery Tax
is the Recovery Recapture times the Cost Recovery Recapture Rate.

Net Capital Gains
is the Principal Received times the Gross Profit Ratio computed in the Installment Sale Report, once all the Cost Recovery has been recaptured. If tax is paid Pro Rata this is the Principal Received times the Profit Ratio computed in the Installment Sale Report.

Gain Tax
is the Net Capital Gains times the Capital Gain Rate.

Cash Flow After Tax
is the Cash Flow Before Tax less the Income Tax, Recovery Tax, and Gain Tax.

Net Present Value Before Tax
is computed using the Present Value Discount Rate Before Tax you enter in the Assumption Set, and represents the Net Present Value of the Cash Flow Before Tax discounted at that rate. If you enter a zero discount rate, for instance, the Net Present Value Before Tax would be exactly the same as the total Cash Flow Before Tax.

Net Present Value After Tax
is computed using the Present Value Discount Rate After Tax you enter in the Assumption Set, and represents the Net Present Value of the Cash Flow After Tax discounted at that rate. If you enter a zero discount rate, for instance, the Net Present Value After Tax would be exactly the same as the total Cash Flow After Tax. This value ($117,833 here) may be compared to the Net Present Value of other offers to select the most profitable offer.

Capital Accumulation Before Tax
is computed using the Present Value Discount Rate Before Tax you enter in the Assumption Set, as the Reinvestment Rate and represents the Capital Accumulation of the Cash Flow Before Tax reinvested at that rate. If you enter a zero discount rate, for instance, the Capital Accumulation Before Tax would be exactly the same as the total Cash Flow Before Tax.

Capital Accumulation After Tax
is computed using the Present Value Discount Rate After Tax you enter in the Assumption Set, as the Reinvestment Rate and represents the Capital Accumulation of the Cash Flow After Tax reinvested at that rate. If you enter a zero discount rate, for instance, the Capital Accumulation After Tax would be exactly the same as the total Cash Flow After Tax.

Limited

Partnership / LLC

Investment

Analysis

A planEASe

Model Series

Introduction

The purpose of this Model Documentation is to serve as an explanation of the *Limited Partnership /LLC Investment Analysis*. In order to do this, we will look at the fictitious *Sample Apartments* investment used in the documentation for the *Real Estate Investment Analysis*, but converted to a Partnership investment format. The accompanying explanations should clarify the meaning of the assumptions in the analysis and the methods used in computing the results.

Real Estate Group Investments in the past few decades have evolved largely from the Limited Partnership form to a Limited Liability Company (LLC) form, although the legal and tax environments in many states still favor the Limited Partnership form. Lately, the Tenants-in-Common (TIC) format has arisen to take advantage of the 1031 Exchange provisions of the Income Tax Code. As a consequence, there are several terminologies used to describe Group Investments (and their participants) which, for purposes of financial analysis, are identical. Accordingly, the planEASe *Partnership / LLC Models* have evolved to use the following terminology which will be used in this documentation to represent investments in whichever of these forms is relevant to your situation:

Model	Measure	Group Name	Manager Name	Members Name
RPI	IRR	Partnership	General Partner	Limited Partner (or Limited)
RPM	MIRR	Partnership	General Partner	Limited Partner (or Limited)
RPR	IRR	LLC	Managing Member	Group Member (or Member)
RPF	MIRR	LLC	Managing Member	Group Member (or Member)

If you have purchased the *Partnership / LLC Models*, you have an additional choice to *Convert Assumptions* on the File Menu at the Assumption Edit Screen. This option allows you to convert *Real Estate Investment Analysis* Assumption Sets to *Partnership / LLC Models* Assumption Sets (and vice-versa). Thus you may begin analysis of a property with the *Real Estate Investment Analysis*, and easily convert the analysis into the Partnership / LLC format when that becomes appropriate. For instance, the *test.ru* Assumption Set is saved as *test.ru* as an *Real Estate Investment Analysis* Assumption Set and *test.rp* as a *Partnership / LLC Models* Assumption Set on our distribution disks.

The Partnership / LLC model series contains Loan, Depreciation, Revenue and Expense assumption pages which are identical to the corresponding assumption pages in the *Real Estate Investment Analysis*. Because these assumption pages are identical, this documentation does not discuss them, and you are referred to the *Real Estate Investment Analysis* section of this manual for discussion of the assumptions on these pages. Similarly, the first, or Investment Assumptions, page of assumptions is the same as the *Real Estate Investment Analysis*, and is not repeated here.

When you convert an RU Assumption Set to an RP Assumption Set, all the new assumption values (the Fee and Funding assumption pages as well as the Partnership / Group and Distribution assumptions) are set to zero. Therefore, after you have converted and retrieved a new RP Assumption Set, be sure to go to the Assumption Edit Screen, enter your appropriate Partnership / Group and Distribution assumption values, and save the changed Assumption Set before further processing. To use the newly converted Assumption Set, you must first choose the *File/Switch Models* Menu Option and choose a model from the appropriate model series.

Don't use these Partnership / LLC Models until you have **completely** planned the property and debt structure with the *Real Estate Investment Analysis* models. **Only then** should you transfer the analysis into the

Limited Partnership / LLC Investment Analysis and begin to plan your Partnership / LLC. This is not to say that you **can't** start with the *Limited Partnership / LLC Investment Analysis*. Rather, we are trying to lead you into the most **efficient** way to work with the system, and after planning a few partnerships ourselves, this is the best advice we can give you. If your Cash Flow Before Tax is properly structured (and this is best done with the *Real Estate Investment Analysis*), planning the funding and distribution is a snap.

Sensitivity and Risk Analysis may be performed on any assumption value, just as with all other model series. Syndicators will find this to be most useful in structuring the appropriate cash and tax distribution methodologies for a particular property in consideration of the attractiveness of the rate of return for the Limited Partners / Group Members versus their own return from the project. Sensitivity and Risk Analysis are also extremely appropriate for the financial projections shown to the Limited Partners / Group Members because they get away from the typical "one point" analysis included in private placement memoranda, and thereby mitigate the liability involved when events don't proceed as planned.

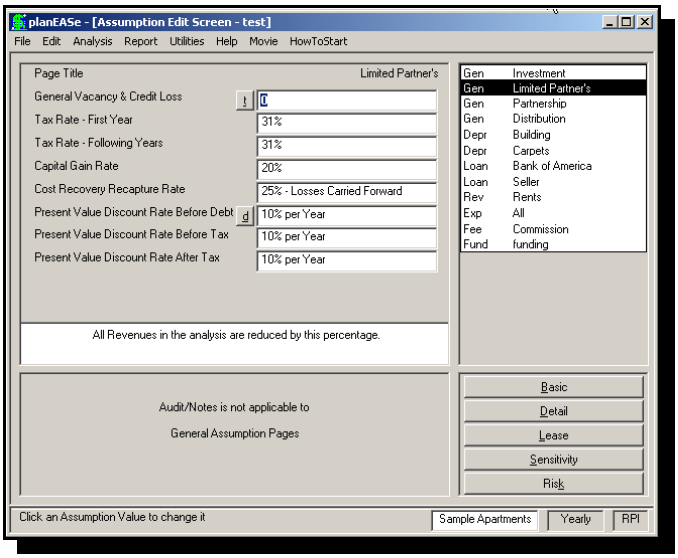
Sensitivity Analyses have also proven their worth as discussion papers in regard to questionable assumptions such as the investor's tax rate and the projected sale price. When produced in investor meetings, these graphs serve the dual purpose of allaying investor concerns and presenting the syndicator as one who has thoroughly investigated and planned the investment from the Limited Partner / Group Member perspective.

There are two choices in regard to the funding of cash shortfalls. Either the Limited Partners / Group Members are assessed for any shortfalls (the assessment amounts are treated as additions to their Partnership / LLC accounts), or the General Partner / Managing Member funds any shortfalls by means of interest-bearing loans to the Partnership / LLC. You choose between these two methods of shortfall funding by entering the proper value for the General Partner / Managing Member Loan Interest Rate. Of course, you may well object that no responsible General Partner / Managing Member would plan a funding shortfall, and we would agree. The problem therein lies with Sensitivity and Risk Analysis once the Partnership /LLC has been planned. These processes automatically change the cash flows associated with the Partnership / LLC, and therefore there must be an automatic method of funding as well or the "books" would be out of balance and the corresponding results would be inaccurate.

Many syndicators avoid assessments because Partnership / LLC agreements with assessment clauses are difficult to market. However, that is no reason to avoid assessments when **planning** with planEASe, and we hope you won't. When you **begin** planning your Partnership / LLC, **turn the assessments on** (by using a negative General Partner / Managing Member Loan Interest Rate assumption). This means that any funding shortfalls show up in the *Limited's / Member's Investment* column as additional investments due to the automatic assessment. If you don't do this, the funding shortfalls are met with General Partner / Managing Member loans resulting in strange cash flows in the *Distributed to General / Manager* column, and you will probably get confused and waste time. **After you have everything balanced**, you can turn the assessments off in the final copy and for Sensitivity and Risk Analysis.

In designing these models, we have attempted to provide a great amount of flexibility in the use of assumption values so that the software can respond reasonably to the large variety of partnership methodologies currently in use. We solicit your comments and suggestions for particular improvements that will increase the usefulness of the *Limited Partnership / LLC Investment Analysis* in your business.

Limited Partner Assumptions



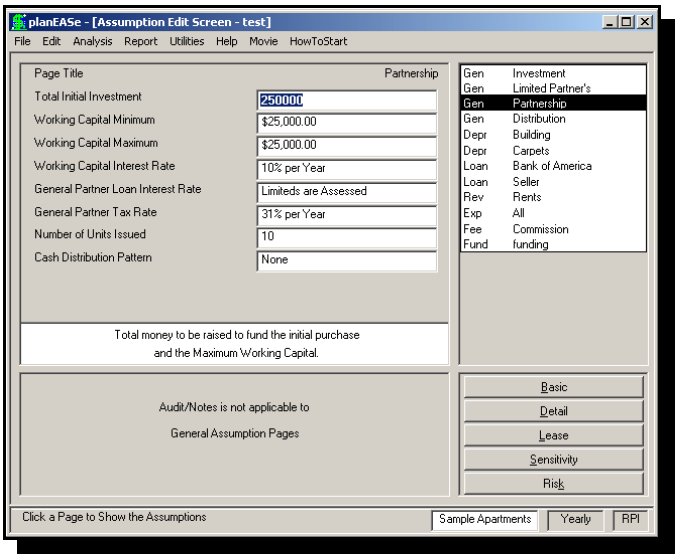
These assumptions are used to calculate the values shown in the *Limited Partner / Group Member Projection (Per Unit)* and the *General Partner / Managing Member Cash Flow Projection* pages of the analysis. The experienced planEASe user will recognize these assumptions as being the same as the "Investor's" assumptions in the *Real Estate Investment Analysis*, and planEASe assumes that you wish to use the "Investor's" assumptions for the "Limited Partner / Group Member" assumptions. You are referred to the *Real Estate Investment Analysis* for a discussion of the individual assumptions.

As with the *Real Estate Investment Analysis*, you may choose to pass through any passive losses to the investor by making the Cost Recovery Recapture Rate negative. In this case, losses will be completely passed through to the investors on the *Limited Partner / Group Member Projection (Per Unit)* page. Regardless of whether passive losses are passed through to the investors, the losses are always passed through to the General Partner / Managing Member on the *General Partner / Managing Member Cash Flow Projection* page under the presumption that they are deductible business losses.

If you choose to activate the $25,000 limitation in any year(s) by making the tax rate negative, the limitation applies at the Unit level ($25,000 **per Unit**). If you are planning an investment for a particular investor where this is required, then, change the Number of Units Issued assumption value to reflect the total investment by the investor if it is not one unit.

As discussed in the *Real Estate Investment Analysis* section of this manual, the tax section of the analysis is meant to be merely representative of the results of the investment. Limited Partners / Group Members typically have individual tax considerations, and should be advised to consult their tax advisors as to the tax consequences of their investment in light of their own particular tax situation.

Partnership / Group Assumptions



These assumptions deal with the funding of the Partnership. The individual assumptions are:

TOTAL INITIAL INVESTMENT is the amount of money required to be raised to fund the initial purchase of the property and Working Capital Maximum. If the amount entered is less than the sum of the Cash Flow Before Tax at the *Buy* time and the Working Capital Maximum, planEASe automatically makes up the difference with either an assessment for the remaining amount or a loan from the General Partner / Managing Member, depending on which method has been chosen for funding shortfalls (see below). In the case of the *Sample Apartments*, the user has chosen to raise $250,000, which is $10,000 less than is necessary for this partnership and property.

WORKING CAPITAL MINIMUM is the minimum level of working capital for operations. If less than this amount is available, the Limited Partners / Group Members are assessed or a loan is made by the General Partner / Managing Member to bring working capital to the Working Capital Maximum, depending on the shortfall funding method chosen (see below).

WORKING CAPITAL MAXIMUM is the maximum working capital to be retained in the Partnership / LLC. If more than this amount of cash is available (and cash distribution has begun), the excess is distributed. In our example, $25,000 is the working capital maximum chosen which, when added to the $235,000 Cash Flow Before Tax, means that $260,000 must be raised to initially fund the Partnership.

WORKING CAPITAL INTEREST RATE is the percentage interest rate earned on the Working Capital.

GENERAL PARTNER / MANAGING MEMBER LOAN INTEREST RATE is the percentage interest rate paid on any loans made by the General Partner / Managing Member to fund shortfalls. **Any negative value causes the model to fund shortfalls by assessing the Limited Partners / Group Members.** In this case, the amount of the negative value is irrelevant to the calculation (that is, -10.00 is functionally the same as -5.00). For the *Sample Apartments*, the user has chosen a value of -15.00. This means that the Limited Partners are "assessed" for the $10,000 shortfall in the initial funding, and the total initial investment is increased from the $250,000 specified to the $260,000 required.

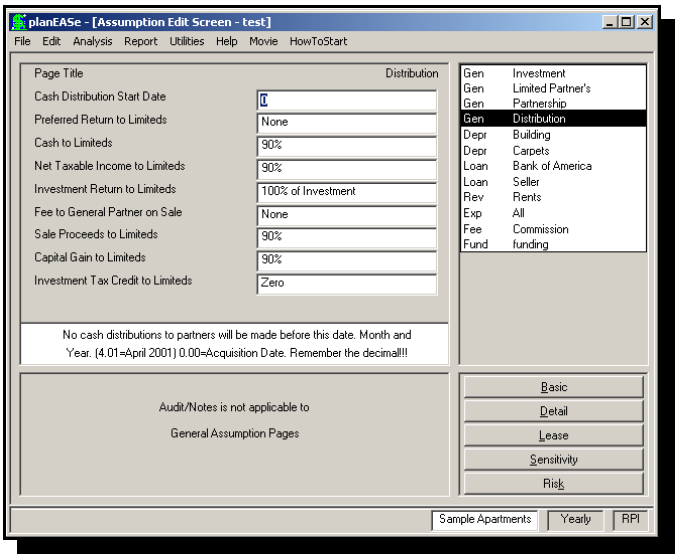
GENERAL PARTNER / MANAGING MEMBER TAX RATE is the percentage tax rate used to calculate the taxes paid by the General Partner / Managing Member in the *General Partner / Managing Member Cash Flow Projection.*

NUMBER OF UNITS ISSUED is used to produce the *Limited Partner / Group Member Projection (Per Unit)* output page. All cash and tax liabilities distributed to the Limited Partners / Group Members are divided by this number to produce the unit forecast. The *Sample Apartments* General Partner plans to issue 10 units, so the unit price is $26,000.

CASH DISTRIBUTION PATTERN is entered as x.y where y specifies the frequency of cash distribution. A y value of 0 specifies monthly cash distributions, 1 means annual, 2 means semi-annual, and 4 means quarterly. x specifies the first month of the calendar year in which a distribution occurs under the specified pattern, where the months are numbered 1 through 12. Thus a value of 12.1 specifies annual cash distributions each December, and 1.4 means quarterly distributions each January, April, July, and October.

Distribution Assumptions

These assumptions deal with the Partnership / LLC methods and formulas for distributing cash and tax liabilities between the Partners / Members. For both on-going operations and upon sale of the property, Partnership / LLC cash is distributed according to a "Stepdown Allocation". "Stepdown" means that, step-by-step, cash is allocated according to the following rules, until no more cash remains to be allocated. When all cash available has been allocated, any remaining allocations (if any) are not performed. The cash available for allocation is the total cash available (at sale), or the total cash available less the maximum working capital (for on-going operations). The Stepdown Allocation is:



Stepdown Allocation of Funds Available for Distribution	
FIRST:	To pay any interest due to the General Partner / Managing Member on any loans he has made to the Partnership / LLC pursuant to funding shortfalls
SECOND:	To repay the principal amounts of any loans from the General Partner / Managing Member
THIRD:	To pay any arrearage for the Preferred Return to the Limited Partners / Group Members
FOURTH:	To pay the Preferred Return for the period to the Limited Partners / Group Members
FIFTH:	If the property has been sold, to repay the specified percent of the total investment by the Limited Partners / Group Members
SIXTH:	If the property has been sold, to pay the specified fee to the General Partner / Managing Member on sale
SEVENTH:	Any remaining cash is split between the Partners / Members according to the percentage specified (which percentage may be different for on-going operations and final distribution on sale).

Because every sale in a Unit Sales project represents a sale of Partnership / LLC Assets, the Stepdown Allocation of Funds for Unit Sales analyses is different from this table. Unit Sales Partnerships / LLCs follow the distribution rules in the Stepdown Table on page 189.

The assumptions specifying the numbers in these cash distributions and the allocation of tax liabilities are:

CASH DISTRIBUTION START DATE is the date on which the Partnership / LLC will begin distributing cash. Until this time, the Partnership / LLC retains all cash and earns interest on it. After this date, the system distributes all cash in excess of the Minimum Working Capital according to the Stepdown Allocation. A zero value defaults to the Acquisition Date. This date may be used to fund a reserve for later negative cash flows

(such as deferred maintenance, for instance). In such cases, put the reserve into the Initial Investment amount so that the initial investment is sufficient to cover the initial cash needs, the maximum working capital **and** the reserve required. Then set this date beyond the date of the negative cash flow, and planEASe will retain the money until it is required.

PREFERRED RETURN TO LIMITEDS / MEMBERS is the percent preferred return discussed in steps three and four of the Stepdown Allocation. The preferred return is computed based on the total investment made by the Limited Partners / Group Members at the time the return is paid. Thus, if a staged investment is planned, the amount of the preferred return to be paid annually grows as the additional investments are made. **If the percentage is positive** the preferred return is cumulative (that is, if cash is not available to pay the return in one year the amount of the arrearage is added to the preferred return due for payment when such cash is available). Any arrearage does **not** compound. **If the percentage is negative** the preferred return is **not** cumulative, and no arrearage is computed.

CASH TO LIMITEDS / MEMBERS is the percentage referred to in step seven of the Stepdown Allocation. A value of 90 means that, after all previous cash allocations have been performed, 90% of the remaining cash from operations is distributed to the Limited Partners / Group Members, and the remaining 10% goes to the General Partner / Managing Member.

NET TAXABLE INCOME TO LIMITEDS / MEMBERS is the percentage of the Taxable Income computed in the *Partnership /Group Taxable Income Projection* output page that is allocated to the Limited Partners / Group Members. For the *Sample Apartments*, 90% of these amounts is allocated to the Limited Partners, and the remainder is allocated to the General Partner.

INVESTMENT RETURN TO LIMITEDS / MEMBERS is the percentage of the total investment made by the Limited Partners / Group Members which is to be returned to the them pursuant to step five of the Stepdown Allocation. In most cases where such an allocation step is specified, the percent is 100% as shown here. If the assumption value here is -1.00 (minus 1) then planEASe returns an amount to the Limited Partners / Group Members in this allocation step such that the total of that amount plus all previous cash distributed to them during operations is equal to their total investment.

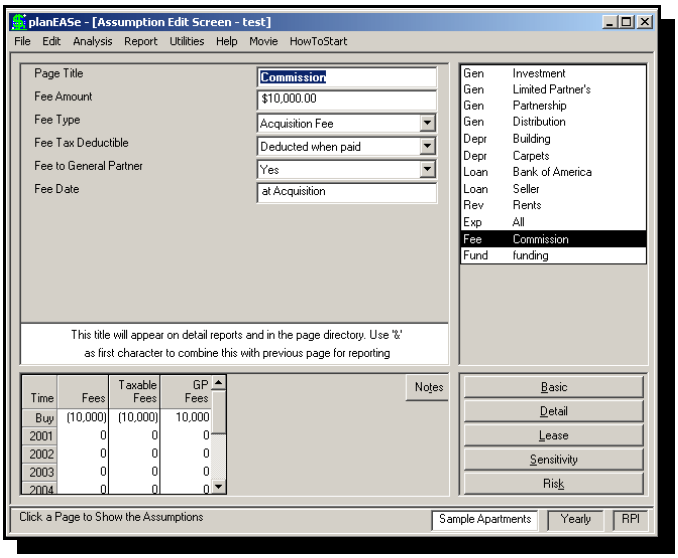
FEE TO GENERAL PARTNER / MANAGING MEMBER ON SALE is the fee to be paid to the General Partner / Managing Member (if any) upon the sale of the property pursuant to step six of the Stepdown Allocation. If an amount greater than 100 is entered, the model presumes that it is a dollar amount. If the amount is 100 or less, the model assumes that it represents a percentage of the total cumulative preferred return paid to the Limited Partners / Group Members during the course of the operation of the Partnership / LLC. (Use of this feature requires that the preferred return be planned as cumulative. The feature does not work with non cumulative Preferred Returns.) A value of zero eliminates any such fee from the calculation. This fee is normally assumed to represent an allocation of Partnership / LLC cash among the Partners / Members, and therefore does not give rise to tax deductions or taxable income. If you want to have the fee deducted by the Partnership / LLC and added to the General Partner / Managing Member Fees, enter the amount or percentage as **negative**. In this case, the fee is still shown in the "Distributed to General" column, but is also added to the "Taxable Income" for the *General Partner / Managing Member Cash Flow Projection* and subtracted from the "Ordinary Income" column of the *Limited Partner / Group Member Projection (Per Unit)*.

SALE PROCEEDS TO LIMITEDS / MEMBERS is the percentage of Partnership / LLC cash allocated to the Limited Partners /Group Members pursuant to step seven of the Stepdown Allocation upon sale of the property and final distribution of the Partnership /LLC assets. In the case of the *Sample Apartments*, 90% of that cash is allocated to the Limited Partners, with the remaining 10% going to the General Partner.

CAPITAL GAIN TO LIMITEDS / MEMBERS is the percentage of the tax liability for the Partnership / LLC capital gain on sale of the property which is allocated to the Limited Partners / Group Members. In the example, 90% of the capital gain goes to the Limited Partners, and 10% goes to the General Partner.

INVESTMENT CREDIT TO LIMITEDS / MEMBERS If the Partnership / LLC generates Investment Tax Credits, this assumption enables you to allocate the Credits between the Partners / Members. Such allocated credits are shown in the *Limited Partner / Group Member Projection (Per Unit)* and the *General Partner / Managing Member Cash Flow Projection* as additions to the "Taxes" columns on those pages.

Fee Assumptions



The Fee assumptions are used to compute the partnership fees that are added to the "Operating Expense" column of the *Before Tax Cash Flow Projection* output page. Fees are, in general, the extra costs associated not with the property, but rather with the fact that the property is being purchased by a group of investors instead of an individual. Such costs include marketing costs, syndication fees, positive cash flow guarantees, and other costs associated with the creation, administration and dissolution of the Partnership / LLC. Fee is a *multiple page type*, so **you may include as many Fee Pages as you desire**. For each Fee Page, the individual assumptions are:

FEE AMOUNT is the amount on which the fee is computed, which, depending on the Fee Type, may be either a percentage (for *% of Effective Income* Fees) or a dollar amount (for all other Fee Types). Dollar Amounts may be negative if desired.

FEE TYPE allows you to control the type of fee to be computed. Your choices are:

Not Specified allows you to cancel the calculation of any fee for this page without otherwise disturbing the other assumption values on the page.

Acquisition Fee is a dollar fee to be inserted in the analysis at the time of the acquisition of the property. This type of fee might also be included in the closing costs, but use of a Fee Page for this purpose allows the user to specify that the fee accrues to the General Partner / Managing Member (closing costs do not do so). This treatment also clarifies the analysis, since the fee page carries a Page Title. The Fee Amount for this type of fee is treated as a dollar amount, and may be negative if desired.

% of Effective Income is a percentage of the Effective Income for the property. This type of fee might be included in the individual revenue pages as a management fee, but use of a Fee Page allows you to specify that the fee accrues to the General Partner / Managing Member (management fees do not do so). The Fee Amount for this type of fee is treated as a percentage. Percentages greater than 100 are treated as if they were 100%, and percentages less than zero are treated as if they were zero.

Annual $ Fee is a constant annual dollar amount. This type of fee might be included as an Expense Page, but use of a Fee Page allows you to specify that the fee accrues to the General Partner / Managing Member (expenses do not do so). The Fee Amount for this type of fee is treated as a dollar amount. Negative values are allowed.

One-Time Expensed Fee is an absolute one-time dollar amount paid on the date specified by the Fee Date assumption. This amount is added to the operating expenses in that year. The Fee Amount for this type of fee should be the dollar amount desired. Since a zero Fee Date defaults to the Acquisition Date, this Fee Type with a zero Fee Date is functionally the same as an Acquisition Fee with the same amount.

One-Time Capital Fee is an absolute one-time dollar amount paid on the date specified by the Fee Date assumption. In contrast to the *One-Time Expensed Fee*, this amount is added to the Investment and Sale item of the output, and therefore is capitalized, affecting basis and the capital gain. The Fee Amount for this type of fee should be the dollar amount desired.

FEE TAX DEDUCTIBLE allows you to control the tax deduction of the fee. Your choices are:

- Deducted when paid
- Not Deducted
- Deducted at Sale
- Deducted at Acquisition

FEE TO GENERAL PARTNER / MANAGING MEMBER specifies whether the fee amount(s) for the individual fee page are to be paid to the General Partner / Managing Member. Choosing *Yes* causes the model to pay the fee to the General Partner / Managing Member, and the fee is shown in the "General / Manager Fees" in the *General Partner / Managing Member Cash Flow Projection*. Choosing *No* causes the fee for the page to **not** be added to the General /Manager Fees. planEASe assumes that all fees which are paid to the General Partner / Managing Member are taxable revenue to him.

FEE DATE is the date that the fee is to be paid for both of the *One-Time* Fee Types. This assumption is ignored for other fee types. This date is used by the system to place the Fee Amount in the proper year of the analysis. A value of 0.00 defaults to the Acquisition Date, and a value of -1.00 defaults to the date of sale.

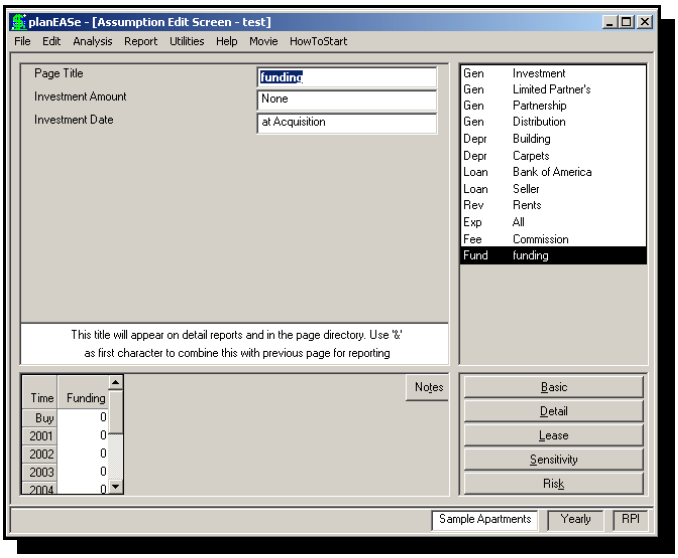
In the case of the *Sample Apartments*, only one fee has been specified, which is a $10,000 commission, tax deductible, paid to the General Partner at acquisition. Incidentally, some syndicators have problems planning commissions, since they are typically expressed as a percentage of the capital raised, and therefore lead to an apparently "circular" computation. For instance, a 10% sale commission on our $260,000 partnership here requires $26,000 more capital, but then you've got to pay commission on the additional $26,000 raised, et cetera. The total amount to raise in such circumstances is easy to compute by simply dividing the raise before the commission by one minus the commission rate. Thus $260,000 divided by .90 gives a $288,888 total required after considering the commission.

See also the following topics: **Page**

Partnership Fee Planning 210

Funding Assumptions

The Funding Assumptions allow you to enter specific additional investments by the Limited Partners /Group Members occurring **after** the initial funding of the Total Initial Investment.



There are no additional investments necessary for the *Sample Apartments*, but we have included a Funding Page in the Assumption Set anyway. Funding is a *multiple page type* so **you may include as many such Funding Pages as you desire**. For each Funding Page the individual assumptions are:

INVESTMENT AMOUNT is the amount of the additional investment to be made by the Limited Partners /Group Members. The Amount must be greater than zero, or the Funding Page does not effect the computations. All positive amounts entered are treated as dollar amounts.

INVESTMENT DATE is the date on which the additional investment is to be made, entered as MM.YY, just as with all dates in planEASe. Contrary to the other use of dates in planEASe, however, a date of 0.00 here does **not** default to the Acquisition Date, but rather eliminates any consideration of the Funding Page in the computations. The models assume that additional investments are made on the first day of the month, and any Preferred Returns are calculated taking this into account.

Typically, you will want to use the ampersand (&) as the first character in the Page Title of all but the first Funding Page so they are combined on one line of any detail reports, given that you want to include them on detail reports. The Initial Investment specified in the Partnership / Group Assumptions is not included in the details for Funding Assumptions. Additionally, any additional investments caused by automatic assessments of the Limited Partners /Group Members are also not included in detail reports.

Basic Analysis Reports - Introduction

The Basic Analysis Reports for the *Limited Partnership / Group (LLC) Investment Analysis* consist of five pages, which are:

Before Tax Cash Flow Projection.
This page details the results of the operation of the property (and the payment of Partnership /LLC fees), resulting in the cash projected to be received by the Partnership / LLC as a result of operations (the Cash Flow Before Tax).

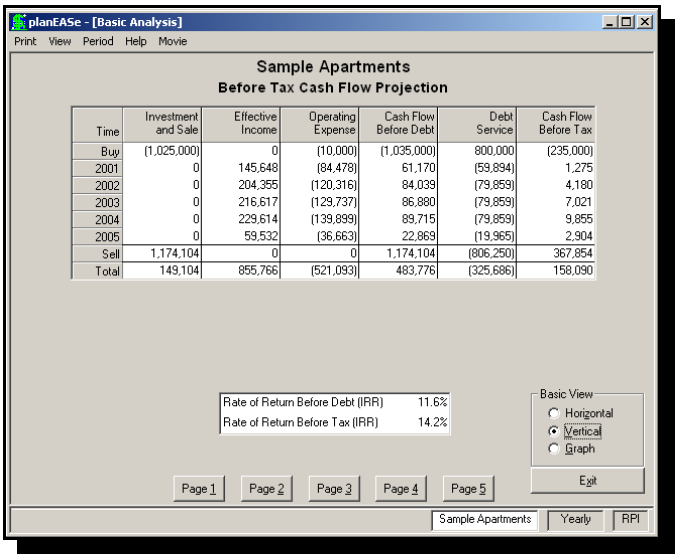
Source and Use of Proceeds.
This page details the projected accounting of funds within the Partnership / LLC, showing all funds received, and the projected disbursements to the Partners / Members.

Partnership / Group Taxable Income Projection.
This page projects the tax reporting position for the Partnership / LLC, showing all tax liabilities and deductions other than the Capital Gain on sale and the Investment Tax Credits, if any.

Limited Partner / Group Member Projection (Per Unit).
This page projects the results of an investment in one unit of the Partnership / LLC by a Limited Partner / Group Member, both before and after tax. Considering the speed with which an analysis may be re-run, you may want to change the number of units issued and re-run the analysis for Limited Partners / Group Members contemplating an investment in partial or multiple units. Such a re-run is easily personalized by changing the number of units issued (which can be fractional if you want) and the Limited Partner / Group Member tax rates.

General Partner / Managing Member Cash Flow Projection.
This page contains all fees and cash distributions due the General Partner / Managing Member from the Partnership / LLC. Additionally, the tax liabilities are shown, together with the Net Present Value of the cash flows before and after tax.

Before Tax Cash Flow Projection



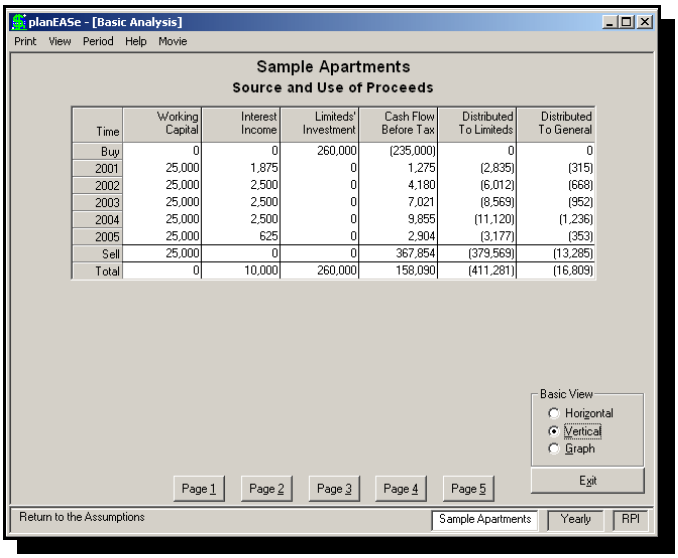
This page details the results of the operation of the property (and the payment of Partnership / LLC fees), resulting in the cash forecasted to be received by the Partnership / LLC as a result of operations.

The *Before Tax Cash Flow Projection* is computed in exactly the same fashion as the same page in the *Real Estate Investment Analysis*. For that reason we don't fully describe the page here, but rather refer you to the *Real Estate Investment Analysis* section of this manual. There is one important difference in this page in the *Limited Partnership / LLC Investment Analysis*, however. The "Operating Expenses" column shows the results of any Fee Pages that have been requested. Thus this column shows the sum of all Expense and Fee Assumption Pages as well as any Management Fee designated in Revenue Pages.

For this reason, the "Operating Expenses" are $10,000 higher in 2001 at the acquisition, due to the inclusion of the Fee Page for that amount in the Assumption Set. Correspondingly, the Rate of Return Before Debt and Rate of Return Before Tax are slightly lower than in the example for the *Real Estate Investment Analysis* because of the extra $10,000 investment in the Partnership / LLC mode. We have omitted the Net Present Values shown in the *Real Estate Investment Analysis* because we believe that a presentation to a Limited Partner / Group Member is best served by that omission.

Source and Use of Proceeds

This page details the projected accounting of funds within the Partnership / LLC, showing all the funds received, as well as the projected disbursements to the Partners / Members.



Time	Working Capital	Interest Income	Limiteds' Investment	Cash Flow Before Tax	Distributed To Limiteds	Distributed To General
Buy	0	0	260,000	(235,000)	0	0
2001	25,000	1,875	0	1,275	(2,835)	(315)
2002	25,000	2,500	0	4,180	(6,012)	(668)
2003	25,000	2,500	0	7,021	(8,569)	(952)
2004	25,000	2,500	0	9,855	(11,120)	(1,236)
2005	25,000	625	0	2,904	(3,177)	(353)
Sell	25,000	0	0	367,854	(379,569)	(13,285)
Total	0	10,000	260,000	158,090	(411,281)	(16,809)

Working Capital
shows the working capital balance at the beginning of the period. The value is zero at inception since no money has been raised at that time. The working capital remains at the maximum level specified throughout the operation of the Partnership / LLC, since any amounts greater than that maximum are automatically disbursed. If the Cash Flow Before Tax contained negative values, those negative cash flows would be financed from working capital, and the working capital balance would decrease until the minimum working capital amount was reached. Beyond that point, any shortfalls are automatically funded to increase working capital to the maximum amount specified by additional investments or General Partner / Managing Member loans, as chosen by the user. The exception to this rule is when the user delays disbursements through use of the Cash Distribution Start Date assumption. In this case, the working capital grows and shrinks with operations until disbursements are allowed by this assumption. All working capital is disbursed at the sale of the property in the final distribution of funds.

Interest Income
shows the interest earned on the working capital, controlled by the percentage specified as the Working Capital Interest Rate.

Limiteds' Investment
shows the capital invested by the Limited Partners / Group Members. Any assessments to raise needed funds are shown here, as well as any additional investments specified in Funding Pages. Thus the $260,000 shown here represents the $250,000 investment specified, plus an assessment of $10,000 to raise the necessary $235,000 down payment plus $25,000 working capital.

Cash Flow Before Tax
is the same as the last column of the *Before Tax Cash Flow Projection*, representing the money flowing in and out of the Partnership / LLC from the operation of the property.

Distributed to Limiteds and **Distributed to General**
The sum of the first four columns in any year represents the amount of cash available for distribution to the Partners / Members. Since the amount of the Maximum Working Capital is reserved from distribution, this amount is subtracted from the cash available, and the remainder is distributed to the Partners / Members in **Distributed to Limiteds / Members** and **Distributed to General / Manager** according to the Stepdown Allocation described in the Distribution Assumptions section. In the example, $1,875 plus $1,275, or $3,150 is available for distribution in 2001, and that amount is allocated 90% ($2,835) to the Limited Partners, and 10% ($315) to the General Partner, according to the assumptions.

The amounts shown in these categories are generally **negative** because they represent cash **outflows** from the Partnership / LLC to the Partners / Members. If you have chosen to fund shortfalls with loans from the General Partner / Managing Member, the amount of these loans (if any) are shown as **positive** amounts in **Distributed to General / Manager** category, and any interest on the loans shows as negative amounts in that category. The total cash received by the Partnership / LLC is always equal to the total disbursed over the life of the Partnership / LLC, as expressed by the column totals on this page.

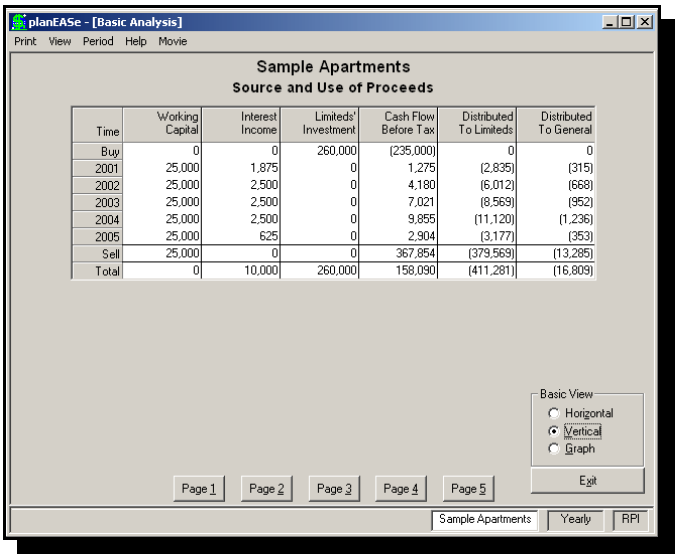
This page is best read (and understood) horizontally. Reading in that fashion, starting with the first line, the Partnership raises $260,000 to pay $235,000 for the down payment on the property and partnership expenses, leaving $25,000 working capital to begin operations in 2001. During 2001, $1,875 is earned in interest on the working capital, and $1,275 is received in cash flow from the property. This total of $3,150 is distributed $2,835 to the Limited Partners, and $315 to the General Partner, leaving $25,000 working capital to begin 2002.

Partnership / Group Taxable Income Projection

This page projects the tax reporting position for the Partnership / LLC, showing all tax liabilities and deductions other than the Capital Gain on sale and the Investment Tax Credits, if any.

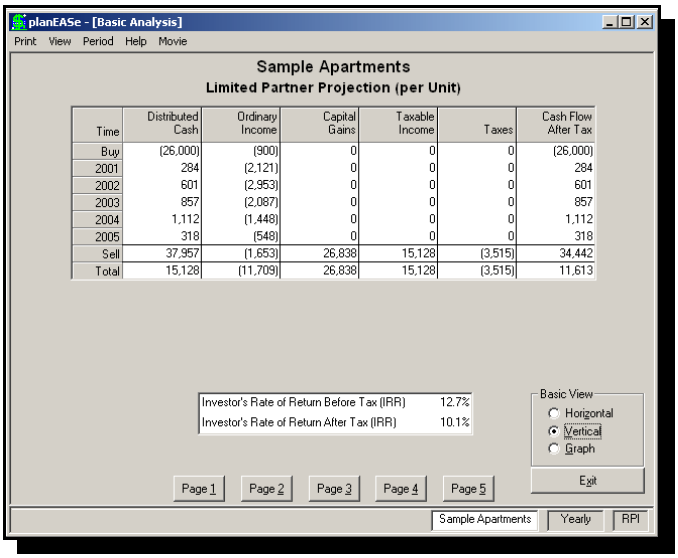
The format and calculation of this page is exactly the same as the second page of output (the *Taxable Income Projection*) for the *Real Estate Investment Analysis*, with the exception of the addition of the "Interest Income" column here for the interest earned on working capital.

There are no Investment Tax Credits in this example. If there were such credits, the amount allocated to the Partners / Members would be subtracted from the "Taxes" columns in the *Limited Partner / Group Member Projection (Per Unit)* and the *General Partner / Managing Member Cash Flow Projection*.



Time	Working Capital	Interest Income	Limiteds' Investment	Cash Flow Before Tax	Distributed To Limiteds	Distributed To General
Buy	0	0	260,000	(235,000)	0	0
2001	25,000	1,875	0	1,275	(2,835)	(315)
2002	25,000	2,500	0	4,180	(6,012)	(668)
2003	25,000	2,500	0	7,021	(8,569)	(952)
2004	25,000	2,500	0	9,855	(11,120)	(1,236)
2005	25,000	625	0	2,904	(3,177)	(353)
Sell	25,000	0	0	367,854	(379,569)	(13,285)
Total	0	10,000	260,000	158,090	(411,281)	(16,809)

Limited Partner / Group Member Projection (per Unit)



This page projects the results of an investment in one unit of the Partnership by a Limited Partner / Group Member, both before and after tax.

Distributed Cash
represents the sum of the "Limiteds' / Members' Investment" and "Distributed to Limiteds / Members" columns of the *Source and Use of Proceeds*, divided by the Number of Units Issued assumption value. Since 10 units are planned to be issued, the corresponding unit investment is $26,000 ($260,000 divided by 10), which is shown in the first column ("Distributed Cash"). The remaining values in this column represent one-tenth of the cash distributed to the Limited Partners in the *Source and Use of Proceeds* page. The Internal Rate of Return of this column is shown below as the Investor's Rate of Return Before Tax (12.7%). This IRR is lower than the 14.2% Rate of Return Before Tax because of the deduction of the General Partner distributions from cash available during operations and at sale, as well as the additional investment required for working capital in the partnership mode.

Ordinary Income
shows the amount of the "Ordinary Income" in the *Partnership / Group Taxable Income Projection* allocated to the unit investor. For instance, in 2003 the Partnership Ordinary Income is projected to be -$23,188. Ten percent of this is allocated to the General Partner, leaving -$20,870 for the Limited Partners. Dividing by the ten units issued, -$2,087 is allocated to each unit, as shown here.

Capital Gain
shows a similar allocation of the gain on sale. The total amount of the gain is the net sale price ($1,174,104 from the *Before Tax Cash Flow Projection*) less the original basis ($1,025,000 from the *Before Tax Cash Flow Projection*) plus the depreciation taken ($149,091 from the *Partnership Taxable Income Projection*), or $298,195. According to the Limited Partner Share of Capital Gain assumption, 90% of this amount ($268,375) is allocated to the Limited Partners, and each unit's share is $26,838.

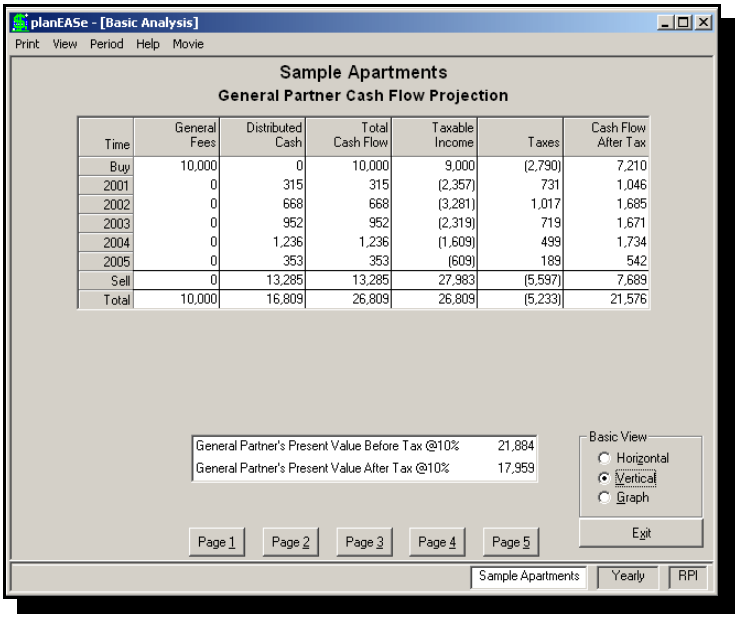
Taxable Income
is the sum of the allowable "Ordinary Income" column and the "Capital Gain" column, showing the total amount of taxable income for the unit investment. In this case, the losses shown in ordinary income are not allowable due to the Passive Loss Limitation, and those losses are carried forward to the time of sale. Note that the total taxable income for the investment ($15,128) is the same as the total Distributed Cash received by the investor.

Taxes
shows the amount of tax paid by the investor based on the Taxable Income and the tax rate assumed for each year in the Limited Partner / Group Member Assumptions.

Cash Flow After Tax

is the sum of the "Distributed Cash" and the "Taxes" columns, showing the total cash benefit of unit ownership including the taxes. The Internal Rate of Return for this column of cash flows is shown below as the Investor's Rate of Return After Tax (10.1%).

General Partner Cash Flow Projection



This page contains all the fees and cash distributions due the General Partner / Managing Member from the Partnership / LLC. Additionally his tax liabilities are shown together with the Net Present Value of his cash flows before and after tax.

General Fees
contains all cash due the General Partner / Managing Member from the Fee Pages. For the *Sample Apartments*, only the $10,000 fee was entered.

Distributed Cash
is the General Partner / Managing Member distributions from the Partnership / LLC, as shown also in the *Source and Use of Proceeds* page. As with the column on that page, any loans made by the General Partner / Managing Member to fund shortfalls are shown in this column, together with any interest on these loans.

Total Cash Flow
is the sum of the first two columns, showing the total cash flow to the General Partner / Managing Member before tax. The Net Present Value of this cash flow column is shown below here as the General Partner's Present Value Before Tax ($21,884). This Net Present Value is computed using the assumed Present Value Discount Rate Before Tax (10%).

Taxable Income
is the sum of the tax liabilities from the Fee Pages and the tax liabilities allocated the General Partner / Managing Member by the Partnership / LLC. Since the model assumes that all partnership fees represent taxable income to the General Partner / Managing Member, this reduces to the sum of the "General / Manager Fees" column and the allocated tax liabilities. Per the assumptions, 10% of the Partnership / LLC taxable income is allocated to the General Partner / Managing Member. At acquisition here, this income is -$10,000 (from the *Partnership Taxable Income Projection*), so -$1,000 is allocated to the General Partner, and his tax liability from the acquisition is the $10,000 fee less $1,000, or $9,000. The allocated capital gain liability is treated in the same way. Thus the $27,983 shown here at the sale is 10% of the capital gain, or $29,819, less 10% of the -$18,363 ordinary income at sale, or $1,836.

Taxes
is the "Taxable Income" multiplied by the General Partner / Managing Member Tax Rate assumption (50% in this case), showing the tax to be paid by the General Partner (positive amounts indicate tax savings). In the case of the General Partner, the Passive Loss Provision is not applied.

Cash Flow After Tax
is the sum of the "Total Cash Flow" and "Taxes" Columns, showing the General Partner / Managing Member Cash Flow position after tax. The Net Present Value of this cash flow is shown below here as the General Partner's Present Value After Tax ($17,959). The assumed Present Value Discount Rate After Tax (10% here) is used to compute this Net Present Value.

Development

Analysis

Introduction

The combination of planEASe with the *Reporting Extension*, and *Graphics Extension* can analyze commercial developments where a building (or buildings) is built, held and operated, and then sold (while not required, the *Monthly Extension* is of great help here as well). Simply go to *Edit/Development Spending ...* to pop up the planEASe Development Spending Dialog, and enter as many development spending items as needed. Then fill in the Construction Draw and Permanent Loan specifications, and press *OK*. The permanent loan can automatically take out any or all of the draw loan balance, be a specified Debt Coverage Ratio, Loan to Value, or simply an amount you specify. Whichever loan amount you choose, the permanent loan may be fixed or variable rate, and can include several varieties of participation. Both the draw and permanent loans are (optionally) linked to the development spending items, and will change appropriately and automatically when you vary the development spending items in Basic, Sensitivity, Detail and/or Risk analysis.

Additionally, the Development Analysis capability automatically adds Construction Period Interest to your basis, if you choose to capitalize the interest on your draw loan, and depreciates it with the assets added during construction.

Several example Assumption Sets ship with planEASe to illustrate this Development Analysis capability:

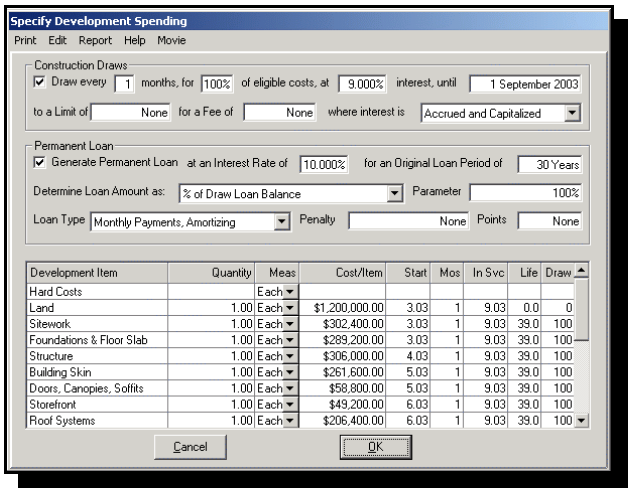
apartment_dev.ru	Develop an Apartment Complex with gradual lease-up
apartment_dev.rp	Plan the same project as a Partnership / LLC
build1.ru	a Build-to-Suit Industrial property planned at the summary level
build2.ru	the same Build-to-Suit Industrial property planned in detail

(the RP Assumption Set requires the optional *Partnership / LLC Models*) .

In addition to this documentation, there are movies on the Movie menu in the Development Spending Dialog, Sample Reports on our WebSite, and extensive content-sensitive help available by pressing F1 when working with this capability.

Using these tools, **ANY investment property development can be planned both before and after tax,** including apartments, retail, offices, or build-to-suit industrial.

Development Spending Dialog



The Development Spending Dialog allows you to enter the specifications for a Development, (accessed by choosing *Edit/Development Spending ...* from the Assumption Edit Screen). When you have completed the entry of information in the Dialog and press the *OK* Button, planEASe will enter one Development Spending Page for every item (line) you enter in the Dialog grid. If you access *Edit/Development Spending ...* while an Assumption Set containing a Development Specification is loaded, the Specification as it currently exists in your Assumption Set is recovered into this Dialog for your further processing, so you may edit the specified values in the Dialog, or at the Assumption Edit Screen, as you choose. A Development Spending Specification consists of:

- as many Development Spending Pages (abbr: *Depr-dev*) as you enter in the Development Item Grid
- one Construction Draw Page (abbr: *Loan-drw*), if specified
- one Permanent Loan Page (abbr: *Loan-prm*), if specified

When you press the *OK* button in the Dialog, planEASe removes the previous Development Specification (if any) from your Assumption Set and inserts the specification in the Dialog. If you press the Dialog's *Cancel* button, the Assumption Set stays as it was prior to your entering the Dialog.

If you check the *Draw every* checkbox above the grid, planEASe will generate a Construction Draw Page in your Assumption Set according to the instructions you enter here. Once that has been done, you may use Basic, Detail, Sensitivity and Risk Analysis on the Construction Draw Loan as you would with any other loan. If you generate a Construction Draw Loan, it will be inserted as the first loan in your Assumption Set. You cannot enter a Construction Draw Page in any other way. You can, however, edit any of the assumption values shown, once the Page has been generated by the Development Spending Dialog, and the Construction Draws generated in the resulting analysis will correspond to the edited values. Additionally, appropriate assumption values of the Construction Draw may also be varied in Sensitivity and Risk analyses. Sensitivity and Risk Analysis may be conducted with Loan Amount as the chosen Measure. If a Draw Loan has been specified, the Analysis will show the **maximum loan balance** during the life of the draw loan as the Loan Amount.

If you check the *Generate Permanent Loan* checkbox above the grid, planEASe will generate a Permanent Loan Page in your Assumption Set according to the instructions you enter here. Once that has been done, you may use Basic, Detail, Sensitivity and Risk Analysis on the Permanent Loan as you would with any other loan. A Permanent Loan is the same as any other planEASe Loan except that you may specify the Loan Amount to be any of several choices relevant to the development process. You cannot enter a Permanent Loan Page in any other way. You can, however, edit any of the assumption values shown, once the Page has been generated by the Development Spending Dialog, and the Permanent Loan generated in the resulting analysis will correspond to the edited values. Additionally, appropriate assumption values of the Permanent Loan may also be varied in Sensitivity and Risk analyses.

Development Item Grid columns are as follows:

- **Development Item** is the name of the item, such as Signage. The name is used as the Page Title for the Development Spending Page generated for this line. You may use an "&" in front of the name to combine the item with the previous item in the normal planEASe reporting. This will not affect the Project Cost Summary, Bill of Material or Project Cost Schedule Reports, which report one line per item always, ignoring the "&".

- **Quantity** is the required number of this item (normally one). The quantity you specify becomes available in the Calculator on the Development Spending Page for that item.

- **Meas** is the unit of measure for this item (defaulted to *Each*). When you begin a new development, this column contains *Each* and *SqFt* as the available measures. If you want to add another measure (such as *Tons*, or *Feet*), just type it in here, and it will become available on all lines. The measure you specify becomes available in the Calculator on the Development Spending Page for the item. To change a measure in the list, select it for an item, and typeover the existing name (the name *Each* may not be changed). To delete a measure in the list, select it for an item, and use the delete or backspace key to delete all the text of the measure name. The measure will be deleted from the list, and all items using that measure will be changed to use *Each*. The names *Each* and *SqFt* may not be deleted.

- **Cost/Item** is the cost per unit for the item. The cost you specify becomes available in the Calculator on the Development Spending Page for the item.

- **Start** is the month and year the item cost begins, entered as a planEASe Date. Dates less than or equal to the Acquisition Date (or equal to or greater than the end of the Holding Period) are not allowed.. Once a Date appears here, you may increase / decrease it by one month by using the ⊕ and ⊖ keys.

- **Mos** is the number of months over which to spread the cost of this item (normally one). If more than one, the cost of the item will be spread equally across the number of months requested. *Mos* values which would cause spending after the end of the Holding Period are not allowed.

- **In Svc** is the month and year the item is put into service (and depreciation begins), entered as a planEASe Date. Dates less than or equal to the Acquisition Date (or equal to or greater than the end of the Holding Period) are not allowed. Once a Date appears here, you may increase / decrease it by one month by using the ⊕ and ⊖ keys.

- **Life** is the depreciable life for the item, typically 39 or 27.5 years. Enter 0 (zero) for non-depreciable items such as land.

- **Draw** is the percentage of the item cost that applies to the draw percentage, if Generate Draws is checked. For instance, an entry of 90 here for an item costing $100,000 when the draws are specified to be 80% of eligible costs would generate a draw loan of $72,000.

Edit Menu allows you to do several things to the Development Item Grid:

- **Cut/Copy/Paste/Insert/Delete Item Row** You may click on any item row in the grid and choose *Cut/Copy/Insert/Delete Item Row* to cut/copy/insert/delete an item row. If you have either copied or cut a row, the *Paste Item Row* Menu Option is enabled.

- **Increase/Shorten Start Dates** increases or shortens ALL the dates in the *Start* column of the grid. Additionally, increasing the start dates will increase the *until* date in the Draw Loan specification.

- **Increase/Shorten In Service Dates** increases or shortens ALL the dates in the *In Svc* column of the grid.

- **Change Item to Title** changes any Item to a Title. Titles (like *Hard Costs* and *Soft Costs* in the examples shipped) allow you to add subtotals to your Project Cost Summary and Bill of Materials Reports. They do NOT appear in the Assumption Page List when you insert your specification into the Assumption Set.

PasteColumn Menu Option is available anytime the cursor is in the Development Item Grid, and allows you to paste an entire column of information from the Windows Clipboard into the Grid beginning in the row where the cursor is located. For example, selecting *PasteColumn / Development Item* pastes the clipboard data into the Development Item column. If any data is already in that column, planEASe asks if you want to overwrite it. If there are more rows on the Clipboard than in the Grid, additional rows are automatically added. Any unacceptable values on the clipboard are skipped rather than pasted.

Anytime you use the *PasteColumn* Menu Option planEASe remembers the status of the Grid before pasting, and offers the option to undo the Paste at the *Edit / Undo ...* Menu Option where *Undo* is followed by the name of the action being undone, such as *Edit / Undo Paste Development Item*. In addition, the *Edit / Insert Row, Delete Row, Cut Row* and *Paste Row* commands are remembered, and can be undone, one at a time, and in reverse order of occurrence.

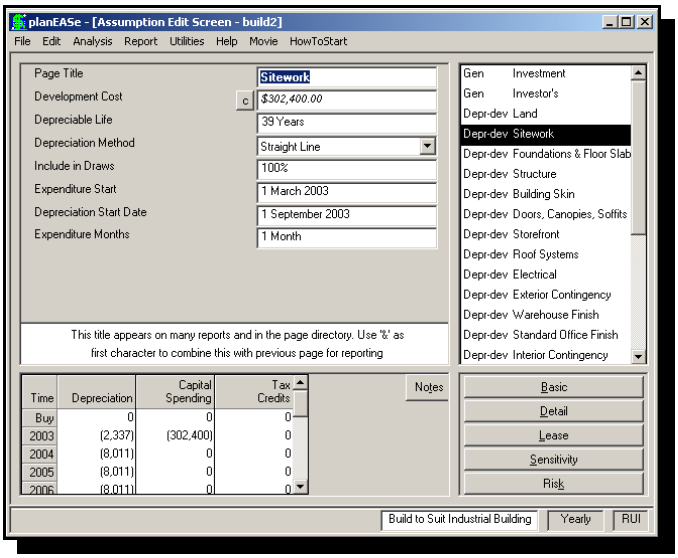
Report Menu allows you to switch between the Development Spending Specification and the available reports. While being viewed, any report may be printed, saved as a web page, or exported by accessing the appropriate Print Menu choice.

General Tips for planning Development Projects

You may incorporate Land into the Development Item Grid, and use the Draw Column to show that 100% (or less) of the land value is included in the Draw Loan, but that treatment will include the proportionate amount of the draw loan interest in the Construction Period Interest allocated to the assets in the Draw Loan (including Land in this case). Accordingly, this interest amount will be associated with an asset (Land) that is not depreciable, and that amount of interest will not be written off until the sale of the asset (and Land), thereby penalizing the project rate of return. A better (more profitable) treatment of the land acquisition would be to not include it in the Draw Loan and rather, enter a normal planEASe loan for any amount of the land value to be borrowed.

Development Spending Page

A Development Spending Page is a Page Sub-Type generated by entering a Development Spending Dialog, accessed by choosing *Edit / Development Spending ...* One Development Spending Page is generated for each Development Item in the Grid in that Dialog. You can edit any of the assumption values shown, and the Development Spending generated in the resulting analysis will correspond to the edited values. Additionally, appropriate assumption values on the Development Spending Page may also be varied in Sensitivity and Risk analyses. You may discern a Development Spending Page in the Assumption Page List by its Page Abbreviation: *Depr-dev*. The assumptions in a Development Spending Page are:



DEVELOPMENT COST is the product of the *Development Item Cost* times the *Item Quantity*. These values, taken from your corresponding entries in the Development Item Grid of the Development Spending Dialog, are also entered in the Development Cost calculator. If you edit the amount shown here to zero (0.00), the Page Title will become a Title in the Development Spending Dialog, and will disappear from the Assumption Page List the next time you press OK in the Development Spending Dialog. If you edit the amount to any other value in the amount field, the amount will be posted to the Development Spending Dialog as that amount, with a quantity of one (1) and a Measure of *Each*. **If you want to edit the amount without changing anything else, then you must do so in the Calculator.**

DEPRECIABLE LIFE This is your entry in the *Life* column of the Development Item Grid of the Development Spending Dialog (see Depreciable Life).

DEPRECIATION METHOD is not accessible in the Development Spending Dialog, and defaults to Straight Line. If you change the Depreciation Method from the default Straight Line Method first assigned by the Development Spending Dialog, the new method will persist even though you access *Edit/Development Spending...* and reinsert the specification into the Assumption Set (see Depreciation Method).

INCLUDE IN DRAWS is the percentage of this Development Cost to include in the Construction Draw Loan This is your entry in the *Draw* column of the Development Item Grid of the Development Spending Dialog.

EXPENDITURE START is your entry in the *Start* column of the Development Item Grid of the Development Spending Dialog (see Expenditure Date).

DEPRECIATION START DATE is your entry in the *In Svc* column of the Development Item Grid of the Development Spending Dialog (see Depreciation Start Date).

EXPENDITURE MONTHS is the number of months to spread the Development Cost over. If the number of months is greater than the number of months remaining in the year after the Expenditure Start Date, the

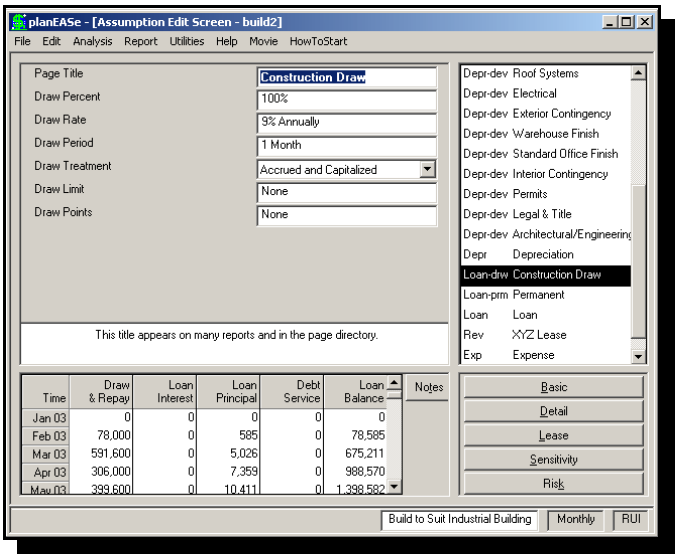
remaining amount will be assigned to the following year. This is your entry in the *Mos* column of the Development Item Grid of the Development Spending Dialog.

If you edit the Expenditure Start, Expenditure Months and/or Include in Draws entries so as to create the need for a draw after the latest scheduled need for a draw, planEASe will examine the Loan Origination date for the Permanent Loan, and automatically move it later in time so the loan begins in the month following the last need for a draw.

Allocation of Construction Period Interest If you choose a *Draw Treatment* for your Construction Draw Loan that capitalizes the Construction Period Interest, the interest is allocated to each Development Spending item for which the Draw column in the Development Spending Dialog is greater than zero in order to determine the amount to be added to the Depreciable Amount for that item in determining the annual depreciation. For example, if a Development Item of $100,000 is included in the draws, where the total Construction Period Interest is $27,000 and the total Development Items included in the Draws is $1,000,000, the Depreciable Amount (and Capital Spending) assigned to that Item will be $100,000, but the amount depreciated will be $100,000 plus $27,000*($100,000/$1,000,000), or $102,700.

Construction Draw Page

A Construction Draw Page is a Loan Page SubType generated by entering a Development Spending Dialog, accessed by choosing *Edit/ Development Spending*... This Page will only be generated if you have checked *Generate Draws* in that Dialog You cannot enter a Construction Draw Page in any other way. You can, however, edit any of the assumption values shown, once the Page has been generated by the Development Spending Dialog, and the Construction Draws generated in the resulting analysis will correspond to the edited values. Additionally, appropriate assumption values of the Construction Draw may also be varied in Sensitivity and Risk analyses. You may discern a Construction Draw Page in the Assumption Page List by its Page Abbreviation: *Loan-drw.* The assumptions in a Construction Draw Page are:



DRAW PERCENT is the percentage of the eligible costs (the Development Item Cost entered in the Development Item Grid times the Draw percentage entered there) included in the Construction Draw Loan. For instance, an entry of 80% here would generate a draw of $72,000 for an item costing $100,000 when Draw is specified to be 90% for the Development Item. The entry is limited to 0-100%.

DRAW RATE is the Annual Interest Rate charged for the Construction Draw Loan.

DRAW PERIOD is the number of months of Development Spending that will be funded by this Construction Draw. For example, if you enter 3 months here, and $100,000 of spending is scheduled for the current month, $90,000 for the next month, and $80,000 for the following month, the Draw for this month will be $270,000, and no further draw will be scheduled until the 4th month following. This allows you to spread the draws, but will increase the interest cost of the loan, since money is drawn earlier than strictly necessary. No provision is made for earning interest on idle drawn money. Unless your loan source limits the number or frequency of draws, limiting this assumption to one month will benefit your project's rate of return. The entry is limited to 1-12 months

DRAW TREATMENT is the interest payment and tax treatment of the interest on the Construction Draw. In general, interest is either *expensed* (rare) or *capitalized* (normal). Construction Period Interest is accorded a special treatment in the current Tax Law, and is, generally, capitalized. The payment of interest may be either *accrued* (not paid until the Construction Draw Loan is repaid), or *paid* (paid currently as incurred). This choice allows you any combination of these treatments. If you choose a *Draw Treatment* for your Construction Draw Loan that capitalizes the Construction Period Interest, the interest is allocated to each Development Spending item for which the Draw column in the Development Spending Dialog is greater than zero in order to determine the amount to be added to the Depreciable Amount for that item in determining the annual depreciation. For example, if a Development Item of $100,000 is included in the draws, where the total Construction Period Interest is $27,000 and the total Development Items included in the Draws is $1,000,000, the Depreciable Amount (and Capital Spending) assigned to that Item will be $100,000, but the amount depreciated will be $100,000 plus $27,000*($100,000/$1,000,000), or $102,700.

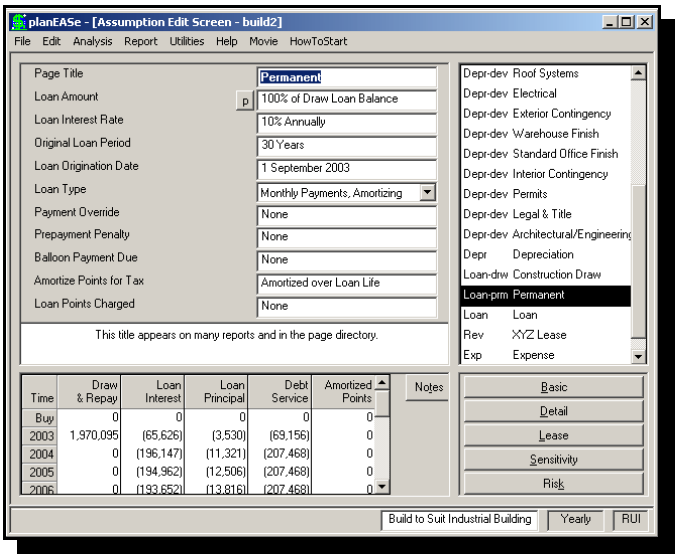
DRAW LIMIT is the maximum amount allowed to be outstanding for the Construction Draw. This includes any accrued interest. A zero value eliminates any consideration of a limit. Once the limit has been reached (including accrued interest), further draws are not allowed.

DRAW POINTS is the fee sometimes charged by the originator for handling the loan. Values greater than 100 are assumed to be a dollar amount, while values of 100 or less are treated as a percentage of the Draw Limit. Thus an assumption value of 1.5 means that the borrower is to pay 1.5% of the Draw Limit to the originator. Draw points are charged at the inception of the loan, and are treated like loan interest, as specified in the Draw Treatment assumption.

The Draw Loan is repaid on the date shown in the *until* field of the draw loan specification. This field is restricted to be no less than the month following the *Spend* Date of the latest Construction Grid Item. For example, if the latest entry in the *Spend* Column is 8.01, then the earliest entry allowed in the until field is 9.01. Once you have approved the Development Spending Dialog (by pressing OK), the *until* date is incorporated in the Assumption Set as the Loan Origination Date for the Permanent Loan, and you may edit it there (under the same restriction). If you choose to not generate a Permanent Loan, you must recover the Development Spending Specification into the Development Spending Dialog (using *Edit/Development Spending...*) to edit the *until* field..

Sensitivity and Risk Analysis may be conducted with Loan Amount as the chosen Measure. If a Draw Loan has been specified, the Analysis will show the **maximum loan balance** during the life of the draw loan as the Loan Amount.

Permanent Loan Page



A Permanent Loan Page is a Page SubType generated by entering a Development Spending Dialog, accessed by choosing *Edit / Development Spending ....* This page will only be generated if you have checked *Generate Permanent Loan* in that Dialog. You can not enter a Permanent Loan Page in any other way. You can, however, edit any of the assumption values shown, once the Page has been generated by the Development Spending Dialog, and the Permanent Loan generated in the resulting analysis will correspond to the edited values. Additionally, appropriate assumption values of the Permanent Loan may also be varied in Sensitivity and Risk analyses. Other than Loan Amount, discussed below, all the assumptions are the same as the normal loan assumptions in planEASe. You may add Participation Loan provisions to a Permanent Loan just as you may to any other loan in planEASe, although any Permanent Loan specified will be the next loan in your Assumption Set following the Construction Draw Loan (if there is any such). Permanent Loan proceeds will automatically repay any Construction Draw loan balance, to the extent available. You may discern a Permanent Loan Page in the Assumption Page List by its Page Abbreviation: *Loan-prm.* The assumptions in a Permanent Loan Page are:

LOAN AMOUNT may be edited as you would expect, but the Method determining the amount may NOT. The method, as chosen in the Development Spending Dialog, may be any of:

- **% of Total Draw Loan Balance**. including accrued interest, if any.
- **% of Cost at Completion**. The Cost at Completion is the sum of the Price of Property, all Development Spending Items, and any Capitalized Construction Draw Interest.
- **Specific Dollar Amount**
- **Debt Coverage Ratio.** The chosen Debt Coverage Ratio will be for the year the Permanent Loan starts. Thus, if you choose this method, you may want to extend the *until* date of the Construction Draw loan until the beginning of the year following construction completion

If you want to change the Method determining the Loan Amount, you must access *Edit/Development Spending...* and change the Method (and Parameter?) there.

The remaining assumptions for the Permanent Loan are the same as the normal loan assumptions. However, for the Loan Origination Date assumption, the Permanent Loan may not commence before the date shown in the *until* field of the draw loan specification. This field is restricted to be no less than the month following the *Spend* date of the latest Construction Grid Item in the Development Spending Dialog. For example, if the latest entry in the *Spend* Column is 8.01, then the earliest entry allowed in the Loan Origination Date is 9.01.

Unit Sales Analysis

Introduction

The combination of planEASe with the *Reporting, Graphics* and *Monthly Extensions* can analyze *Unit Sales* developments, including land development, subdivisions, and condo conversion, for instance. Use this capability any time you are dividing a property, developing it, selling the pieces, and, therefore, are taxed as a dealer (yes, the analysis is valid **after tax**). Use *Edit/Unit Sales ...* to pop up the Unit Sales dialog box, enter the costs for the development, schedule the sales of the units, and (optionally) specify the draw loan parameters (the draw loan is structured as a **revolving line of credit**, so you can include **multiple construction phases** in your development). Entering the specifications on a single screen makes the assumption entry process a breeze. Press *OK* and the analysis is ready to go. The loan is linked to both the costs (for draws), and unit sales (for repayments), so if you vary any of these items, the loan automatically adjusts, and the tax ramifications are changed as well. Global assumptions like *Price Multiplier* and *Cost Multiplier* make it easy to perform powerful *what-if* analysis with the planEASe Sensitivity and/or Risk analysis capabilities. Sensitivity and Risk Analysis may be conducted with Loan Amount as the chosen Measure. If a Unit Sales Draw Loan has been specified, the Analysis will show the **maximum loan balance** during the life of the draw loan as the Loan Amount.

Example Assumption Sets ship with planEASe to illustrate this capability:

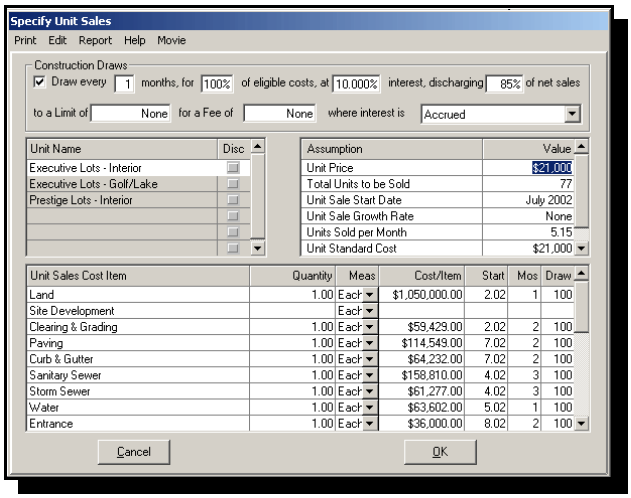
pine lake homesites.ru	a 120 lot development
pine lake absorbed.ru	the same 120 lots with sales absorbed rather than discrete
pine lake homesites.rp	the same development, structured as a Partnership / LLC

(the RP Assumption Set requires the optional *Partnership / LLC Models*)

In addition to this documentation, there are movies on the Movie menu in the Unit Sales Dialog, Sample Reports on our WebSite, and extensive content-sensitive help available by pressing F1 when working with this capability.

Unit Sales Dialog

The Unit Sales Dialog, shown here with the values for the Pine Lake Homesites Assumption Set (*pine lake absorbed.ru*) , allows you to enter the specifications for Unit Sales projects, such as Subdivisions, Land Development, Condominium Conversions, Marina Slips, et cetera. It is accessed by choosing *Edit/Unit Sales ...* from the Assumption Edit Screen if you have the optional *Monthly Extension*. If you access *Edit/Unit Sales ...*while an Assumption Set containing a Unit Sales Specification is loaded (as we have here), the Specification as it currently exists in your Assumption Set is recovered into this Dialog for your further processing, so you may edit the specified values in the Dialog, **or** at the Assumption Edit Screen, as you choose.



When you have completed the entry of information in the Dialog and press the *OK* Button, planEASe will enter the Unit Sale Specification into your Assumption Set. The Specification consists of:

- one Unit Sales Parameter Page (abbr: *Rev-usp*)
- one Unit Sales Revenue (Absorption) Page (abbr: *Rev-us*a) for each Unit Type, **OR**
- one Unit Sales Revenue (Discrete) Page (abbr: *Rev-us*) for each line in the Unit Sales Schedule Grid.
- one Unit Sales Spending Page (abbr: *Exp-us*) for each line entry in the Unit Sales Cost Grid.
- one Unit Sales Draw Page (abbr: *Loan-us*) if you have chosen to generate a Unit Sales Draw loan

These various assumption Pages are discussed and defined further in this section.

When you press the Dialog's *OK* button, planEASe removes the previous Unit Sales Specification (if any) from your Assumption Set and inserts the new specification as contained in the Dialog. If you press the Dialog's *Cancel* button, the Assumption Set stays as it was prior to entering the Dialog.

If you check the *Draw every* checkbox above the grid, planEASe will generate a Unit Sales Draw Page in your Assumption Set according to the instructions you enter here. Once that has been done, you may use Basic, Detail, Sensitivity and Risk Analysis on the Unit Sales Draw Loan as you would with any other loan. If you generate a Unit Sales Draw Loan, it will be inserted as the first loan in your Assumption Set. You cannot enter a Unit Sales Draw Page in any other way. You can, however, edit any of the assumption values shown, once the Page has been generated by the Unit Sales Dialog, and the Unit Sales Draws generated in the resulting analysis will correspond to the edited values. Additionally, appropriate assumption values of the Unit Sales Draw may also be varied in Sensitivity and Risk analyses. Sensitivity and Risk Analysis may be conducted with Loan Amount as the chosen Measure. If a Unit Sales Draw Loan has been specified, the Analysis will show the **maximum loan balance** during the life of the draw loan as the Loan Amount.

There are 3 Grids in the Unit Sales Dialog:

- **Unit Type Grid** listing the names of the Unit Types for which Sales are planned
- **Unit Schedule Grid** listing the unit sales (either Discrete or Absorption) for the Unit Type highlighted
- **Unit Sales Cost Item Grid** listing all the items of cost planned for the project, and their characteristics

Unit Type Grid contains two columns: the name of the Unit Type, and a Check Box on the right which changes between Absorption (unchecked) and Discrete (checked) Schedule Grids. The default Schedule Grid type is an Absorption Grid, but you may change to a Discrete Grid at any time by checking the Check Box on the right side of the Unit Grid once a Unit Type name has been entered. When you enter a new Unit Type name, you may:

- **Press Enter↵ or Click the Gray Unit Schedule Grid to the right**. This opens the schedule grid for this Unit Type (signaled by the schedule grid changing from a gray to white background), and you may proceed to enter the schedule for the Unit Type.
- **Press ↓ to enter the next Unit Type**. In this case the schedule grid to the right will remain gray, and will only turn white when you choose a Unit Type Grid line containing a completed Unit Type name.

Absorption Unit Schedule Grid rows are as follows:

- **Unit Price** is the price per unit for this Unit Type at the Unit Sale Start Date.
- **Total Units to be Sold** is the total number of this unit type sold, no matter when.
- **Unit Sale Start Date** is the date on which the sale of this Unit Type starts.
- **Unit Sale Growth Rate** is the annual percentage growth rate of the Unit Price for these units. The Unit Price grows at this rate every month for sales planned with Absorption Pages, IGNORING any Price Inflation entered in the Unit Sales Parameter Page (unless the Absorption Growth Override is used).
- **Units Sold per Month** is the number of Units sold per month (ie: rate of sales). This can be entered as a fractional number (eg: 2.45 units/month), and any fraction remaining is deferred to later months until it reaches a whole number. For example, 2.45 unit/month results in scheduled sales of 2, 2, 3, 2, 3, etc.
- **Unit Standard Cost** allows planEASe to allocate the Costs specified as Unit Sales Costs to the appropriate time period for Income Tax purposes. Unit Sales Costs affect cash flows at the time incurred. However, for tax purposes, they are allocated to the Units Sold, and deducted at the time of the Unit Sale. To accomplish this, the Unit Standard Cost times the number of Units Sold for each Unit Sales Revenue Page is added together to obtain the Total Standard Cost for the Project. Then each Unit Sales Cost in the Cost Grid is allocated to each Unit Sale based on the ratio of the Unit Sale Standard Cost to the Total Project Standard Cost. You may view this allocation in the Taxable Expense column of the Audit Grid for each of the Unit Sales Cost Pages.
- **Unit Sale Cost** is the Sales Commission charged for the unit(s) sold. Limited to 100 or less, it is treated as a percentage of the Unit Price.

Discrete Unit Schedule Grid columns are as follows:

- **Date** is the month that the unit(s) on this line of the grid will be sold (entered as a planEASe Date). Once a date appears here, you may increase / decrease it by one month by using the + and − keys. Dates less than or equal to the Acquisition Date (or equal to or greater than the end of the Holding Period) are not allowed.
- **Units** is your entry in the Unit Sales Schedule Grid Units column.
- **Unit Price** is the price that will be charged for each of the units entered on this grid line
- **Std Cost** is same as *Unit Standard Cost* above.
- **Comm** is same as *Unit Sale Cost* above.

Unit Sales Cost Item Grid columns are as follows:

- **Unit Sales Cost Item** is the name of the item, such as Signage. The name is used as the Page Title for the Unit Sales Spending Page generated for this line. You may use an "&" in front of the name to combine the item with the previous item in the normal planEASe reporting. This will not affect the Project Cost Summary, Project Schedule or Bill of Material Reports, which report one line per item always, ignoring the "&".
- **Quantity** is the number of this Item required (normally one). The quantity you specify becomes available in the Calculator on the Unit Sales Spending Page for that item.
- **Meas** is the unit of measure for this item (defaulted to *Each*). When you begin a new Unit Sales Dialog, this column contains *Each* and *SqFt* as the available measures. If you want to add another measure (such as *Tons*, or *Feet*), just type it in here, and it will become available on all lines. The measure you specify becomes available in the Calculator on the Unit Sales Spending Page for the item.
- **Cost/Item** is the cost per unit for the item. The cost you specify becomes available in the Calculator on the Unit Sales Spending Page for the item.
- **Start** is the month and year the cost item begins, entered as a planEASe Date. Once a date appears here, you may increase / decrease it by one month by using the ⊕ and ⊖ keys. Dates less than or equal to the Acquisition Date (or equal to or greater than the end of the Holding Period) are not allowed.
- **Mos** is the number of months over which to spread the cost of this item (normally one). If more than one, the cost of the item will be spread equally across the number of months requested. *Mos* values which would cause spending after the end of the Holding Period are not allowed.
- **Draw** is the percentage of the item cost that applies to the draw percentage, if Generate Draws is checked. For instance, an entry of 90 here for an item costing $100,000 when the draws are specified to be 80% of eligible costs would generate a draw loan of $72,000.

Print Menu offers the usual choices for printing and exporting the Reports on the Report Menu (only when they are displayed on screen).

Edit Menu allows you to edit the Unit Sales Parameters and do several things to the Unit Sales Grids (the cursor must be in the grid you want to be affected):

- **Insert/Delete Cost Item/UnitType/Schedule Item** click on any row in any grid and choose *Edit/Insert Item* or *Edit/Delete Item* to insert a new row before it, or delete the selected row. For the Cost Grid, you may also choose to *Cut/Copy* or *Paste* a Cost Item Row.
- **Increase/Shorten Start Dates** increases or shortens ALL the dates in the *Start* column of the Cost Grid, or the *Date* column of the Schedule Grid, depending which grid you are in.
- **Change Item to Title** changes any Item in the Cost Grid to a Title. Titles (like *Hard Costs* and *Soft Costs* in the examples shipped) allow you to add subtotals to your Project Cost Summary and Bill of Materials Reports. They do NOT appear in the Assumption Page List when you insert your specification into the Assumption Set.
- **Edit Parameters ...** brings up a window allowing you to edit the Unit Sales Parameters (see page 195)

PasteColumn Menu Option is available anytime the cursor is in the Cost Item Grid, and allows you to paste an entire column of information from the Windows Clipboard into the Grid beginning in the row where the cursor is located. For example, selecting *PasteColumn / Cost Item* pastes the clipboard data into the Unit Sales Cost Item column. If any data is already in that column, planEASe asks if you want to overwrite it. If there are more rows on the Clipboard than in the Grid, additional rows are automatically added. Any unacceptable values on the clipboard are skipped rather than pasted.

Anytime you use the *PasteColumn* Menu Option planEASe remembers the status of the Unit Sales Cost Item Grid before pasting, and offers the option to undo the Paste at the *Edit / Undo ...* Menu Option where *Undo* is followed by the name of the action being undone, such as *Edit / Undo Paste Cost Item*. In addition, the *Edit / Insert Row, Delete Row, Cut Row* and *Paste Row* commands are remembered, and can be undone, one at a time, and in reverse order of occurrence.

Report Menu allows you to switch between viewing the Unit Sales Specification and the available reports. While being viewed, any report may be printed, saved as a web page, or exported by accessing the appropriate Print Menu choice.

General Tips for planning Unit Sales Projects

All costs in the Unit Sales Costs Grid will be allocated to the times of the Unit Sales for tax purposes. Therefore any costs properly so allocable (such as land) should be included in the Grid. Likewise, any currently deductible expense should **NOT** be included in the Grid, but should rather be planned using normal planEASe Expense Pages. A similar treatment would apply to any revenues not associated with the unit sales.

There is no limit on the number of items in any of the grids, and the Draw Loan is structured so that additional draw costs incurred after the draw loan has been repaid simply reinitiate the loan. (sometimes called a "revolving line of credit"). This means that you may plan multiple phase projects with the planEASe Unit Sales Dialog. The operative limit here involves the courage and aggressiveness of the tax accountant. All costs in the cost grid are placed into inventory and charged against sales as they occur. This means that, in a ten year project, costs planned for year 10 are affecting tax deductions in years 1 and 2. The IRS may go along with this, depending on the persuasiveness of your tax and financial counsel.

Standard Costs, while shown as Dollars, may be any "equitable" measure of the relative worth (or size or weight or ...) of the units sold. You might want to use Acres, Square Feet, Square Meters, or other measure in this field. Consulting an experienced accountant in this area is advised.

Unique aspects of planning Unit Sales Partnerships / LLCs

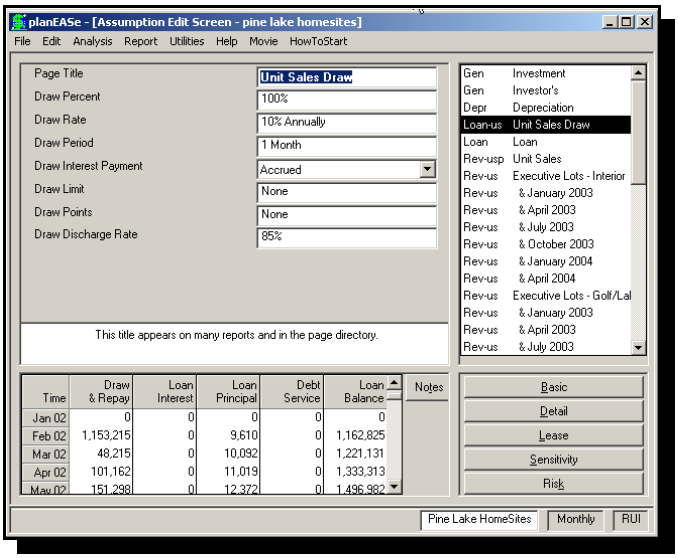
Because every sale in a Unit Sales project represents a sale of Partnership / LLC Assets, the Stepdown Allocation of Funds in the Partnership / LLC is different from a Partnership / LLC based on holding and operating a property. These Partnerships / LLCs follow the distribution rules in the table below.

Stepdown Allocation of Funds Available for Distribution in Unit Sales Partnerships / LLCs	
FIRST:	To pay any interest due to the General Partner / Managing Member on any loans he has made to the Partnership / LLC pursuant to funding shortfalls
SECOND:	To repay the principal amounts of any loans from the General Partner / Managing Member
THIRD:	To pay any arrearage for the Preferred Return to the Limiteds / Members
FOURTH:	To pay the Preferred Return for the period to the Limiteds / Members
FIFTH:	To repay the specified percent of the total investment by the Limiteds / Members
SIXTH:	To pay the specified fee on sale to the General Partner / Managing Member
SEVENTH:	Any remaining cash is split between the Partners / Members according to the percentage specified as Cash to Limiteds / Members.

Accordingly, since Capital Gains and Final Sale Proceeds are irrelevant for Unit Sales Partnerships / LLCs, the Sale Proceeds to Limiteds / Members and Capital Gains to Limiteds / Members Assumption Values are not used in Unit Sales Partnerships / LLCs.

Unit Sales Draw Page

A Unit Sales Draw Page is a Loan Page Sub-Type generated by entering a Unit Sales Dialog, accessed by choosing *Edit/Unit Sales ...* if you have the optional *Monthly Extension*. This Page will only be generated if you have checked *Generate Draws* in that Dialog. You cannot enter a Unit Sales Draw Page in any other way. You can, however, edit any of the assumption values shown, once the Page has been generated by the Unit Sales Dialog, and the Unit Sales Draws generated in the resulting analysis will correspond to the edited values. Additionally, appropriate assumption values of the Unit Sales Draw may also be varied in Sensitivity and Risk analyses. You may discern a Unit Sales Draw Page in the Assumption Page List by its Page Abbreviation: *Loan-us*. The assumptions in a Unit Sales Draw Page are:



DRAW PERCENT is the percentage of the eligible costs (the *Unit Sales Cost Item* entered in the Unit Sales Cost Item Grid times the *Draw* percentage entered there) included in the Unit Sales Draw Loan. For instance, an entry of 80% here would generate a draw of $72,000 for an item costing $100,000 when the item *Draw* entry is 90%. The entry is limited to 0-100%.

DRAW RATE is the Annual Interest Rate charged for the Unit Sales Draw Loan.

DRAW PERIOD is the number of months of Unit Sales Spending that will be funded by this Unit Sales Draw. For example, if you enter 3 months here, and $100,000 of spending is scheduled for the current month, $90,000 for the next month, and $80,000 for the following month, the draw for this month will be $270,000, and no further draw will be scheduled until the 4th month following. This allows you to spread the draws, but will increase the interest cost of the loan, since money is drawn earlier than strictly necessary. No provision is made for earning interest on idle drawn money. Unless your loan source limits the number or frequency of draws, limiting this assumption to one month will benefit your project's rate of return. The entry is limited to 1-12 months

DRAW TREATMENT specifies how interest is paid on the draw loan. Interest may be either *accrued* (paid as the Unit Sales Draw Loan is repaid), or *paid* (paid currently as incurred).

DRAW LIMIT is the maximum amount allowed to be outstanding for the Unit Sales Draw loan. This includes any accrued interest. A zero value eliminates any consideration of a limit. Once the limit has been reached (including accrued interest), further draws are not allowed until the balance outstanding falls below the limit due to payments generated by Unit Sales according to the Draw Discharge Rate.

DRAW POINTS is the fee sometimes charged by the originator for handling the loan. Values greater than 100 are assumed to be a dollar amount, while values of 100 or less are treated as a percentage of the Draw Limit. Thus an assumption value of 1.5 means that the borrower is to pay 1.5% of the Draw Limit to the

originator. Draw points are charged at the inception of the loan, and are treated like loan interest, as specified in the Draw Treatment assumption.

DRAW DISCHARGE RATE is either:

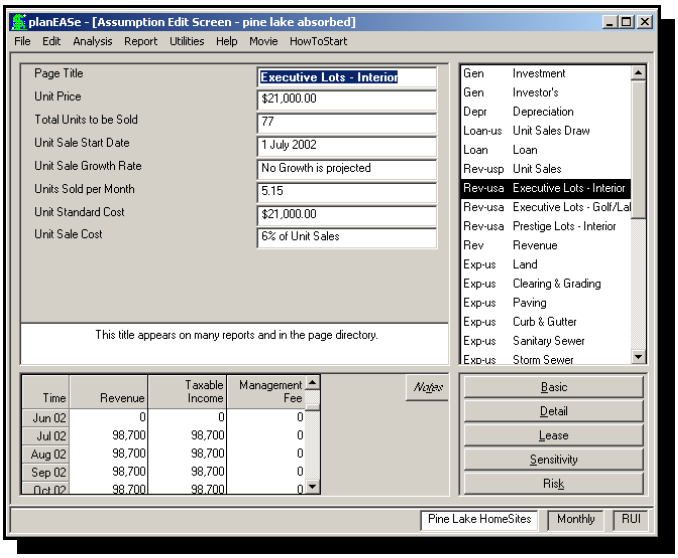
- **if less than or equal to 100**, the percentage of NET sales used to pay off the Unit Sales Draw Loan. Every time a Unit Sale occurs, planEASe computes the amount of the sale, subtracts the Sale Cost/Unit to get the Net Sale amount, computes this percentage of the Net Sale, and pays the resulting amount to reduce the Unit Sales Draw loan balance outstanding. If any balance remains outstanding at the end of the holding period, planEASe pays it off, showing the corresponding negative cash flow at the end of the Holding Period.

- **if greater than 100**, the percentage of the Standard Cost of the Units sold used to pay off the Unit Sales Draw Loan. Every time a Unit Sale occurs, planEASe computes the Standard Cost of the unit(s) sold, multiplies that amount by this percentage, and pays the resulting amount to reduce the Unit Sales Draw loan balance outstanding. If any balance remains outstanding at the end of the holding period, planEASe pays it off, showing the corresponding negative cash flow at the end of the Holding Period.

Sensitivity and Risk Analysis may be conducted with Loan Amount as the chosen Measure. If a Unit Sales Draw Loan has been specified, the Analysis will show the **maximum loan balance** during the life of the draw loan as the Loan Amount.

Unit Sales Revenue Page (Absorption)

A Unit Sales Revenue Page (Absorption) is a Page SubType generated by entering a Unit Sales Dialog, accessed by choosing *Edit/Unit Sales* ... One Unit Sales Revenue Page (Absorption) is generated for each Unit Type when you have chosen to use the Absorption method for planning sales for that Unit Type. You can edit any of the assumption values shown, and the Unit Sales Revenue generated in the resulting analysis will correspond to the edited values. Additionally, appropriate assumption values of the Unit Sales Revenue may also be varied in Sensitivity and Risk analyses. You may discern a Unit Sales Revenue Page (Absorption) in the Assumption Page List by its Page Abbreviation: *Rev-usa*.



The assumptions in a Unit Sales Revenue Page (Absorption) are:

UNIT PRICE is the price per unit for this Unit Type at the Unit Sale Start Date.

TOTAL UNITS TO BE SOLD is the total number of this unit type sold, no matter when.

UNIT SALE START DATE is the date on which the sale of this Unit Type starts.

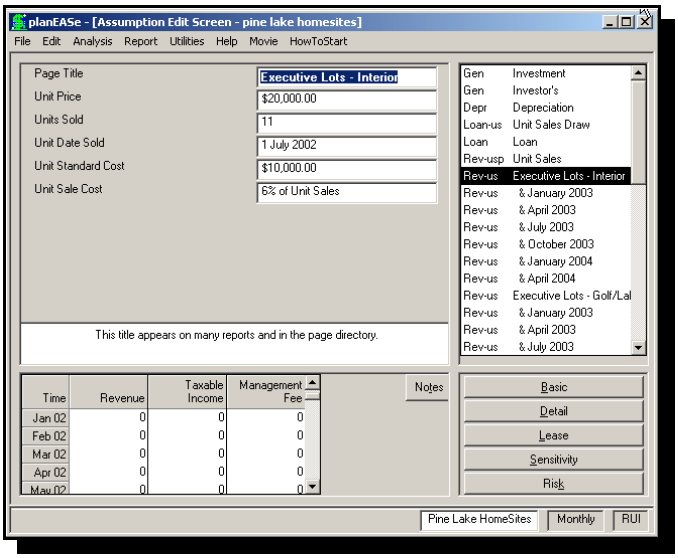
UNIT SALE GROWTH RATE is the annual percentage growth rate of the Unit Price for these units. The Unit Price grows at this rate every month for sales planned with Absorption Pages, IGNORING any Price Inflation entered in the Unit Sales Parameter Page unless you have chosen to override this rate using the Absorption Growth Override on the Unit Sales Parameter Page.

UNITS SOLD PER MONTH is the number of Units sold per month (ie: rate of sales). This can be entered as a fractional number (eg: 2.45 units/month), and any fraction remaining is deferred to later months until it reaches a whole number. For example, 2.45 unit/month results in scheduled sales of 2, 2, 3, 2, 3, etc.

UNIT STANDARD COST is used to allocate the Costs specified as Unit Sales Costs to the appropriate time period for Income Tax purposes. Unit Sales Costs affect cash flows at the time incurred. However, for tax purposes, they are allocated to the Units Sold, and deducted at the time of the Unit Sale. To accomplish this, the Unit Standard Cost times the number of Units Sold for each Unit Sales Revenue Page (either Discrete OR Absorption) is added together to obtain the Total Standard Cost for the Project. Then each Unit Sales Cost in the Cost Grid is allocated to each Unit Sale based on the ratio of the Unit Sale Standard Cost to the Total Project Standard Cost. You may view the results of this allocation in the Taxable Expense column of the Audit Grid for each of the Unit Sales Cost Pages.

UNIT SALE COST is limited to 100 or less, and is treated as a percentage of the Unit Price.

Unit Sales Revenue Page (Discrete)



A Unit Sales Revenue Page (Discrete) is a Page SubType generated by entering a Unit Sales Dialog, accessed by choosing *Edit/Unit Sales ...* if you have the optional *Monthly Extension*. One Unit Sales Revenue Page (Discrete) is generated for each Unit Sales Schedule Item in the Grid in that Dialog. Thus there are seven such pages shown in the screen to the right for *Executive Lots - Interior* for the *Pine Lake Homesites* analysis (one for each of the seven lines in the schedule grid for this Unit Type). You can edit any of the assumption values shown, and the Unit Sales Revenue generated in the resulting analysis will correspond to the edited values. Additionally, appropriate assumption values of the Unit Sales Revenue may also be varied in Sensitivity and Risk analyses. You may discern a Unit Sales Revenue Page (Discrete) in the Assumption Page List by its Page Abbreviation: *Rev-us*.

The assumptions in a Unit Sales Revenue Page (Discrete) are:

UNIT PRICE is your entry in the Unit Sales Schedule Grid *Unit Price* column.

UNITS SOLD is your entry in the Unit Sales Schedule Grid *Units* column.

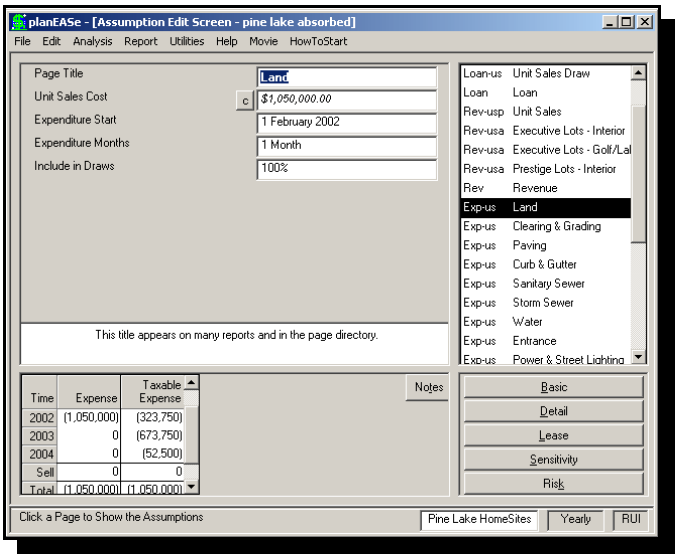
UNIT DATE SOLD is your entry in the Unit Sales Schedule Grid *Date* column.

UNIT STANDARD COST is your entry in the Unit Sales Schedule Grid *Std Cost* column. Its purpose is to allocate the Costs specified as Unit Sales Costs to the appropriate time period for Income Tax purposes. Unit Sales Costs affect cash flows at the time incurred. However, for tax purposes, they are allocated to the Units Sold, and deducted at the time of the Unit Sale. To accomplish this, the Unit Standard Cost times the number of Units Sold for each Unit Sales Revenue Page (either Discrete OR Absorption) is added together to obtain the Total Standard Cost for the Project. Then each Unit Sales Cost in the Cost Grid is allocated to each Unit Sale based on the ratio of the Unit Sale Standard Cost to the Total Project Standard Cost. You may view the results of this allocation in the Taxable Expense column of the Audit Grid for each of the Unit Sales Cost Pages.

UNIT SALE COST is your entry in the Unit Sales Schedule Grid *Comm* (standing for *Comm*ission) column. Limited to 100 or less, it is treated as a percentage of the Unit Price.

Unit Sales Spending Page

A Unit Sales Spending Page is a Page SubType generated by entering a Unit Sales Dialog, accessed by choosing *Edit/Unit Sales ...* if you have the optional *Monthly Extension*. One Unit Sales Spending Page is generated for each Unit Sales Cost Item in the Grid in that Dialog. You can edit any of the assumption values shown, and the Unit Sales Spending generated in the resulting analysis will correspond to the edited values. Additionally, appropriate assumption values of the Unit Sales Spending may also be varied in Sensitivity and Risk analyses. You may discern a Unit Sales Spending Page in the Assumption Page List by its Page Abbreviation: *Exp-us*. The assumptions in a Unit Sales Spending Page are:



UNIT SALES COST is the product of the *Unit Sales Item Cost* times the *Item Quantity*. These values, taken from your corresponding entries in the Unit Sales Cost Item Grid in the Unit Sales Dialog, are also entered in the Unit Sales Cost calculator. If you edit the amount shown here to zero (0.00), the Page Title will become a Title in the Unit Sales Dialog, and will disappear from the Assumption Page List the next time you press OK in the Unit Sales Dialog. If you edit the amount to any other value in the amount field, the amount will be posted to the Unit Sales Dialog as that amount, with a quantity of one (1) and a Measure of *Each*. **If you want to edit the cost without changing anything else, then you must do so in the Calculator.**

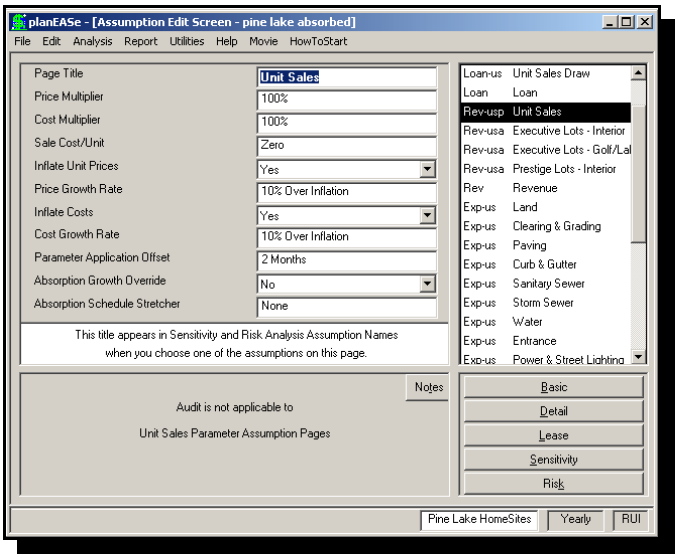
EXPENDITURE START is your entry in the *Start* column of the Unit Sales Cost Item Grid of the Unit Sales Dialog.

EXPENDITURE MONTHS is the number of months to spread the Unit Sales Cost over. If the number of months is greater than the number of months remaining in the year after the Expenditure Start date, the remaining amount is assigned to the following year(s). This is your entry in the *Mos* column of the Unit Sales Cost Item Grid of the Unit Sales Dialog.

INCLUDE IN DRAWS is the percentage of the Unit Sales Cost to include in the Unit Sales Draw Loan. This is your entry in the *Draw* column of the Unit Sales Cost Item Grid of the Unit Sales Dialog.

Unit Sales Parameter Page

A Unit Sales Parameter Page is a Page SubType generated by entering a Unit Sales Dialog, accessed by choosing *Edit/Unit Sales* ... One Unit Sales Parameter Page is generated in each Assumption Set containing Unit Sales, and the purpose of the page is to provide you with **global variables** you may use to investigate the effect of changes in your Unit Sales projection. You can edit any of the assumption values shown, and the resulting analysis will correspond to the edited values. Additionally, appropriate assumption values of the Unit Sales Parameter Page may also be varied in Sensitivity and Risk analyses. The assumptions in a Unit Sales Parameter Page (Page Abbreviation *Rev-usp*.) are:



PRICE MULTIPLIER (normally 100%), this is a factor you may apply to all of the Unit Prices in all Unit Sales Revenue Pages (and NO OTHER Revenue Pages) to increase (or decrease) all of them to a fixed percentage of their specified values. Very useful in Sensitivity and Risk Analyses.

COST MULTIPLIER (normally 100%), this is a factor you may apply to all of the Costs in all Unit Sales Spending Pages (and NO OTHER Expense Pages) to increase (or decrease) all of them to a fixed percentage of their specified values. Very useful in Sensitivity and Risk Analyses.

SALE COST/UNIT (normally 0) is a percentage that is used (if different from 0) as the Unit Sale Cost (in place of the individually specified Unit Sale Cost in each Unit Sales Revenue Page). for all Unit Sales.

INFLATE UNIT PRICES choose *Yes* to apply Inflation to all Unit Sales Revenue Pages planned with the Unit Sales Revenue Pages (Discrete). Inflation will NOT be applied to Absorption Revenue Pages unless you have chosen *Yes* for the *Absorption Growth Override* assumption.

PRICE GROWTH RATE if you choose *Yes* in Inflate Unit Prices (above), this rate is applied to the Sales in all Discrete Unit Sales Revenue Pages (and NO OTHER Revenue Pages). Inflation occurs each month, so a sale scheduled for January 2002 will have less inflation impact applied to it than one scheduled for February 2002. If you have chosen *Yes* for the *Absorption Growth Override* assumption, this growth rate is also applied to prices on Absorption Unit Sales Revenue Pages as well.

INFLATE COSTS choose *Yes* to apply Inflation to all Unit Sales Spending Pages.

COST GROWTH RATE if you choose *Yes* in Inflate Costs (above), this rate is applied to the Costs in all Unit Sales Spending Pages. Costs will be inflated up to the month of expenditure. Cost spread over two or more months will be inflated in all months following. Inflation occurs each month, so a cost incurred in January 2002 will have less inflation impact applied to it than one incurred in February 2002.

PARAMETER APPLICATION OFFSET allows you to apply these parameters (except the Absorption Schedule Stretcher described below) only to Costs and Sales occurring on or after this number of months after the Date of Acquisition. Thus, if your Acquisition Date is February 2002 and the Offset here is 2 months, these Parameters will only affect Sales and costs occurring in and after April 2002. In this case, any Inflation begins in April 2002, NOT February 2002.

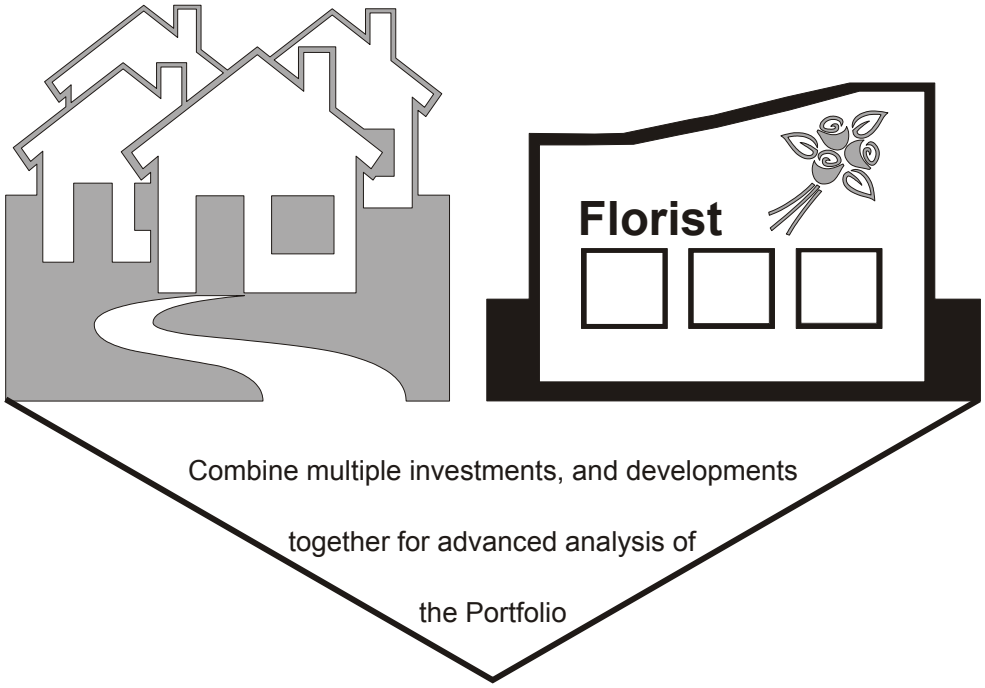
ABSORPTION GROWTH OVERRIDE allows you to override the Unit Sales Growth Rate assumption on ALL Unit Sales Absorption Pages and use the Price Growth Rate instead.

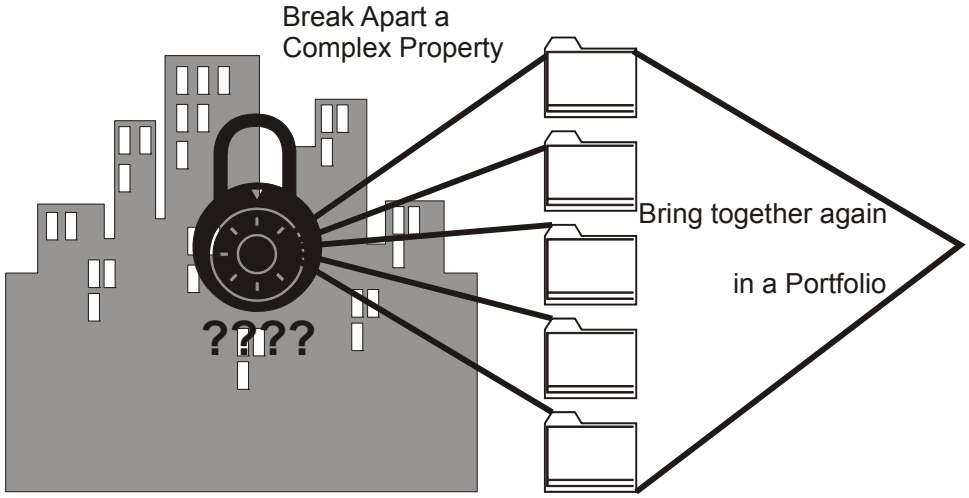
ABSORPTION SCHEDULE STRETCHER allows you to stretch (or contract) the schedule for all Unit Sales planned by the Absorption Method. You can do this for individual Unit Types by changing the Units Sold per Month on the Unit Sales Revenue Page (Absorption), but this Parameter varies ALL Absorption Sale Schedules at the same time. Entering 10 here means that the Schedules will be 10% longer in time, while minus 20 means they will be 20% shorter than specified. The actual calculation involves changing the Units Sold per Month by the entered percentage for each Unit Type. Thus an entry of 50% Longer would cause a Units Sold per Month of 2.54 to be computed as 2.54/1.5 or 1.69 Units Sold per Month. The maximum stretch allowed is 200%, and the maximum contraction is 50%. This Parameter applies from the beginning of the Absorption Schedule(s) no matter what the Parameter Application Offset value is.

Whether you are using the *Absorption Schedule Stretcher* or not, if you are performing a Unit Sales Analysis, planEASe will automatically stretch the Holding Period and adjust the Date of Acquisition to assure that all scheduled sales and costs will occur within the Holding Period. If these adjustment(s) occur within the Unit Sales Dialog or during calculations of an Audit, Detail or Basic Analysis, you are notified of the adjustments by a status message and the actual Assumption Values are changed at the Assumption Edit Screen. If the adjustment(s) occur during Sensitivity or Risk Analysis, they occur without notice, and the original values are restored following the Analysis.

Portfolio

Analysis





Introduction

Portfolio Analysis is an optional planEASe extension that allows you to perform analysis that otherwise would be impossible or impractical. For instance, with the *Portfolio Extension*, you can analyze and report on:

1. Multi-Phase Unit Sales Development Projects
2. Multi-Phase Commercial Developments
3. Mixed-Use Development Projects (containing Unit Sales components or not)
4. Purchase of any type of Mixed-Use Property
5. Annual Projection Reports for Client Property Portfolios (for Asset Managers)
6. Properties with multiple Reimbursement Pools (perhaps Retail with Office above)
7. Multi-Property Portfolios offered for Purchase / Sale
8. A Partnership / LLC for any or all of the above (with the optional Partnership / LLC Models)

A Portfolio consists of as many individual planEASe RU Model (or RP Model if doing a Partnership / LLC Portfolio) Assumption Sets as you specify, using the *Portfolio Specification* Dialog located at the Assumption Edit Screen's *File / Portfolios...* menu choice. Once you have specified one or more Portfolios, you may enter *Portfolio Mode* at any time by choosing the *Save & Enter* Button in that Dialog. When you enter Portfolio Mode, you will see the Assumptions for the *Base Assumption Set* (defined as the particular Assumption Set highlighted in the Dialog at the time you enter Portfolio Mode). Since you may highlight any of the Assumption Sets in the Portfolio before entering Portfolio Mode, it is simple to adjust which of those Assumption Sets will be the Base Assumption Set for your Portfolio Analysis.

While in Portfolio Mode, the Portfolio Name is constantly shown in the Status Bar (in light Blue, the Portfolio Color) to remind you that you are analyzing a Portfolio rather than just the Base Assumption Set. The Portfolio Specification Dialog allows you to choose many Assumptions as *Portfolio Assumptions*. This means the values for these Assumptions are used for *all* Assumption Sets in the Portfolio. Additionally, if you do not choose particular Assumptions as Portfolio Assumptions (The Date of Acquisition, Holding Period, the Tax Rates, and the three Present Value Discount Rates), the values for these assumptions in the Base Assumption Set are used as *automatic Portfolio Assumptions*. If you are in the RUM model (using MIRR rates), the Safe and Reinvestment Rates in your Base Assumption Set are also used as *automatic Portfolio Assumptions*. All Portfolio Assumptions (automatic or specified) are shown in the Blue Portfolio Color while in Portfolio Mode to remind you that they are being used throughout the Portfolio.

While in Portfolio Mode, the Basic, Sensitivity and Risk Analysis results shown are for the sum (total) of the Portfolio Assumption Sets, as are the Acquisition and Sale Reports. If you import the cash flows into the optional *Utilities / Cash Flow Analysis* using *File / Import Cash Flows...* the resulting cash flows imported are for the sum (total) of the Portfolio Assumption Sets.

While you are in Portfolio Mode, the Detail Reports, APOD, Income and Annual Statements appear as normal, but Revenue / Expense / Loan / Asset Detail is shown at the Assumption Set level (using the Investment Name rather than individual Revenues, et cetera). Any Reimbursement and Percentage Rent Revenue is combined with Lease Revenue in Portfolio Reports regardless of the setting for *Show Reimbursements in Reports* at *File / Preferences*.

There are three *Portfolio Types*: *Units*, *Feet*, and *Mixed*. Portfolio Type is determined by examining the Feet / Unit entry in the Assumption Set Specification Dialog (see Change Investment Name at Page 207) for each Assumption Set in the Portfolio. If all entries are greater than the Feet / Unit Crossover Value in your Preferences Dialog (see Page 7), the Portfolio is treated as a *Feet* Portfolio Type and the APOD, Income and

Annual Reports offer options to show / print the Square Footage values for each Assumption Set (and/or the Total for all Assumption Sets). If all values in the Specification Dialog are positive and less than (or equal to) the Crossover value the Portfolio is treated as a *Unit* Portfolio where the APOD, Income and Annual Reports offer options to show / print the Unit values for each Assumption Set. If neither case applies, the Portfolio is treated as a *Mixed* Portfolio, and the APOD, Income and Annual Reports offer no options to show / print Unit or Square Footage values. The SqFt / Unit Income Statement is not available for a *Mixed* Portfolio. In the rare case that any Portfolio Assumption Set includes use of the Area Added Assumption on the Depreciation Pages or the Area Sold Assumption on any Partial Sale Pages, the Portfolio will be treated as a *Mixed* Portfolio. Portfolio Type is explicitly shown in the Property Type field of the APOD Report, and implicitly shown by the availability of Square Footage or Unit numbers in the affected reports.

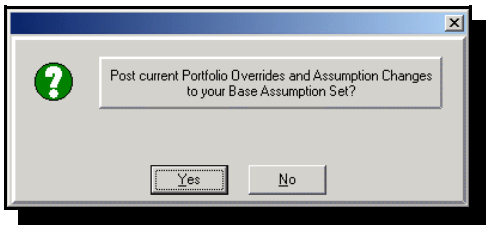
We logically assume one owner for a Portfolio, so the tax assumptions on the Investor's Page are automatically overridden. This has tax implications when Passive Losses are carried forward. With multiple properties, losses on one may be offset by gains on another, and only one $25,000 exception is available. Therefore, if Passive Losses are carried forward, Taxable Income for the portfolio may well be different (and more favorable) for the portfolio, as compared with the sum of the individual analyses.

While you are in Portfolio Mode, the following commands (at the Assumption Edit Screen) are not available. They become available again when you exit Portfolio Mode by choosing *File / Exit Portfolio Mode* at the Assumption Edit Screen or the *Save & Exit* Button in the Portfolio Specification Dialog.

- *File / New Assumptions*
- *File / Open Assumptions*
- *File / Save Assumptions*
- *File / Save Assumptions As*
- *File / Save Reader File As*
- *File / Switch Models*
- *File / Convert Assumptions*
- *File / Recent Files (all four choices)*

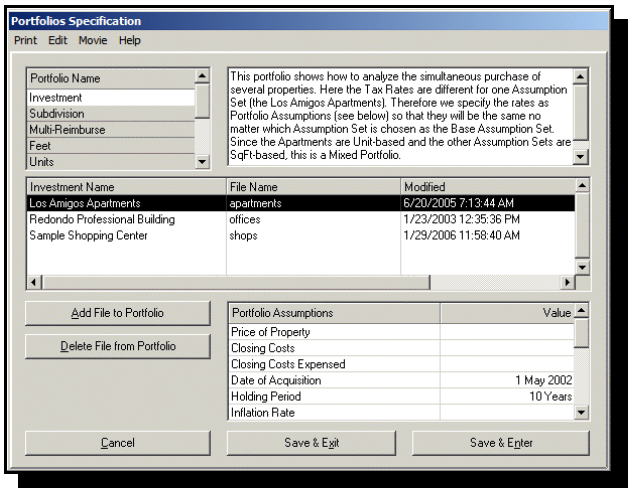
Other capabilities not available while in Portfolio Mode are:

- The *File / Import Cash Flows ... / Combine Cash Flows...* capability of the Cash Flow Analysis Utility
- The *Print / Compare* menu option in Sensitivity Analysis
- The *Change Investment Name* Dialog normally accessed by clicking on the Investment Name in the Status Bar. This means that in order to change the Investment Name, the Feet / Unit entry or the Fiscal Year specification for any Assumption Set in your Portfolio, you must exit Portfolio Mode, access the Assumption Set to be changed, enter the changes, save the changed Assumption Set, and re-enter Portfolio Mode at the Portfolio Specification Dialog. There can be only one Fiscal Year for reporting, so the Portfolio Fiscal Year is defined by the Fiscal Year for the Base Assumption Set.



If you are in Portfolio Mode and choose *File / Exit Portfolio Mode* at the Assumption Edit Screen, planEASe offers the opportunity to *Post current Portfolio Overrides and Assumption Changes to your Base Assumption Set*, as shown here. *Yes* returns you to your Base Assumption Set with the current values of the Portfolio Assumptions substituted for your original assumptions and the Assumption Set Name changed to "Untitled" so that you will not accidentally save it over the original Assumption Set. If you have changed other assumptions (not Portfolio Assumptions) in the Base Assumption Set during your Portfolio Analysis, those values will also be posted if you choose *Yes*. The assumption values in the saved Assumption Set (on disk) remain the same as before the Portfolio Analysis, so you can save the changed Assumption Set under a different name, maintaining two copies, one with the Portfolio Assumptions intact.

Portfolio Specification Dialog



The Portfolio Specification Dialog allows you to enter the specifications for as many Portfolios as you may desire, including Comments, included Assumption Sets, and Portfolio Assumptions. It is accessed by choosing the *File/Portfolios ...* menu option from the Assumption Edit Screen if you have the optional *Portfolio Extension*. Here we show the sample *Investment* portfolio (from the sample Portfolios File shipped with planEASe).

Portfolio Name Grid at the top left shows the names you have chosen for each Portfolio you have entered. There is a limit of 15 characters for the name. The Portfolio Name is constantly displayed in the Status Bar at the bottom of planEASe when you are in Portfolio Mode. It also is the default Report Subtitle for the Portfolio Reports while you are in Portfolio Mode. When you enter this Dialog, the Portfolio Name Grid starts by displaying the last Portfolio you accessed.

Comments area next to the Portfolio Name Grid allows you to enter and save any comments you want with each Portfolio Specification. The comments are printed in the Portfolio Configuration Report (available at the *Print / Print* Menu Option).

Assumption Set Filenames Grid (below the Comments and Portfolio Name Grid) allows you to enter as many Assumption Sets as you want to be included in the Portfolio. Pressing the *Add File to Portfolio* Button brings up the list of your Assumption Sets from which you can choose. Pressing the *Delete File from Portfolio* Button deletes the highlighted Assumption Set from the list in this Grid. The order of the Assumption Sets presented in detail in such reports as the APOD, Income and Annual Statements is determined by their order in this Grid, except that the Base Assumption Set is always presented last. Since you can control the order in the Grid (by deleting and adding) and choose which is the Base Assumption Set (by highlighting it here and choosing the *Save & Enter* button), the order of presentation in the reports is under your control.

Portfolio Assumptions Grid (below the Filenames Grid) allows you to override any of the assumption values on the first two pages (Investment and Investor's) with whatever value you enter here. When an assumption value is overridden, the value entered here will be used for ALL Assumption Sets in the Portfolio while you are in Portfolio Mode. For instance, if you enter a 3% Inflation Rate here, all Assumption Sets will use a 3% Inflation Rate in the Portfolio, no matter what Inflation Rate is in the underlying Assumption Sets. Additionally, and for example, varying an overridden Inflation Rate (or any other overridden Assumption Value) in Sensitivity or Risk Analysis varies the Inflation Rate (or any other overridden Assumption Value) in ALL the Assumption Sets in the Portfolio. Simply enter a value to establish an Override. Delete the shown Assumption Value (by highlighting the Value and pressing the delete key) to eliminate the Override.

If you do not choose particular assumptions as Portfolio Assumptions (The Date of Acquisition, Holding Period, the Tax Rates, and the three Present Value Discount Rates), their values will be AUTOMATICALLY overridden by the values in the Base Assumption Set, which means that your Portfolio Reports may be different if you enter Portfolio Mode from different (Base) Assumption Sets.

Three buttons at the bottom of the Dialog control your exit from the Dialog:

- ***Cancel*** erases all changes made in the Dialog and returns you to the same situation you were in when you entered the Dialog. If you were in Portfolio Mode, you are returned to it, with the same Base Assumption Set you were in when you entered the Dialog. If you were not in Portfolio Mode when you entered, you are returned to the same Assumption Set you were in when you entered the Dialog.

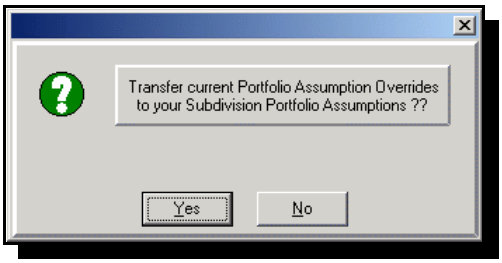
- ***Save & Exit*** saves all changes you have made in the Dialog, exits Portfolio Mode (if you are in it) and returns planEASe to the Base Assumption Set you were in when you entered Portfolio Mode.

- ***Save & Enter*** saves all changes you have made in the Dialog, and enters Portfolio Mode using the Assumption Set currently highlighted in the Assumption Set Filenames Grid as the Base Assumption Set.

Edit Menu choices allow you to *Cut*, *Copy* and *Paste* Portfolios in your Portfolio List. Additionally, you may *Insert* a new Portfolio anywhere in the list and *Delete* any Portfolio you wish. Finally, you may *Remove all Portfolios*, in which case you will start again with a blank Portfolio List. Of course, *Add* Portfolio is not on this menu because you simply click on (or ⊡ arrow to) the first empty row in the Portfolio Name Grid to add a new Portfolio.

Print Menu allows you to print a report detailing any or all Portfolio Configurations to either your printer or a Web Page.

If you are in Portfolio Mode when entering this Dialog, you will be asked whether you want to transfer the current Portfolio Assumption Overrides to your Portfolio Specification, as shown here for the Portfolio named Subdivision. Accepting this invitation is a good idea. It means that for future use of this Portfolio, all the shared Portfolio Assumptions will be the same regardless of which Portfolio Assumption Set is chosen as the Base Assumption Set.



Making a Partnership / LLC for a Portfolio

Just as there can be as many Assumption Sets as you want in a Portfolio, when you are structuring a Partnership / LLC for that Portfolio, there can be **ONLY ONE** set of Assumptions for the Partnership / LLC. Therefore, structuring a Partnership / LLC for a Portfolio consists of the following steps **IN ORDER**:

- Make the Assumption Sets for each Investment / Development that is going to be in the Portfolio as RU Assumption Sets using the RU Model Series. It will help you later if you use the same tax assumptions for each Assumption Set.

- Convert each Assumption Set to an RP Assumption Set using the *File / Convert Assumptions* Menu Option.

- Enter the RP Model Series with the *File / Switch Models* Menu Option, and Choose *File / Portfolios* to enter the Portfolios Dialog while in your choice of the RP Models.

- When in the Portfolios Dialog, choose the RP Assumption Sets that will make up your Portfolio and select the desired Base Assumption Set. Choose the desired Date of Acquisition and Holding Period in the Portfolio Assumptions Grid (you can do this in the next step at the Assumption Edit Screen if desired), and choose the *Save and Enter* Button to exit the Dialog in Portfolio Mode.

- At the Assumption Edit Screen, go to Pages 3 and 4 (the Partnership / Group and Distribution Pages) and note that the Assumptions there are automatically Portfolio Assumptions (in Blue) just as the Tax Assumptions, Date of Acquisition, Holding Period and Present Value Discount Rates are automatic Portfolio Assumptions for all Portfolios. Proceed to fill out the assumption values on these pages just as you would for any Partnership / LLC, accessing Basic Analysis to check your results as you go.

- After structuring your Partnership / LLC, you will want to save that structure for use in the future. You may do so by again choosing File / Portfolios at the Assumption Edit Screen. When you do so, you will be asked whether you want to transfer the current Portfolio Assumption Overrides to your Portfolio Specification, as shown in the picture on the previous page. **Accept this invitation.** planEASe will then add your Partnership / Group and Distribution Assumption Values to the Portfolio Assumptions Grid in the Portfolios Dialog (you can scroll that grid to examine the posting results).

- Exit the Dialog by pressing the *Save and Enter* button. This **important** step saves the current configuration of your Portfolio(s) so you can recover it in the future. After leaving the Dialog, you can re-enter it using the *File / Portfolios* menu option.

The Stepdown Allocation of Funds for a Portfolio Partnership / LLC is the same as specified for the corresponding underlying Assumption Sets (either Unit Sales or non-Unit Sales). In the case of a mix (Unit Sales Assumption Set(s) mixed with non-Unit Sales Assumption Set(s) in the Portfolio), proceeds from Sales of the Unit Sales Units are treated as a Return of Capital (pursuant to the Investment Return to Limiteds / Members Assumption Value) until the specified percentage of the invested capital has been returned. Following that, any proceeds from Sales of Units go to pay any specified Fee to the General Partner / Managing Member on Sale until such Fee has been paid. Any further proceeds from Sales of Units are split between the Partners / Members according to the Cash to Limiteds / Members Assumption Value.

How Do I Do

How Do I Do ...

Can't think how to do something ?? You'll probably find the answer here.

Change the Investment Name

The Investment Name is always shown in the Status Bar at the bottom of the screen. You may change the Investment Name at any time by clicking on it, which brings up a Dialog for changing it (as well as the other items in the APOD Report if you have the *Reporting Extension*).

Lease Forecasting

Projecting leases for existing and new leases generally requires you to itemize the components of the lease in several Revenue Pages. The general capability to keep in mind is that these pages allow you to place any amount at any time in your forecast. Therefore, there is no lease which cannot be forecast with the system, although some complicated leases may be arduous unless you simplify.

Page Title	Thrifty	& Renewal	& Percent	& less Base
Annual Revenue	$50,000.00	$70,000.00	$30,000.00	($20,000.00)
Revenue Start Date	August 2001	Continuation	August 2001	August 2001
Revenue Period	3 Years	Until Projected Sale	Until Projected Sale	Until Projected Sale
Revenue Growth Rate	No Growth is Projected	at the Inflation Rate	at the Inflation Rate	No Growth is Projected
Revenue Growth Method	Annual (@ Growth Rate)	Annual (@%>Inflation)	Annual (@%>Inflation)	Annual (@ Growth Rate)

For example, this table shows a lease calling for a fixed $50,000 for three years (*Base Rent*) followed by $70,000 for five years (*& Renewal*) with annual COL adjustments. A percentage rent clause calls for 2% of all sales in excess of $1,000,000, and sales are currently running $1,500,000 annually. To forecast this, we take 2% of $1.5m, or $30,000 annually, and let it grow with inflation (*& Percent*) and then subtract out the base 2% of $1m ($20,000) with *& Less Base*. Note that all pages are tied to specific dates (as is the lease itself) so that the dates will not change when the Acquisition Date is changed. This example is derived from the *Thrifty* lease in the *shops.ru* Assumption Set, which you may want to examine. The four revenue pages for this lease are added together under the name ***Thrifty*** in the Detail Analysis, Income Statements and Annual Statements due to the "&" used as the first character of the Page Title of the last three pages. With the addition of the Reimbursements Dialog in Version 11, the Percentage Rent clause is better handled there.

Expense Pass-throughs

Project the expense as both a revenue and an expense. Then set up a negative revenue page for any base amount which is not passed through, and the revenue side is left with the remainder to be received from the tenant(s). With the addition of the Reimbursements Dialog in Version 11, Pass-throughs, or reimbursements, are better handled there.

Import NOI

If you use other software to forecast revenues or Net Operating Income (NOI), you can take the total forecast into planEASe by specifying a series of one year revenue pages for the total amounts, thereby allowing you to use that forecast in a total investment analysis. Entry of ***NOI*** is facilitated by using *Edit/Add Continuation Page*. Enter the first page as shown, then use *Edit/Add Continuation Page* twice to add the following pages. You can then easily edit the Annual

Page Title	NOI	& Year 2	& Year 3
Annual Revenue	$310,456.00	$322,212.00	$345,100.00
Revenue Start Date	January 2001	Continuation	Continuation
Revenue Period	1 Year	1 Year	1 Year
Revenue Growth Rate	No Growth is Projected		
Revenue Growth Method	Annual (@ Growth Rate)		

Revenue on the added pages. Using the (PgDn) (and/or (PgUp)) keys to post the changes facilitates this because the cursor stays in the same assumption on the next or previous page.

Variable Growth Rates

Page Title	Variable	& Step 2	& Step 3
Annual Revenue	$10,000.00	Continuation	Continuation
Revenue Start Date	January 2001	Continuation	Continuation
Revenue Period	2 Years	2 Years	until Projected Sale
Revenue Growth Rate	3% Over Inflation	1% Over Inflation	at the Inflation Rate
Revenue Growth Method	Continuous (@%>Inflation)		

Variable Growth Rates are planned using the Continuation Page capability (denoted by a Revenue or Expense Start Date of minus one). For such a page, the starting amount may be specified by entering a dollar or percentage amount, which causes that amount to be used in the calculations. If, however, you specify a zero amount for a Continuation Page, planEASe uses the ending amount from the previous page as the starting amount, which allows you to vary such items as the Growth Rate, Growth Method, Vacancy Rate and/or Management Fee during the life of the Revenue/Expense. In this table, *Variable* revenue grows at 3% more than the inflation rate for two years, then 1% more than the inflation rate for the two following years, then at exactly the Inflation Rate afterwards. You may also plan Variable Vacancy Rates using the same technique. You may freely mix Growth Methods in the Continuation Pages as well. The three pages for this revenue are added together under the name ***Variable*** in the Detail Analysis, APOD, and Income and Annual Statements due to the "&" used as the first character of the Page Title for the last two pages.

Entry of ***Variable*** is facilitated by using *Edit/Add Continuation Page*. Enter the first page as shown, then use *Edit/Add Continuation Page* twice to add the following pages. You can then easily edit the Revenue Growth Rates and Revenue Periods on the added pages. Using the (PgDn) (and/or (PgUp)) keys to post the changes facilitates this because the cursor stays in the same assumption on the next or previous page.

Goal Seeking

Sensitivity Analysis can (and should) be used for goal-seeking. For example, to find the purchase price that gives you a 20% after tax rate of return, run a Sensitivity Analysis on purchase price giving a range wide enough to assure the results will "cross" 20%. You can pick the approximate answer off the graph if you want, or rerun the analysis with smaller steps to get the exact answer. Once you have that answer, change the purchase price to that value at the Assumption Edit Screen and run whatever reports you want.

Amounts as a % of Price

All the Multiple Page Types allow you to enter a percentage of purchase price as the page amount. Use this with discretion. In general, you should enter the amount in the same manner in which you are thinking about it. In other words, if you are thinking that you will borrow 80% of the purchase price, then the Loan Amount should be entered as 80. Conversely, if you are thinking that you will borrow $800,000 even though you may offer $900,000 for the property, then the Loan Amount should be entered as $800,000. There are two reasons to enter assumptions in this way. First, when you enter a change to the purchase price, you may not have to change the Multiple Page Type amount assumption. The second reason is to avoid dependencies for Sensitivity and Risk Analysis. If you vary the purchase price in these processes, the Multiple Page Type amount either will or will not vary with the changes depending on whether you specified a percentage or an amount (respectively).

Chart of Accounts

You may want to set up Assumption Set "templates" for particular kinds of property. This is like a "Chart of Accounts" where there is always an Expense Page for Pool Maintenance, for instance. Rather than re-entering similar pages for each property of this kind, you simply request *Edit/Transfer Pages*, use the *OpenSourceFile* option to open your template Assumption Set, and drag and drop your standard expenses, leases, loans, et cetera from the template to your current Assumption Set. This saves a lot of time.

Tax deduction with no corresponding cash flow

To generate a $50,000 tax deduction in July 2001 with no corresponding cash flow (perhaps a charitable deduction for the facade of an historic property?), set up these two expense pages. Since the first page is tax deductible and the second is not, the cash flows from the two pages cancel each other out. This leaves no cash flow in total, but the deduction from the first page remains.

Page Title	Deduction	& Cancel
Annual Expense	$50,000.00	($50,000.00)
Expense Start Date	July 2001	July 2001
Expense Growth Rate	No Growth is Projected	
Expense Growth Method	One-Time (at Growth Rate)	
Tax Deductible	Yes	No

Original Issue Discount Implied Interest

To generate the tax deductions for Original Issue Discount Implied Interest on a note where there is zero interest but you want to deduct the amount of interest that would be due if the note bore a 9% interest rate, set up two loan pages. The first page is the note with a 9% interest rate. The second page is for the same note, but with a negative Loan Amount of the same amount, and a negative 9% interest rate. The cash flows from the two notes cancel out due to the negative amount in the second loan. Since a negative interest rate generates no interest deductions, the interest deductions from the first note remain.

Breakeven Analysis

Breakeven Analyses are easily performed before debt and before and after tax simply by setting the appropriate Present Value Discount Rate to zero and running a Sensitivity Analysis on the concerned assumption looking for the assumption value corresponding to a zero Net Present Value. For instance, you might run the General Credit Loss & Vacancy Factor against Net Present Value Before Tax to find the Vacancy Factor at which you make zero profit. Remember, a zero discount rate simply values all future cash flows at their nominal value rather than discounting them, so the Net Present Value in such a case is simply Profit.

A level of sophistication above that might call for setting the Present Value Discount Rate to 15% in the same analysis to find the Vacancy Factor which would yield a 15% IRR. (Remember, the IRR is defined as the Present Value Discount Rate at which the NPV is zero, so all you have to do is look for the Vacancy Factor causing a zero Net Present Value).

Note Discounting

Enter an Acquisition Date, a Holding Period equal to or greater than the life of the loan, and the loan itself as one or more loan pages with negative Loan Amounts (you use negative amounts to make the Debt Service amounts into **positive** cash flows). Finally, set the Present Value Discount Rate Before Tax to the required yield, enter the Loan Amount as a **negative** Price of Property, and run Basic Analysis. The negative Price of Property cancels the negative loan draw at the buy time, and you are left with just the future payments and principal repayment in the Cash Flow Before Tax (as positive cash flows). The Net Present Value Before Tax then, is the loan price to give the required yield. Nothing restricts you to a single loan obviously, so you can use the same technique to value an entire portfolio.

Varying the Present Value Discount Rate in a Sensitivity Analysis against the Loan's Net Present Value, gives an impressive graph showing the loan price to give various yields. If you want a client report showing the discounting process determining the NPV, use *File/Import Cash Flows* in Cash Flow Analysis in the *Financial Utilities* to generate the NPV Verification Report. Examples of Assumption Sets for Note Discounting are included on your planEASe distribution disk under the names *note.ru* and *notes.ru* (for multiple loans). If you are using this capability extensively, or for complex loans, you may want to consider the added accuracy and visibility you get with our planEASe *Monthly Extension*.

Lease-by-Lease Analysis

We include Assumption Sets for the lease by lease analysis of the *Sample Shopping Center* and the *Redondo Professional Building* with your planEASe under the names *shops.ru* and *offices.ru*.

Date Entry

All dates in your planEASe Assumption Sets must be entered as MM.YY where MM is the month, and YY is the year and they are separated by a decimal point. Thus 4.01 means the fourth month (April) of 2001.

Any Depreciation, Loan, Revenue or Expense may start on any date you wish. If you enter a date of 0.00 for any of these pages, the Start Date defaults to the Acquisition Date. Try to use this date default of 0.00 for Start Dates when appropriate, rather than entering the actual date. If you do, whenever you change the Acquisition Date, all Multiple Page Type pages with 0.00 dates automatically adjust to start on the new Acquisition Date, and you avoid having to remember to change all the dates. This discipline also assures you of not making mistakes by failing to change dates.

Time is a continuum in planEASe. If you include cash flows that begin before the Acquisition Date, the system knows it, and only includes the cash flows which affect the time during the holding period. Likewise, if you include pages that start after the Holding Period ends, the system senses that as well, and ignores the page. Why would you include such cash flows? One very good reason ... if you vary the Holding Period in Sensitivity or Risk Analysis, the Revenues, Expenses, etc. to cover those Holding Periods had better be in the Assumption Set or you're going to have some very strange results indeed!!

Land Acquisition

This *Land* Depreciation Page makes a Capital Expenditure of $200,000 in July 2001 with no depreciation (Enter a zero (0) Depreciable Life). This type of Depreciation Page can be used for the acquisition of any non-depreciable capital asset. The Depreciation Assumptions not shown here are irrelevant in this case

Page Title	Land
Depreciable Amount	$200,000.00
Depreciable Life	Non-Depreciable Asset
Depreciation Method	Straight Line
Depreciation Start Date	1 July 2001
Expenditure Date	1 July 2001

Development/Capital Spending

Capital Spending is indicated by entering a Depreciation Page with a Depreciation Start Date occurring *after* the Acquisition Date. ***New Building*** and the following Depreciation Pages depreciate $210,000 starting in March of 2005 over 27.5 years by the Straight Line Method. The $210,000 Capital Expenditure is spent as $100,000 in 2003, $80,000 in 2004, and $30,000 in 2005. The three depreciation pages for this development are added together under the name ***New Building*** in the Detail Analysis, Income Statements and Annual Statements due to the "&" used as the first character of the Page Title of the last two pages.

Page Title	New Building	& Year 2	& Year 3
Depreciable Amount	$100,000.00	$80,000.00	$30,000.00
Depreciable Life	All 27.5 Years		
Depreciation Method	All Straight Line		
Expenditure Date	July 2003	July 2004	February 2005
Depreciation Start Date	All March 2005		

Partnership / LLC Fee Planning

Planning Fees is pretty simple with one major exception: the tax treatment of the fee when the tax code specifies that the particular fee must be "amortized" These fees are always planned with two pages: a *One-Time Capital Fee* Fee Page with Fee Tax Deductible set to *No* takes care of planning the cash flow for the fee, and a Depreciation Page for the Fee Amount takes care of the amortization. In such cases, there are two possibilities: either the fee is added to the basis of the property or not.

- **Fees that add to basis** are functionally equivalent to Capital Expenditures. They are typically paid at the Acquisition Date. If this is the case, they should be planned as two pages: A *One-Time Capital Fee* Fee page for the Fee Amount, Fee Tax Deductible of *Not Deducted* and Fee Date of 0.00 (at Acquisition) adds the amount to the Investment and Sale item at the *Buy* and therefore accounts both for the cash expenditure of the amount and the addition to the property basis, but does not generate the tax deduction for the fee. A Depreciation page for the amount, using straight-line over the amortization period with a Depreciation Start Date of *at Acquisition* takes care of the tax deduction.

In the case that such a fee is paid after the Acquisition Date, it should be planned as a Capital Expenditure with a Depreciation Page rather than as a Fee.

- **Fees that do not add to basis** and are paid at the Acquisition Date are planned as above, except use a *One-Time Expensed Fee* Fee Type, instead of *One-Time Capital Fee*. Fees paid after the Acquisition Date are planned with two pages: A *One-Time Expensed Fee* Fee Page for the Fee Amount, Fee Tax Deductible of *Not Deducted*, and Fee Date when paid adds the Fee Amount to the Operating Expense column at the Fee Date accounting for the cash expenditure. A Depreciation (amortization) Page with Depreciation Start Date of the Fee Date and a negative Depreciation Life takes care of the deduction for the Fee Amount.

Tenant Improvements

Thrifty TI makes a $10,000 Tenant Improvement in July 2004. According to our understanding of the 1993 tax revision, tenant improvements should be amortized over a 39 year life rather than the life of the lease, as shown here. In 1996, the tax law was changed to allow tenant improvements to be written off at the expiration of the lease that caused them. The Recapture Method of -7.50 used here assures that the remaining unamortized amount is written off at the end of 7.5 years or the end of the Holding Period, whichever is first.

Page Title	Thrifty TI
Depreciable Amount	$10,000.00
Depreciable Life	39 Years
Depreciation Method	Straight Line
Recapture Method	-7.50
Depreciation Start Date	July 2004

The Economic Stimulus Bill signed into law in March 2002 allows certain (significantly restricted) Tenant Improvements to qualify for an immediate 30% depreciation deduction, with the remaining 70% to be depreciated over the normal 39 year life as under previous law. The allowance of this treatment expires at the end of 2004 in the Bill. To implement this treatment in version 10.02 and beyond, for a $10,000 TI incurred in March 2003 for a 7.5 year lease, add two Depreciation Pages as shown. In the 2003 Tax Bill, the 30% allowance was increased to 50%

Page Title	TI	& Next
Depreciable Amount	$3,000.00	$7,000.00
Depreciable Life	1 Year	39 Years
Depreciation Method	Straight Line	Straight Line
Recapture Method	-7.50	-7.50
Depreciation Start Date	March 2003	March 2003

Partial Loan Payments

are caused when you assume an existing loan in the middle of a payment period or sell the property after a loan payment has been made but before the next payment is due. In such cases planEASe automatically computes and pays an interest-only payment for the period involved. For instance, if you assume an existing quarterly payment amortizing loan on 1.02 and the loan started on 2.01, the last quarterly payment would have been made on November 1, 2001. planEASe assumes the loan value outstanding as of that payment, making the internal assumption that the seller would make an interest-only payment in escrow to cover the two months involved. Continuing with the same example, if you planned on selling on April 15, 2004, planEASe knows that you made the last payment on February 1, 2004, and computes an interest-only payment at the end of the loan to cover the 2.5 months due.

Split Down Payments

are treated as exactly what they really are: Zero interest loans from the seller. Use *Interest-Only* Loans, and remember that the Loan Period can be fractional, so you can put the second and third (and so on) installments in any month you want.

Compensating Balances / Reserves

and/or Deposit Reserves are handled as negative loans. A negative loan is simply a loan with a negative Loan Amount, representing a loan from the property buyer to a third party (the bank in these cases). If the required balances earn interest, plan the negative "loan" with an interest rate ... otherwise it's a zero interest rate loan.

Variable Rate/Payment Loans

are entered using multiple loan pages, one defining each interest rate and/or payment amount involved. Here are some examples. Remember that the Loan Period can be fractional years, so each step can be any number of months you want.

Page Title	Variable 1	& Step 2	& Step 3	& Step 4
Loan Amount	$100,000.00	Continuation	Continuation	Continuation
Loan Interest Rate	10%	10.5%	11%	11.5%
Original Loan Period	30 Years	29.5 Years	29 Years	28.5 Years
Loan Origination Date	at Acquisition	Continuation	Continuation	Continuation
Loan Type	Monthly Payments, Amortizing			
Balloon Payment Due	6 Months	6 Months	6 Months	None

Variable 1 shows the entry of a 30 year variable rate loan for $100,000 with 3 payment/rate changes forecast 6 months apart, where the payment is to be computed as amortizing over the remaining life of the loan. We use the *Monthly Payments, Amortizing* Loan Type so that planEASe computes the payments for us, using the Original Loan Period for the amortization period. The step length in this case is specified by the Balloon Payment Due where the step ends prior to the end of the Original Loan Period. Note that the Balloon Payment Due is *None* in the last step so that the loan will continue throughout the Holding Period. The four pages for this loan are added together under the name ***Variable 1*** in the Detail Analysis, APOD, and Income and Annual Statements due to the "&" used as the first character of the Page Title for the last three pages.

Entry of this loan requires that you enter the Variable1 loan page as shown, choose *Edit/Add Continuation Page* 3 times to add the remaining 3 pages, change the Loan Interest Rate on the 3 added pages to the values shown, and finally change the Balloon Payment Due to *None* on the last page. All other values are automatically entered by the *Edit/Add Continuation Page* menu option.

Page Title	Variable 2	& Step 2	& Step 3
Loan Amount	$100,000.00	Continuation	Continuation
Loan Interest Rate	12%	13%	14%
Original Loan Period	1 Year	1 Year	28 Years
Loan Origination Date	at Acquisition	Continuation	Continuation
Loan Type	Monthly Payments, Variable		
Payment Override	$900.00	$1,000.00	$1,300.00

Variable 2 shows a variable rate loan with stipulated (contractual) payments. This is a new $100,000 loan taken at Acquisition and paid $900/mo at 12% interest for 12 months, $1000/mo for 12 months at 13%, and $1300/mo at 14% thereafter. Because the payment for the first two steps is less than the interest due, this loan amortizes negatively for the first 24 months until the $1300 payment is in effect. The *Variable* Loan Type allows you to plan variable rate loans with one or more negatively amortizing steps. The final step is entered as 28 years, but the loan fully amortizes before that time (and planEASe handles that properly automatically. This loan has been saved in the Loan Amortization module of the *Financial Utilities* as WSAMPLE, if you want to play with it. The three pages for this loan are added together under the name ***Variable 2*** in the Detail Analysis, APOD, and Income and Annual Statements due to the "&" used as the first character of the Page Title for the last two pages.

In planning this loan, you might use the payment constant capability of the Payment Override. Numbers less than 25 entered in the Payment Override are interpreted as a % of the Loan Amount, so for a $100,000 Loan Amount, Payment Overrides of 1,300.00 and 1.30 are equivalent. The advantage of using the payment constant is that the payments will automatically be scaled to the Loan Amount if you change it.

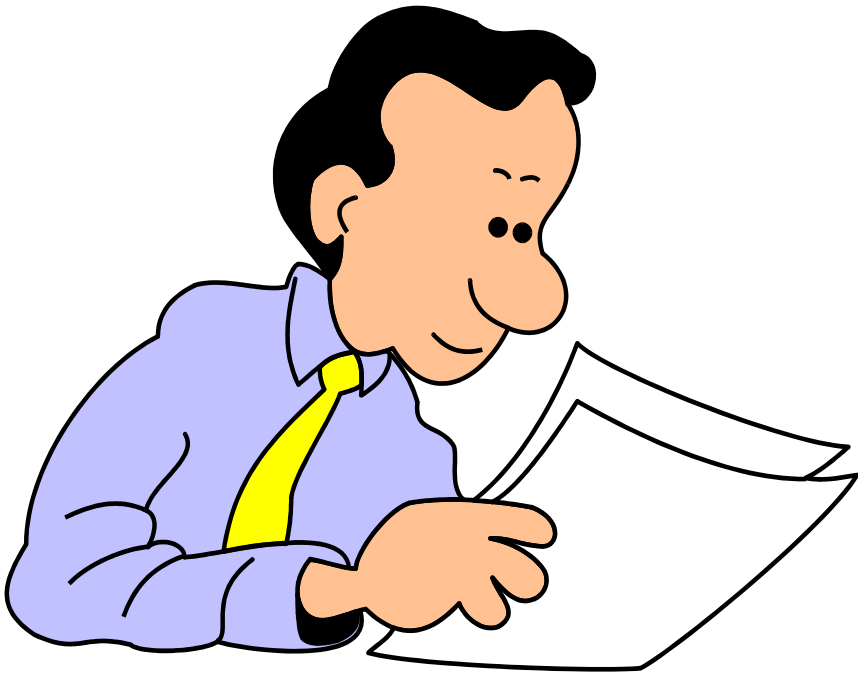
In using the Continuation Page capability, you may freely mix Loan Types, so step 1 might have monthly payments, step 2 quarterly payments, and step 3 monthly payments again. For another loan, Step 1 might be *Monthly Payments, Amortizing* with a Balloon Payment Due, and Step 2 might be *Quarterly Payments, Interest Only*, not that such a loan would be usual.

Free Rent / Rent Abatement

Page Title	Lessee Name	& -Free Rent
Annual Revenue	$120,000.00	-$120,000.00
Revenue Start Date	January 2001	January 2001
Revenue Period	2 Years	.25 Years
Revenue Growth Rate	3% Over Inflation	3% Over Inflation
Revenue Growth Method	Continuous (@%>Inflation)	

Free Rent is easily handled within Market Profiles (see page 108) but you may wish to handle it directly in some cases (where Market Profiles perhaps are not needed). This table shows how to plan normal rent ($120,000 per year) and then use a SubPage to subtract three months (.25 Years) at the beginning of the lease as Free Rent. Be sure to use the same Revenue Growth Method and Rate on both pages so the amounts mirror each other for the period of the Free Rent. There are other examples in the owner.ru and tenant.ru Assumption Sets shipped with planEASe.

Appendix



Discounted Cash Flow Theory

The immediate concern of an individual considering an investment is to judge how attractive that investment is. In other words, he would like to "measure" the attractiveness of this particular investment compared to other opportunities he may have now or in the future. There are many such measures which have been developed to respond to this need. Some are peculiar to the field of Real Estate. For instance, if a salesman says that a property is selling for five times its gross income and the investor knows that most of the comparable property is going for seven times, then he might make an internal judgment that the property is a good investment. However, the investment value of the property would also depend on the quality of the financing available, deferred maintenance, and the level of expenses, to mention but a few factors. In other words, the Gross Income Multiplier is an incomplete and inaccurate measure of an investment because it does not consider all of the relevant factors, and it does not weigh those factors properly.

Another weakness of measures which are limited to Real Estate is that it is extremely difficult to compare them with investments in other fields. For instance, how can you compare an apartment house selling at five times gross income with a ten year bond with a nine percent coupon selling at a ten percent discount from face? For this reason, financial analysts have developed several methods of measuring investments which do not depend on the particular type of investment involved.

How much money must I invest?
How much money will I make?
When do these "cash flows" happen?

While there are many measures which have been developed over time, virtually all of them are based on the answers to the three simple questions shown here which, in a financial sense, are the most important things an investor is concerned with. The first two of these questions are the most commonly asked, but **the last question is typically the most important**. Consider an investment of $1,000 which returns $1,100 in one year. Most people would say that this investment has a 10% "rate of return". However, if the time period is expanded from one to ten years, that 10% rate of return vanishes, and we are left with a rate of return under one percent. In other words, while the answers to the first two questions are the same in this case, the answer to the third question makes all the difference. For this reason, financial analysts and sophisticated investors have come to rely on investment measures known in the literature of the field as the "Net Present Value" the "Internal Rate of Return", and the "Modified Internal Rate of Return". These measures are based, in turn, on a technique known as "Discounted Cash Flow Analysis".

The basic premise of Discounted Cash Flow Analysis is that **the value of money is related to time**. That is, a dollar in hand today is worth more than a dollar which is received one year from now. For instance, the investor could take the dollar he has today and put it in a savings account at six percent interest. One year from now he would have $1.06 in the bank. In other words, a dollar today is worth $1.06 one year from now. Expressing this another way, the "Present Value" of a dollar one year from now is $.9434 discounted at 6%, since an investor placing $.9434 in the bank at 6% would have a dollar in the bank at the end of a year. (The 0.9434, or 1 divided by 1.06, is known as the "Present Value Discount Factor".)

This concept of Present Value is most useful, since it enables us to express the value of money received in the future in terms of today's dollars. For example, in the investment returning $1,100 one year from now, the Present Value of $1,100 discounted at 6% is $1,100 divided by 1.06, or $1,038. Since this is greater than the $1,000 investment, the investor would be better off by making the investment than by taking the alternative of putting his money in the bank at 6%.

This leads to the concept of **Net** Present Value. If we subtract the $1,000 investment from the $1,038 Present Value of the future cash flow, the difference, or **Net** Present Value, is $38. Since this difference is positive, we know that receiving $1,100 a year from now is better than investing the $1,000 in the bank at 6%. Another way to interpret the Net Present Value is as follows: the investor could afford to pay $38 more than the $1,000 for this investment and still make 6% interest on his money. All the Present Values shown in planEASe analyses are actually Net Present Values. For this reason, a positive Net Present Value in the analysis means that the particular stream of cash flows is attractive, as compared with other investments which earn interest at the discount rate.

A major difficulty with using Net Present Values in order to make investment decisions is determining what discount rate to use in the calculations. Theoretically, the proper discount rate is the rate at which alternative investments may be made. Thus, if a savings account is the investor's alternative, the six percent discount rate may be appropriate. Other investors may feel that they have different alternatives, however. For this reason, the individual investor's discount rate is an assumption in the analysis so that it may be varied for each investor. This difficulty in determining the proper discount rate is eliminated, however, when the investor uses the Internal Rate of Return to evaluate the investment.

It is a small step from Net Present Values to the Internal Rate of Return for an investment. In the $1,000 investment example, we used a 6% discount rate to obtain the $1,038 Present Value of the future cash receipts. If we had used an 8% discount rate, the corresponding Present Value would have been $1,019, and the Net Present Value would have been a positive $19. At a 10% discount rate, the Present Value of $1,100 is exactly $1,000, so the Net Present Value of the investment is exactly zero.

The particular discount rate which gives us a Net Present Value of zero is called the "Internal Rate of Return." The meaning of this number may be expressed in many ways, but the most useful definition for our purposes is as an effective interest rate. For example, if you had placed $1,000 in a savings account and removed $1,100 from the account a year later **and** the account had no more money in it, then the bank would have paid you 10% interest compounded annually on your money. A calculation quite similar to this is used to compute the Annual Percentage Rate (APR) for loans, the yield to maturity for bonds, and the annual yield for savings certificates. This is what makes the Rate of Return so useful as an investment measure: it may easily be compared to alternative investments because the rates of return for those investments are typically expressed in the same terms.

The foregoing introduction to the concepts of Rates of Return and Net Present Values is not meant to be complete, but rather is intended to provide sufficient background in the subject to enable you to use these measures to judge the attractiveness of the investment being analyzed. If you are interested in delving further into these concepts, there is a substantial body of literature dealing with this subject in the areas of business economics and finance.

$$\sum_i \frac{cf_i}{(1+r)^i}$$

where i is the time of the cash flow, in years,
r is the discount rate (as a decimal), and
cf_i is the cash received at time i

This box shows the formula for computing Net Present Values in planEASe. planEASe obtains the Internal Rate of Return for cash flow streams by finding the discount rate (r) in this formula which causes the formula to be equal to zero. One major convention in all the system models affecting the calculation of rates of return and net present values is the treatment of time. planEASe models assume that inflation occurs continuously over time, even though the analysis is conducted in terms of discrete time periods, such as years. The method for handling this situation is best shown by example. In the case of the *Sample Apartments* analysis shipped with the system, the assumption is that the property is acquired in April of 2001, so there are nine months of operations which will occur in 2001. Revenues and expenses occur continuously during that nine months, but one could say that the **average** time of their occurrence is half that time, or 4.5 months from the beginning of operations. Accordingly, planEASe

will increase all inflating items for 4.5 months of inflation in 2001, and the time of that cash flow ("i" in the formula) will be 4.5 months, or .375 years. Similarly, the **average** revenue and expense in 2002 will occur on July 1, 2002, or 15 months from the April 1, 2001 start of operations. Therefore the inflating revenues and expenses for that year are increased by 15 months of inflation from the starting values as of April 1, 2001, and "i" in the formula is 15 months (or 1.25 years) in this case.

This is a rather dry mathematical formula, and perhaps it is difficult to see how it relates to practicality. Let's take, as an example, the 15.4% Rate of Return Before Tax for the *Sample Apartments* in the Model Documentation. In order to verify this rate of return, and also to show the means of calculation, it is only necessary to show that the Net Present Value of the Cash Flow Before Tax is approximately zero at a 15.4% discount rate.

The calculation is shown in this "IRR Verification Table". The first two columns show the Year and Cash Flow for the Cash Flow Before Tax. The third column is the time, measured from the Acquisition Date, when the Cash Flow occurred. The next two columns show the discount factor and the Present Value of the Cash Flows at a discount rate of 15.5%, and the last two columns show the same calculations at a 15.4% rate ... the Rate of Return Before Tax for the *Sample Apartments*. The Net Present Value at 15.4% is a positive 64.8, so we next calculate the Net Present Value at 15.5% and find that it is a negative 689.7. Thus we know that the Internal Rate of Return is between 15.4% and 15.5%, and we could interpolate to find a close estimate between those two rates. planEASe reports Internal Rates of Return accurate to the nearest .1%, or 15.4% in this case.

Discount Rate			15.5%		15.4%	
Year	Cash	Time	Factor	PV	Factor	PV
Buy	225,000	0.000	1.000000	-225,000.0	1.000000	-225,000.0
2001	1,275	0.375	.947396	1,207.9	.947704	1,208.3
2002	4,180	1.250	.835165	3,491.0	.836070	3,494.8
2003	7,021	2.250	.723087	5,076.8	.724498	5,086.7
2004	9,855	3.250	.626049	6,169.7	.627814	6,187.1
2005	2,904	3.875	.572130	1,661.5	.574054	1,667.1
Sell	367,854	4.000	.561917	206,703.4	.563867	207,420.8
Net Present Value				-689.7		64.8

IRR Verification Table

The calculation of the 2002 discount factor is shown here to demonstrate how the 15.5% discount rate and the 1.25 year timing of the cash flow affect the calculations. Of course, the difference between the way we calculate the IRR here, and the way you may have seen it done elsewhere is in the way in which we measure **TIME**. If you look at the mathematics, it's clear that the IRR depends on only two factors --- Cash Flow **AND** the Time the cash is received. Virtually all analysts take pains to forecast the cash results of an investment with great accuracy. Indeed, much of that accuracy is totally spurious, such as the 5 in the $1,275 Cash Flow above. But the same analyst will throw away all of that accuracy by measuring time to one digit accuracy. That is, many analysts will use a time value of one year for the first year's cash flows, two years for the second, et cetera. Before computers there was some excuse for this, because discount tables using fractional time factors were rare. But with computers, the increase in accuracy gained by measuring time accurately costs nothing. Unfortunately, many programmers have imitated the practices of the past in developing their systems, so their financial planning systems perpetuate this inaccuracy.

Example 2002 15.5% Discount Factor $= \frac{1}{(1+.155)^{1.25}} = 0.8351655$

As the real estate industry (and the measurement of its returns) has progressed, events have combined to make this model of reality inaccurate in many cases. When looking at Development Projects, an assumption that cash

flows occur in the middle of the year is grossly inaccurate. Consequently, no banker or developer will even look at annual projections, insisting (properly) on monthly numbers, at least during the development phase. Likewise, consideration of the results of cost reimbursement and re-leasing space in Office and Retail properties again causes cash flows to occur in a non-symmetric fashion during any year for such properties. This inaccuracy in the measurement of time in the calculation of Net Present Values, and Internal Rates of Return, is typically expressed in an unusual fashion in the trade ... sophisticated analysts ask for a "**monthly**" IRR, dividing both cash flows and time into monthly increments. These people know that dividing time into gross increments of a year is simply not adequate to measure an investment properly. Indeed, if you insist on measuring a key variable (time in this example) to one digit accuracy, the answer you obtain (the NPV and/or IRR) will also be accurate to one digit as any mathematician will tell you!!

The proper measurement of time will, in general, improve the IRR on positive cash flow properties, and correspondingly, lower the IRR on negative cash flow properties. This is because the cash flows are being considered to be received or disbursed **earlier** than with the simpler (year-end) method. The difference is generally **quite** noticeable. Depending on the amount of cash flow between the buy and sell, the difference between IRR's measured in the two different ways can range from 0 to 30%. That is, a 15% IRR measured one way, can be transformed into 20% measured the other way. This considers only the effect of mis-measuring time. Consider the effect of misplacing development and vacancy costs in time and you have gross mis-measurement of the returns!

For these reasons, **planEASe measures cash flows and their occurrence on a monthly basis** when computing IRR's, NPV's and the other measures discussed in this section, whether you have the optional planEASe *Monthly Extension* or not. All planEASe reports, capabilities and measures documented here operate in the same way with the *Monthly Extension* except that the cash flows and times involved are monthly rather than yearly. Monthly or quarterly analyses are useful for other reasons beyond accuracy in IRR's. Such analyses can expose otherwise hidden cash flow problems within a year, and can greatly aid in the interpretation of a yearly planEASe analysis by showing discrete events such as loan draws and repayments, lease steps, and capital expenditures in substantially greater detail than possible when all cash flows within a year are combined into one number.

Relatively recently, theoreticians have developed the Modified Internal Rate of Return (MIRR) in response a perceived need to measure the growth in net worth due to an investment. The IRR calculation does not consider what happens to positive cash flows thrown off during the life of an investment. In order to do that, you need to assume a "Reinvestment Rate" at which these cash flows are reinvested and then measure the total amount of cash generated by both the investment and the reinvestment of the cash generated during the life of the investment. Similarly the MIRR calculation assumes that the cash necessary to fund any negative cash flows after the initial investment is invested at a "Safe Rate" at the beginning of the investment so that the necessary funds will be available at the time of the negative cash flow. The "Safe Rate" would represent the rate at which the investor could actually place the money in an account where it would be liquid at the appropriate time.

$$MIRR = \left(\frac{FV}{PV}\right)^{\frac{1}{N}} - 1$$

where, FV is the Future Value of the positive cash flows,
PV is the Present Value of the negative cash flows, and
N is the number of years in the Holding Period

The methodology used to correct the IRR for these deficiencies requires that the investor specify his "**Reinvestment Rate**" for positive cash flows during the life of the investment, and his "**Safe Rate**" for funding the negative cash flows during that life. The Safe Rate is used to discount all negative cash flows to the present (the Acquisition Date in this case), yielding a Present Value of the invested amounts which represents the sum of the initial investment plus the amount necessary to fund the future negative cash flows, assuming that the funding amount is invested at the Safe Rate on the Acquisition Date. The Reinvestment Rate is used to compound all future positive cash flows to the end of the investment

period. This yields a Future Value which represents the sum of the cash received from the sale of the investment plus the amount that would be available from the reinvested positive cash flows.

The calculations lying in back of the determination of the Modified Internal Rate of Return for the Cash Flow Before Tax for the *Sample Apartments* analysis are shown in this MIRR Calculation Table for a Safe Rate of 8% and a Reinvestment Rate of 10%. Since there are no negative cash flows after the Acquisition Date in this case, the Safe Rate is irrelevant to the calculation, as shown. Below the table, the MIRR is computed as the interest rate which will yield the Future Value from the Present Value over the Holding Period, according to the MIRR formula shown above.

Discount Rate			8%		10%	
Year	Cash	Time	Factor	PV	Factor	FV
Buy	-225,000	0.000	1.000000	-225,000.0	N/A	0.0
2001	1,275	0.375	N/A	0.0	1.412695	1,801.2
2002	4,180	1.250	N/A	0.0	1.299660	5,432.6
2003	7,021	2.250	N/A	0.0	1.181509	8,295.4
2004	9,855	3.250	N/A	0.0	1.074099	10,585.3
2005	2,904	3.875	N/A	0.0	1.011985	2,938.8
Sell	367,854	4.000	N/A	0.0	1.000000	367,854.0
Totals				-225,000.0		396,907.3

$$MIRR = (396{,}907.3 / 225{,}000.0)^{.25} - 1 = 0.152462 \text{ (or } 15.2\%)$$

This example Future Value Factor calculation shows how the FV Factors in the table are determined. The 2.75 exponent comes from the fact that the cash flow occurs at 1.25 years, which is 2.75 years from the end of the four year holding period.

Example 2002 FV Factor Calculation: $(1 + .10)^{2.75} = 1.299660$

There is another measure sometimes used, called variously Net Future Value (NFV) by some, and Capital Accumulation by others. It is simply the difference between the Future Value and the Present Value in the MIRR calculation, or $396,907.3 - $225,000 or $171,907.3, which represents the addition to the investor's net worth at the end of the four year holding period, expressed in dollars discounted to the end of the holding period. The Cash Flow Analysis function in the optional *Financial Utilities* (see page 56) allows you to import investment cash flow streams from any planEASe analysis and compute the IRR, MIRR, NPV, CpA (or NFV) for those cash flows.

In rare instances a correction to the cash flows must be made in calculating the MIRR. Consider the following simplified (but real life) example: A developer plans to float $10M of bonds to develop a property over three years, establish it as an operating investment over the next two years, and then sell it for $14M at the end of five years, paying off the bonds, and netting a $4M sale profit. For simplicity, we'll assume that the bond interest rate is zero.

Buy	10,000	(from the Bond proceeds)
Year 1	-3,333	(First year development costs)
Year 2	-3,333	(and the second)
Year 3	-3,334	(and the third)
Year 4	2,000	(finally renting it up)
Year 5	3,000	(and after getting to occupancy,)
Sell	4,000	(after repaying the $10M bonds)

Zero Investment Development

His cash flows, then, would look like those in this "Zero Investment Development" table. The IRR for these cash flows is infinite. That makes sense. After all, the investor is never "out of pocket" in such an investment, and when you're smart enough to make a profit without investing anything, your rate of return is logically infinite. As we have discussed the MIRR calculations so far, the MIRR for these cash flows at an 8% Safe Rate and a 10% Reinvestment Rate is 23.4%!! If that relates to any type of reality, it escapes us. The reason for this anomaly is that the calculation **ignores** the fact that the earlier $10M positive cash flow would be used to fund the later negative cash flows

To correct for this problem, the practice is to adjust the cash flows before computing the MIRR by removing as many negative cash flows as possible when they are preceded by positive cash flows. The removal is

accomplished by computing the Present Value of the negative cash flow at the time of the earlier positive cash flow and subtracting that amount from the positive cash flow while eliminating the negative cash flow. This simulates setting aside enough of the earlier positive cash flow to fund the later negative flow at the safe rate. When this is done to the cash flows above the MIRR is infinite, as it should be.

The Modified Internal Rate of Return has two basic advantages over the Internal Rate of Return. First, it is much easier to compute, and takes less time, whether done by machine or by hand. Secondly, it is more realistic in that it considers the Reinvestment and Safe Rates, whereas the IRR does not.

The major disadvantage to the MIRR is that the computation is different from that for other investments, so that you are typically comparing apples to oranges when you compare a Bond Yield to Maturity (which is computed like the IRR) to an MIRR on a real estate investment. A second disadvantage is that the calculation depends on the individual investor's situation (his Reinvestment and Safe Rates).

But these advantages and disadvantages are relatively minor. The real determining point must be the preference of the individual investor or user of the system. planEASe makes both measures available, and only you can choose which measures you want to compute for the investment.

Assumption Sets shipped with planEASe

Name(s)	*Purpose*
apartments.ru **apartment_dev.ru** **apartment_dev.rp**	**apartments.ru** shows a typical analysis of a Unit Investment. It is the Assumption Set used to produce the *Apartments* Sample Analysis on the Demo CD and planEASe WebSite Samples. **apartments_dev.ru** shows the same type of property as if developed (using *Edit/Development Spending* ...) rather than purchased as an existing property (note the use of the Ramp Growth method to plan the lease-up of the property after the development). **apartments_dev.rp** goes a step further and shows the property development funded by an LLC. These two analyses are shown as *Apartment Development* and *Apartment Development LLC* on the Demo CD and planEASe WebSite Samples.
build1.ru **build2.ru**	**build1.ru** shows a typical Build-to-Suit project in its preliminary stage, when the development costs have not been detailed, and the purpose of analysis is to figure out whether the development makes sense - ie: are the land costs, development costs, and lease revenue in concert enough to allow a reasonable IRR to the investor?. Access *Edit/Development Spending* to view the original input, and note the use of the *Mos* column in the Development Item Grid to spread the Hard Costs over the development period. **build2.ru** shows the same project with the development cost detailed and ready for a financing presentation. Note that, despite the increased detail of the development costs, total project costs are virtually the same (draw interest cost being the difference) as in build1.ru. build2.ru is the Assumption Set used to generate the reporting in the build-to-suit sample in the Demo CD and planEASe WebSite Samples.
cost_beach.ru **cost_ocean.ru** **cost_whale.ru** **cost_waterfall.ru**	When Property Users face many alternatives in satisfying their need for space, Cost Comparisons is the way to go. Since all lease, purchase, and development alternatives may involve tax consequences, developing and comparing after tax cost scenarios for each of the alternatives is necessary. These four Assumption Sets are for the four alternatives compared in the Cost Comparisons analysis sample in the Demo CD and planEASe WebSite Samples. They are also the alternatives shown in the planEASe brochure.
desexp.ru **desloan.ru** **desrev.ru**	These Assumption Sets give you *Des*igned Solutions to multiple-page inputs for *exp*enses, *loan*s and *rev*enues that you can use *Edit/Transfer Pages* ... to drag and drop into your Assumption Sets. As an example, both **desrev.ru** and **desexp.ru** contain page-sets that you can use to input discrete yearly values for a revenue or expense (or NOI) for as many years as you want.
example.rs	This is the Assumption Set used to prepare the Installment Sale analysis in the Demo CD and planEASe WebSite Samples.

lbbuy.ru **lbdiff.ru** **lblease.ru** **leasebuy.ru**	These Assumption Sets were used to prepare the Lease / Purchase analysis in the Demo CD and planEASe WebSite Samples. **lbdiff.ru** and **leasebuy.ru** are identical, providing what is sometimes called a differential Assumption Set. **lbbuy.ru** and **lblease.ru** are the corresponding lease and purchase alternatives, provided so you can produce the Sensitivity Analysis Comparison graph showing the NPV of both alternatives versus the Present Value Discount Rate taught in CCIM courses. Note that, essentially, Lease / Purchase is simply a two-alternative Cost Comparison analysis, and, due to the more general nature of Cost Comparison analysis allowing unlimited numbers of different types of alternatives, we recommend using that type of analysis for these situations.
note.ru **notes.ru**	**note.ru** shows how to set up a loan for discounting of the future payments to determine the value of the note today, at whatever discount rates you choose. **notes.ru** is the same concept, except that two loans are involved, showing how you might discount and value a portfolio of debt instruments. The only tricks here are to plan the loans with negative loan amounts so that the future debt service payments and payoffs show as positive cash flows, and use the Price of Property assumption to eliminate the initial loan draw cash flows.
offices.ru **offices.rp** **offices partial sale.ru**	**offices.ru** is the Assumption Set used to prepare the *Redondo Professional Building* Office Investment Analysis in the Demo CD and planEASe WebSite Samples. **offices.rp** is the same property, financed by a Limited Partnership / LLC, and is the source for the *Offices - Partnership* analysis in the Demo CD and planEASe WebSite Samples. In either Assumption Set, note the examples of how to include vacant suites (200 New Tenant), lease renewals (1xx ABC Realty), as well as reimbursements and a variable-rate loan
owner.ru	**owner.ru** is the Assumption Set used to prepare the Owner Representation analysis in the Demo CD and planEASe WebSite Samples. It also is the Assumption Set you would generate entering the Owner Representation Tutorial shipped with planEASe. Note the examples here of how to enter net leases and full service leases from the owner's perspective, which is equally useful in entering such leases in an investment analysis.
pine lake homesites.ru **pine lake absorbed.ru** **pine lake homesites.rp**	**pine lake homesites.ru** shows a 120 lot development using the Unit Sales development capability accessed at *Edit/Unit Sales ...* if you have the optional *Monthly Extension*. **pine lake absorbed.ru** shows the same 120 lot development planned using the absorption sales method. **pine lake homesites.rp** shows the same development structured as a Partnership / LLC to finance the purchase of the land. These analyses are shown as *Unit Sales (Subdivision)* and *Unit Sales LLC* on the Demo CD and planEASe WebSite Samples.
shops.ru	**shops.ru** is the Assumption Set used to prepare the *Sample Shopping Center* Retail Investment Analysis in the Demo CD and planEASe WebSite Samples. Note the treatment of the *Percentage Rents* clause in the *Thrifty* lease (and other reimbursements, as well as the assumption of the existing loan, and the negatively amortizing *Seller* loan.
slbase.ru **sldiff.ru**	These Assumption Sets were used to prepare the Sale / Leaseback analysis in the Demo CD and planEASe WebSite Samples. **slbase.ru** was used to prepare the *Sale Report* illustrating the Investment Base for the analysis, and **sldiff.ru** was used to generate the *Sale/Leaseback Difference* report

tenant.ru	**tenant.ru** is the Assumption Set used to prepare the Tenant Representation analysis in the Demo CD and planEASe WebSite Samples. It also is the Assumption Set you would generate entering the Tenant Representation Tutorial shipped with planEASe.
test.ru **test.rp**	These are the Assumption Sets used to prepare the *Sample Apartments* analysis shown throughout this Manual.

Glossary of Terms

There is some terminology used in this manual that may not be familiar to you. Hopefully the following explanations will be of help.

Assumption Clipboard

The Assumption Clipboard is an area of memory that holds the Assumption Page displayed when you last used the *Cut Page* or *Copy Page* Edit Menu Options. This Assumption Page may be pasted into the Assumption Page List in front of the currently highlighted Assumption Page by using the *Paste Page* Menu Option, so long as the page on the clipboard is the same Page Type as the highlighted/displayed page.

Assumption Set

An Assumption Set is the assumption values and names you enter for a particular property. It also includes your specifications for the Income and Annual Statements and APOD. You can create, and save as many Assumption Sets as you want for later recall and use with planEASe.

An Assumption Set is like a "Rolodex" full of Assumption Pages (cards), displayed in the Assumption Page List. In the *Real Estate Investment Analysis*, the first two cards are always named "Investment" and "Investor". Following these pages are, in order, as many Depreciation, Loan, Revenue and Expense cards as you need to describe the investment's characteristics.

Common Size Statement

A statement in which all items are expressed as a percentage of a base figure, useful for purposes of analyzing trends and the changing relationship between financial statement items. In the planEASe Common Size Statement, all items in each year's income statement can be presented as a percentage of either Gross or Net Sales.

Continuation Page

allows you to plan multi-step loans, revenues and expenses. A Continuation Page is denoted by a Revenue/Expense Start Date or Loan Origination Date of minus one (-1.00), which you can think of as "look back one page and start this Loan / Revenue / Expense when that one ended". Expressed another way, use a Continuation Page whenever you want to say "and then", as in "the vacancy rate will be 10% for the first two years **and then** will be 5%".

The Start Date of a Continuation Page **must** be minus one (-1). When you add a Continuation Page, the Start Date is automatically set to minus one, but **if you change it to something else, planEASe will NOT continue to treat it as a Continuation Page.**

The ending date of a page affects the computation of the ensuing page Start Date. A planEASe Loan, Revenue or Expense must start at the beginning of a month. This is typically no problem when your steps are 1 year or .75 years, but what about an eight month step that lasts for .6666667 years? The answer is to enter the Loan, Revenue or Expense Period as .6666667 or .6666666. Any step that is "close" to a month cut-off such as this results in correct computations. Entering .66 does not work, causing the ensuing step to start a month early.

Continuation Pages using Annual Growth have a first step of twelve months, and start at the ending value of the last step. Thus if the previous page used Annual Growth and the growth step on that page has not occurred (as can be the case with fractional time periods), the next step carries the old amount forward for another 12 months.

General Page Type

planEASe Assumption Sets are made up of two Page Types: General and Multiple. General Pages are always the first pages in the Assumption Set. For the *Real Estate Investment Analysis*, the General Pages are "Investment" and "Investor". For the *Limited Partnership / LLC Investment Analysis* they are "Investment", "Limited Partner", "Partnership / Group" and "Distribution". There can only be one of each General Page in an Assumption Set, whereas you may include as many Multiple Page Type Pages as you want. (see also Multiple Page Type in this Glossary)

Grid

All the reports you see on screen (and some other objects as well) are Grids. Grids behave like stupid spreadsheets ... they don't have any formulas or brains inside them, but you can click anywhere on them and edit the text or numbers shown there just as you would with your favorite spreadsheet. Any edits you perform are reflected in the printed report based on the Grid, but do not affect any Assumptions and are not retained after you close the spoke containing the Grid.

Horizontal Report (and View)

In Basic and Detail Analysis you may choose between Horizontal and Vertical View. Horizontal View is so named because time (years or months) runs horizontally across the top of the grid in that view, whereas in Vertical View time runs vertically down the side of the grid. Reports that show the Horizontal View grid are called Horizontal Reports. Horizontal Reports may be printed in either Portrait or Landscape Orientation.

Hub

planEASe uses a *spoke/hub* architecture discussed in the *Menu Bar* description on page 5

Investment Name

is the name that you enter for the investment in the Assumption Set Specifications Dialog when you request New Assumptions from the File Menu. The Investment Name is always shown in the Status Bar at the bottom of the screen. You may change the Investment Name at any time by clicking on it (in the Status Bar), which brings up a Dialog for changing it (as well as the other items in the APOD Report if you have the *Reporting Extension*).

Measure

is a number produced by planEASe which tells you how attractive the cash flows from the investment are. The measures used by planEASe are the Net Present Values (NPV), Internal Rates of Return (IRR), Modified Internal Rates of Return (MIRR) and Capital Accumulations (CpA).

Capital Accumulation (CpA)

The Capital Accumulation (CpA) of an investment is defined as the Future Value (at the end of the Holding Period, reinvested at the Reinvestment Rate) of all positive cash flows from an investment, less the NPV of all negative cash flows discounted to the Acquisition Date at the Safe Rate. The CpA, then, measures the Net Future Value of the additional money that the investor would end up with at the end of the Holding Period. This measure is referred to as the Net Future Value (NFV) of an investment in much of the financial literature.

Modified Internal Rate of Return (MIRR)

The Modified Internal Rate of Return (MIRR) of an investment is defined as the Present Value Discount Rate that makes the Net Present Value of the Investment equal to zero when all positive future cash flows have been reinvested until the end of the Holding Period at the Reinvestment Rate, and all negative future cash flows have been funded at the Acquisition Date at the Safe Rate.

You may think of the MIRR as the annual Interest Rate or Yield (compounded annually) that the investment is paying you over the Holding Period. Naturally, the higher the yield, the better the

investment. There is a more complete discussion of the Modified Internal Rate of Return in the Discounted Cash Flow Appendix.

Internal Rate of Return (IRR)

The Internal Rate of Return (IRR) of an investment is defined as the Present Value Discount Rate that makes the Net Present Value of the Investment equal to zero.

You may think of the IRR as the annual Interest Rate or Yield (compounded annually) that the investment is paying you over the Holding Period. Naturally, the higher the yield, the better the investment. There is a more complete discussion of the Internal Rate of Return in the Discounted Cash Flow Appendix.

Lender Yield

Lender Yield is the Rate of Return (IRR or MIRR, depending on the Model being used) on the Total Debt Service for the property or investment. It is computed by reversing the sign of the Debt Service (to look at it from the Lenders' perspective where the draw is an outflow and the debt service and repay is an inflow) and computing returns as normal on the reversed cash flows.

Lender Yield is shown in the Loan Participation Dialog, and is available as a measure in Sensitivity and Risk Analysis, as well as being available for import in Cash Flow Analysis. Lender Yield includes all loans in the Assumption Set. If you want to show or compute the Lender Yield for an individual loan, you must set the Loan Amount for the other loans to zero.

Net Present Value (NPV)

The Present Value (at i%) of a future cash flow (cf) to be received n years from today is defined as the amount you would have to deposit today (drawing an i% interest rate compounded yearly) to accumulate cf dollars in n years. The interest rate used in this calculation is called the Present Value Discount Rate.

The Net Present Value (NPV) of an investment is the sum of the Present Values of all future cash flows, less the initial amount invested. There is a more complete discussion of Net Present Value in the Discounted Cash Flow Appendix.

Model

A planEASe Model is comprised the names, sizes, and other characteristics of the assumptions and reports produced by the system, and the actual program containing the equations to process the assumption values into cash flow forecasts. There are two models available for the *Real Estate Investment Analysis*, designated as RUI (using IRR's) and RUM (using MIRR's). Likewise, there are four models available for the optional *Limited Partnership / LLC Investment Analysis*, designated as RPI (LP using IRR's), RPM (LP using MIRR's) RPR (LLC using IRR's), and RPF (LLC using MIRR's). Additionally the model for Installment Sale Analysis is available as RSA. The model designation for the model currently in use is shown in the Status Bar at the bottom of the screen.

Multiple Page Type

Each planEASe model contains several assumption Page Types for which you may enter as many assumption pages as you want, such as Depreciation, Loans, Revenues, and Expenses. These are Multiple Page Types, and their use allows you to choose how detailed you want your analysis to be. (see also General Page Type and Page SubType in this Glossary)

Page SubType

Each Multiple Page Type in planEASe, (Depreciation, Loan, Revenue, Expense, and, in the Partnership / LLC Models, Fee and Funding) may have one or more Page SubTypes associated with it. Several Page SubTypes are currently available. See the Assumption Descriptions for the RU Model Series for a full discussion of these assumption pages and their usage.

planEASe Date

Dates are entered into planEASe Assumption Sets denoted as the numerical month (1-12) and the last two digits of the year. Thus an assumption value of 4.01 means April 1, 2001. Dates entered in planEASe are interpreted with a century turn of 70. That is, 1.69 is interpreted as 1 January 2069 and 1.70 is interpreted as 1 January 1970.

Ratio Analysis

is a section included in the ProForma Income Statement and Annual Statements containing some or all of the following measures of goodness for the investment:

Capitalization Rate is Net Operating Income divided by the Price of Property at Acquisition.

Adj Capitalization Rate is Net Operating Income divided by the Price of Property at Acquisition adjusted for additional investments and dispositions made since acquisition.

Cash on Cash Before Tax is Net Operating Cash Flow divided by Initial Equity.

Adj Cash on Cash Before Tax is Net Operating Cash Flow divided by Initial Equity adjusted both for additional investments and dispositions made since acquisition, and for additional loans and loan repayments since acquisition.

Cash on Cash After Tax is Net Operating Cash Flow less Taxes Due divided by Initial Equity.

Adj Cash on Cash After Tax is Net Operating Cash Flow less Taxes Due divided by Initial Equity adjusted both for additional investments and dispositions made since acquisition, and for additional loans and loan repayments since acquisition.

Accounting Rate of Return Before Tax is Net Operating Cash Flow plus Equity Buildup plus Appreciation divided by Initial Equity.

Accounting Rate of Return After Tax is Net Operating Cash Flow After Tax plus Equity Buildup plus Appreciation divided by Initial Equity.

Current Rate of Return Before Tax is Net Operating Cash Flow plus the year's increase in Sale Proceeds Before Tax divided by beginning Sale Proceeds Before Tax. This ratio measures the annual percentage increase in the current invested capital, and is useful for deciding when to sell or refinance when you are not concerned with tax (such as in an exchange).

Current Rate of Return After Tax is Net Operating Cash Flow After Tax plus the year's increase in Sale Proceeds After Tax divided by beginning Sale Proceeds After Tax. This ratio measures the annual percentage increase in the current invested capital, and is useful for deciding when to sell or refinance when the transaction will be taxed.

Debt Coverage Ratio is the Net Operating Income divided by Debt Service, measuring the margin of safety for the lender in assuring that money will be available to service his loan.

Breakeven Occupancy is the Total Operating Expenses plus Debt Service all divided by Total Gross Income, expressing the percentage occupancy necessary to pay for the expenses and debt service.

Loan Balance/Property Value is the Loan Repayment amount divided by the Sale Value (both measured at the beginning of the year). This ratio measures the margin of safety for the lender's principal.

NOI/Property Value is the Net Operating Income divided by the Sale Value. This ratio is also known as the overall capitalization rate, which tests the assumption for the appreciation of the property.

Gross Income Multiple is the Sale Value divided by the Gross Income, also testing the assumption for the appreciation of the property.

Operating Expense Ratio is the Total Operating Expenses divided by the Gross Income, which tests the reality of the total expense amount, as well as the expense growth rate. Notice that this ratio is better presented in the Common Size report which shows the same ratio for each of the individual expenses as well as the total.

Spoke

planEASe uses a *spoke/hub* architecture discussed in the *Menu Bar* description on page 5.

Vertical Report (and View)

In Basic and Detail Analysis you may choose between Horizontal and Vertical View. Vertical View is so named because time (years or months) runs vertically down the side of the grid in that view, whereas in Horizontal View time runs horizontally across the top of the grid. Reports that show the Vertical View grid are called Vertical Reports. Vertical Reports may be printed in either Portrait or Landscape Orientation.

Index

Assumption Names are shown in CAPITALS for your convenience.