MortgageCalc v2.1e ©1991-1994

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This Mortgage and Loan Amortization calculator supports most standard and balloon type loan calculations.   After providing the initial principal amount, interest rate, and period, many additional options are available: including accounting for additional principal payments, penalties, various payment periods, final balloon payment, etc.   The following list is a high level table of contents of the documentation included in this help file.

For help on items not listed, click on the Search button above.   A search box like the one below will appear.   Type the name of the item you need help on or scroll the search text box around until you find something interesting.   Select the 'Show Topics' button and select the topic in the list that appears and select the 'Go To' button.

Search

Type a word, or select one from the list.
Then choose Show Topics.

Export Button

Close

Show Topics

Contents
Duration of Loan
Early Pay-off
Export Button
Extra Payments
Extra Principal

Select a topic, then choose Go To.

Go To

Export Button

Loan Amount

The Loan Amount is the principal amount that is being financed.   If a deposit is being made, be sure that the amount of the deposit is not added to the loan amount.   Enter the dollar value of the loan in the box to the right.   Dollar signs ($), commas (,), and insignificant zero digits after the decimal are optional.

Example of a $100,000 loan amount:

Loan Amount   100,000.00

Annual Interest   10.000

Length in years   10

Fixed Rate ?   ☐

Months/adjustment   12

Adjustment percent   2.000

Interest Cap   14.000

Note pad: **Big** | **Clear** | **Print**

Loan of $100,000.00 at 10.000

Rate adjusted every 12 month
Interest rate capped at 14.000
(Worst case interest adjustme
Initial Monthly payment of $1,

Principal

Annual Interest

The annual interest rate of the loan is the interest rate quoted by the financing agent.
Enter the annual interest rate in decimal percentage.   The percent sign '%' is optional.   To
convert fractional interest rates, use the fraction table below.

Fraction table:

1/8	**= .125**
1/4	**= .250**
3/8	**= .375**
1/2	**= .500**
5/8	**= .625**
3/4	**= .750**
7/8	**= .875**

Example of 10% loan interest:

File **Payments** **Tools**

Loan Amount | 100,000.00
Annual Interest | 10.000
Length in years | 10

Fixed Rate ? | ☐

Months/adjustment | 12

Adjustment percent | 2.000

Interest Cap | 14.000

Note pad: | **Big** | **Clear** | **Print**

Loan of $100,000.00 at 10.000

Rate adjusted every 12 month
Interest rate capped at 14.000
(Worst case interest adjustme
Initial Monthly payment of $1,

Principal

Length in Years (or months)

Enter the duration of the loan in years (or months).   To calculate a loan in terms of months, follow   the length number in the length box with the letter 'm'.

```
Example of an 18 month loan:    18m
```

If you have a 30/7 <u>balloon</u> loan, the actual calculation of the payments is based on a thirty year loan until the final balloon payment pays off the remaining principal after seven years. In this case, you would enter a 30 in the loan length and then select the 7 year balloon payment in the Payments : Balloon menu item.

```
Example of a 10 year loan:
```

Loan Amount   100,000.00

Annual Interest   10.000

Length in years   10

Fixed Rate ?   ☐

Months/adjustment   12

Adjustment percent   2.000

Interest Cap   14.000

Note pad: Big | Clear | Print

Loan of $100,000.00 at 10.00(

Rate adjusted every 12 month
Interest rate capped at 14.000
(Worst case interest adjustme
Initial Monthly payment of $1,

Principal

Adjustable Rate Loan

If this is to be an adjustable rate loan,   click on the small box to the right to display additional adjustable rate information. This will also cause the loan to be calculated with increasing interest.   All three of the additional adjustable rate interest fields must be filled in.   When in adjustable rate mode, the 'Adjustable rate?' statement will be converted to 'Fixed rate?'.   So to switch back, just click on the box again.   During adjustable interest calculations, the worst case interest rate adjustment is assumed.

To assign correct interest rates for previous actual adjustments and to assign less than worst case guesses at future adjustments, use the Payments:Loan History menu item and dialog box.

File   Payments   Tools

Loan Amount   100,000.00

Annual Interest   10.000

Length in years   10

Adjustable Rate ?   ☐

Note pad: Big | Clear | Print

Loan of $100,000.00 at 10.00(

Rate adjusted every 12 month
Interest rate capped at 14.000
(Worst case interest adjustme
Initial Monthly payment of $1,

                    Principal

    1993   980.44

    11/9/94 New payment of

    1994   7,551.47

Fixed Rate Loan

To revert from an adjustable rate calculation mode back to a fixed rate calculation mode, click on the box to the right to remove the adjustable rate information.   (Any Loan History interest rate adjustments will be ignored during fixed rate calculations.)   This change will also cover up the three adjustable rate fields and remove them from subsequent calculations.   If you again click into adjustable rate mode, any data previously entered into these fields will again become available.

Loan Amount   100,000.00

Annual Interest   10.000

Length in years   10

Fixed Rate ?   ☐

Months/adjustment   12

Adjustment percent   2.000

Interest Cap   14.000

Note pad: Big | Clear | Print

Loan of $100,000.00 at 10.000

Rate adjusted every 12 month
Interest rate capped at 14.000
(Worst case interest adjustme
Initial Monthly payment of $1,

          Principal

Months per Adjustment

This field is only available during adjustable rate calculation mode.   Enter the number of months between each interest rate adjustment opportunity.   Continue to use the number of months as the adjustment units whether the adjustment period is more than a year or when the payment period is not monthly.   Interest rate adjustments recorded in the Loan History will only apply if the month of the adjustment lines up with a scheduled adjustment.

If you have a yearly adjustable loan, the months indicated in adjustments specified in the Payments: Loan History must be evenly divisible by 12.   For example they must be on months 12, 24, 36, 48, and so on.   An interest adjustment specified for month 15, in this example, would be ignored and cause a warning message to be displayed.

Example of a yearly adjustable loan:

Loan Amount   100,000.00

Annual Interest   10.000

Length in years   10

Fixed Rate ?   ☐

Months/adjustment   12

Adjustment percent   2.000

Interest Cap   14.000

Note pad: Big Clear Print

Loan of $100,000.00 at 10.00(

Rate adjusted every 12 month
Interest rate capped at 14.00(
(Worst case interest adjustme
Initial Monthly payment of $1,

Principal

Adjustment Percent

This field is only available in adjustable rate interest mode.   Enter the maximum percentage that the loan may be increased/decreased at each adjustment opportunity.   If there is no adjustment limit on your loan, then use an interest rate that you feel is probable.   This is the amount that the interest rate will be increased automatically during calculations unless a different interest rate is specifically assigned in the <u>Payments : Loan History</u> menu item's dialog box.

```
Example of  2% maximum adjustment each opportunity:
```

Loan Amount   100,000.00

Annual Interest   10.000

Length in years   10

Fixed Rate ?   ☐

Months/adjustment   12

Adjustment percent   2.000

Interest Cap   14.000

Note pad: Big | Clear | Print

Loan of $100,000.00 at 10.000

Rate adjusted every 12 month
Interest rate capped at 14.000
(Worst case interest adjustme
Initial Monthly payment of $1,

Principal

Interest Cap

Enter the maximum annual percentage rate of interest that the loan may achieve.   If there is no maximum interest on your loan, then use an interest rate cap that you feel is reasonable.   Interest rate percentages will cease to automatically increase once this interest rate is reached.

Example of a maximum interest rate of 14%:

Loan Amount   100,000.00

Annual Interest   10.000

Length in years   10

Fixed Rate ?   ☐

Months/adjustment   12

Adjustment percent   2.000

Interest Cap   14.000

Note pad: Big | Clear | Print

Loan of $100,000.00 at 10.000

Rate adjusted every 12 month
Interest rate capped at 14.000
(Worst case interest adjustme
Initial Monthly payment of $1,

        Principal

Note Pad

You may jot down notes about your various calculations.   These notes will remain attached to the file if you save your data to a file.   You may also clear or print the contents of the note pad with the two buttons above the pad.   The 'Big' button will enlarge the note pad's work area to full screen. Using the 'Export' button you can append all or parts of the Amortization Schedule to the note pad.

To print the note pad along with the amortization schedule, click on the check box next to 'Print Note Pad' on the print options menu when it is selected from the Print button above the amortization schedule.   The 'Print Note Pad' selection is grayed out when the Print button above the note pad is selected since that is all that can be printed from that button.

File **Payments** **Tools**

Loan Amount | 100,000.00 |

Annual Interest | 10.000 |

Length in years | 10 |

Fixed Rate ? ☐

Months/adjustment | 12 |

Adjustment percent | 2.000 |

Interest Cap | 14.000 |

Note pad: **Big** | **Clear** | **Print**

Loan of $100,000.00 at 10.000

Rate adjusted every 12 month
Interest rate capped at 14.000
(Worst case interest adjustme
Initial Monthly payment of $1,

Principal

Calculate Button

Click on this button to calculate an amortization schedule for the indicated loan and interest values.   Calculations are performed automatically when you process a loan history or open a loan file.

Clear Button

Click on this button above the amortization schedule to clear out only the amortization schedule.   Click on the clear button above the note pad to clear only the note pad.   In both of these cases,   your typed calculation data remains.   Use FILE NEW to clear everything.

Export Button

Click on this button to recalculate the amortization schedule and send the output to the NotePad, a Text file, or a spreadsheet in Microsoft Excel,   Lotus 123 for Windows, or Borland Quattro Pro.   (The Windows spreadsheets must be active to initiate a spreadsheet export.)

During the export specification, you may choose what parts of the amortization to send to the spread sheet by selecting the small circles in front of each selection.   You may also choose to send a copy of the note pad contents to the spreadsheet.

Selecting the OK button will start a search for available sheets in the indicated spreadsheet program.   If the sheet list is empty, then the desired application is either not available or the wrong version and does not support Dynamic Data Exchange.   If more than one sheet is available, select the one that you would like to receive the data.

The data export is a destructive transfer and will overwrite anything else that is in the cells of the spreadsheet.   The transfer will start in the top row and occupy 5 columns.   The transfer will occupy as many rows as a corresponding printout would take in lines.   You may open the spreadsheet and watch the data shooting in if you would like.   However, if you click and hold the mouse button on a 'Windows control' like a scroll bar or the like, the transfer may time out waiting for an acknowledgment and some of the data may be lost.

While the export is active, the 'Export' button above the amortization schedule will change to 'Exporting'.   If during an export, you choose an option which if executed would adversely affect the export, you will be given the option to continue the operation and reap the consequences or to abort the requested operation.

Print Button

Clicking on the print button above the amortization schedule will open a dialog box that provides various options concerning printing the contents of the amortization schedule. You may choose to print various portions of the amortization schedule, to optionally include the note pad, and to select any windows defined printer for the print destination.

Clicking the print button above the note pad will open the same dialog box.   However, the only option that may be selected is the printer to which the note pad contents are to be sent.

Amortization Schedule

This table contains the calculations based upon the dollar and percentage values entered to the left.   To see the information below the bottom of the box, click on the down scroll bar arrow.   If you click on the information in the in the amortization, you may use your keyboard's arrow and page keys to move around the schedule.   Click and drag on the surface of the schedule to allow printing and exporting of the selected area. (For keyboard selection use the up and down arrow keys while pressing the shift key to select the area.)

The columns indicate the payment number (used for additional principal payments) and historical interest rate adjustments), the payment date, the principal , interest, and remaining balance.   If additional principal payments are recorded in the Loan History, they are be included in the amortization schedule next to the appropriate month's principal amount.   Historical interest adjustments recorded in the Loan History are indicated by new payment messages.

Calculate	Clear	Export...	Print...
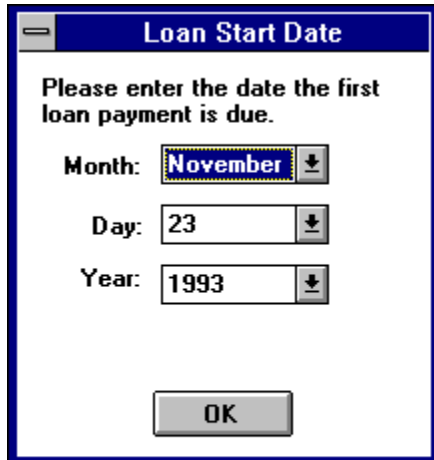
Amortization Schedule

Pmt	Date	Principal	Interest	Balance

Loan of $100,000.00 at 10.000% for 10 years.

Rate adjusted every 12 months by 2.000%
Interest rate capped at 14.000%
(Worst case interest adjustments assumed.)
Initial Monthly payment of $1,321.52 starting on 11/9/93.

Amortization Schedule

Pmt	Date	Principal	Interest	Balance
1	11/9/93	488.19	833.33	99,511.81
2	12/9/93	492.25+100.00	829.27	98,919.56
		====== =======	=======	========
	1993	1,080.44	1,662.60	98,919.56
3	1/9/94	497.19	824.33	98,422.37
4	2/9/94	501.33	820.19	97,921.04
5	3/9/94	505.51	816.01	97,415.53
6	4/9/94	509.72	811.80	96,905.81
7	5/9/94	513.97	807.55	96,391.84
8	6/9/94	518.25	803.27	95,873.59
9	7/9/94	522.57	798.95	95,351.02
10	8/9/94	526.93	794.59	94,824.09
11	9/9/94	531.32	790.20	94,292.77
12	10/9/94	535.75	785.77	93,757.02

11/9/94 New payment of $1,321.20 (11.000%)

Start Date

Enter the first payment due date.   All remaining payments will key off of this date.   If no date is specified, today's date is used.   To specify a start date, select the Payment : Start Date menu item.

Loan History

The Loan History dialog box contains the _additional principal_ and _interest adjustment_ specification boxes.   These items allow changes to the calculated data that is used in the amortization schedule.

Additional Principal

The Additional Principal section allows you to indicate various additional principal payments beyond the scheduled payment.   These changes are indicated in the amortization schedule by following the appropriate payment's principal amount with a plus (+) or minus (-) sign and the recorded additional principal amount. $'s and commas in the amount are optional.

```
Example:  you paid $100 extra with the third payment and an
extra $75 with the eighth payment:",
```

```
        3, 100
        8, 75
```

To have a payment automatically repeated monthly for the remainder of the loan, use the number zero (0) for the loan month in the last Additional Principal entry and type the amount of the repeated amount.   The additional payment will be added to every payment following the last extra payment listed or all payments of the loan if there is no previous extra payments.

```
Example:  you paid $100 extra with the third monthly payment and
plan on paying $50 extra with the eleventh and subsequent
monthly payments:
```

```
        3, 100
        11, 50
        0, 50
```

If you have already specified a repeating value for additional principal and you want to make an additional principal payment that is different than the repeating amount, you just enter it in a usual.   The repeated value for that month is overridden but will continue throughout the remainder of the loan.

```
Example: you pay an extra $200 every payment of the loan, but on
the 10th payment, you want to instead pay $3000.
```

```
        0,200
        10,3000
```

Large negative adjustments that are subsequent offset by large positive adjustments, i.e. missing a payment then paying double the next time are okay.

```
Example: you owe $1321.52 each payment.  You skip payment number
17 and then pay double on payment number 18.  This example also
assumes a late payment penalty of $55 was assessed for the
missed payment.  Thus a missed payment of $1321.52 plus the $55
results in a negative adjustment of $1376.52.  The subsequent
payment of this late amount along with the late fee in addition
to the normal scheduled payment results in a positive adjustment
for the 18th payment of the same amount.
```

```
17,-1376.52
18,1376.52
```

* Negative adjustments are allowed.   However be aware that repeated or large negative adjustments will increase the length of the loan.   Payment changes effective the last payment of the specified loan length will be repeated for the remainder of the loan.   i.e.   A monthly adjustment in effect on the original end date of the loan will continue for loan payments extended due to negative changes.

* Also, negative adjustments to adjustable rate loans which extend the length of the loan beyond an additionally planned payment anniversary will produce a payment adjustment that assumes the loan will be paid off that month.

Interest Adjustments

The Previous Interest Adjustments section allows you to indicate previous actual and future guesses at interest adjustments.   The payment number value of these entries is the number of the payment after which the adjustment took affect or will take affect. Scheduled adjustments other than those recorded in the Loan History will be adjusted the maximum or worst case adjustment amount.

```
Example:  you have a yearly (12 month) adjustable loan, and the
first adjustment was to 12.25% and the second adjustment was to
11.625% regardless of the other maximum limits.

        12, 12.25
        24, 11.625
```

You must use the payment number in specifying interest adjustments.   You also however, must use months in specifying the interest adjustment opportunities in the Months per adjustment entry on the main screen.   These two are the same for monthly payment periods.   However, if the payment period is either Biweekly or HalfMonthly, then it is more difficult to correlate the two since leap years and 'five week' months and such confuse their normal two-to-one ratio.

The easiest way to do this is to specify the Start Date and Months per adjustment first and calculate the loan.   Then, scroll down the amortization schedule until the payment on the correct month for an adjustment is seen.   Then use that payment number in the interest adjustment specification.

Payment Period
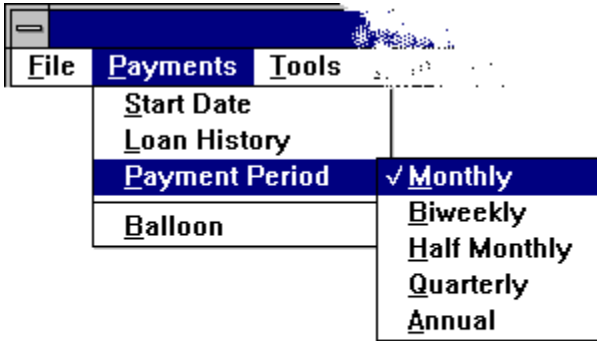
- Monthly: Payments are due each month and the accrued interest is 1/12th of the annual interest rate.

- Biweekly: Payments are due every two weeks and the accrued interest for each payment is 1/26th of the annual interest rate.   With this loan the payments are calculated with a due date every other week for the full duration of the loan.   The small interest savings over a normal monthly loan are due to the two week earlier payment for slightly less than half a month's normal payment.

- HalfMonthly: Payments are **due** each month, however you **pay** 1/2 of a month's payment every two weeks.   If your mortgage company will accept these payments, you can save a lot of interest.   The monthly payments, which are halved, are calculated for a normal monthly loan.   Then each two weeks, half of a monthly payment is made.   This effectively pays off the loan early by paying an extra month's payment against the principal each year . . . 'painlessly'.   Check it out!   (There are actually companies that charge you to provide this large interest savings by making the payments for you.   Just do it yourself and keep all of the savings!)

The accrued interest percentage is the same as a monthly loan.   The large interest savings comes from effectively paying off the loan early.

- Quarterly: Payments are due every three months and the accrued interest is 1/4th of the annual interest rate.

- Annual: Payments are due once each year and the accrued interest is equal to the annual interest rate.
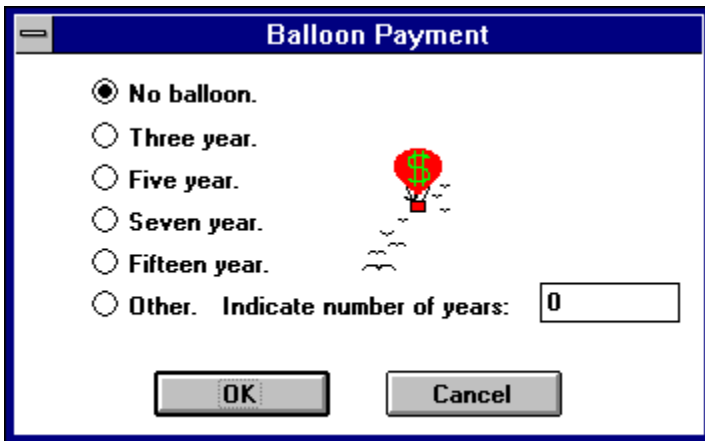
Balloon Payment

A balloon payment is a large final payment that occurs before the otherwise normal end date of the loan.   Balloon payments are typically due after the third, fifth, or seventh year of a mortgage.   To apply a balloon payment to your loan, select the Payments menu item and select the Balloon item.   A dialog box will appear that provide for single click selection of several typical balloon payment durations.

A 30/7 balloon mortgage is a mortgage where the payments for the first seven years are calculated the same as a 30 year loan.   Then one big final payment covers the last month interest and the remaining principal.

Also, an 'Other' selection is available for manual entry of non-typical balloon payment durations.   To enter an eight (8) year balloon payment, select the 'Other' option and tab or click in the box to the right and type the number 8.

Printing

Printing the Amortization Schedule

MortgageCalc supports a wide variety of printing capabilities.   Selecting the Print Button above the Amortization Schedule or above the Note Pad will activate the Print Options window.   On this window, displayed below, are two main areas.

The left side of the window is the printer selection area.   In the list box are all of the defined Windows printer definitions.   In the space above the printer list box is the currently selected printer.   If the currently selected printer is the one that you want to print to, do nothing.   However, if you want to select a different printer, either click the desired printer name or tab into the box and highlight the printer name using your keyboard's up and down arrow keys.

The right side of the windows is the print filter selection.   In this column of entries, you may select what parts of the amortization schedule you would like to print.   You may choose to print the entire schedule or various subsets of the schedule.   Selections that are grayed out and cannot be selected are features that are not valid in the current configuration.   (For example, the interest adjustments selection cannot be selected for fixed rate loans.)

On the print options windows selected from above the note pad, only print entire listing is available.
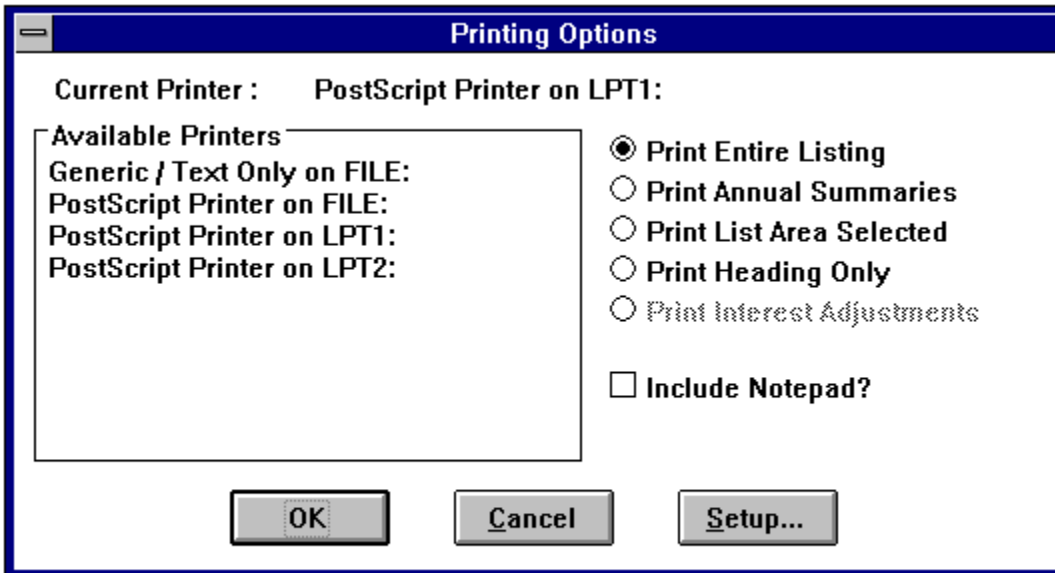
An interest adjustment is the percentage of interest that is added to the then current interest rate for an adjustable rate loan.   These interest rate adjustments only occur on the payment indicated in the **Months per adjustment** data item.

Fixed rate loans or mortgages are those that do not allow the interest rate to change for the duration of the loan.   To convert the calculation from adjustable rate to fixed rate just click the box to the right of 'Fixed rate?' or tab to it and press your keyboard's space bar.

Registration & Ordering

In order to receive support for this product, you must be a registered owner of a copy of this program.   The registration process is easy: just send a check or money order for the full purchase price as indicated in the initial display screen of all ShareWare demonstration versions of the program to the address below.

If this is a full registered copy and you would like to purchase additional copies, please call or write Leiphart Computing Services, Inc. at the number and address indicated below for the current pricing.

Support is provided on this program to the original purchaser for a minimum of one year after the date of purchase.   In the event that support access is altered either by a change in address or phone number, all registered users will be notified via mail.

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