

# Mortgage Designer for Windows

## Quick and Accurate Mortgage Calculations and Amortization Schedules

Mortgage Designer © 1991-1995 MaeDae Enterprises

### Contents

#### Procedures

[How to use Mortgage Designer](#)

#### Toolbar



#### Commands

##### File

[New Mortgage](#)  
[Open Mortgage](#)  
[Save Mortgage](#)  
[Save As Mortgage](#)  
[Modify Mortgage](#)  
[Preferences](#)  
[Exit](#)

##### Calculate

[Remaining Balance](#)  
[Equity vs Balance](#)  
[Cost of Mortgage](#)  
[PITI](#)  
[Missing Variable](#)  
[Mortgage Refinance](#)  
[Interest Conversion](#)  
[Mortgage Ratios](#)

##### Reports

[Amortization Schedule](#)  
[Mortgage Comparisons](#)

##### Tax Time

[Yearly P & I](#)  
[Yearly Tax Savings](#)

##### Help

#### Windows Topics

[About the Screen](#)  
[About the Keyboard](#)  
[Using the Mouse](#)

For information on how to use Help, press F1 or select How to Use Help from the Help menu.

## File Menu

From the File Menu you can create a new mortgage, open an existing mortgage, save your current mortgage, set your preferences, modify the basic information for the current mortgage or exit **Mortgage Designer**.

**Click in the File Menu area of the window below for detailed help on that part of the window.**

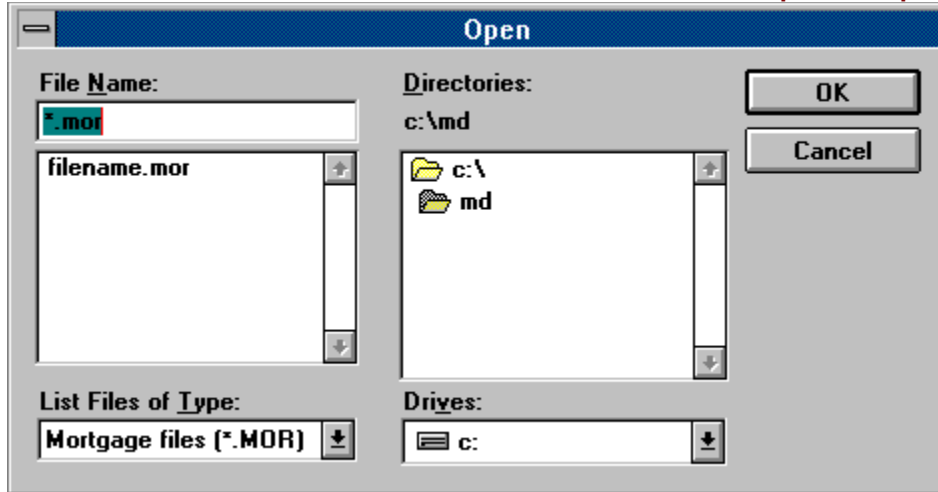


## Default Mortgage

This area of the General Program Preferences window allows you to specify a mortgage that is loaded into **Mortgage Designer** each time you start **Mortgage Designer**. You can explicitly type in the mortgage file name and its directory path, or you can click the Browse button.

If you click the Browse button, you will be presented with an Open window that allows you to select a drive, file directory, and a file name using your mouse. Once selected, this file name will become the mortgage that is automatically loaded each time you start **Mortgage Designer**. This Open window works the same way as the File Open window, with the exception that the file name you select here will not be loaded as the current mortgage.

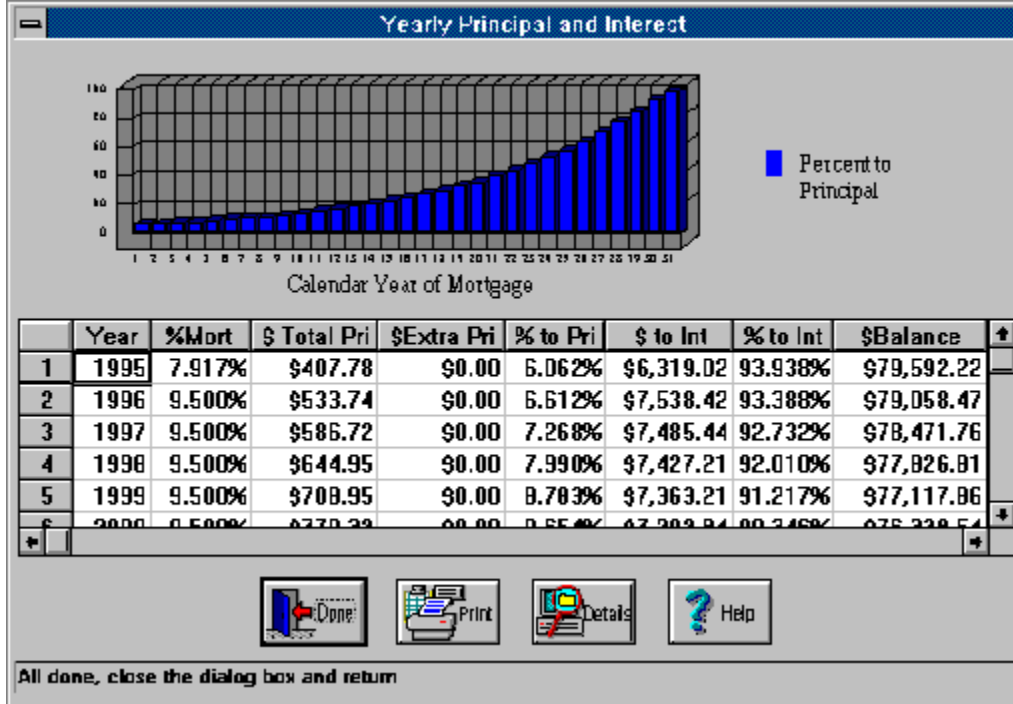
**Click in an area of the window below for detailed help on that part of the window.**



## Yearly Principal and Interest

This window allows you to see, on a yearly basis, how much of your total payments made throughout the year is applied to principal and interest. The spreadsheet shows these amounts in percentages of the total and in dollars.

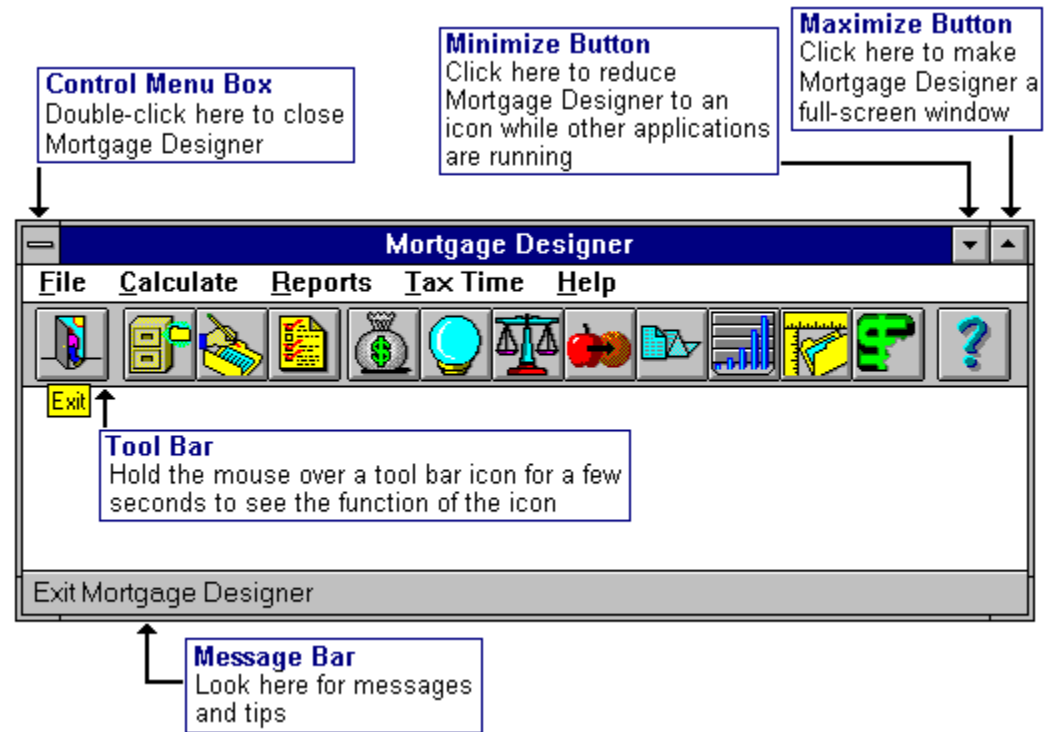
**Click in an area of the window below for detailed help on that part of the window.**



## **Exit Mortgage Designer**

Click the Exit button in the Tool Bar, press ALT+F4 or click the word "Exit" in the File Menu to close **Mortgage Designer**. Your mortgage information will automatically be saved.

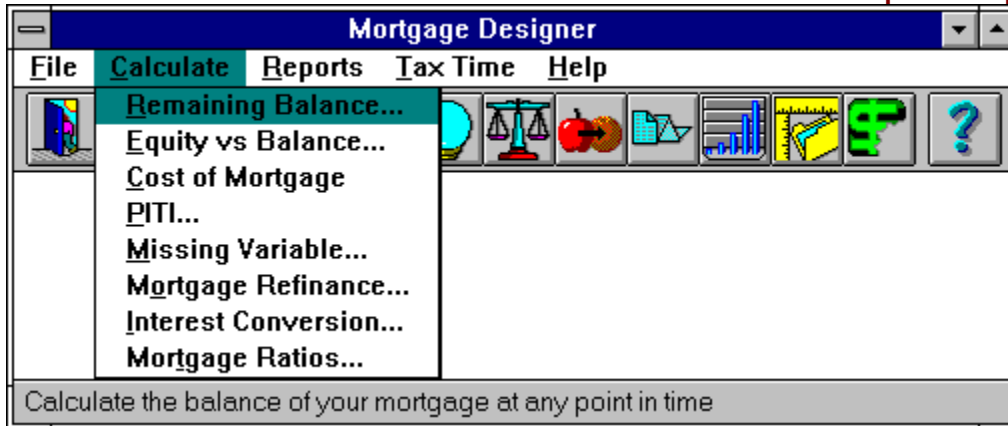
## The Windows Screen



## Calculate Menu

From the Calculate Menu you can find out more details of your mortgage. You can quickly calculate your remaining balance, your equity in the mortgage, the cost of your mortgage, or your PITI. Given three of four parameters of your mortgage (Payment, Term, Principal, Rate) you can calculate the fourth parameter based on the other three with the Missing Variable. With the Mortgage Refinance you can compare two mortgages side by side. Finally, you can convert interest rates or calculate mortgage ratios.

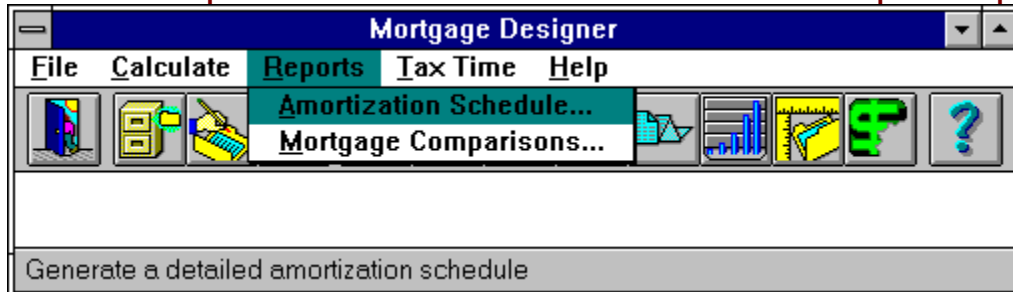
**Click in the Calculate Menu area of the window below for detailed help on that part of the window.**



## Reports Menu

From the Reports Menu you can find out more details of your mortgage from two reports. You can view or print an amortization schedule. With the Mortgage Comparisons, you can compare different combinations of principal and interest rates to see how payments will vary.

**Click in the Reports Menu area of the window below for detailed help on that part of the window.**

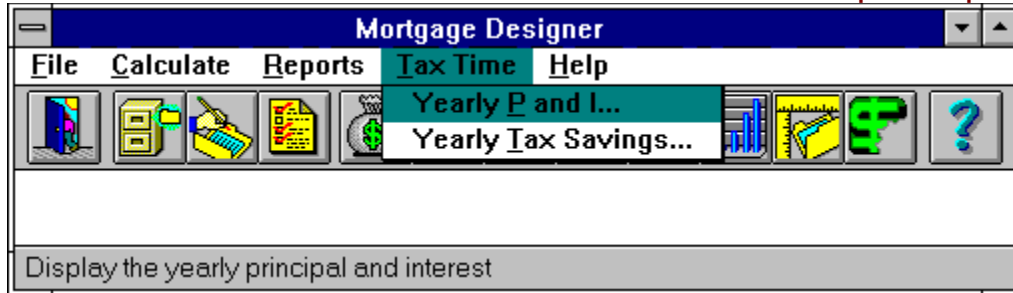




## Tax Time Menu

Menu items in the Tax Time Menu contain information that can be helpful when comparing mortgages on an annual basis. The Yearly P and I will allow you to see how much of your payments is applied to principal and to interest on a yearly basis. The Yearly Tax Savings will estimate tax savings and adjusted payments based on your tax brackets as defined in the **Preferences** window.

**Click in the Tax Time Menu area of the window below for detailed help on that part of the window.**



## Help Menu

**Mortgage Designer** provides several ways of accessing its built-in help. They are:

1. Accessing the help through the pulldown menu options available on the main menu. This provides an easy way for you to call up the general area you are interested in.
2. Pressing F1 when in a window that does not have a Help button. This will start up **Mortgage Designer** help at the Contents help screen.
3. Using the help button available in many of the windows. This is the quickest way to get help for the current section of **Mortgage Designer**. The help will be specific and directly related to the current window. Alternatively if the window has a Help button, pressing the F1 key will give the same results as clicking the Help button.

See the Contents help screen for a quick index into all the different major commands. Use the Search button while in **Mortgage Designer** Help to search for specific topics. An extensive cross reference of key words and search topics is built into **Mortgage Designer**.

**(For a more detailed explanation of the Windows Help system, refer to your Windows User's Manual.)**



## About the Keyboard

(In all cases refer to your Microsoft Windows User's Guide for more detailed information.)

For some of the menu commands and buttons in the windows in **Mortgage Designer**, there is a shortcut key combination that will execute that menu item via the keyboard without using the mouse. Instead of clicking on a selection, you simply press that key combination on the keyboard.

For most items in the menu and for some buttons, one letter is underlined. That menu item can be selected by pressing and holding the ALT key while depressing the key for the underlined letter.

When you are in a specific window, you may be able to move between the different fields in the window by pressing the TAB key one or more times. Some windows can be closed by pressing the ESC key.

## Using the Mouse

Here are some brief definitions for some of the terms used in **Mortgage Designer** help when describing actions using the mouse:

- Click**               Rapidly press and release the left mouse button once. Most mouse operations use the left button. Some applications do make use of the right mouse button.
- Double-click**      Quickly press the left mouse button twice.
- Point**               Move the mouse until the mouse pointer (usually an arrow) is over the item you wish to select.
- Drag**                Move the mouse while holding the left mouse button down.

## Preferences

The General Program Preferences window allows you to save selected defaults which will then be automatically loaded each time you subsequently start up **Mortgage Designer**.

**Click in an area of the window below for detailed help on that part of the window.**

The screenshot shows the 'General Program Preferences' dialog box. It has a title bar with a minus sign and the text 'General Program Preferences'. The dialog is divided into several sections:

- Default Mortgage:** Contains a text field for 'Mortgage Name' and another for 'Path' with the value 'C:\MD'. To the right is a 'Browse' button with a folder icon.
- PITI Defaults:** Contains two text fields: 'Taxes: 1.000% per year' and 'Ins: 1.000% per year'.
- Tax Bracket Percentages:** Contains three spinners: 'First 16.000%', 'Second 28.000%', and 'Third 31.000%'.
- Options:** A checkbox labeled 'Enable background multi-tasking (slower and less compatible)'.
- Buttons:** A row of four buttons: 'Done' (with a door icon), 'Save' (with a floppy disk icon), 'Load' (with a floppy disk icon), and 'Help' (with a question mark icon).
- Footer:** A text box containing the message 'All done, close the dialog box and return'.

## Getting the Most Out of Mortgage Designer

**Mortgage Designer** is a powerful yet easy-to-use program that allows you to experiment with your mortgage payments and interest. You can vary any parameter of your mortgage to find the best mortgage plan for your individual situation.

When you start **Mortgage Designer** for the first time, a default set of mortgage values is loaded into memory and becomes the starting point for your first mortgage. Once you have run **Mortgage Designer**, you can specify a default mortgage that will be loaded each time you subsequently start **Mortgage Designer**.

### Open Mortgage

If you have already used **Mortgage Designer** and saved a mortgage, you will have one or more mortgage files on your computer's hard disk. Clicking the Open Mortgage button, or selecting Open Mortgage from the File menu will present to you a list of those files.

If you have never saved a mortgage to your hard disk, proceed to Preferences.

### Preferences

To make best use of **Mortgage Designer**, first select Preferences from the File menu. Here you can enter the default income tax brackets, and property tax and insurance rates for your area. These values are considered external to the mortgage and you generally have no control over the amount of these values.

If you would like a certain mortgage to be loaded each time you start **Mortgage Designer**, enter that mortgage file name in the Default Mortgage area of the window. Click the OK button to accept the preferences.

### Modify Mortgage

Next select Modify Mortgage from the File menu. This window allows you to enter the basic information for your mortgage. Typically that information will be values of current your mortgage, or the most likely values of a potential mortgage. Enter the principal, interest rate, term of the loan (in years), payment options (how often payments are made), and payment start date.

### Save Mortgage As ...

Finally, save the work you've done so far by selecting Save Mortgage from the File menu. (Or select Save Mortgage As from the File menu if the current mortgage was not loaded from disk). Here you can type in a name and save the mortgage information to your disk.

### Features of Mortgage Designer

Once you've entered your basic mortgage parameters, you can calculate the loan's remaining balance (if you've been paying on it for a while) by selecting the Calculate menu, Remaining Balance command. To find the cost of the mortgage over its full term, select the Calculate menu, Cost of Loan command. You can have **Mortgage Designer** compute any one of the four parameters of a loan by selecting the Calculate menu, Missing Variable command.

By selecting Mortgage Refinance you can experiment with two mortgages side by side to find the best way to refinance your mortgage. Interest Conversion gives you a quick way to compare two mortgage compounding frequencies at the same or different interest rates. Mortgage Ratios will help you determine whether or not you can qualify for a mortgage based on your debt and gross monthly income.

**Mortgage Designer** will display or output amortization schedules by selecting the Reports menu, Amortization Schedule command. In addition to viewing them on the screen, you can optionally send amortization schedules to a file or printer. To perform "what if" analyses of different mortgages, use the Reports menu, Mortgage Comparisons... command.

You can estimate tax savings based on interest and payments for your mortgage using the Tax Time

menu.

## PITI Defaults

The Principal, Interest, Taxes and Insurance (PITI) area allows you to specify property tax and insurance rates based on the value of the mortgage. **Mortgage Designer** will use these values in calculations that include taxes and insurance.

For example, if you have a mortgage value of \$100,000 and a property tax rate of 5%, the value used by **Mortgage Designer** will be \$5,000.

If you precede the number with a dollar sign (\$), the number you type in the field will be interpreted as the total tax dollars for the year. Alternatively, if you append the percent sign (%), the number will be interpreted as a percent of the mortgage value upon which to base the property taxes or insurance.



## **Tax Bracket Percentages**

In the Tax Bracket Percentages area, you can specify the income tax brackets to be used in calculations that include income tax.

Use the up or down "spin" buttons next to the tax values to increase or decrease the tax amount by 1/8% (0.125%) for each click of the button.

## Close General Preferences

Click the Done button to return to the main **Mortgage Designer** window. There is no other action by pressing this button since any preferences that you saved were saved by clicking the Save button. Likewise, if you restored any preferences from disk, you used the Load button.

The next time you start **Mortgage Designer** these preferences will become the default preferences. The file name you have selected as the default mortgage will be automatically loaded.

## **Save General Preferences**

Click the Save button to save any changes you made with these preferences to disk. These preferences will become the default preferences each time a new mortgage is created.

## **Load General Preferences**

Click the Load button to retrieve the current default values that are saved to disk. Retrieving the default values will overwrite any changes you have made to the preferences since the last time you clicked the Save button.

## Equity vs Balance Specifics

- Principal:** The original amount borrowed, as specified in the **Modify Mortgage** window.
- Average Interest Rate:** The average interest rate for your mortgage. If you have a fixed interest rate mortgage this amount is the interest rate as specified in the Modify Mortgage window. If the mortgage has a variable rate interest, this average is calculated as the average rate for the percent rates specified in the spreadsheet section of the Modify Mortgage window.
- Term:** The original term of the mortgage, as specified in the Modify Mortgage window.
- Cost:** This number is the interest cost of the mortgage. It is calculated by multiplying the amount of each payment by the number of payments, then subtracting the original mortgage amount.

## Message Bar

At the bottom of most windows, this message bar will provide you with a short message about the item in the window that has focus. That is, when you click the mouse in an area of a window, that area has focus. (Buttons have focus when their outline is larger than the other buttons or there is a grey outline around the word on the button.)

You may have to point to a button with the mouse, depress the mouse button and hold it for a message to appear at the bottom. After reading the message, you can drag the mouse away from the button if you don't want to execute that button command.

## Modify Mortgage

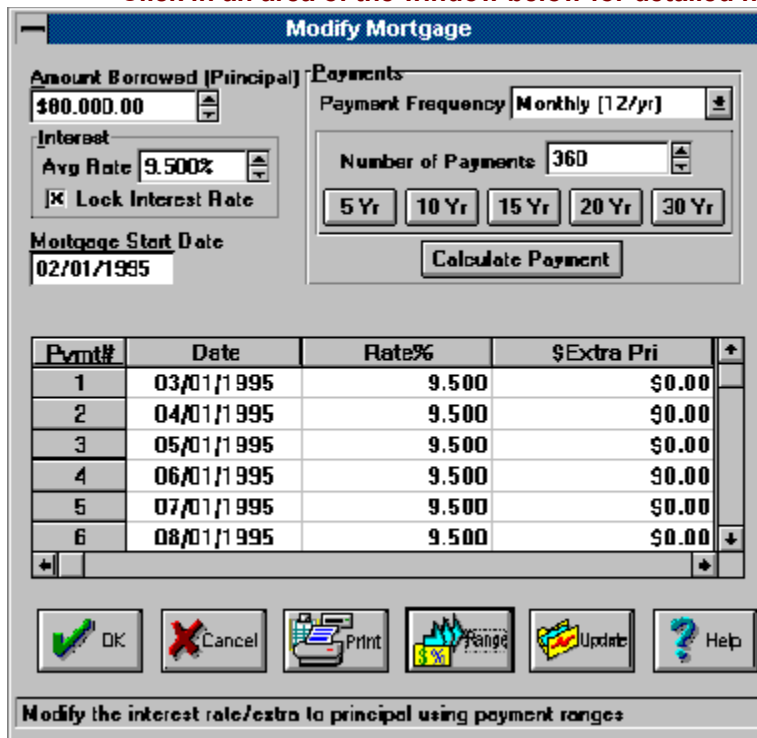
Here in the Modify Mortgage window, you can set some of the basic parameters of your mortgage, such as the starting date of your mortgage, the principal, the interest rate, the frequency rate of the payments, and the number of payments.

If you have just created a new mortgage (using the New Mortgage item from the File menu), you must use this window once to set the parameters for your mortgage.

**Mortgage Designer** initially assumes the current mortgage is a fixed rate mortgage. The interest rate is specified and the Lock Interest Rate check box is enabled. If you do not have a fixed interest rate mortgage, click on the Lock Interest Rate check box to disable that check box. You can then click the Range button and specify the interest rate for blocks of mortgage payments.

A spreadsheet is provided for those with variable interest rates and for those who want to pay additional money to the principal. With the spreadsheet you can adjust each payment's interest and additional principal independently of other payments. To specify different interest rates for different periods of time, use the Range button to specify an interest rate for a subset of the payments.

**Click in an area of the window below for detailed help on that part of the window.**



The screenshot shows the 'Modify Mortgage' window with the following fields and controls:

- Amount Borrowed (Principal):** \$80,000.00
- Interest:** Avg Rate 9.500%,  Lock Interest Rate
- Mortgage Start Date:** 02/01/1995
- Payments:** Payment Frequency Monthly (12/yr), Number of Payments 360
- Buttons:** 5 Yr, 10 Yr, 15 Yr, 20 Yr, 30 Yr, Calculate Payment
- Table:**

Pymt#	Date	Rate%	\$Extra Pri
1	03/01/1995	9.500	\$0.00
2	04/01/1995	9.500	\$0.00
3	05/01/1995	9.500	\$0.00
4	06/01/1995	9.500	\$0.00
5	07/01/1995	9.500	\$0.00
6	08/01/1995	9.500	\$0.00

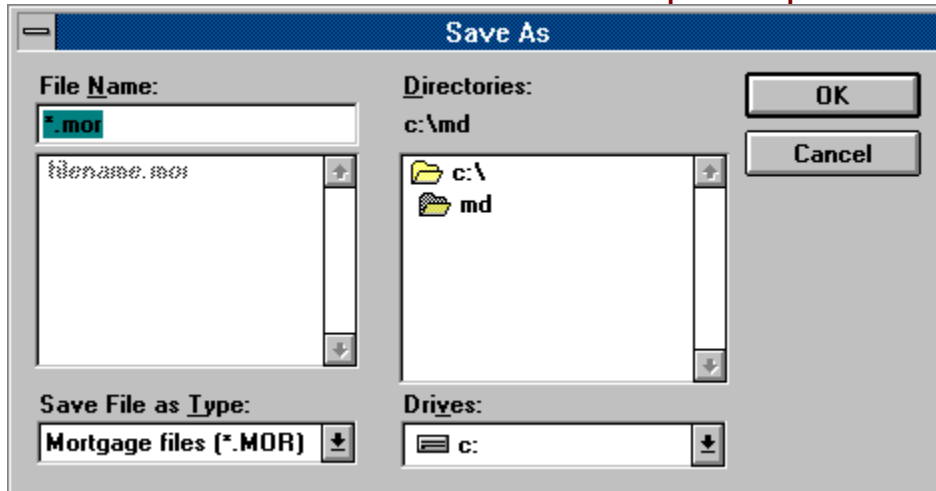
At the bottom of the window are buttons for OK, Cancel, Print, Range, Update, and Help. A status bar at the very bottom reads: 'Modify the interest rate/extra to principal using payment ranges'.

## Save Mortgage or Save Mortgage As

### Save Mortgage

From this selection under the File Menu, you can save the current mortgage to disk if the current mortgage has already been saved once before. The file name that will be used is the current file name shown in the **Mortgage Designer** title bar.

Click in an area of the window below for detailed help on that part of the window.



### Save Mortgage As

Use the Save Mortgage As selection under the File Menu when you want to either:

- a. save the current mortgage that has never been saved before, or
- b. save the current mortgage under a different file name than the one shown in the title bar.

When you select Save Mortgage As, you will be presented with a window much like the one used to open a mortgage file.

Any mortgages you have saved from an earlier session will be listed in the File Name list area. You can write over an existing mortgage file by double-clicking that file name in the File Name list area. Or click once on that file name and click the OK button.

If you want to save the current mortgage with a different file name extension, just type in the file name in the File Name area.

[You can add a period and your extension after the file name but it is not recommended. **Mortgage Designer** uses the default file name extension "MOR". Although **Mortgage Designer** will work with other file name extensions, you will have to change the filter in the Save File as Type area since MOR is the default extension. (A file extension can be up to 3 characters long. A file name does not have to have an extension, so it can also be zero characters long.)]

To cancel the file saving process and return to the previous window, click on the Cancel button.



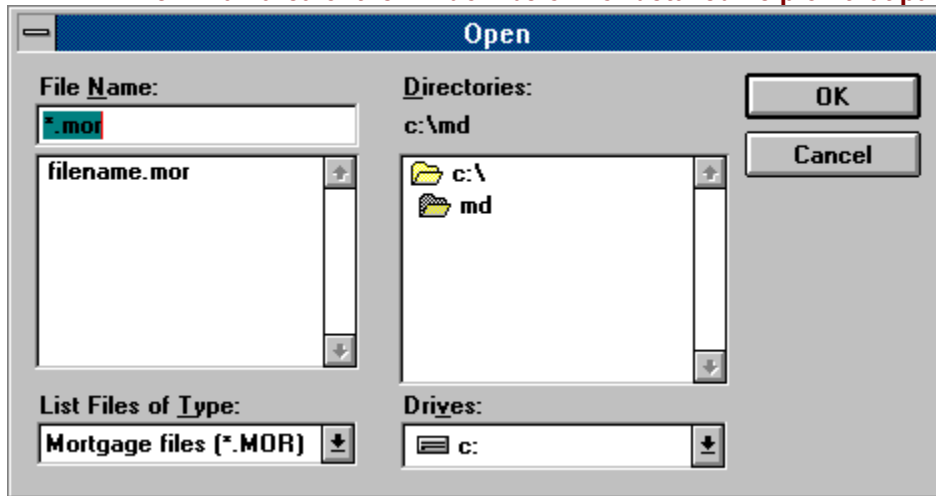
## Open Mortgage

Here you can select a previously saved mortgage in order to continue evaluating that mortgage. Any mortgages you have saved from an earlier session will be listed in the File Name section. If you have saved mortgages with a different file name extension, you will have to "drop down" the list of file types at the bottom of this window and select "All Files (\*.\*)". When you do this, all files in the selected directory will be displayed.

To select a particular mortgage, either double-click on the file name, or click once on the file name (in the list of files in the File Name section) and then click the OK button.

To cancel the file opening process and return to the previous screen, click on the Cancel button.

**Click in an area of the window below for detailed help on that part of the window.**



## New Mortgage

When you choose the New Mortgage option from the File menu, you will be prompted to save the current mortgage. If you click the Yes button, you will see the **Save As** window and you can save your current work to either an existing mortgage file or select a new file name.

You will then be asked to confirm the creation of a new mortgage since all of the information in the current mortgage will be lost.

## **Control Menu Box**

Click here to drop down a list of choices common to most windows. You can move or resize some windows, or close the window altogether. Refer to your Microsoft Windows User's Guide for more details.

## Minimize/Maximize

By clicking on the left arrow pointing down, you can reduce **Mortgage Designer** to an icon at the bottom of the screen. Do this when you want to have **Mortgage Designer** temporarily off the screen while you run another application, without closing **Mortgage Designer** or losing your work.

By clicking on the right arrow pointing up, you can enlarge **Mortgage Designer** so that it uses the entire screen. To restore the **Mortgage Designer** window to its original size, click on the two-arrow button in the upper right corner.

## **File Open Accept**

Click this OK button when the file name of the mortgage you want to open is highlighted. That mortgage will become the current mortgage in memory.

## **File Open Cancel**

Click on this Cancel button if you do not want to open another mortgage file now.

## **File Name List**

The top part of the File Name list is a single line displaying either the default File Type as shown in the List Files of Type section at the bottom of the window or a file name that matches the highlighted file in the File Name list area (if one is selected).

The top part also provides you an area to type in a file name if you know the file name of the mortgage you want.

Alternatively you can select a mortgage by pointing to the file name in the File Name list area and double-clicking on the file name. You can also click on the file name and then click on the OK button.

## List of Directories

Double-click on a subdirectory name to make that subdirectory the current directory. The corresponding list of files available in this subdirectory (based on the filter selected in the List Files of Type area) will be displayed in the File Name list area.



## List of File Types

This area allows you to filter the list of files displayed in the File Name list area. Clicking anywhere in this area will drop down a list of filters allowed. To see only those files with the default file name extension of .MOR, click on the selection Mortgage files (\*.MOR). To see all files in the current subdirectory click on the selection All Files (\*.\*)

## List of Drives

Click anywhere in this area to drop down a list of available disk drives in your computer. If you have saved mortgages onto floppy disks, drop down the list of disk drives and click on the drive letter for the disk drive you need to use.

All drives, including CD-ROM and network drives, if any, will be shown.

## **Save File Accept**

Click this OK button when the file name of the mortgage you want to save is highlighted or is typed in to the File Name area. This mortgage will be saved to your disk.

## **Save File Cancel**

Click on this Cancel button if you do not want to save your mortgage right now.

## **Amount Borrowed**

Enter the full amount of the loan principal, up to 9 digits. Principals from \$100.00 to \$999,999,999 are supported at all interest rates and loan lengths.

You don't need to enter the dollar sign nor commas. They will be ignored if you do enter them.

Click on the up or down "spin" buttons next to the amount borrowed to increment or decrement the amount borrowed by \$100 per mouse click.

## Interest Rate

Enter the annual interest rate as a percentage. For example, if the annual interest on the loan is 9 3/4%, type in 9.75. Do not enter a percent sign ("%"). Interest rates from 0.1% to 50% are allowed.

Click on the up or down "spin" buttons next to the interest rate to increment or decrement the interest rate by 1/8 percent (0.125%) per mouse click.

### Lock Interest Rate

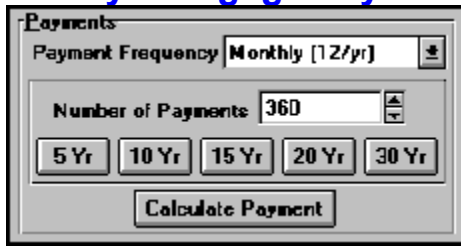
When you create a new mortgage, **Mortgage Designer** assumes that it is a mortgage with a fixed interest rate. The **x** is enabled in the Lock Interest Rate check box. If you change the interest rate and update the spreadsheet, **Mortgage Designer** will remind you that the new interest rate is different than shown in the spreadsheet. In order to update the spreadsheet region with the new interest rate locked, you must click the Update button. Exiting using the OK button will not update the spreadsheet.

To change the interest rate for a subset of the payments as you would with an adjustable rate mortgage, unlock the interest rate by clicking the **x** and proceed to modify the interest rate for individual payments or for blocks of payments.

## **Mortgage Start Date**

Enter the date the loan starts. Date format is MM/DD/YYYY. Example: for 1 Dec 1991 enter 12/01/1991. The loan start date must be between 01/01/1900 and 12/31/2100.

## Modify Mortgage Payments



### Payment Frequency

In the Payment Frequency drop down list, select the frequency of payments (either every two weeks, twice a month, monthly, quarterly, semiannual, or once a year). This option and the loan start date will be used to calculate the dates used for the amortization table.

### Number of Payments

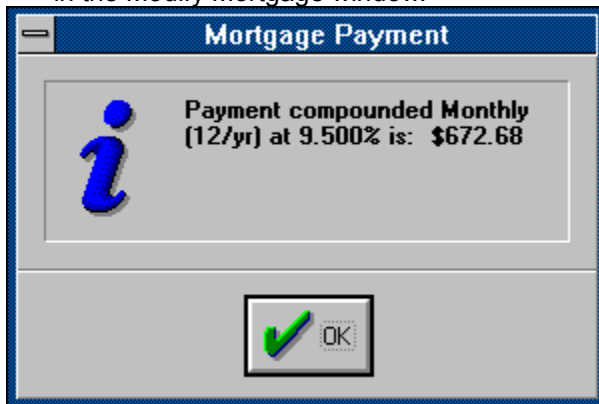
Click on the button that reflects the term of your mortgage. The number of years in your mortgage multiplied by the number of payments in a year will be displayed in the Number of Payments field.

If you have a mortgage term that does not match one of the buttons below the Number of Payments field, you can still enter the number of payments that you will have. For example, if you have a 25-year term, and if your payments are made monthly, type in "300" for the Number of Payments. You can use the "spin" buttons in the Number of Payments field to increment or decrement the number of payments.

The first payment date for the amortization table for twice monthly payments will be adjusted to the 1st and 15th of the following month.

### Calculate

Click on the Calculate button to display the mortgage payment you will have based on the parameters in the Modify Mortgage window.





## Modify Mortgage Spreadsheet

Click in an area of the window below for detailed help on that part of the window.

Pymt#	Date	Rate%	\$Extra Pri	
1	03/01/1995	9.500	\$0.00	↑
2	04/01/1995	9.500	\$0.00	
3	05/01/1995	9.500	\$0.00	
4	06/01/1995	9.500	\$0.00	
5	07/01/1995	9.500	\$0.00	
6	08/01/1995	9.500	\$0.00	↓
←				→

The spreadsheet window provides you with the capability to enter interest rates and additional payment amounts which vary from payment to payment. It is best used when you need to change only one or two values. For large blocks of changes, use the Range button.

When you move the cursor into the spreadsheet region, the cursor changes to a cross. Place the cursor into the data cell that you want to change and click the left mouse button. That number becomes highlighted. You can then enter the new value directly or use the arrow keys to move to the digit to be changed and change it.

You cannot change any of the dates. They are based on the combination of the Mortgage Start Date, the Payment Frequency, and the Number of Payments.

**Use the Range button in the Modify Mortgage window if you need to change the interest rate for a block of payments. Also use the Range button if you are going to change the extra amount you want to apply to principal for a block of payments.**

**The best way to change the interest rate for all payments (as in a fixed mortgage) is to click on the Lock Interest Rate check box, placing an x in the check box, click the Update button, and answer "Yes" to the question.**

## Modify Mortgage Accept

Click this OK button to accept all of the changes you have made and return you to the main **Mortgage Designer** window.

The values in the Spreadsheet region will be updated if any of the values in the Modify Mortgage window have been changed.

## Modify Mortgage Cancel

Click the Cancel button to rescind any of the changes you made to the Modify Mortgage window.

Make any changes to the Amount Borrowed, Interest, Mortgage Start Date, Payment Frequency or Number of Payments, then click the Cancel button and you will return to the main **Mortgage Designer** window without the changes becoming permanent.

## **Cancel Refinance Worksheet**

Click the Cancel button to disregard any changes you made to the Refinance Worksheet window and return to the Refinance Mortgage window.

## Modify Mortgage Range

The Modify Mortgage by Ranges window allows you to change the interest rate or additional principal for a block of payments on your mortgage. Refer to the Modify Mortgage window to obtain the First Payment and Last Payment number that you must enter in the Payment Range area. By default, the entire mortgage is selected for you when you enter this window.

**Click in an area of the window below for detailed help on that part of the window.**

**Modify Mortgage by Ranges**

**Payment Range**

First Payment




Last Payment

Payment range is 1 to 360.

**New Value**

Extra dollars to principal

New percent for payment

 Done  Update  Help

All done, close the dialog box and return

## **Modify Mortgage Update**

Click the Update button to update the Spreadsheet region based on any changes that have been made to the Interest, Mortgage Start Date, Number of Payments, or Payment Frequency fields.

Once you click the Update button, you will be unable to back out of the changes and the Cancel button will be disabled. To go back to the original values of the Spreadsheet region, you will have to change the values manually back to their original values and click the Update button again.

## Equity vs Balance

The equity is the current value of the property minus the principal plus the amount of the mortgage already paid off. **Mortgage Designer** assumes the current value of the property is equal to the original loan amount. Therefore, the equity calculated here is simply the original loan amount minus the remaining balance of the mortgage. Change the Number of Payments Made field to reflect the number of payments actually made and click the Calculate button.

**Click in an area of the window below for detailed help on that part of the window.**

**Equity vs Balance**

Principal  
**\$80,000.00**

Average Interest Rate  
**9.500% (locked)**

Term  
**360 months  
(30.00 years)**

Cost (Payments - Principal)  
**\$162,171.64**

Percent of Payments Made (black)

27.8%

72.2%

Number of payments made (1-360)? **100**

Equity: **\$5,965.13 (7.456%)**      Balance: **\$74,034.87**

Done    Calc    Details    Help

Calculate and update values if required

## Spreadsheet Cell Region

With the cursor shaped as a cross, click on a cell that you want to edit. When the text is highlighted you can simply type in the new value. Or you can move the text cursor with the left arrow to edit a single digit or character in the field.



## Spreadsheet Title Bar

Each column displays information for each payment in your mortgage. Each column has values in it for every payment in the mortgage.

Each individual column can be made wider or narrower. Simply **drag** the vertical bar that separates the titles of adjacent columns and move it to the left or right. Making the columns wider or narrower will have the same effect on the printout - the columns can be made wider or narrower for the printout.

Use the **horizontal scroll bar** to see additional columns if they are hidden from view.

## Spreadsheet Payment Column

Every row displays information about only one payment in your mortgage. There are as many rows in the spreadsheet region as the number of payments in the Number of Payments field elsewhere in the Modify Mortgage window.

Use the **vertical scroll bar** to see more of the payments.

## **Spreadsheet Horizontal Scroll Bar**

The Spreadsheet region of this window is capable of showing only a limited number of columns. The visible area is fixed. You can pan to the right or left depending on where the additional columns are.

When there are columns that are not in view because of the limited view, use the left mouse button to click on either the left arrow or the right arrow in this horizontal scroll bar.

You can also click in the scroll bar to pan left or right. To pan left, click the scroll bar to the left of the square that is in the scroll bar. To pan right, click the scroll bar to the right of the square that is in the scroll bar.

## **Spreadsheet Vertical Scroll Bar**

The Spreadsheet region of this window is capable of showing only a limited number of rows. The size of the visible area is fixed. You can pan up or down depending on where the additional rows are.

When there are rows that are not in view because of the limited view, use the left mouse button to click on either the up arrow or the down arrow in this vertical scroll bar.

You can also click in the scroll bar to pan up or down. To pan up, click the scroll bar above the square that is in the scroll bar. To pan down, click the scroll bar below the square that is in the scroll bar.

## Payment Range

Type in a First Payment number and a Last Payment number for the range of payment numbers that this change will affect. The initial values provided represent the current start and ending payment number of your mortgage. You may use the up or down "spin" buttons to increment or decrement the First Payment number or Last Payment number.

Refer to the Modify Mortgage window to obtain the First Payment and Last Payment number that you must enter in the Payment Range area.

To make different changes to additional ranges, click on the Update button, allow the program to update the values in memory, then continue with changing the next range. Don't click the OK button until you have completed making all the changes to all the ranges you want to change.

## **New Value**

In this section you can change either the interest rate or add an additional amount toward the principal, but not both at the same time.

Select which of the two you want to change by clicking of the radio button next to your choice. Then click in the numeric field and type in the amount you want for the interest rate or the additional payment, whichever you selected.

## **Accept Ranges**

Click the OK button to accept all of the changes you have made, update the Spreadsheet region in the Modify Mortgage window and return you to the Modify Mortgage window.

## Details Button

Click the Details button to display a window that provides general information about your mortgage. This information is based on values you entered in the **Modify Mortgage** window.



**Click here for more information  
about this button.**



## **Cancel Ranges**

The Cancel button allows you to rescind any of the changes you made to the Modify Mortgage by Ranges window.

Make any changes to the Payment Range or New Value areas, then click the Cancel button and you will return to the Modify Mortgage window without the changes becoming permanent.

## **Update Ranges**

Click the Update button to update the Spreadsheet region (in the Modify Mortgage window) based on any changes that you have made by adding extra dollars to the principal or by changing the interest rate for a block or payments.

## Output Contents Window

This window is an image of what the printout will look like if you select the Print button in the **Output To** area. It is also an image of what will be saved to a disk file or to the Windows Clipboard.

If the contents of the editable area are too large to fit into the window, use the vertical scroll bar at the right to see more of the contents. There is a limit of 120 characters per line in this window.

This area is an editable area. That is, you can add or delete text to the window to add your own heading or change some of the text. You can cut, copy and paste as well. To cut text, highlight the text and press CTRL-X. To copy, highlight the text to copy and press CTRL-INSERT. To paste text, place the cursor at the insertion point and press SHIFT-INSERT.

(Note: When you cut, copy or paste, you are using the Windows Clipboard. Any text already stored in the clipboard can be written over or used in this window. See your Microsoft Windows User's Manual for more information on the clipboard.)

## Output Contents Destination

Click on one of the three selections in this area. If you click on the Printer selection, when you click the large Print button (next to the Cancel button) the editable area contents as shown will be sent to your current Windows printer.

If you click on the File selection, when you click the large Print button the editable area contents will be saved to a disk file. You will be prompted to select the file name and directory for your file.

If you click on the Clipboard selection, when you click the large Print button the editable area contents will be copied to the Windows clipboard. The contents of the clipboard can then be imported into other Windows applications (such as a word processor) for you to edit.

**(Note: When you save to a file or the clipboard, the contents of the clipboard will be saved as text only. Since this Output Contents window is used to save both the contents of the Modify Mortgage spreadsheet and the What If? log file, it will not save the information in any other format than text. So if you are saving the Modify Mortgage spreadsheet, it will not be in a spreadsheet form that is directly imported into spreadsheet programs such as Microsoft Excel.)**

## Output Contents Lines

You have the option to print out a range of lines as they appear in the window. Either type in the start and end lines, or use the up and down "spin" buttons to increment or decrement the line numbers.

**(Note: This window is used for both the Modify Mortgage spreadsheet and the What If? analysis.**

**If you are using this to print the Modify Mortgage spreadsheet, the numbers you choose in the Which Lines? area are the line numbers of the contents of the window, not the mortgage payment numbers. These two sets of numbers may or may not be the same. In the example shown here in the help system, if you choose your printing range as lines 1 through 10, the actual output will be the first ten lines of the display. That is, you will print the heading line plus nine lines of payments.)**

## Output Contents Print

Click this button to cause **Mortgage Designer** to output the contents of the window to the destination you have selected in the Output To area.

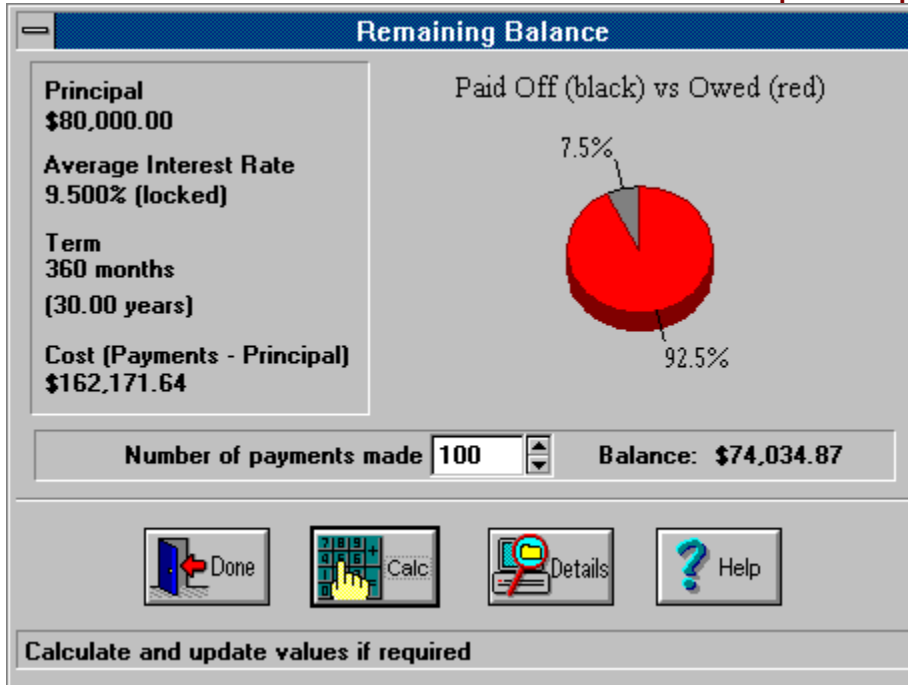
## **Output Contents Cancel**

The Cancel button allows you to leave the Output Contents window and return to the previous window without printing or saving the contents of the editable area.

## Remaining Balance

Enter the number of payments you have made, click the Calc button and see the remaining balance on the mortgage as well as a pie chart representing the percentage of the mortgage paid off.

**Click in an area of the window below for detailed help on that part of the window.**





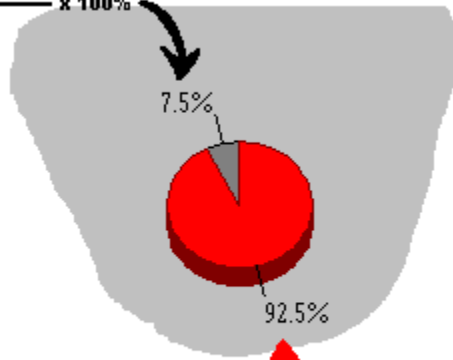
## Remaining Balance Specifics

- Principal:** The original amount borrowed, as specified in the Modify Mortgage window.
- Average Interest Rate:** The average interest rate for your mortgage. If you have a fixed interest rate mortgage this amount is the interest rate as specified in the Modify Mortgage window. If the mortgage has a variable rate interest, this average is calculated as the average rate for the percent rates specified in the spreadsheet section of the Modify Mortgage window.
- Term:** The original term of the mortgage, as specified in the Modify Mortgage window.
- Cost:** This number is the interest cost of the mortgage. It is calculated by multiplying the amount of each payment by the number of payments, then subtracting the original mortgage amount.

## Remaining Balance Payments Made

Type in the number of payments that you have made so far. Click the Calc button to see the results. Use the up or down "spin" buttons to increment or decrement the number of payments made.

$$\frac{(\text{Original Amount} - \text{Remaining Balance})}{(\text{Original Amount})} \times 100\%$$



$$\frac{(\text{Remaining Balance})}{(\text{Original Amount})} \times 100\%$$

## **Remaining Balance**

This shows the principal amount owed on the mortgage. It is updated after clicking the Calc button.

## Done

Click the Done button to return to the previous window. No additional action is taken since any changes you have made to this window were made using other features of this window (e.g., changing a text entry or clicking another button) or this window does not allow changes to be made.

## Remaining Balance Calculate



Click this button to update the graph and the Remaining Balance value. The Remaining Balance value will change based on the number of payments made.

## Details

This window provides general information about your mortgage. This information is based on values you entered in the **Modify Mortgage** window.

**Click in an area of the window below for detailed help on that part of the window.**

Mortgage Details	
<b>Principal</b> \$80,000.00	<b>Mortgage Starting Date</b> 02/01/1995
<b>Average Interest Rate</b> 9.500% (locked)	<b>Last Payment Date</b> 02/01/2025
<b>Term</b> 360 months (30.00 years)	<b>Cost (Payments - Principal)</b> \$162,171.64
<b>Base Payment</b> \$672.68	<b>Extra Principal Paid</b> \$0.00
<b>Adjusted Last Payment</b> \$679.52	

All done, close the dialog box and return

## Help

Click the Help button to activate the **Mortgage Designer** Help and open a help window describing the current window.

In general, whenever you need help on a certain feature of **Mortgage Designer**, click the Help button if it is available. Or press the F1 key. The effect will be the same: you will start the help system and open a help window that describes the current window.



## Mortgage Details

**Principal:** The original amount borrowed, as specified in the Modify Mortgage window.

**Average Interest Rate:** The average interest rate for your mortgage. If you have a fixed interest rate mortgage this amount is the interest rate as specified in the Modify Mortgage window. If the mortgage has a variable rate interest, this average is calculated as the average rate for the percent rates specified in the spreadsheet section of the Modify Mortgage window.

**Term:** The original term of the mortgage, as specified in the Modify Mortgage window.

**Base Payment:** The payment calculated for the current principal and interest rate. This amount does not include taxes and insurance estimates.

**Adjusted Last Payment:** The final payment amount, adjusted for the small amount that is usually left over with the number of payments multiplied by the base payment does not equal exactly the principal plus interest.

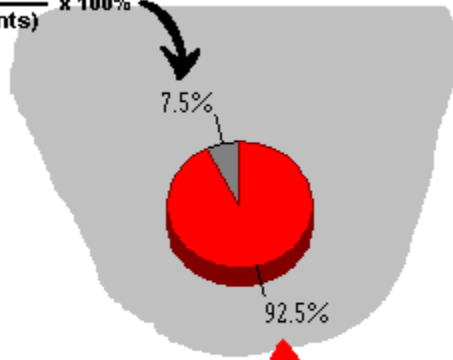
**Mortgage Starting Date:** The date of the first payment as specified in the Modify Mortgage window.

**Last Payment Date:** The calculated last payment date based on information you provided in the Modify Mortgage window.

**Cost:** The interest cost of the mortgage. It is calculated by multiplying the amount of each payment by the number of payments, then subtracting the original mortgage amount.

**Extra Principal Paid:** The total extra principal paid (in addition to principal included in the base payment). This amount reflects the extra principal entered in the spreadsheet region of the Modify Mortgage window.

$$\frac{(\text{Number of Payments Made})}{(\text{Total Number of Payments})} \times 100\%$$



$$\frac{(\text{Total No of Payments} - \text{No of Payments Made})}{(\text{Total Number of Payments})} \times 100\%$$

## Equity vs Balance

This shows both the equity of the mortgage and the remaining balance of the mortgage. It is updated only after clicking the Calculate button.

Type in the number of payments actually made and click the Calculate button. You can use the up or down "spin" buttons to increment or decrement the Number of Payments Made field.

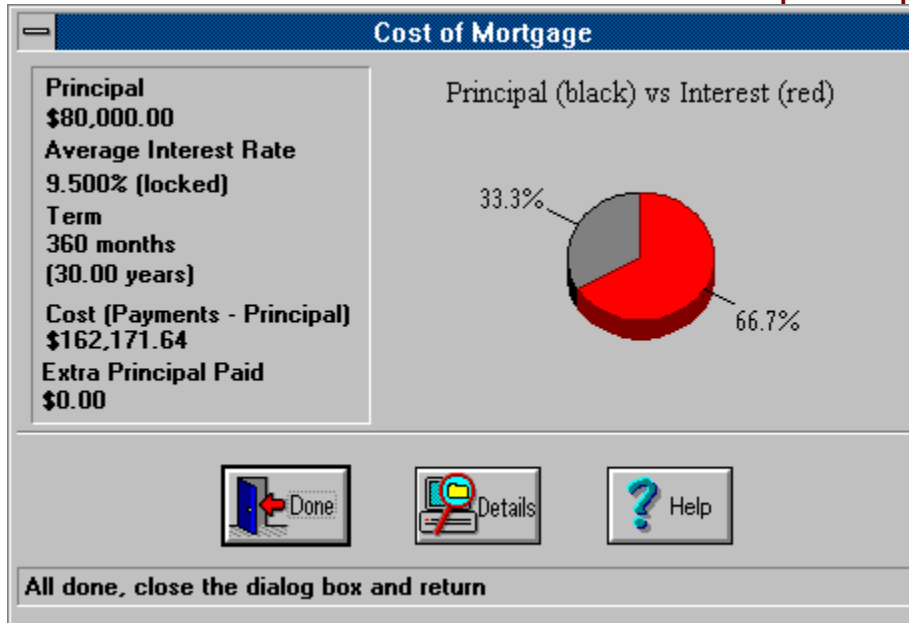
## Equity vs Balance Calculate

Click this button to update the graph and the Equity and Remaining Balance values. The Equity and Remaining Balance values will change based on the number of payments made.

## Cost of Mortgage

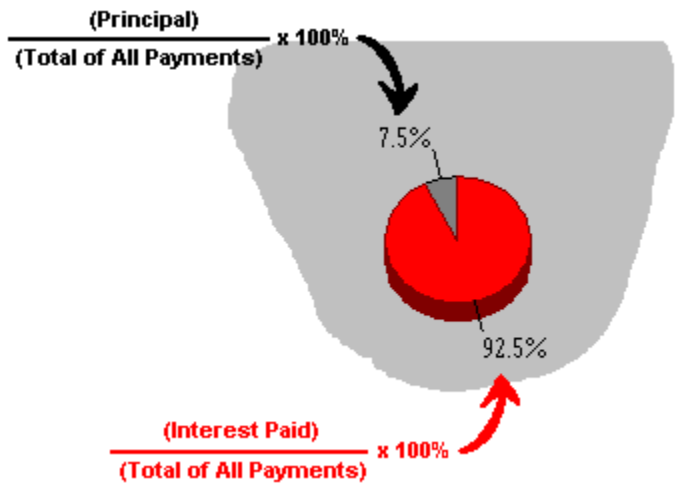
This window gives you a quick look at the overall cost of the current mortgage. The cost of the mortgage is equal to the interest paid for the mortgage. This is also the total amount paid in your payments minus the original mortgage amount.

**Click in an area of the window below for detailed help on that part of the window.**



## Cost of Mortgage Specifics

- Principal:** The original amount borrowed, as specified in the **Modify Mortgage** window.
- Average Interest Rate:** The average interest rate for your mortgage. If you have a fixed interest rate mortgage this amount is the interest rate as specified in the Modify Mortgage window. If the mortgage has a variable rate interest, this average is calculated as the average rate for the percent rates specified in the spreadsheet section of the Modify Mortgage window.
- Term:** The original term of the mortgage, as specified in the Modify Mortgage window.
- Cost:** This number is the interest cost of the mortgage. It is calculated by multiplying the amount of each payment by the number of payments, then subtracting the original mortgage amount.



## PITI Estimate

This window allows you to factor in the estimated taxes and insurance rates into your mortgage payment. Adjust the Taxes and Insurance fields, deciding whether to enter the numbers as a percentage of the original mortgage amount or as a fixed cost per year, and click the Calc button. The resulting PITI payment will be presented in the PITI Summary window.

**Click in an area of the window below for detailed help on that part of the window.**

**PITI Estimate**

Pri= \$80,000.00 Avg Rate= 9.500%  
Mortgage consists of 360 payments  
Normal monthly payment= \$672.68

**Current Tax/Ins**

Taxes: 1.000  %  \$/yr  
Insurance: 1.000  %  \$/yr

**Taxable Property Value:** \$80,000.00

Done Calc Help

All done, close the dialog box and return

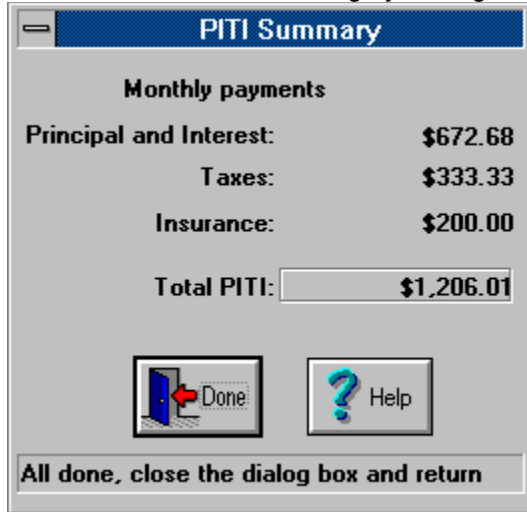


## PITI Summary

This window displays a summary of the mortgage payment including taxes and insurance. Principal and Interest are based on the original loan amount and the interest rate as specified in the Modify Mortgage window.

Taxes are calculated by either adding the fixed dollar amount specified in the PITI Estimate window or by multiplying the Taxable Property Value by the Taxes percentage rate as specified in the PITI Estimate window and dividing by 12 to get a monthly value.

Insurance is calculated by either adding the fixed dollar amount specified in the PITI Estimate window or by multiplying the Taxable Property Value by the Insurance percentage rate as specified in the PITI Estimate window, and dividing by 12 to get a monthly value.



The screenshot shows a dialog box titled "PITI Summary". It contains a table of monthly payments and two buttons at the bottom.

Monthly payments	
Principal and Interest:	\$672.68
Taxes:	\$333.33
Insurance:	\$200.00
Total PITI:	\$1,206.01

At the bottom of the dialog box, there are two buttons: "Done" (with a red arrow icon) and "Help" (with a question mark icon). Below the buttons, a text box contains the instruction: "All done, close the dialog box and return".

## **PITI Estimate Current Taxes and Insurance**

You can enter the taxes and insurance in one of two ways:

1. As a percentage of the original loan amount;
2. As a fixed dollar amount per year.

Enter in the tax and insurance value (percentage or fixed dollar amount). Be sure to click the appropriate button to the right of the data fields indicating whether the number is to be used as a percentage or fixed dollar amount. Then click the Calc button.

Use the up or down "spin" buttons to increment or decrement the values for the tax and insurance.

## PITI Estimate Specifics

**Pri=:** The original amount borrowed, as specified in the **Modify Mortgage** window.

**Avg Rate=:** The average interest rate for your mortgage. If you have a fixed interest rate mortgage this amount is the interest rate as specified in the Modify Mortgage window. If the mortgage has a variable rate interest, this average is calculated as the average rate for the percent rates specified in the spreadsheet section of the Modify Mortgage window.

**No of Payments:** The original term of the mortgage, as specified in the Modify Mortgage window.

**Normal Monthly Payment=:** The monthly payment calculated for the current principal and interest rate. This number does not include taxes and insurance.

## **PITI Estimate Taxable Property Value**

If you entered a percentage in the Current Tax/Ins section, that percentage is based on this value.

When you click the Calc button and you have elected to enter a percentage for the tax and/or insurance in the Current Tax/Ins section, the taxes and insurance amounts shown in the PITI Summary window for the PITI payment are based on the Taxable Property Value you chose in the Current Tax/Ins section.

## Missing Variable

The What If? Missing Variable Analysis window allows you to change any three of four variables (Principal, Interest Rate, Term of Mortgage, Payment Amount) and find the missing variable based on the other three variables. You can also specify frequency of payment options (once per month, twice a month, etc.). This window is a very powerful window for those wishing to experiment with these parameters to suit a particular financial situation.

Simply fill in the three known variables in the same manner as you did in the **Modify Mortgage** window, select the missing variable from the Solve For list, and click the Calc button. (You don't need to clear the value of the missing variable; **Mortgage Designer** will ignore the value when solving for that field.)

To compare multiple mortgage choices, click the Log To button each time you solve for a missing variable. Afterwards you can view that log file by clicking the View button. In the window presented you will see a list of all the analyses you have performed in this session. That log can be viewed, saved to disk, saved to the Windows clipboard, or printed.

**Click in an area of the window below for detailed help on that part of the window.**

**What if? Missing Variable Analysis**

**Amount Borrowed (Principal)**  
\$80,000.00

**Interest Rate**  
9.750%

**Payment**  
\$687.32  
+ Extra to Principal  
\$0.00

**Payments**  
Payment Frequency: Monthly (12/yr)  
Num Pymts: 360  
5 Yr 10 Yr 15 Yr 20 Yr 30 Yr

**Solve For**  
Payment

**What-If File**  
Log to  
Delete  
View

Done Calc Reset Help

View the contents of the "What if?" log file

## **Missing Variable Amount Borrowed**

The default value for the Amount Borrowed is the original loan amount as specified in the Modify Mortgage window. This is one of the four variables that can be solved for.

Enter the full amount of the loan principal, up to 9 digits. Principals from \$100.00 to \$999,999,999 are supported at all interest rates and loan lengths.

You don't need to enter the dollar sign nor commas. They will be ignored if you do enter them.

Click on the up or down "spin" buttons next to the amount borrowed to increment or decrement the amount borrowed by \$100 per mouse click.

## Missing Variable Interest Rate

The default value for the Interest Rate is the original interest rate as specified in the Modify Mortgage window. This is one of the four variables that can be solved for.

Enter the annual interest rate as a percentage. For example, if the annual interest on the loan is 9 3/4%, type in 9.75. Do not enter a percent sign ("%"). Interest rates from 0.1% to 50% are allowed.

Click on the up or down "spin" buttons next to the interest rate to increment or decrement the interest rate by 1/8 percent (0.125%) per mouse click.

## Missing Variable Payment

### Payment

The default value for the Payment is the payment calculated from the values provided in the Modify Mortgage window.

### + Extra to Principal

The default value for the additional payment applied to the principal is zero (\$0). When the Solve For variable is any other field except Term, this field is ignored. When the Solve For is Term and this field is greater than zero, an adjusted Number of Payments is displayed to the right of the original Number of Payments. This is the actual number of payments that will be made if the extra amount is applied to the principal.



## Missing Variable Payments

The default Number of Payments is the number of payments specified in the Modify Mortgage window.

If the Solve For variable is Term and the extra amount applied to principal (+ Extra to Principal) is greater than zero, an adjusted Number of Payments will be displayed to the right of the current Number of Payments. This number represents the actual number of payments necessary to pay off the mortgage if the extra money is applied to the principal.

### Payment Frequency

Click on the arrow to drop down the list of payment frequencies available. Choose how often you want to make payments.

### Number of Payments

Click on one of the buttons (5, 10, 15, 20, 30 YR) below the Number of Payments field and **Mortgage Designer** will automatically fill in the number of payments based the length of the mortgage and the frequency of payments. If the number of payments does not match your mortgage plan, you can type in the number of payments directly, or use the up or down "spin" buttons to increment or decrement the Number of Payments field.

## **Missing Variable Solve For**

Use the arrow to drop down a list of the four variables of the mortgage that you can solve for. After you fill in the actual values for the other three variables in their respective fields, and select the variable to solve for, click the Calc button to find the missing variable.

You need fill in any amount in the data field for the missing variable prior to clicking the Calc button.

## **Missing Variable Calculate**

Click the Calc button to solve for the missing variable specified in the Solve For field. The missing variable is calculated based on the values you have specified for the other three variables.

## **Missing Variable Reset**

Click the Reset button to restore the four variables (Principal, Interest Rate, Term, and Payment) to the original amounts as specified in the Modify Mortgage window.

## Missing Variable Log To

Each time you perform a calculation based on the four variables, you can save that information to a log file so that you can later compare several mortgages. The information is stored as text in a disk file that can later be printed, saved to a disk file, or saved to the Windows clipboard.

The log contains the following information about each calculation performed:

- Principal
- Number of Payments
- Interest Rate
- Payments per Year
- Payment Amount
- Extra Principal.

Each time you click the Log To button this information is appended to the log file so that you will have a record of all the mortgage calculations you have made. The information is not deleted until you click the Delete button.

## **Missing Variable Delete Log**

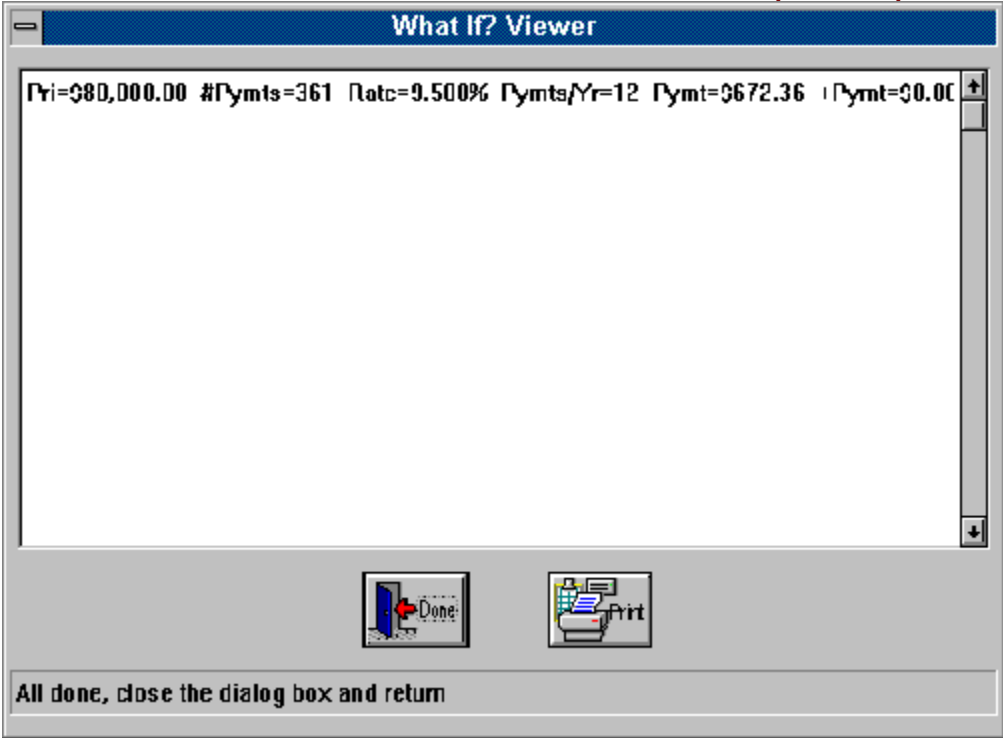
After you have printed or otherwise saved your log file, you can delete the log file from the disk.

(If you saved the log file to a another disk file using the Print button in the Output Contents window, that file will not be deleted.)

# Missing Variable View Log

You can view the contents of the log file at any time by clicking the View button. From the What If? Viewer window, you can also print, save to disk, or save to clipboard the contents of the What If? log file.

**Click in an area of the window below for detailed help on that part of the window.**



## Viewer Text Area

Each time you click the Calc button in the What If? Missing Variable Analysis window, a new line is appended to the log file. Each line consists of the variable information as well as the payment amount and the extra payment applied to principal, if applicable.

This area is an editable area. That is, you can type in additional text (like a heading or some notes to yourself) and delete text as well. In fact, you can use the cut (CTRL-X), copy (CTRL-INSERT) and paste (SHIFT-INSERT) commands to allow you to cut, copy and move text using the Windows clipboard. (See your Windows user's manual for more information about the clipboard.)



## **Vertical Scroll Bar**

The editable region of this window is capable of showing only a limited number of rows. The visible area is fixed. You can pan up or down depending on where the additional rows are.

When there are rows of text that are not in view because of the limited view, use the left mouse button to click on either the up arrow or the down arrow in this vertical scroll bar.

You can also click in the scroll bar to pan up or down. To pan up, click the scroll bar above the square that is in the scroll bar. To pan down, click the scroll bar below the square that is in the scroll bar.

## **Refinance Worksheet Variables**

Enter the amounts for each of the variables provided. Type the amounts directly into the fields, or use the up or down "spin" buttons to increment or decrement the amount.

The default value for the Principal to Refinance is the same as the Amount Borrowed in the New Mortgage section of the Refinance Mortgage window. The points are a percentage of the principal. Enter your percentage and the dollar amount is updated when you click the Calc button.

For the other variables, type in the amount or use the "spin" buttons.

## **Accept Calculated Total**

Click the OK button to update the Amount Borrowed in the New Mortgage section of the Refinance Mortgage window. The Calculated Total becomes the amount to be refinanced during your mortgage comparison.

## **Refinance Worksheet Calculated Total**

This amount is the sum of all the above variables. It is updated when the Calc button is clicked.

## Refinance Mortgage

The Refinance Mortgage window is another powerful feature of **Mortgage Designer**. This window allows you to compare, side by side, two variations of the same mortgage.

By filling in the mortgage variables for the current mortgage and for the new proposed mortgage and clicking the Calc button, you will see, side by side, a mortgage amortization schedule for each of the two mortgage possibilities. This display can help you decide the best way to finance your mortgage.

The time intervals of the two mortgages must overlap and the new mortgage balance be less than the old balance at some point for a break even to occur.

To capture the complete picture when refinancing, your new Amount Borrowed should include all the costs of refinancing plus the old mortgage amount carried over. Typical refinancing costs run 3% to 5% of the amount to be refinanced.

**Click in an area of the window below for detailed help on that part of the window.**

**Refinance Mortgage**

**Current Mortgage**

Amount Borrowed	Interest Rate	Start Date
\$80,000.00	9.500%	02/01/1995

**Payments**

Payment Frequency: Monthly (12/yr)

Number of Payments: 360

5 Yr 10 Yr 15 Yr 20 Yr 30 Yr

Browse updates current mortgage

**New Mortgage**

Amount Borrowed	Interest Rate	Start Date
\$80,000.00	9.500%	02/01/1995

**Payments**

Payment Frequency: Monthly (12/yr)

Number of Payments: 360

5 Yr 10 Yr 15 Yr 20 Yr 30 Yr

Browse updates new mortgag **Worksheet**

Further reduce the new mortgage's principal if the new mortgage's payment is smaller?

**Done** **Calc** **Browse** **Help**

Update the current mortgage with a mortgage loaded using the Browse button

## Refinance Display

After clicking the Calc button in the Refinance Mortgage window, you are presented with a comparison of the current mortgage amortization and the new (refinanced) mortgage amortization tables. This window will identify if a break-even point occurs and when it occurs. You can print either of the mortgage amortization schedules.

**Mortgage Designer** uses a simplified method for calculating the break even point for mortgage refinancing. Payment reductions are optionally reflected into the break even analysis if the new payment is less than the existing payment (adjusted to the same payments per year) **and** you choose to reduce the principal further. Break even analysis looks **ONLY** at principal reduction. It assumes you are not re-investing the payment into a savings account, CD, or other interest producing vehicle.

**Click in an area of the window below for detailed help on that part of the window.**

**Mortgage Refinance Break Even Analysis**

Break even occurs on new mortgage payment 001 on 02/15/1995.  
Break even analysis looks only at the principal reduction!  
Calculations assume you do not re-invest any payment differences.

Current Mortgage			New Mortgage		
Principal-	\$80,000.00		Principal-	\$80,000.00	
Number of Payments =	360		Number of Payments =	480	
Monthly (12/yr)			2x month (24/yr)		
Mortgage Starts	02/01/1995		Mortgage Starts	02/01/1995	
Rate=	9.500%		Rate=	9.500%	
Pynt=	\$672.68		Pynt=	\$372.61	
001	03/01/1995	\$79,960.65	001	02/15/1995	\$79,944.06
002	04/01/1995	\$79,921.00	002	03/15/1995	\$79,887.89
003	05/01/1995	\$79,881.02	003	04/01/1995	\$79,831.50
004	06/01/1995	\$79,840.73	004	04/15/1995	\$79,774.89
005	07/01/1995	\$79,800.13	005	05/01/1995	\$79,718.06
006	08/01/1995	\$79,759.20	006	05/15/1995	\$79,661.00

Print      Print

Done      Help

All done, close the dialog box and return

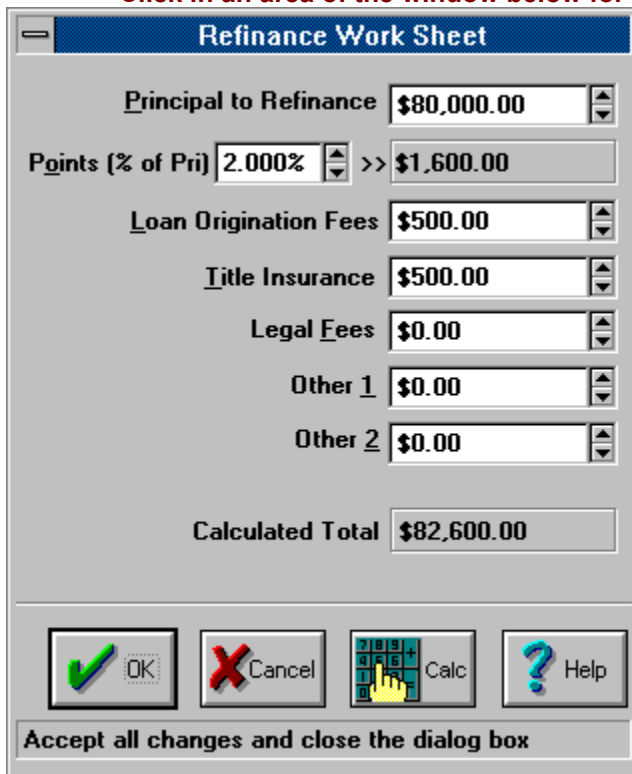
## Refinance Worksheet

To capture the complete picture when refinancing, your new Amount Borrowed (in the Refinance Mortgage window) should include all the costs of refinancing plus the old mortgage amount carried over. Typical refinancing costs run 3% to 5% of the amount to be refinanced. This window provides you with a worksheet to calculate all costs associated with refinancing your mortgage.

For each of the variables provided in the worksheet below, you can either type the desired amount directly into the field, or use the up or down "spin" buttons to increment or decrement the variable. Press the Calc button at the bottom to add all the variables and place the total in the Calculated Total field.

You can accept the total by clicking the OK button, and the total will be placed in the new Amount Borrowed (in the Refinance Mortgage window). Or you can click the Cancel button to disregard the new total and return to the Refinance Mortgage window.

**Click in an area of the window below for detailed help on that part of the window.**



The image shows a software dialog box titled "Refinance Work Sheet". It contains several input fields with spin buttons for adjusting values. The fields are: "Principal to Refinance" set to \$80,000.00; "Points (% of Pri)" set to 2.000%, with a calculated value of \$1,600.00 shown to its right; "Loan Origination Fees" set to \$500.00; "Title Insurance" set to \$500.00; "Legal Fees" set to \$0.00; "Other 1" set to \$0.00; and "Other 2" set to \$0.00. At the bottom, the "Calculated Total" is \$82,600.00. Below the input fields are four buttons: "OK" (with a green checkmark), "Cancel" (with a red X), "Calc" (with a calculator icon), and "Help" (with a question mark). A status bar at the very bottom reads "Accept all changes and close the dialog box".

Field	Value
Principal to Refinance	\$80,000.00
Points (% of Pri)	2.000%
Points (% of Pri) - Calculated	\$1,600.00
Loan Origination Fees	\$500.00
Title Insurance	\$500.00
Legal Fees	\$0.00
Other 1	\$0.00
Other 2	\$0.00
Calculated Total	\$82,600.00

Buttons: OK, Cancel, Calc, Help

Status: Accept all changes and close the dialog box

## **Current Mortgage Payments**

### **Payment Frequency**

In the Payment Frequency drop down list, select the frequency of payments (either every two weeks, twice a month, monthly, quarterly, semiannual, or once a year).

### **Number of Payments**

Click on the button that reflects the term of your mortgage. The number of years in your mortgage multiplied by the number of payments in a year will be displayed in the Number of Payments field.

If you have a mortgage term that does not match one of the buttons below the Number of Payments field, you can still enter the number of payments that you will have. For example, if you have a 25-year term, and if your payments are made monthly, type in "300" for the Number of Payments. You can use the "spin" buttons in the Number of Payments field to increment or decrement the number of payments.



## **New Mortgage Payments**

### **Payment Frequency**

In the Payment Frequency drop down list, select the frequency of payments (either every two weeks, twice a month, monthly, quarterly, semiannual, or once a year).

### **Number of Payments**

Click on the button that reflects the term of your mortgage. The number of years in your mortgage multiplied by the number of payments in a year will be displayed in the Number of Payments field.

If you have a mortgage term that does not match one of the buttons below the Number of Payments field, you can still enter the number of payments that you will have. For example, if you have a 25-year term, and if your payments are made monthly, type in "300" for the Number of Payments. You can use the "spin" buttons in the Number of Payments field to increment or decrement the number of payments.

## **Current Mortgage Initial Values**

### **Amount Borrowed**

Enter the full amount of the current loan principal, up to 9 digits. Principals from \$100.00 to \$999,999,999 are supported at all interest rates and loan lengths.

You don't need to enter the dollar sign nor commas. They will be ignored if you do enter them.

Click on the up or down "spin" buttons next to the amount borrowed to increment or decrement the amount borrowed by \$100 per mouse click.

### **Interest Rate**

Enter the annual interest rate as a percentage. For example, if the annual interest on the loan is 9 3/4%, type in 9.75. Do not enter a percent sign ("%"). Interest rates from 0.1% to 50% are allowed.

Click on the up or down "spin" buttons next to the interest rate to increment or decrement the interest rate by 1/8 percent (0.125%) per mouse click.

### **Start Date**

Enter the date the loan starts. Date format is MM/DD/YYYY. Example: for 1 Dec 1991 enter 12/01/1991. The loan start date must be between 01/01/1900 and 12/31/2100.

## **New Mortgage Initial Values**

### **Amount Borrowed**

Enter the full amount of the current loan principal, up to 9 digits. Principals from \$100.00 to \$999,999,999 are supported at all interest rates and loan lengths.

You don't need to enter the dollar sign nor commas. They will be ignored if you do enter them.

Click on the up or down "spin" buttons next to the amount borrowed to increment or decrement the amount borrowed by \$100 per mouse click.

### **Interest Rate**

Enter the annual interest rate as a percentage. For example, if the annual interest on the loan is 9 3/4%, type in 9.75. Do not enter a percent sign ("%"). Interest rates from 0.1% to 50% are allowed.

Click on the up or down "spin" buttons next to the interest rate to increment or decrement the interest rate by 1/8 percent (0.125%) per mouse click.

### **Start Date**

Enter the date the loan starts. Date format is MM/DD/YYYY. Example: for 1 Dec 1991 enter 12/01/1991. The loan start date must be between 01/01/1900 and 12/31/2100.

## Browsing Updates Mortgage

If you have previously saved mortgages that you want to compare, you can select that mortgage by doing the following:

- a. To recall a previously saved mortgage to become the current mortgage (this information will appear in the left side of the Refinance Mortgage window), click on the Browse Updates Current Mortgage check box. To recall a previously saved mortgage to become the new mortgage (this information will appear in the right side of the Mortgage Refinance window), click on the Browse Updates New Mortgage check box.

(Note that you can load a previously saved mortgage into both the current and new sides of the window by clicking both check boxes.)

- b. Click the Browse button to select the previously saved mortgage using the **Open** window.

## **Reducing Mortgage Principal**

If the new mortgage information produces a payment that is smaller than the current mortgage's payment, you can apply the left over portion of the payment to the new mortgage to the new mortgage principal to pay off the mortgage faster.

For example, if the current mortgage's payment is \$800 and the new mortgage's payment is \$650, you can apply the \$150 to the principal of the new mortgage. This will let you to see how much faster you can pay off the new mortgage. Your new payment will remain at \$800, with the first \$650 going toward the principal and interest, and the additional \$150 being applied directly to the principal.

Click the check box to have the left over portion of the payment added to the principal to pay off the mortgage faster.

## Estimated Yearly Tax Savings

For each year in your mortgage term, this window tells you how much money you can save for each tax percentage bracket. Each column with a "Save %" amount is the percentage of the interest in the first column.

For example, in the first row below, for the total interest spent in 1995 of \$6319.02, 15% of that amount is \$947.85, 28% of that amount is \$1,769.32, and 31% of that amount is \$1,958.89.

The actual percentage amounts can be specified in the [Preferences](#) window.

**Click in an area of the window below for detailed help on that part of the window.**

Estimated Yearly Tax Savings				
Year	Interest	Save 15.000%	Save 28.000%	Save 31.000%
1995	\$6,319.02	\$947.85	\$1,769.32	\$1,958.89
1996	\$7,538.42	\$1,130.76	\$2,110.76	\$2,336.91
1997	\$7,485.44	\$1,122.82	\$2,095.92	\$2,320.49
1998	\$7,427.21	\$1,114.08	\$2,079.62	\$2,302.44
1999	\$7,363.21	\$1,104.48	\$2,061.70	\$2,282.59
2000	\$7,292.84	\$1,093.93	\$2,042.00	\$2,260.78
2001	\$7,215.50	\$1,082.32	\$2,020.34	\$2,236.80
2002	\$7,130.48	\$1,069.57	\$1,996.53	\$2,210.45
2003	\$7,037.02	\$1,055.55	\$1,970.36	\$2,181.48
2004	\$6,934.28	\$1,040.14	\$1,941.60	\$2,149.63

Done Print Details Adjust Help

All done, close the dialog box and return

## Interest Rate Conversion

The Interest Rate Conversion window lets you enter an interest rate compounded at a specified interval, and converts it into the equivalent interest rate compounded at another specified interval. For the example in the window shown here, if you specify an initial interest rate of 8.75% compounded twice a year, you can find the equivalent interest rate which, when compounded quarterly, is equal to the 8.75% compounded twice a year. In both cases, the effective (annual) interest rate is 8.941%. That is, the equivalent interest rate compounded only once a year is 8.941%.

**Click in an area of the window below for detailed help on that part of the window.**

The screenshot shows a window titled "Interest Rate Conversion". It is divided into two main sections: "Current Rate" and "Converted Rate".

- Current Rate:** A text box contains "8.750%". Below it, a label "Compounded" is followed by a dropdown menu showing "2x year (2/yr)".
- Converted Rate:** A text box contains "8.656%". Below it, a label "Compounded" is followed by a dropdown menu showing "Quarterly (4/yr)".

Below these sections, a text box displays "Effective Interest Rate: 8.941%".

At the bottom, there are three buttons: "Done" (with a red arrow icon), "Calc" (with a calculator icon), and "Help" (with a question mark icon).

A footer bar at the very bottom contains the text "Calculate and update values if required".

## Mortgage Pre-Qualification Ratios

This window allows you to calculate the pre-qualification ratios that mortgage companies use to determine your ability to repay your mortgage. You can calculate your Monthly Housing Ratio (the ratio of your PITI to your Gross Monthly Income) and your Monthly Debt Ratio (the ratio of the sum of your PITI and Other Monthly Payments to your Gross Monthly Income).

Use the Monthly PITI buttons to estimate the taxes and insurance and store the resulting PITI value into the PITI field in this window.

**Click in an area of the window below for detailed help on that part of the window.**

The screenshot shows a dialog box titled "Mortgage Pre-Qualification Ratios". It is divided into two main sections: "Monthly Housing Ratio Information" and "Monthly Debt Ratio Information".

**Monthly Housing Ratio Information:**

- Monthly PITI >> PITI: \$672.68
- Gross Monthly Income: \$3,000.00

**Monthly Debt Ratio Information:**

- Monthly PITI >> PITI: \$672.68
- Other Monthly Payments: \$1,500.00
- Gross Monthly Income: \$3,000.00

At the bottom of the dialog box, there are three buttons: "Done" (with a door icon), "Calc" (with a calculator icon), and "Help" (with a question mark icon). Below these buttons, a text box contains the instruction: "All done, close the dialog box and return".



## Mortgage Amortization Schedule

This window allows you to view or print an amortization schedule for the current mortgage. You can view the entire schedule using the horizontal and vertical scroll bars in the schedule is too large to fit into the spreadsheet window.

Clicking the Print button will copy the spreadsheet contents into the Output Contents window. From that window you can either print to the default Windows printer or save the contents to either a disk file or the Windows clipboard.

**Click in an area of the window below for detailed help on that part of the window.**

**Mortgage Amortization Schedule**

Principal (Amount Borrowed)  
\$80,000.00

Term of Mortgage  
360 months  
(30.00 years)

Average (Default) Interest  
9.500% (locked)

Mortgage Starting Date  
02/01/1995

Yrmt	Date	To Pri	Extra Pri	To Int	Rate	Balance
1	03/01/1995	\$39.35	\$0.00	\$633.33	9.500%	\$79,960.65
2	04/01/1995	\$39.66	\$0.00	\$633.02	9.500%	\$79,921.00
3	05/01/1995	\$39.97	\$0.00	\$632.71	9.500%	\$79,881.02
4	06/01/1995	\$40.29	\$0.00	\$632.39	9.500%	\$79,840.73
5	07/01/1995	\$40.61	\$0.00	\$632.07	9.500%	\$79,800.13
6	08/01/1995	\$40.93	\$0.00	\$631.75	9.500%	\$79,759.20
7	09/01/1995	\$41.25	\$0.00	\$631.43	9.500%	\$79,717.94
8	10/01/1995	\$41.58	\$0.00	\$631.10	9.500%	\$79,676.37

Done Print Details Help

All done, close the dialog box and return

## Mortgage Comparisons

The Mortgage Comparisons window allows you to vary interest rates and principals to compare monthly payments for different combinations of principal and interest rate. Note that the payments shown do not include taxes and insurance.

**Click in an area of the window below for detailed help on that part of the window.**

% vs \$	\$76,000.00	\$78,000.00	\$80,000.00	\$82,000.00	\$84,000.00
7.600%	\$536.62	\$550.74	\$564.86	\$578.98	\$593.11
8.075%	\$561.64	\$576.42	\$591.20	\$605.98	\$620.71
8.550%	\$587.07	\$602.52	\$617.97	\$633.42	\$648.81
9.025%	\$612.88	\$629.01	\$645.14	\$661.27	\$677.39
9.500%	\$639.05	\$655.87	\$672.68	\$689.50	\$706.31
9.975%	\$665.55	\$683.07	\$700.58	\$718.09	\$735.61
10.450%	\$692.36	\$710.58	\$728.80	\$747.02	\$765.21

**Principal Info**

Starting Principal: \$76,000.00  
Number of Steps: 5  
Step Size: \$2,000.00

**Interest Rate Info**

Starting Interest Rate: 7.600%  
Number of Steps: 11  
Step Size: 0.475%

Done Calc Print Details Help

All done, close the dialog box and return

## Output Contents

The Output Contents window allows you to print or save the information shown in the editable area of this window.. You can save a copy of this information directly to a disk file, or to the Windows Clipboard. If you save to the clipboard, you can then open another Windows application (such as a word processor) and import the clipboard contents into that application. (Note that the clipboard does have some limitations. If the contents of the editable area is very long some of the information will be lost due to the clipboard's inherent size limitations. It is likely you won't see any problems unless this information contains approximately 800 rows.)

**Click in an area of the window below for detailed help on that part of the window.**

The screenshot shows a window titled "Output Contents" with a table of data and control options below it.

Dynt#	Date	Rate%	\$Extra Pri
1	03/01/1995	9.500	\$10.00
2	04/01/1995	9.500	\$10.00
3	05/01/1995	9.500	\$10.00
4	06/01/1995	9.500	\$10.00
5	07/01/1995	9.500	\$10.00
6	08/01/1995	9.500	\$10.00
7	09/01/1995	9.500	\$10.00
8	10/01/1995	9.500	\$10.00
9	11/01/1995	9.500	\$10.00
10	12/01/1995	9.500	\$10.00
11	01/01/1996	9.500	\$0.00
12	02/01/1996	9.500	\$0.00
13	03/01/1996	9.500	\$0.00

Output To?  Printer  File  Clipboard

Which Lines? Range is 1 to 362. First: 1 Last: 362

Buttons: Print, Cancel, Help

Enter the last line you would like to export, normally maximum listbox lines

## **Calculate Total**

Click the Calc button to sum all of the variables and place the sum in the Calculated Total field.

## **Refinance Display Amortization Schedule**

This area presents a side-by-side comparison of both the current and the new mortgage amortization schedules. The two schedules can be scrolled independently to view the entire schedule.

**(Note: With some very large mortgages it is possible that the entire amortization schedule will not fit into the window. Inherent limitations of the window capabilities may truncate mortgages which have many lines. This is likely to occur if your mortgage has several payments per month and lasts for more than 30 years.)**

## **Current Interest Rate**

You must provide an initial interest rate to convert. Type in the interest rate or use the "spin" buttons to increment or decrement the interest rate. Specify the compounding interval by dropping down the list of intervals.

## **Converted Interest Rate**

Drop down the list of compounding intervals and select the interval you want to use for the converted interest rate.

The converted rate will appear in the top field of this section.

## **Effective Interest Rate**

This is the effective, or annual, interest rate that is equivalent to the current interest rate compounded at the rate you specified. It is an interest rate to which either of the current or converted interest rates is equal. The effective interest rate is the interest rate that, when compounded once per year, is equivalent to either of the other two rates at their specified compounding interval.

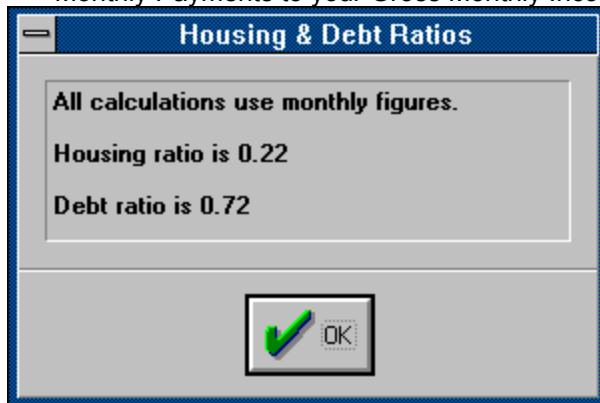


## Calculate Interest Rate

Click the Calc button to calculate the converted interest rate at the specified interval and to calculate the effective (annual) interest rate.

## Calculate Ratios

This window displays the housing and debt ratios. The Housing Ratio is a ratio of your Monthly PITI to your Gross Monthly Income. The Debt Ratio is the ratio of the sum of your PITI and your Other Monthly Payments to your Gross Monthly Income.



## Monthly Housing Ratio Information

Enter your PITI and Gross Monthly Income in the fields provided. You can type the numbers in directly, or use the up or down "spin" buttons to increment or decrement the values.

The PITI can also be entered by clicking the Monthly PITI button, which opens a window where you can estimate the taxes and insurance as either a fixed dollar amount or a percentage of the total mortgage amount.

## Monthly Debt Ratio Information

Enter your PITI, Other Monthly Payments, and Gross Monthly Income in the fields provided. You can type the numbers in directly, or use the up or down "spin" buttons to increment or decrement the values.

The PITI can also be entered by clicking the Monthly PITI button, which opens a window where you can estimate the taxes and insurance as either a fixed dollar amount or a percentage of the total mortgage amount.

## **Basic Mortgage Information**

This section of the window provides you with the basic information about your mortgage: Principal, Average Interest, Term of Mortgage, and Mortgage Starting Date.



## Mortgage Comparisons Spreadsheet

This area of the Mortgage Comparisons window displays the monthly payment for various combinations of principals and interest rates. The intersection of a principal column and a interest rate row is the monthly payment for those two values. The number of columns and rows are determined by the Number of Steps and the Step Sizes selected in the Principal Info and the Interest Rate Info, respectively.

**Click in an area of the window below for detailed help on that part of the window.**

% vs \$	\$76,000.00	\$78,000.00	\$80,000.00	\$82,000.00	\$84,000.00	+
7.600%	\$536.62	\$550.74	\$564.86	\$578.98	\$593.10	
8.075%	\$561.64	\$576.42	\$591.20	\$605.98	\$620.76	
8.550%	\$587.07	\$602.52	\$617.97	\$633.42	\$648.87	
9.025%	\$612.88	\$629.01	\$645.14	\$661.27	\$677.39	
9.500%	\$639.05	\$655.87	\$672.68	\$689.50	\$706.32	
9.975%	\$665.55	\$683.07	\$700.58	\$718.09	\$735.61	
10.450%	\$692.36	\$710.58	\$728.80	\$747.02	\$765.24	+
+						+

## **Mortgage Comparisons Principal Info**

### **Starting Principal**

Select the starting principal (leftmost column) for your lowest amount you want to consider for this comparison. Type in the number directly in the field or use the up or down "spin" buttons to increment or decrement the starting principal.

### **Number of Steps**

The number of steps is the number of principal columns (or the number of principal amounts) you want to compare. In general, you should choose a small number. A number less than 10 is recommended. Larger numbers will increase the calculation time considerably.

### **Step Size**

The step size is the dollar increment between columns.



## **Mortgage Comparisons Interest Rate Info**

### **Starting Interest Rate**

Select the starting interest rate (topmost row) for your lowest amount you want to consider for this comparison. Type in the number directly in the field or use the up or down "spin" buttons to increment or decrement the starting interest rate.

### **Number of Steps**

The number of steps is the number of interest rate rows (or the number of interest rates) you want to compare. In general, you should choose a small number. A number less than 10 is recommended. Larger numbers will increase the calculation time considerably.

### **Step Size**

The step size is the percent increment between rows.

## **Calculate Comparisons**

Click the Calc button to update the spreadsheet section with the monthly payments based on the variables you selected for the Principal Info and the Interest Rate Info sections.

## **Percent Column**

At any one interest rate, you can find the monthly payment for several different principal amounts. The number and step size of the interest rates can be set in the Interest Rate Info section.

## **Principal Row**

For any one mortgage principal, you can find the monthly payment for several different interest rates. The number and step size of the principal amounts can be set in the Principal Info section.

## **Principal vs Interest Rate Payment**

Each spreadsheet cell is the intersection of an interest rate row and a mortgage principal column. The amount in the spreadsheet cell is the monthly payment for that interest rate and that mortgage principal.

## Yearly P & I Graph

Each blue bar in the histogram shows the cumulative amount of your payments that have been made to the principal for that year in the mortgage term.

## Yearly P & I Spreadsheet

The spreadsheet region of the Yearly Principal and Interest window gives you a itemized list of the amounts spent toward principal and interest for each year in the term of the mortgage. You can print this information or save it to disk or to the Windows clipboard and edit it later.

**Click in an area of the window below for detailed help on that part of the window.**

	Year	%Mort	\$ Total Pri	\$Extra Pri	% to Pri	\$ to Int	% to Int	\$Balance	↑
1	1995	7.917%	\$407.78	\$0.00	6.062%	\$6,319.02	93.938%	\$79,592.22	
2	1996	9.500%	\$533.74	\$0.00	6.612%	\$7,538.42	93.388%	\$79,058.47	
3	1997	9.500%	\$586.72	\$0.00	7.268%	\$7,485.44	92.732%	\$78,471.76	
4	1998	9.500%	\$644.95	\$0.00	7.990%	\$7,427.21	92.010%	\$77,826.81	
5	1999	9.500%	\$708.95	\$0.00	8.783%	\$7,363.21	91.217%	\$77,117.86	
6	2000	9.500%	\$770.33	\$0.00	9.654%	\$7,293.84	90.346%	\$76,347.54	↓

## Yearly P & I Spreadsheet Cells

The cell region of this spreadsheet displays the amount for a particular column in each payment row. The information in the spreadsheet is not editable.

You can affect the appearance of this information when it is printed or saved. The width of each column can be changed to suit your particular purpose. You can **grab** the vertical line that separates each column (in the title row only) and move it left or right to make a column narrower or wider.



## Estimated Tax Adjusted Payment

This window provides you with an estimated tax adjusted payment based on your interest rate, the number of payments per year, and your current monthly payment.

The dollar amount in each cell represents the difference between your current total annual payments and the tax savings for the year (as shown in the Estimated Yearly Tax Savings window).

**Click in an area of the window below for detailed help on that part of the window.**

Estimated Tax Adjusted Payments					
Year	Interest	Pymt 15.000%	Pymt 28.000%	Pymt 31.000%	
1995	\$6,319.02	\$577.89	\$495.75	\$476.79	↑
1996	\$7,538.42	\$578.45	\$496.78	\$477.94	
1997	\$7,485.44	\$579.11	\$498.02	\$479.31	
1998	\$7,427.21	\$579.84	\$499.38	\$480.81	
1999	\$7,363.21	\$580.64	\$500.87	\$482.46	
2000	\$7,292.84	\$581.52	\$502.51	\$484.28	
2001	\$7,215.50	\$582.49	\$504.32	\$486.28	
2002	\$7,130.48	\$583.55	\$506.30	\$488.48	
2003	\$7,037.02	\$584.72	\$508.48	\$490.89	
2004	\$6,934.28	\$586.00	\$510.88	\$493.54	↓

↑

↓

Done Print Details Help

All done, close the dialog box and return

## Yearly Tax Savings Spreadsheet

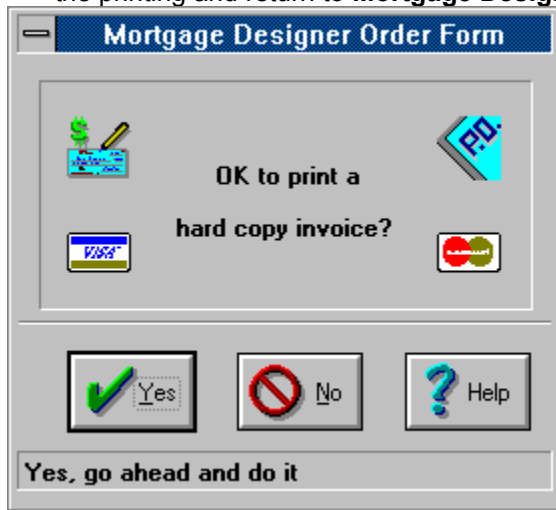
The spreadsheet region of the Estimated Yearly Tax Savings window gives you a itemized list of the estimated yearly tax savings for each year in your mortgage term. You can print this information or save it to disk or to the Windows clipboard and edit it later.

**Click in an area of the window below for detailed help on that part of the window.**

Year	Interest	Save 15.000%	Save 28.000%	Save 31.000%	
1995	\$6,319.02	\$947.85	\$1,769.32	\$1,958.89	↑
1996	\$7,538.42	\$1,130.76	\$2,110.76	\$2,336.91	
1997	\$7,485.44	\$1,122.82	\$2,095.92	\$2,320.49	
1998	\$7,427.21	\$1,114.08	\$2,079.62	\$2,302.44	
1999	\$7,363.21	\$1,104.48	\$2,061.70	\$2,282.59	
2000	\$7,292.84	\$1,093.93	\$2,042.00	\$2,260.78	
2001	\$7,215.50	\$1,082.32	\$2,020.34	\$2,236.80	
2002	\$7,130.48	\$1,069.57	\$1,996.53	\$2,210.45	
2003	\$7,037.02	\$1,055.55	\$1,970.36	\$2,181.48	
2004	\$6,934.28	\$1,040.14	\$1,941.60	\$2,149.63	↓
←					→

## Print Invoice

Click the Yes button to print an invoice to your default Windows printer. Click the No button to skip the printing and return to **Mortgage Designer**.



## About

Click the About menu item to display this information about **Mortgage Designer**. Click the More button for additional information.



## Amortization Spreadsheet Cells

The cell region of this spreadsheet displays the amount for a particular column in each payment row. The information in the spreadsheet is not editable.

You can affect the appearance of this information when it is printed or saved. The width of each column can be changed to suit your particular purpose. You can grab the vertical line that separates each column (in the title row only) and move it left or right to make a column narrower or wider.

## Tax Adjusted Payment Spreadsheet

The spreadsheet region of the Estimated Tax Adjusted Payments window gives you a itemized list of the estimated tax adjusted payments for each year in the term of the mortgage. You can print this information or save it to disk or to the Windows clipboard and edit it later.

**Click in an area of the window below for detailed help on that part of the window.**

Year	Interest	Pymt 15.000%	Pymt 28.000%	Pymt 31.000%	+
1995	\$6,319.02	\$577.89	\$495.75	\$476.79	
1996	\$7,538.42	\$578.45	\$496.78	\$477.94	
1997	\$7,485.44	\$579.11	\$498.02	\$479.31	
1998	\$7,427.21	\$579.84	\$499.38	\$480.81	
1999	\$7,363.21	\$580.64	\$500.87	\$482.46	
2000	\$7,292.84	\$581.52	\$502.51	\$484.28	
2001	\$7,215.50	\$582.49	\$504.32	\$486.28	
2002	\$7,130.48	\$583.55	\$506.30	\$488.48	
2003	\$7,037.02	\$584.72	\$508.48	\$490.89	
2004	\$6,934.28	\$586.00	\$510.88	\$493.54	+
+					+

## Tax Adjusted Payment Spreadsheet Cells

The cell region of this spreadsheet displays the amount for a particular column in each payment row. The information in the spreadsheet is not editable.

You can affect the appearance of this information when it is printed or saved. The width of each column can be changed to suit your particular purpose. You can **grab** the vertical line that separates each column (in the title row only) and move it left or right to make a column narrower or wider.

## Tax Savings Spreadsheet Year Column

Every row displays information about one year in your mortgage. There are as many rows in the spreadsheet region as there are years in the mortgage term.

Use the **vertical scroll bar** to see more of the years.



## Tax Savings Spreadsheet Title Bar

Each column displays information for each year in your mortgage.

Each individual column can be made wider or narrower. Simply **drag** the vertical bar that separates the titles of adjacent columns and move it to the left or right. Making the columns wider or narrower will have the same effect on the printout - the columns can be made wider or narrower for the printout.

Use the **horizontal scroll bar** to see additional columns if they are hidden from view.

## Tax Savings Spreadsheet Cell Region

The cell region of this spreadsheet displays the amount for a particular column corresponding to each row. The information in the spreadsheet is not editable.

You can affect the appearance of this information when it is printed or saved. The width of each column can be changed to suit your particular purpose. You can **grab** the vertical line that separates each column (in the title row only) and move it left or right to make a column narrower or wider.

## What Is Shareware?

Shareware is copyrighted commercial software that you are allowed to try out before you make the purchase decision. It is a marketing concept, not a type of software.

Shareware marketing is typically used when the author doesn't have a huge advertising budget. Companies producing high end software like Lotus 1-2-3, dBase IV, etc. can have advertising budgets of over a million dollars. A full page advertisement in a magazine like PC Magazine can cost over \$10,000 an issue. Smaller software companies, like MaeDae Enterprises, usually don't have that type of advertising budget so shareware marketing is used.

Many people question whether software distributed via shareware is of as high a quality as the software they see advertised in commercial magazines. Good commercial advertising can sell almost any software regardless of its quality. Shareware must be of equal or higher quality than commercially available software for users to register. You, the user, have the opportunity to evaluate the shareware and find the real gems. With commercial software, you purchase the software and then hope it works as advertised.

**Note: Don't feel guilty about passing around copies of shareware. You are helping the author distribute his software. Even though shareware is commercial software, you are encouraged to pass around evaluation copies!**

## Benefits of Registration

Registration benefits include:

1. The latest version of **Mortgage Designer** with no additional information screens.
2. Unlimited support - written or by phone.
3. Low cost upgrades.
4. Notification of enhancements.
5. A Windows based installation program is included with the registered version of **Mortgage Designer**. It completely automates the installation process including the creation of a program group!
6. **Mortgage Designer** now comes with a hard copy manual. Previously this was a \$10 option.

**Note:** Shareware relies on you, the user, for its existence. Your registration will help ensure **Mortgage Designer** continues to improve. When you register, please take the time to fill out the suggestion form. We want **Mortgage Designer** to evolve so it can better meet your needs.

## Print Button

Click the Print button to open the Output Contents window which allows you to print or save the information shown in the editable area of this window.. You can save a copy of this information directly to a disk file, or to the Windows Clipboard. If you save to the clipboard, you can then open another Windows application (such as a word processor) and import the clipboard contents into that application. (Note that the clipboard does have some limitations. If the contents of the editable area is very long some of the information will be lost due to the clipboard's inherent size limitations. It is likely you won't see any problems unless this information contains approximately 800 rows.)



[Click here for more information about this button.](#)

## View Button

You can view the contents of the log file at any time by clicking the View button. From the What If? Viewer window, you can also print, save to disk, or save to clipboard the contents of the What If? log file.



[Click here for more information about this button.](#)

## Payments Area

This area allows you to select frequency of payments, number of payments in the mortgage, and perform calculations.



[Click here for more information about this section.](#)

## Range Button

Click the Range button to open the Modify Mortgage by Ranges window which allows you to change the interest rate or additional principal for a block of payments on your mortgage. Refer to the Modify Mortgage window to obtain the First Payment and Last Payment number that you must enter in the Payment Range area.



[Click here for more information about this button.](#)



## Monthly PITI Button

This window allows you to factor in the estimated taxes and insurance rates into your mortgage payment. The resulting PITI payment will be presented in the PITI Summary window.



[Click here for more information about this button.](#)

## Default Mortgage Area

This area of the General Program Preferences window allows you to specify a mortgage that is loaded into **Mortgage Designer** each time you start **Mortgage Designer**. You can explicitly type in the mortgage file name and its directory path, or you can click the Browse button.



[Click here for more information about this button.](#)

## Worksheet Button

To capture the complete picture when refinancing, your new Amount Borrowed (in the Refinance Mortgage window) should include all the costs of refinancing plus the old mortgage amount carried over. Typical refinancing costs run 3% to 5% of the amount to be refinanced. The Worksheet button provides you with a worksheet to calculate all costs associated with refinancing your mortgage.



[Click here for more information about this button.](#)

## Calculate PITI Summary

Click the Calc button to open the PITI Summary window which displays a summary of the mortgage payment including taxes and insurance. Principal and Interest are based on the original loan amount and the interest rate as specified in the Modify Mortgage window.



[Click here for more information about this button.](#)

## Calculate Refinance Display

Click the Calc button in the Refinance Mortgage window to open a comparison of the current mortgage amortization and the new (refinanced) mortgage amortization tables. This window will identify if a break-even point occurs and when it occurs. You can print either of the mortgage amortization schedules.



[Click here for more information about this button.](#)

## Calculate Estimated Tax Adjusted Payment

Click the Adjust button to open a window which provides you with an estimated tax adjusted payment based on your interest rate, the number of payments per year, and your current monthly payment.



[Click here for more information about this button.](#)

## Enable Multitasking

With Enable Multitasking turned on, **Mortgage Designer** does allow the user to multitask, or switch to other programs running, (such as a word processor or spreadsheet program) while **Mortgage Designer** is perform background calculations such as updating the mortgage spreadsheet. You can typically switch to other programs while **Mortgage Designer** is busy by pressing ALT-TAB.

With Enable Multitasking turned off, **Mortgage Designer** does not allow multitasking. In this mode, **Mortgage Designer** is less likely to have conflicts with other programs running while **Mortgage Designer** is performing spreadsheet updates and other calculations.

The trade-off is speed and compatibility. With the Enable Multitasking turned on, you give up speed in order to have the ability to multitask in some situations. You also may have some conflicts with other programs running.

With the Enable Multitasking off, you gain speed and reduce the risk of compatibility conflicts between **Mortgage Designer** and other programs.





