TimeValue Software™

TValue™

Amortization Software │ Version 5

User's Guide

TIMEVALUE
s o f t w a r e

User's Guide

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Amortization Software | Version 5

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Copyright

TimeValue Software licenses TValue amortization software on a per seat basis. This means that each TValue user must pay for a copy of TValue.

For additional copies, contact TimeValue Software.

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Support

If you have questions about TValue software that you cannot resolve with the user's guide or on-line help, call Customer Support at **1-949-727-1800** or **1-800-426-4741** (within USA). Hours are Monday through Friday from 7:00 am to 6:00 pm Pacific time. You can also send your questions via email to **support@TimeValue.com**. We try to respond to all email support on a daily basis. Our customer support policy is subject to change at any time.

Guarantee

If the program doesn't fit your needs, licensed users may return their software within one year of purchase. TimeValue Software will promptly refund the purchase price.

Considerations

TValue amortization software is a general purpose tool. It can produce results at variance with legal, contract, or trade practice requirements. As with any software tool, it's up to you to use it appropriately.

Since 1984, TimeValue Software™ TValue™ amortization software has set the standard for time value of money calculations. With TValue software, you'll solve your most complex interest problems quickly and easily. You can do more than routine loans. TValue software handles balloon payments, multiple interest rates, fixed principal payments, skip payment loans, and much more. In addition to normal (compound) amortization, there's, U.S. Rule (simple interest - no compounding), Rule of 78, and Canadian amortization. When you're finished, TValue software prints amortization schedules that provide full documentation.

How to Use This User's Guide

Refer to the Getting Started chapter to get the program up and running.

Work through the TValue Amortization Software Tour. This will show you the overall operation of the program.

For more information about the operation of TValue software, refer to the TValue Amortization Software Basics chapter. The Calculating and Creating Amortization Schedules chapter covers how to produce and print amortization schedules.

Work through a few examples. After you've learned how things work, this user's guide will serve as a useful reference.

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GETTING STARTED

1

Registration and System Requirements

Registering Your Copy of TValue Amortization Software

As a registered user of TimeValue Software™ TValue™ amortization software, you will receive technical support from the experts at TimeValue Software. You will also receive product upgrade notifications and special offers for other TimeValue Software products.

To receive these customer services from TimeValue Software, please register your software immediately. If you purchased TValue amortization software directly from TimeValue Software, you are already registered.

You can register your TValue software by any of the following methods:

- Call TimeValue Software at 1-949-727-1800 or call 1-800-426-4741 (within USA)

- Register on-line at www.TimeValue.com

Note   For the privacy of our customers, TimeValue Software does not sell or otherwise distribute customer information to any third party.

Checking Your System Requirements

Your computer and operating system must meet the following minimum requirements to run TValue amortization software, version 5.

TValue amortization software, version 5 is a 32-bit Windows application. The software supports Windows 7, Vista, XP, 2000, ME, and Windows Server 2008, 2003, and Terminal Services. Citrix is being used successfully by TimeValue Software customers with no known issues in this environment.

TValue amortization software requires 10MB or more of available RAM and 5MB of hard disk space.

Installing TValue Amortization Software

When you install TValue amortization software on your computer or server, installing it in the default directory is recommended.

To install TValue Amortization Software

1. Insert the TValue software CD into the CD drive. The TValue software installation screen will appear. This may take a few minutes.

2. Follow the on-screen instructions.

The install program will set up a directory named TValue5 (or directory of your choice) on your hard drive. All of the TValue software program files will be copied into this directory. A Windows program group will be created and a shortcut called "TValue 5" will be placed on your Windows desktop. If you are experiencing any difficulty installing TValue amortization software please contact support for assistance at 1-949-727-1800, 1-800-426-4741 (within USA), or support@TimeValue.com.

If you are installing the network edition of TValue software, be sure to install the program to your network drive and refer to the following guidelines.

TValue Amortization Software on a Network

Your Network Edition of TValue software is designed to operate efficiently on your local area network. It supports multiple users running the program from the same directory and individual setup files for each user. After installing TValue software on your network drive, please refer to the following steps to create an icon for each user/workstation.

To setup network workstations for TValue software
(Perform the following setup from each workstation after you install the software on your network server.)

1. Go to the directory where TValue is installed (e.g., F:\TVALUE5).

2. Run **TValue5 Client Setup.exe** from the TValue program directory.

3. Follow the on-screen instructions.

Upgrading From a Previous Version of TValue Software

TValue amortization software, version 5 will automatically convert and read files from earlier versions. You can convert a file by simply opening it with TValue software, version 5. When you save the file in version 5, it is saved in a TValue 5 format with a .tv5 extension on the file name. The original TValue software, version 3 or 4 file (with a .tv3 or .tv4 extension) is undisturbed.

Note to TValue Report™ software, version 4 users

TValue Report software, version 4 does not recognize the TValue software, version 5 file format. You can save files from TValue software, version 5 in a TValue software, version 4 format so they can be read by TValue Report, version 4. For more information about saving files, refer to the TValue Amortization Software Tour chapter.

Strategies for Users Working With Different Versions

Open TValue software version 4 schedules in version 5

You can open schedules created in TValue software, version 4 directly in TValue software, version 5. All data and formatting created in this version of TValue software is fully supported in TValue software, version 5.

Share schedules with version 4 users

To share a TValue software, version 5 schedule with users of TValue software, version 4, the schedule must be saved in the version 4 format.

1. From the File menu, select **Save As**.

2. In the Save As dialog box click the **Save as type** drop down menu.

3. Select **TValue 4 Files (*.tv4)** and save.

When you save, TValue software warns you of settings or features that will not be supported by TValue software, version 4. It then replaces the settings that are not supported by version 4 with settings that are supported by that version. For more information about saving files, refer to the TValue Amortization Software Tour chapter.

Starting and Exiting TValue Amortization Software

Starting TValue Software

After installing TValue software on your hard drive, you can start the program by double clicking on the shortcut icon that was placed on your desktop.

OR

1. Click **Start** and select **Programs**.

2. From the Programs list, select the **TValue 5** menu and choose the **TValue 5** menu item.

The startup display appears temporarily. It shows the program name, version, and copyright information.

After a few moments, TValue software will open a new schedule that displays the Cash Flow Data and Amortization Schedule tabs.

Closing the Schedule and Exiting TValue Software

If you're ready to work on another problem, you can save your current schedule and close its window to remove it from your screen. You can also open another schedule without closing the current schedule.

When you're finished working with TValue software, you can exit the program.

Closing a TValue Software Schedule

1. From the File menu, choose **Close**.

   If you haven't saved the schedule before you close the file or quit, TValue software will ask whether you want to save changes to the schedule.

2. Click **Yes** to save the schedule, **No** to close the schedule without saving, or **Cancel** to return to the TValue software schedule without saving.

Exiting TValue Software

1. From the File menu, choose **Exit**.

If you haven't saved your work, TValue will ask whether you want to save changes to the schedule. Click the button of your choice.

Notes

TVALUE AMORTIZATION SOFTWARE TOUR

A Simple Loan Example

This chapter is designed to quickly familiarize you with the features of TimeValue Software TValue amortization software. Along the way, you'll learn the basics of structuring a simple loan and printing an amortization schedule so you can get started right away. The ideas and procedures mentioned here are described in greater detail in subsequent chapters of the user's guide.

Entering Sample Loan Information

Facts   Lockwood borrows 21,646 to finance the purchase of an auto on April 15, 2007. The annual interest rate is 8 percent, and the loan is to be repaid in 60 equal monthly payments beginning June 1, 2007.

Needed   The monthly payment amount and an amortization schedule.

Entering a Label

The label is an optional field that lets you enter a description of the note you are working on. The description you type in the label field will appear on printed reports unless you choose to omit it.

1. Type **Lockwood automobile loan** and press **Tab** or **Enter**.

    If you make a mistake, click the Label field and edit the text. To enter additional lines of text, click the >> to the right of the Label field.

Selecting a Compounding Period

1. Click the **Compounding** period field to display available choices.

2. Select **Monthly** as the Compounding period and press **Tab** or **Enter**.

Entering an Interest Rate

1. At the Nominal Annual Rate field, type **8**.

2. Click the **>>** to the right of the Nominal Annual Rate field to display the Interest Rate dialog.

Note that TValue amortization software has calculated three other interest rates based on the compounding period chosen. You can enter any of the rates first and TValue software will compute the others.

3. Click **OK** or press **Enter** to close the Interest Rate dialog. Move to the the first cash flow line by pressing **Tab** or clicking on line 1.

Entering the Loan Event, Date, and Amount

The details of the loan and payments are entered on individual cash flow lines which are numbered on the left hand side of the Cash Flow Data window. You can enter and arrange information on cash flow lines in a logical progression.

The first cash flow line automatically appears in the Cash Flow Data window. The Date defaults to your system date.

1. Select **Loan** as the event for the first cash flow line.

Events include Loan, Payment, Deposit, Withdrawal, Rate Change, and User events. User events can be named to suit your needs by selecting Event Names from the Setup menu or right-click menu. The right-click menu is explained in more detail on pages 41 and 97.

Note   If you work with events other than loans, such as deposits or leases, you can change the initial default event by choosing Input Setup from the Setup menu.

2. Press **Tab** or click the Date field and type **041507**.

This is the date the auto loan starts to accrue interest. TValue amortization software will display 04/15/07 when you move to the next field. You can also input dates with separators between characters such as 4-15-07 or 4/15/07. The year can also be entered as four digits.

3. Press **Tab** or click the Amount field and type **21646**. This is the amount of the auto loan.

4. Press **Tab** again and TValue software will display 21,646.00.

Tip   From the loan amount field, you can display the Points and Fees dialog for entering loan charges and prepaid interest that are used to compute the Annual Percentage Rate. To display the dialog, use any of the following methods: (1) Press "**P**" from the Amount field, (2) Click in the far right untitled column of the first cash flow line, or (3) Right-click the first line and choose Points and Fees.

The Number field shows the number of times the event occurs at regular intervals. For loans, the default is 1 since loans usually occur one time.

5. Press **Tab** or **Enter** to accept 1 as the number of loans.

The number 1 will remain in the Number column. The Period and End Date fields are skipped because there is only one loan. A second cash flow line will be created.

Your Cash Flow Data window should now appear as shown below.

	Event	Date	Amount	Number	Period	End Date	
1	Loan	04/15/2007	21,646.00	1			
2	Payment	05/15/2007	0.00	1			

Cash Flow Data tab with Label: Lockwood automobile loan, Compounding: Monthly, Nominal Annual Rate: 8.000 %. Normal Amortization, 365 Day Year.

Entering the Payment Dates and Amounts

Payment is the default event on the second cash flow line because Loan is the first event. If Deposit were the first event, Withdrawal would default here.

1. Press **Tab** or click the start Date field and type **060107**. This is the date of the first payment.

2. Press **Tab** to move to the Amount field.

3. Press **U** to designate the payment amount as unknown. The word "Unknown" will appear in the Amount field.

Tip   From the payment Amount field, you can display the Special Series dialog to create special payments such as interest only or fixed principal. To display this dialog, use any one of the following methods: (1) Press "**S**" or **F2** from the payment amount field, or (2) Click in the far right untitled column on the cash flow line, or (3) Right-click the line and choose Special Series.

4. Press **Tab** to move to the Number field.

5. Type **60** in the Number field and press **Tab**. This is the number of monthly payments during the 5 year period.

    The word Monthly will appear in the Period field. The period is the length of time between the events on a given cash flow line. The End Date, in this case 05/01/2012, is the date of the last payment in the series and is calculated automatically.

Your Cash Flow Data window should now appear as shown below.

Solving for the Unknown

Once you enter the details of the loans and payments, you can quickly calculate the value of any unknown.

Calculating the Payment Amount

1. Click **Calculate** on the tool bar or choose **Calculate Unknowns** from the Compute menu to compute the unknown payment amount.

    Solution   The monthly payment amount of 440.44 will appear in the Amount field.

2. Click **Rounding** on the tool bar to check rounding.

This displays the Rounding dialog and gives you a chance to deal with any leftover rounding amounts.
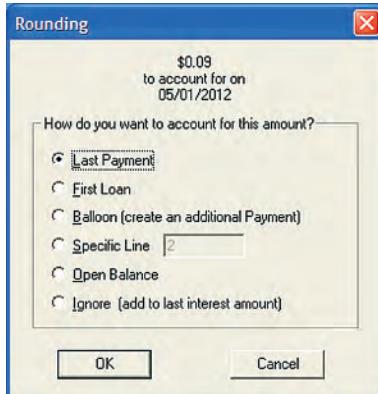
TValue software has internally checked the amortization schedule for any rounding adjustments. A balance of 9 cents remains.

3. Click the **Ignore** button to ignore the rounding adjustment, and click **OK** to close the dialog.

TValue amortization software will change the interest included in the last payment from 2.92 to 2.83 in order to make the final balance zero.

If you select Last Payment, the last payment will increase by 9 cents.

Displaying and Printing the Amortization Schedule

You can produce a detailed amortization schedule from the cash flow data you enter in the TValue amortization software. The amortization schedule shows the details of interest and principal and can be modified for your needs.

Displaying and Printing the Amortization Schedule

1. Click the **Amortization Schedule** tab.

The amortization schedule is displayed as shown on the following page.

2. Use the scroll bars or arrow keys to move to the end of the report. You will see the grand totals and the message "Last interest amount decreased 0.09 due to rounding."

3. To print the amortization schedule, click **Print** on the tool bar.

4. If you had entered any points or fees for the loan, the APR disclosure would appear at the end of the amortization schedule.

You can also view the amortization schedule in Excel or Word by clicking the appropriate button at the top of the amortization schedule. This action would automatically open Excel or Word with the data already exported in that format.

Saving Your Work

To save your data, you must give the file a name and save to drive.

Saving a TValue Software File

1. From the File menu, choose **Save**, or click **Save** on the tool bar.

    If you are saving the schedule for the first time, TValue amortization software displays the Save As dialog.
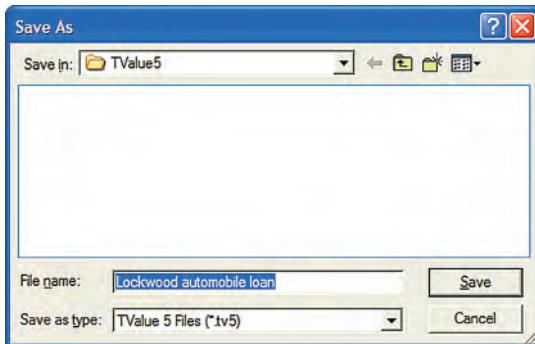
2. The text you typed in the Label field has defaulted in the File name field in the Save As dialog. The file will be saved in the open directory as Lockwood automobile loan.tv5. TValue amortization software will automatically add the .tv5 extension.

    To save the schedule so it can be read by version 4 of TValue software, you can choose TValue 4 Files (*.tv4) from the **Save as type** field.

3. Click **Save**.

Creating a New TValue Software Schedule

1. From the File menu, choose **New**, or click **New** on the tool bar.

TValue amortization software opens a new schedule in a window over the existing schedules. The new schedule is named Schedule#, where # is the number of schedules opened since starting TValue software. You can change the name when you save.

Opening a TValue Software File

1. From the File menu, choose **Open**, or click **Open** on the tool bar.

   The directory dialog that appears will list all TValue software version 5 files in the current directory. To show version 3 or version 4 files, select the appropriate type from the **Files of type** field.
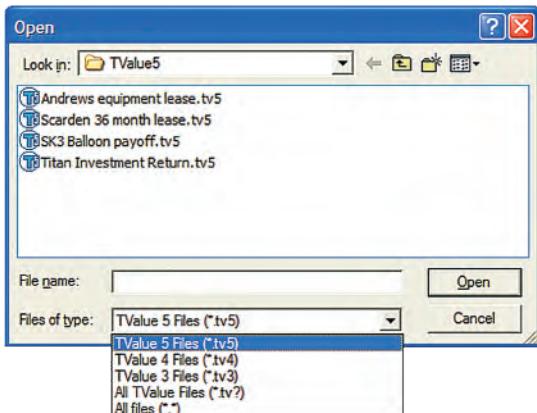
2. Double-click a file name in the list or select it and click **Open**.

Deleting a TValue Software File

1. From the File menu, choose **Open**.

2. Select the drive and directory where the file is located. Right-click on the file name you wish to delete.

3. Select **Delete** from the drop-down menu. Click **Yes** to delete the file.

4. Click **Cancel** to close the Open dialog.

The deleted file will be placed in the Windows Recycle Bin where it will remain until you empty the Recycle Bin.

Changing the Default Directory

When you choose Save or Open from the File menu, TValue software will use the default directory in the Open and Save dialog boxes. The initial directory that appears can be changed from the Input Setup window on the Setup menu. Afterwards, when you use the Save or Open command, TValue software will automatically access the directory you have specified.

1. From the Setup menu, select **Input Setup** or press **F5**.

2. In the Initial Directory field, click the **Browse** button and select the drive and directory where TValue software looks for files when you save and open. You can also type the path directly in the Initial Directory field.

3. Select the **Save settings from ALL tabs as the default for new schedules** checkbox at the bottom of the dialog.

4. Click **OK** or press **Enter**.

Getting Help

Using the Input Assistance

The help box in the Cash Flow Data window displays information about most fields. This information is especially helpful for first time users of the software. You can turn this help box off from the View menu.

Getting Help about a Particular Field

From almost any field, the F1 key brings up a help message based on where you are in the program.

1. From most fields, press the **F1** key. A window will appear on the screen with a message that explains the field.

Getting Help for a Particular Topic

1. Choose **TValue Help Contents** from the Help menu.

   The Help Index displays a list of help subjects.

2. Click any topic to display information for that topic.

3. Click any underlined items to display information specific to that item.

TVALUE AMORTIZATION SOFTWARE BASICS

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Overview of the TValue Amortization Software Environment

Regardless of whether you are working on an investment, mortgage, present value, or future value, you can enter the facts in TimeValue Software TValue amortization software. Most interest calculations involve relationships between amounts, dates, and interest rates. You tell the program what happens and when. TValue amortization software does the rest.

This chapter explains the TValue software working components so you can quickly get started on your projects. If you are familiar with Windows and perhaps even an earlier version of TValue software, you will quickly feel comfortable with TValue software, version 5.

It's easy to move around in TValue software. Commands and functions are accessed from the main screen and from the menu bar at the top of the screen. Use the right mouse button to conveniently access many functions. You can move between fields in a schedule by pressing the **Tab** or **Enter** key.

The TValue Software Schedule

The TValue software Schedule consists of four sections. The menu bar and tool bar appear at the top of the TValue software schedule. The Cash Flow Data window appears below the tool bar and contains areas to enter interest rates and cash flow information. The Amortization Schedule window displays the results from the information entered in the Cash Flow Data window.

Menu Bar

The menu bar is visible on the top line of the TValue software schedule. The commands available from these menus include basic file and edit operations, such as opening and closing files and cutting and pasting. They also include functions available from the Cash Flow Data window, such as adding a cash flow line or specifying points and fees for a loan.
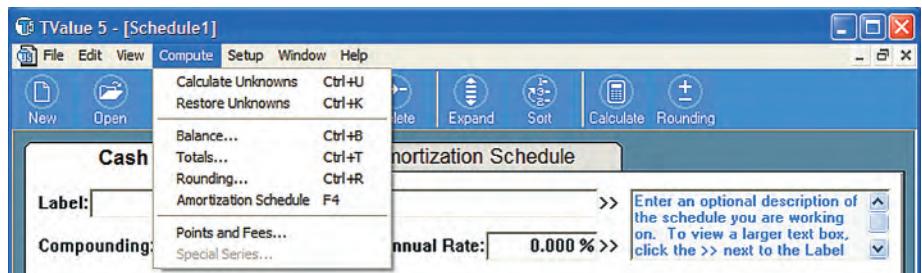
You can choose to use keyboard equivalents for many commands, such as calculating and sorting cash flow lines. These shortcuts appear in the menus to the right of the commands.

Tool Bar

Just under the menu bar is a row of buttons called the tool bar. These buttons let you quickly choose commonly used commands. They perform the same actions as the corresponding commands in the Edit, Compute, and File menus.

Cash Flow Data Window

The Cash Flow Data window is where you record the facts of the problem that you are working on. These facts usually include interest rates, loan or deposit amounts, and number of payments or withdrawals.

As you move through the fields in the Cash Flow Data window, you can enter information or choose an option from a drop-down menu. If you don't know a particular variable, type "U" in the appropriate field to declare it as unknown.

The **Label** provides a description of the problem you are working on. The **Compounding** and **Nominal Annual Rate** fields specify the compound period and interest rate for the problem.

The details of loans, payments, deposits, withdrawals, and interest rate changes are entered on individual cash flow lines. The **Event** specifies the type of activity on a cash flow line and the direction of the cash flow.

The **Date** indicates when the first event on a cash flow occurs. The **Amount**, **Number**, and **Period** specify the amount of each event and how many times it occurs at regular intervals. This allows you to enter a series, such as 360 monthly mortgage payments, on a single cash flow line. The **End Date** indicates when the last event in a series occurs.

The compute settings for the current schedule are displayed at the bottom left of the TValue amortization software schedule. You can click on the displayed settings to quickly access the Compute Setup dialog where you can change the settings.

Amortization Schedule Window

The Amortization Schedule window displays the amortization schedule for the information that is entered in the Cash Flow Data window. When you click on the Amortization Schedule tab, the window is displayed after any necessary calculations are made. Any changes you make while the schedule is displayed are dynamically changed on the displayed schedule.

You can return to the cash flow information after viewing the amortization information by clicking on the Cash Flow Data tab. The **F4** key will also alternate between the Cash Flow Data tab and the Amortization Schedule tab.

Further Information About TValue Software

This user's guide contains the basic information to get you started using TValue amortization software. It also contains a number of examples that focus on some specific applications for the program.

If you have questions that are not answered in these pages, we encourage you to use the TValue software Help system. The TValue software Help contains much more detailed information about the features in TValue amortization software, as well as explanations of many calculations and definitions of frequently used terms.

The Help system can be accessed from the Help menu. You can also display help from individual fields in the program by pressing **F1**.

Adding and Editing a Label

The Label field lets you enter a description of the schedule you are working on. It is an optional field and you are not required to enter a description here. When you enter a description in the Label field, the label can be printed on the amortization schedule. If you do not want to print it, leave the Label field blank or deselect the Label check box in the Report Setup dialog.

When you save a TValue software schedule, the first 50 characters from the Label field will default as the file name in the Save As dialog. You can change the name of the file before you save.

To add a Label to the schedule you are working on

1. Click the Label field and enter the description of the schedule you are working on. If the length of your description extends beyond the length of the Label field, a text box will appear to accept a longer description as shown below.
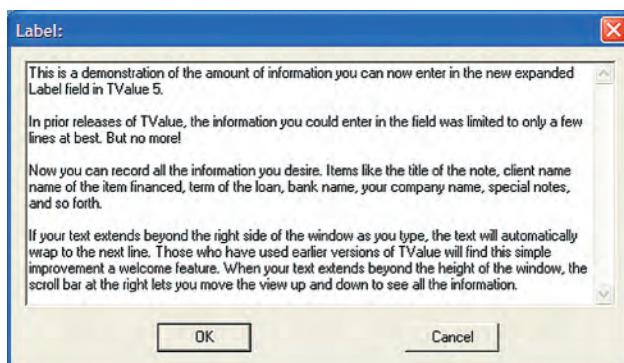
2. Click **OK** when you are finished with the Label text box.

To edit the Label

1. Click within the Label field and edit the text you wish to change.

   To replace the existing text in the Label field, double-click to highlight all the text and type a new description. If the description of the schedule you are working on extends beyond the length of the Label field, click on the >> symbol at the right of the Label field to display the Label text box.

2. Click **OK** when you are finished with the Label text box.

   Along with the label, you can create a header and a footer for amortization schedules. Headers and Footers are discussed in detail in the Help about Headers and Footers.

Entering Interest Information

Several factors are important when computing the time-value-of-money. These factors include the method used to compute interest, the rate at which interest is charged, and the frequency of compounding. You can specify the method TValue software uses to compute interest by choosing Compute Setup from the Setup menu. The rate and frequency of compounding are specified by the Nominal Annual Rate and Compounding fields on the TValue software schedule.

Choosing a Compounding or Rate Period

The Compounding field controls how often interest is compounded. Compounding usually occurs at the same frequency that payments are made. It may also occur more frequently than payments, such as with daily compounding and monthly payments.

Compounding cannot, however, occur less frequently than payments. Monthly payments, for example, cannot be combined with an annual compound period.

The Compounding field is renamed Rate Period automatically when U.S. Rule (Simple Interest) amortization is selected. The Rate Period determines the way interest is calculated (e.g., Exact days vs. Monthly).

To choose a compounding period

1. Click on the Compounding field to display a drop-down list of compounding periods.

   The compounding period currently in effect will be highlighted.

2. Click on a compounding period or press the first letter of your choice.

To change the default compounding or rate period

1. To change the default compounding period that appears when you begin new schedules, choose Input Setup from the Setup menu and select a default Compounding or Rate Period.

2. Select the **Save settings from ALL tabs as the default for new schedules** checkbox at the bottom of the dialog.

3. Click **OK**.

Entering an Interest Rate

The interest rate shown on the main screen is the Nominal Annual Rate. This is the rate quoted for most financial arrangements.

Nominal Annual Rate: 8.500 % >>

Click the **>>** to the right of the Nominal Annual Rate field to enter or view corresponding interest rates, such as the effective, periodic, and daily rate.

If the interest rate is known, it is entered as a percentage (e.g., 8.5 percent is entered as 8.5). If you are trying to solve for the interest rate, you can declare it as unknown by typing **U** in any of the interest rate fields. TValue amortization software uses the other variables to calculate the interest rate.

To enter an interest rate

1. Enter the rate as a percentage in the Nominal Annual Rate field.

Interest rates can be entered with up to five digits to the right of the decimal. They are stored as entered but are displayed rounded to the third decimal place. If you enter a nominal rate of 12.34567 percent, it will be displayed as 12.346 percent but will calculate using 12.34567 percent. When you edit the rate, it will display all digits.

To view or enter an effective, periodic, or daily rate, click the **>>** at the right of the field to display the Interest Rate dialog. In the Interest Rate dialog, you can enter up to 10 digits to the right of the decimal.

Nominal Annual Rate: 8.559 % >>

Interest Rate

Nominal Annual Rate: 8.559000000 %
Effective Annual Rate: 8.903 %
Periodic Rate: 0.71325 %
Daily Rate: 0.02345 %

OK   Cancel
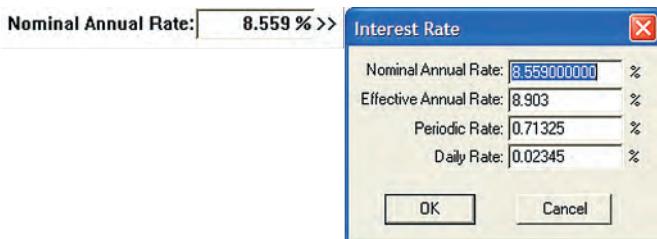
To calculate an interest rate

1. Press **U** at the Nominal Annual Rate field or any of the rate fields in the Interest Rate dialog. The word Unknown will appear in the Nominal Annual Rate field.

2. Enter the information for the schedule and click **Calculate** on the tool bar. The calculated rate will appear in the Nominal Annual Rate field.

Nominal Annual Rate

The nominal annual rate is what is typically quoted when talking about interest rates. If the compound period is annual, the nominal annual rate is equal to the effective annual rate, which is also equal to the periodic rate. If the compound period is monthly, the nominal annual rate is equal to 12 times the periodic rate.

Effective Annual Rate

The effective annual rate is equal to the nominal annual rate if the compound period is annual. In all other cases, (where the interest rate is positive) the effective annual rate is greater than the nominal annual rate because of the effects of compounding.

Periodic Rate

The periodic rate (rate per compound period) is the rate that is multiplied times the balance at the beginning of a compound period. This rate times the number of compound periods per year gives the nominal annual rate. For example, if compounding is monthly and the periodic rate is 1 percent, the nominal annual rate is 12 percent.

Daily Rate

The daily rate is defined as 1/365 of the nominal annual rate for a 365-day year, 1/364 of the nominal annual rate for a 364-day year, or 1/360 of the nominal annual rate for a 360-day year. This rate is used for computing interest for odd days or stub periods, and for daily interest calculations. Year-lengths are described on page 63 of this user's guide.

For further discussion about the nominal annual, effective annual, periodic, and daily rates, refer to the TValue amortization software Help.

Entering Cash Flow Information

Specify the details of loans, payments, deposits, withdrawals, and interest rate changes on cash flow lines within the Cash Flow Data window.

Most problems include regular patterns of payments. A home loan, for example, calls for 360 equal monthly payments. This payment series can be entered on a single cash flow line. Choose the event, date, amount, number of payments, and payment period once to specify the entire series.

TValue software provides dialogs to enter loan charges or special payment series like interest only payments or fixed payments to principal.

Choosing an Event

An event describes the activity on a cash flow line. Choose the event that best describes the cash flow you are working on. If needed, you can create new event names for your own terminology.

If you are unsure whether to use loans and payments or deposits and withdrawals, experiment with the combination that seems to make sense. The Deposit event, for example, works best for many investments. The Loan event works well for mortgages because it allows you to enter points and fees. In most cases, both events will give the same results.

To choose an event for a cash flow line

1. From the Event field on a cash flow line, press the first letter of the event name and press **Tab**. You can also choose an event from the drop down list by clicking on the desired event.

If an event is not available from the event field, delete all but the first cash flow line from the Cash Flow Data window. This will make other event types available. If some events still do not appear in the event list, go to the Setup menu and choose **Event Names**. Select the desired event groups.

Once you select an event on line 1, the list of available events on the following lines will only include the events that correspond with the event on line 1. For example, if you select a Loan on line 1, you will only see Loan, Payment, and Rate Change as event choices on succeeding cash flow lines of your schedule.

The default event name that automatically appears on the first cash flow line can be changed by selecting **Input Setup** from the Setup menu, and setting the Event field to the desired default.

Loan

A loan event is typically the first event in lending transactions, although it's possible to lead off with a payment. In TValue software, a loan is simply a cash flow that goes in the opposite direction of a payment.

Loans are associated with payments in the same way that deposits are associated with withdrawals. In most cases, you can use loans and payments or deposits and withdrawals to get the same results. The functional difference between a loan and a deposit in the software, is that you can enter finance charges (points, etc.) for a loan, but you can't have a special series for a loan (percent step, etc.). With deposits, you can have special series, but you can't have finance charges and annual percentage rate calculations.

Payment

In the program, a payment is a cash flow in the opposite direction of a loan. It is used in conjunction with the loan event. Payments occur individually or as part of a series (e.g., 36 monthly payments). Payments can have any of the special series, such as Fixed Principal + Interest and Percent Step.

Deposit

With TValue software, a deposit is a cash flow in the opposite direction of a withdrawal. Deposits can be used with special event series except Interest Only and Fixed Principal + Interest. Deposits should not be used if you are entering finance charges or computing the annual percentage rate.

Withdrawal

In TValue software, a withdrawal is a cash flow in the opposite direction of a deposit. It is used in the same problems as the deposit event. Withdrawals support all special series.

Rate Change

A Rate Change establishes a new interest rate effective on the date shown in the Date field. The Rate Change event triggers compounding unless you specify the compound period to be none. The amount, number, payment period, and end date columns are skipped. You can set a new compound period along with the new interest rate.

User Events

User events allow you to create new descriptions for events. For example, if you work with leases, you can create lease, commission, lease payment, and residual events to use on cash flow lines. You can create these events by assigning new names to the user loan and payment events. When used in a schedule, these new events will appear as lease, lease payment, etc., but will function exactly like loans and payments. When user event names are used, they will appear on the amortization schedule.

To create a new user event name

1. From the Setup menu, choose **Event Names** or press **F8**. The Event Names dialog will appear.
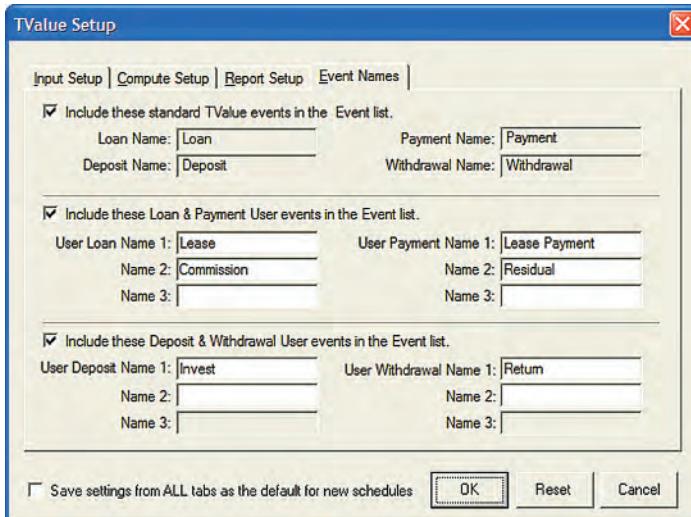
2. Add or edit the event names you want to use in a schedule. Each name can contain 30 characters.

If you want to return the event names to the original TValue software defaults, click the Reset button.

If you edit event names that are being used on the active TValue software schedule, the new names will be reflected in the Cash Flow Data window.

3. Select the event name groups that will be included as choices on schedules by checking the appropriate check box.

To use the selected event names as defaults for new schedules, be sure to select **Save settings from ALL tabs as settings for new schedules**.

4. Click **OK** when you are finished adding event names.

Entering the Date

The Date field on a cash flow line shows when the event takes place. It also specifies when interest starts to accrue for the period. The date represents the date of a single event or the date of the first event in a series. The last event in a series is indicated by an End Date at the right of the cash flow line.

You can enter events out of chronological order if needed. TValue software will accept dates in any order. The events must be sorted, however, before calculations can be done or an amortization schedule can be produced.

To enter the date for a cash flow line

1. Tab to or click on the Date field.

	Event	Date	Amount	Number	Period	End Date	
1	Loan	06/15/2007	0.00	1			

2. Type the date in any of the following formats: 061507, 6-15-07, or 6/15/07. TValue software adds the separators that are defined in the Windows Control Panel after you move to the next field.

3. Press the **Tab** or **Enter** key.

The default date on the first cash flow line will be the current date. Default dates on later cash flow lines will be one payment period after the end date on the previous line, or one compound period later if no payment period has been established. The start date for a Rate Change event will default to the end date of the previous cash flow line.

When the start date of a series is the last day of a month (e.g., November 30 or February 28), the events in that series will all fall on the last day of each month. If you want events to fall on a particular date (e.g., November 30 start date with payments on the 30th of each month), separate these events from the rest of the events in a series. Then start a series for the remaining payments beginning on a date that is not a month-end (e.g., December 30).

To enter dates out of order

1. Enter events in any order. If an alert box appears when you enter dates out of order, click **OK** to allow entry of dates out of order. After you enter the events, you can use the **Sort** command to place them in order.

Entering the Amount

The Amount field on a cash flow line specifies the amount of the event. Unknown amounts can be entered by typing **U** in the Amount field.

To enter the loan, payment, withdrawal, or deposit amount

1. Tab to or click on the **Amount** field of a cash flow line.

2. Enter an amount with or without decimals. TValue software will automatically add commas.

TValue software has two amount-entry modes: default and whole dollar. The default mode lets you enter amounts with dollars and cents. Whole dollar mode is primarily used for entering very large amounts without cents. To set this option, choose Input Setup from the Setup menu and select Whole Dollar.

Depending on the event on a cash flow line, pressing **F2** or clicking in the far right column displays a dialog for entering information, such as points and fees or type of payment series for that cash flow line. For more information about entering points and fees and special payment series, refer to the Special Series section in this chapter.

To calculate the amount

1. Press **U** in the Amount field.

2. Enter all the variables for the schedule you are working on.

3. Click **Calculate** on the tool bar. The calculated amount will be displayed in the Amount field that was designated Unknown.

Weighted Unknowns

Weighted unknowns let you calculate an amount that is a product of an unknown amount and a specified multiplier. With weighted unknowns you can specify the relationship that each payment has to another. For example, you may solve for two unknown payments where one is an unknown amount and the other is twice the unknown amount.

Weighted unknowns are useful where you have 2 payments up front followed by a series of regular periodic payments. Typing **2x** in the amount field would specify the two up front payments. On the next cash flow line, the remaining periodic payments would be specified by typing **1x** or **U** in the Amount field.

	Event	Date	Amount	Number	Period	End Date	
1	Lease	11/23/2007	45,336.00	1			
2	Lease Payment	11/23/2007	2.000x	1			
3	Lease Payment	12/23/2007	Unknown	46	Monthly	09/23/2011	

When calculated, the first payment would be twice the amount of the remaining payments.

Entering the Number of Events

The Number field on a cash flow line indicates the number of times the event occurs. For loans, the number is usually 1 because there is usually only 1 loan. For payments, this will be the number of payments that will be made (e.g., 360 monthly mortgage payments).

To specify the number of events

1. Tab to or click the Number field on a cash flow line.

2. Enter the number of loans, payments, deposits, or withdrawals. If more than one (e.g., 360 monthly mortgage payments), enter the number that occurs before the event on the next cash flow line.

To calculate the number

1. Press **U** at the Number field.

The word **Unknown** will appear in the field as shown below.

	Event	Date	Amount	Number	Period	End Date	
1	Loan	11/23/2007	187,000.00	1			
2	Payment	12/23/2007	2,113.04	Unknown	Monthly	Pending	

When you choose unknown as the number of events, the End Date field will display Pending. The End Date will be calculated and displayed when you solve for the number of events.

2. Enter all the remaining variables for the schedule you are working on.

3. Click **Calculate** on the tool bar. The calculated number will be displayed in the Number field that was designated unknown. The End Date will also be calculated.

Many times when solving for the Number, the answer is not an even result. TValue software will automatically display the Rounding dialog in order to address the odd amount.

Choosing the Period

The period is the time between the events on a given cash flow line. The period is usually the same as the compound period. This field is used if the number on a cash flow is greater than one. Otherwise, it is skipped.

To set the event period

1. Click on the Period field on a cash flow line to display a drop-down list of event periods as shown below.

	Event	Date	Amount	Number	Period	End Date	
1	Loan	11/23/2007	187,000.00	1			
2	Payment	12/23/2007	2,113.04	88	Monthly ▾	03/23/2015	
					Monthly		
					Quarterly		
					Semiannual		
					Annual		
					Weekly		
					Biweekly		
					Half-month		
					2-Month		
					4-Month		
					4-Week		

2. Click the event period you want.

Some periods may not be compatible with the compound period in effect. This occurs if you choose a period on a cash flow line that is shorter than the compound period. TValue software will display an alert if there is a conflict.

Note   Canadian computations often involve events that occur more frequently than the compounding period. TValue software handles these types of calculations when the computation mode is Canadian. The Canadian setting is explained later in this chapter.

End Date

The End Date indicates the day of the last event in the series. This date is computed automatically. To enter dates in order, the starting date on each cash flow line must fall on or after the End Date of the preceding series.

When the number of payments on a cash flow line is unknown, the End Date will show Pending until the unknown number has been computed.

Entering a Rate Change Event

The Rate Change event allows you to add an interest rate change at any point in the schedule. When you select the Rate Change event, the Rate Change dialog will appear.
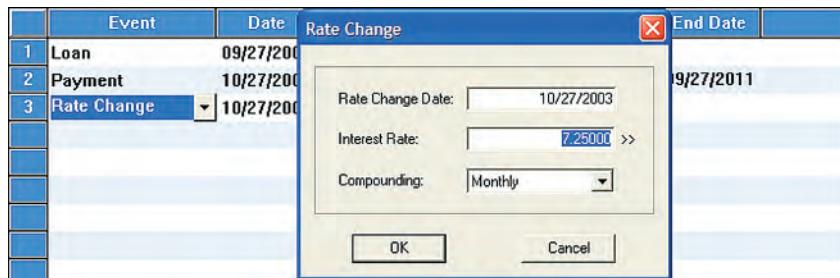
The Rate Change dialog lets you enter the date the rate change takes effect, the new interest rate, and the compounding of the interest that occurs from the rate change date forward.

To view or enter the effective annual, periodic, or daily rate, click the >> in the Rate Change dialog.

The date for a Rate Change event will default to the last date of the preceding cash flow line. You can edit this date.

A Rate Change event will not affect the interest rate of the cash flow lines with dates prior to the date of the rate change. The new rate will take effect on the date of the Rate Change cash flow line.

To enter a rate change event

1. From the Event field on a cash flow line, select **Rate Change**.

2. In the Rate Change dialog that appears, enter the new interest rate. You can also edit the date of the rate change and compounding period.

To view or enter the effective annual, periodic, or daily rate, click the >> in the Rate Change dialog. These rates are entered as described earlier in this chapter under Entering an Interest Rate.

To change the compounding for a rate change

When you have a rate change, you can change the compounding. This new compounding period will be in effect from the start date of the cash flow line and will not affect the cash flow lines that occur before it.

1. Display the Rate Change dialog from a Rate Change cash flow line. You can do this by (a) clicking the far right of a Rate Change cash flow line, (b) right-clicking on a Rate Change cash flow line and selecting **Rate Change**, or (c) pressing **F2** from a Rate Change line.

2. From the Compounding field, select the desired period.

   The compounding period chosen here must be compatible with subsequent payment periods. Compounding usually happens when payments occur. It may also occur more frequently than payments, such as with daily compounding. You cannot, however, combine a compounding period with payments that occur more frequently, such as Annual compounding with Monthly payments. In addition, you can't mix week-based compounding with month-based payments.

   The Daily, Exact Days, and Continuous compounding periods are compatible with any payment period.

3. Click **OK** to close the Rate Change dialog.

To enter a rate change with no compounding

1. Display the Rate Change dialog from a Rate Change cash flow line. You can do this by (a) clicking the far right of a Rate Change cash flow line, (b) right-clicking on a Rate Change cash flow line and selecting **Rate Change**, or (c) pressing **F2** from a Rate Change line.

2. From the Compounding field, select **None**.

3. Click **OK** to close the Rate Change dialog.

Choosing None for Rate Change compounding establishes a new interest rate effective on the event date but does not cause compounding. When you choose None for the compound period, it only applies to the Rate Change event and does not affect the compound period of other cash flow lines.

You would usually use None for the compound period for loans where payments are regular but the interest rate changes at odd times based on market rates. The overall compound period stays constant, and compounding is not triggered by interest rate changes.

Arranging Cash Flow Lines

The top half of the Edit menu contains commands that are common to many Windows applications. The Undo, Cut, Copy, and Paste commands work as described in the Windows User's Guide. These commands are primarily used to copy cash flow lines and edit headers, footers, and text fields.

You can quickly arrange the order of the cash flow lines with the commands in the lower half of the Edit menu. The Insert Line and Delete Line commands let you add or remove lines. The Expand and Sort commands let you easily consolidate and organize cash flows. To use these commands, you can select them from the Edit menu or tool bar.
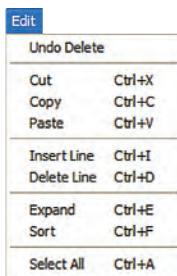
The buttons in the middle of the tool bar carry out many of the same commands listed in the lower portion of the Edit menu.

Cut, Copy, and Paste Commands

You can use the Cut and Paste commands in the Edit menu to move the location of a cash flow line or move text in a text field. To copy cash flows or text while leaving the original intact, use the Copy and Paste commands. You select lines to Copy or Cut by clicking on the number at the left of the line(s).

The Paste command puts the contents of the Clipboard into the active schedule. If a cash flow line is selected when Paste is chosen, the contents of the Clipboard will be placed before the selected cash flow line. If no cash flow line is selected, then the cash flow lines from the Clipboard will be added to the end of the cash flow data. If text is selected when Paste is chosen, the selected text will be replaced with the contents of the Clipboard.

Inserting and Deleting Cash Flow Lines

The Insert Line and Delete Line commands let you add or remove lines from the Cash Flow Data window. When you need to insert a cash flow line between two existing lines, use the Insert Line command from the Edit menu or click Insert on the tool bar. This inserts a cash flow line that can then be edited.

To insert a cash flow line

1. Select a cash flow line by clicking the number at the left of the line.

2. Click **Insert** on the tool bar or choose **Insert Line** from the Edit menu.

A new line will be inserted above the selected line. If no line was selected before the insert, then a new line will be added at the end of the cash flow data.

The default event will depend on the events already used in the schedule. This new line will have an amount of 0 and number of 1. Any subsequent cash flow lines will move down one row after the line is inserted.

3. Enter the needed information on this new cash flow line.

To delete a cash flow line

1. Click any field of the cash flow line you want to delete.

If you want to select multiple lines, click the number at the left of the line. Use the **Shift** key to select a range of lines or **Ctrl** to select individual lines.

2. Click **Delete** on the tool bar or choose **Delete Line** from the Edit menu.

The selected line(s) will be deleted without affecting the remaining lines. Any subsequent cash flow lines will move up one row.

Expanding and Sorting Cash Flow Lines

If you need to see the individual monthly payments of a 30 year loan, you can enter the payments as a series and let TValue software expand the cash flow line into 360 individual payments. On the other hand, if your work requires that you enter individual cash flows, you can let TValue software sort them by date and consolidate them into a manageable series.

Expanding a Cash Flow Line

When you choose the Expand command, TValue software will expand the selected cash flow lines or all cash flows in the active schedule, and each cash flow line will represent a single event.

For example, if you have a cash flow line that specifies a series of 36 monthly payments and you choose the Expand command, 36 individual payment cash flow lines will be created one month apart.

Note   A TValue software schedule can contain up to 4,000 cash flow lines. This may limit your ability to expand all cash flows at once. If so, expand and compress each series individually to avoid exceeding 4,000 lines.

To expand a cash flow series

1.   Select the cash flow line to expand as shown below. To select a cash flow line, click the number to the left of the cash flow.

Click here to select the cash flow line ——

	Cash Flow Data		Amortization Schedule			

Label: Cash flow lines before expanding   >>

Compounding: Monthly   Nominal Annual Rate: 7.200 % >>

Enter an optional description of the schedule you are working on. To view a larger text box, click the >> next to the Label field.

	Event	Date	Amount	Number	Period	End Date
1	Loan	10/08/2007	150,000.00	1		
2	Payment	11/30/2007	2,000.00	3	Monthly	01/31/2008
3	Payment	02/29/2008	3,500.00	40	Monthly	05/31/2011
4	Payment	06/30/2011	Unknown	1		

If no line is selected, TValue software will expand all cash flows in the active schedule.

2. Click **Expand** on the tool bar or choose **Expand** from the Edit menu.

The cash flows in the schedule shown on the previous page will appear as shown below after choosing the Expand command.

Expanded cash flows

	Event	Date	Amount	Number	Period	End Date	
1	Loan	10/08/2007	150,000.00	1			
2	Payment	11/30/2007	2,000.00	1			
3	Payment	12/31/2007	2,000.00	1			
4	Payment	01/31/2008	2,000.00	1			
5	Payment	02/29/2008	3,500.00	40	Monthly	05/31/2011	
6	Payment	06/30/2011	Unknown	1			

Cash Flow Data   Amortization Schedule

Label: Cash flow lines after expanding   >>   Enter an optional description of the schedule you are working on. To view a larger text box, click the >> next to the Label field.

Compounding: Monthly   ▼   Nominal Annual Rate: 7.200 % >>

If you do not like the results of the Expand command, choose **Undo Expand** from the Edit menu.

Sorting Cash Flow Lines Chronologically

You can enter cash flows out of chronological order. Cash flows are out of order when start dates overlap as shown below or when a start date overlaps with the end date on a prior cash flow line.

If you enter cash flows out of order, you can use the Sort command to sort and consolidate them into a manageable series.

To sort all cash flow lines

1. Click **Sort** on the tool bar or choose **Sort** from the Edit menu.

The schedule shown above is shown below after clicking the Sort button.

	Event	Date	Amount	Number	Period	End Date	
1	Deposit	07/09/2007	20,000.00	1			
2	Withdrawal	10/10/2007	444.00	2	Monthly	11/10/2007	
3	Withdrawal	11/15/2007	111.00	1			
4	Withdrawal	12/10/2007	444.00	2	Monthly	01/10/2008	

Note how the series of four cash flows is split to arrange all the cash flow lines in order. This eliminates the overlapping of dates. If two or more events occur on the same date, they will remain in the order they were entered in the schedule.

Creating a Special Series

In contrast to equal and regular payments or withdrawals, some schedules call for increases, decreases, skips, or even payment allocation to interest or principal. TValue software will generate these types of payments or cash flow series through the use of the Special Series. The Special Series can be used to generate interest only, percent step, amount step, skip payments, and others.

To enter a Special Series for a cash flow line, click the untitled column to the right of the cash flow line, or right-click the line and choose Special Series. You can also choose the Special Series command from the Compute menu.

If you prefer keyboard commands, you can access the Special Series dialog from the Amount field by pressing "**S**" or **F2**.

Right-click anywhere on a line to display the drop-down menu and choose Special Series

OR...

Click this column to choose a Special Series

Once you select a special series, it will be indicated in the far right column of the cash flow line. If no words appear (as above) the series is normal.

This indicates a Monthly Skip series

Use the Special Series dialog to create a special series of payments, deposits, or withdrawals. The special series options will apply only to the events on the cash flow line you are working on. Any Special Series you have specified on other cash flow lines will be unaffected.

Normal Payments

Normal payments are the most common type of payments. A Normal payment series is used for payments or withdrawals that are the same amount each period.

Normal Payments are the default type of payment series. When you enter payment amounts on the main screen, you are entering normal payments unless a special series is selected. Click the far right column on a cash flow line to change from normal payments to a special series or to change from a special series back to normal payments.

To change back to normal payments

1. Click the far right untitled column on a cash flow line or right-click on the cash flow line and select **Special Series**.

2. Choose **Normal** as the series. The Normal dialog will appear.

3. Enter the payment amount in the dialog that appears. Press **U** if you want to calculate the payment amount.

4. Select **Activate normal payments for the currently highlighted event**.

5. Click **OK** to close the dialog.

Interest Only

An Interest Only series is used to generate a series of cash flows equal to the amount of interest that has accrued since the last payment or withdrawal. TValue software will calculate the interest payment amounts. Do not use this type of series if you wish to specify the amount of the payment.

To calculate payments that cover interest only

1. Click the far right untitled column on a cash flow line or right-click on the cash flow line and select **Special Series**.

2. Choose **Interest Only** as the series. The Interest Only dialog will appear as shown on the following page.
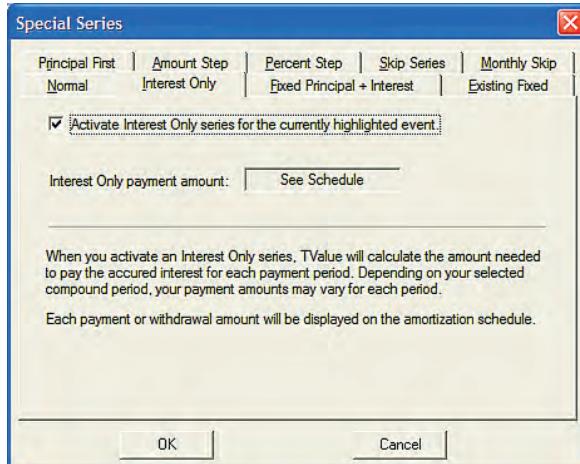
3. Select **Activate Interest Only series for the currently highlighted event**.

4. Click **OK** to close the dialog.

    The word "Interest Only" will appear in the Amount field on the Cash Flow Data window.

    TValue software will automatically calculate interest only payment amounts when the amortization schedule is prepared. After you select the Interest Only series as shown above and click **OK**, you can enter the number of interest only payments in the Number field on the Cash Flow Data window.

Fixed Principal + Interest

A Fixed Principal + Interest series generates a series of payments or withdrawals with a fixed amount applied to principal, plus an amount to cover accrued interest. You can use the Fixed Principal + Interest series when setting up a new note that calls for payments of principal plus interest.

To enter payments with a fixed amount applied to principal

1. Click the far right untitled column on a cash flow line or right-click on the cash flow line and select **Special Series**.

2. Choose **Fixed Principal + Interest** as the series. The Fixed Principal + Interest dialog will appear.

3. Enter the amount to be applied to principal in the dialog that appears. Press **U** if you want to solve for the principal payment amount.
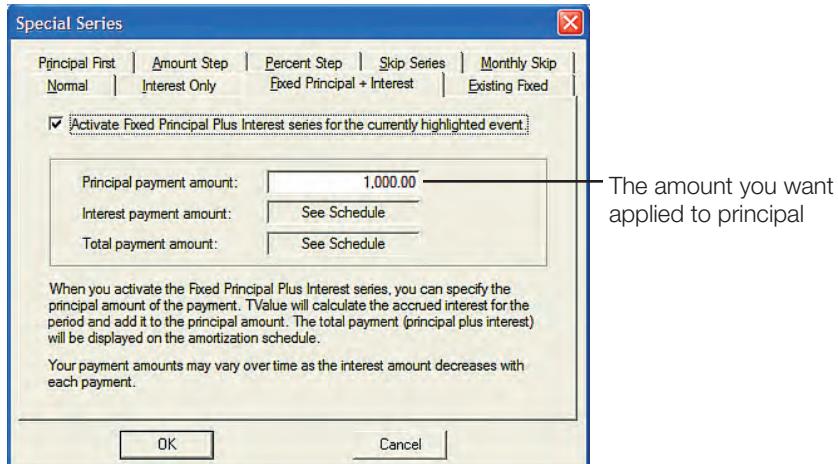
The amount you want applied to principal

4. Click **OK** to close the dialog.

After you close the dialog, the principal payment will be displayed in the Amount field on the Cash Flow Data window. You can then enter the number of payments in the series in the Number field. TValue amortization software automatically calculates the appropriate interest and adds it to each principal payment when the amortization schedule is prepared.

Amount Step

An Amount Step series generates a series of amounts that increase or decrease by a fixed dollar amount after a specified number of payments. This is sometimes referred to as a dollar step series.

To enter payments that increase or decrease by a set amount

1. Click the far right untitled column on a cash flow line or right-click on the cash flow line and select **Special Series**.

2. Choose **Amount Step** as the series. The Amount Step dialog will appear.

3. Enter the first payment amount in the Starting amount field. If the amount is unknown, type **U**.

4. Enter the change amount in the Amount change per level field. For example, if you want the payment amount to increase by $50 after three payments, enter 50 here. If you want it to decrease, precede it with a minus (-) sign.

5. Enter the number of payments that occur at each level. For example, if you want three payments and then an increase, enter 3 in the Number made before change field.
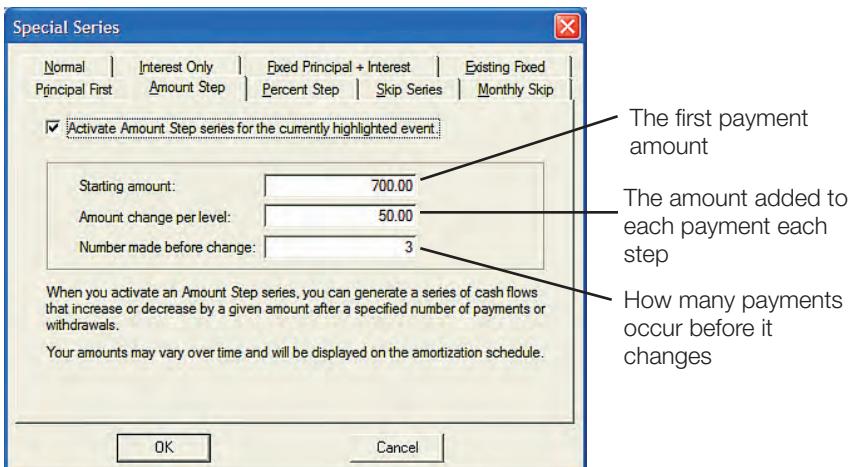
The first payment amount

The amount added to each payment each step

How many payments occur before it changes

6. Click **OK** when you are finished to close the dialog.

After you close the dialog, the figure from the Starting amount field will be displayed in the Amount field on the Cash Flow Data window. You can then enter the total number of payments in the series in the Number field. TValue amortization software will automatically calculate the payment amounts when the amortization schedule is prepared.

The series indicated above will create a series of payments that increase by $50 every third period. The following series will be produced if nine payments are made.

700   700   700   750   750   750   800   800   800

Percent Step

In some financial arrangements, payments rise or fall each year. These periodic increases are often due to a Cost of Living Adjustment (COLA). The Percent Step series accommodates these payments by generating a series of amounts that increase or decrease by a given percentage each year or after a specified number of payments or withdrawals.

To enter payments that increase or decrease by a set percentage

1. Click the far right untitled column on a cash flow line or right-click on the cash flow line and select **Special Series**.

2. Choose **Percent Step** as the series. The Percent Step dialog will appear.

3. Enter the first payment amount in the Starting amount field. If the amount is unknown, type **U**.

4. Enter the percentage of each increase or decrease. For example, if you want the payment amount to increase by 10 percent after three payments, enter 10 here. For a decrease, precede the percent with a minus (-) sign.

5. Enter the number of payments that occur before each change. For example, if you want 3 payments and then an increase, enter 3 in the Number made before change field.

The beginning payment amount

The percentage of each periodic increase

The number of payments between each increase
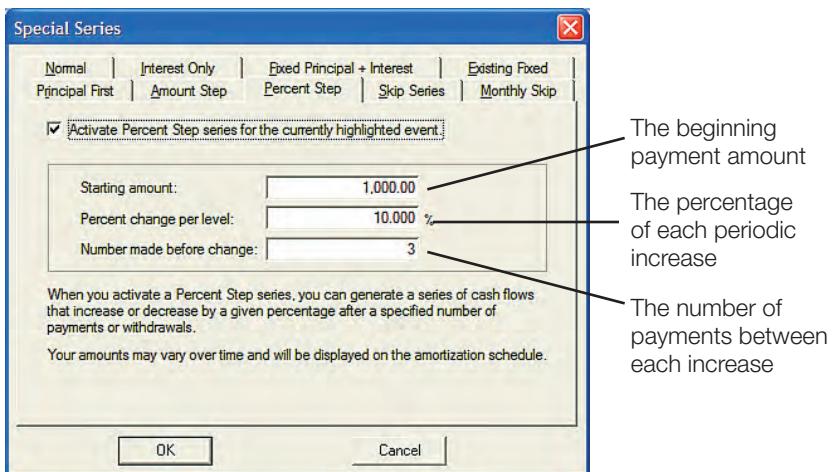
6. Click **OK** when you are finished to close the dialog.

After you close the dialog, the amount from the Starting amount field will be displayed in the Amount field on the Cash Flow Data window. You can then enter the total number of payments in the series in the Number field. TValue amortization software will automatically calculate the payment amounts when the amortization schedule is prepared.

The series indicated in the dialog above will create a series of payments that increase by 10 percent every third period. The following series will be produced if nine payments are made:

1,000   1,000   1,000   1,100   1,100   1,100   1,210   1,210   1,210

Monthly Skip

A Monthly Skip series generates a series that skips selected months. This situation commonly occurs when you want to match payments or withdrawals with seasonal cash flow patterns.

To generate a series with regularly skipped monthly payments

1. Click the far right untitled column on a cash flow line or right-click on the cash flow line and select **Special Series**.

2. Choose **Monthly Skip** as the series. The Monthly Skip dialog will appear.

3. Enter the monthly payment amount (if known) in the Regular monthly amount field. If the amount is unknown, type **U**.

4. Enter the amount to be made on skipped months in the Amount on "skipped" months field. This amount is usually 0 but can be any amount you choose.

5. Select the months to skip during the series. Click again on a month to de-select it.
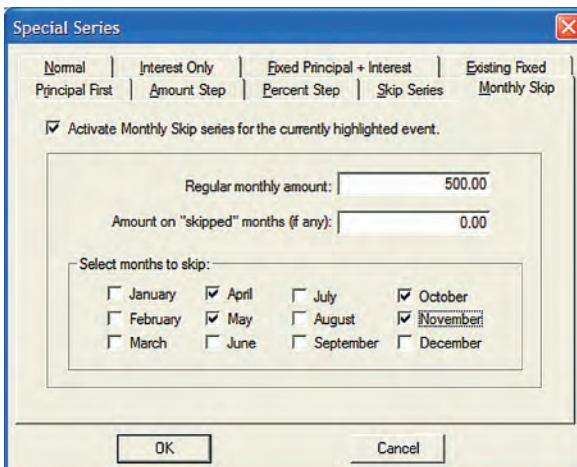
6. Click **OK** to close the dialog.

After you close the dialog, the figure from the Regular monthly amount field will be displayed in the Amount field on the Cash Flow Data window. You can then enter the total number of payments in the Number field. Be sure to include skipped months in this total.

Skip Series

A Skip Series generates a series that skips certain payments, withdrawals, or deposits. This situation usually occurs when you want to match payments or withdrawals with seasonal cash flow patterns.

To generate a series with regularly skipped payments

1. Click the far right untitled column on a cash flow line or right-click on the cash flow line and select **Special Series**.

2. Choose **Skip Series**. The Skip Series dialog will appear.

3. Enter the number of payments (or deposits or withdrawals) to make before the first skipped payment in the Number to make field. For example, if you want to make three payments and then skip two, enter 3 in this field.

4. Enter the regular payment amount in the Amount when made field. If the amount is unknown, type **U**.

5. Enter the number of payments (or deposits or withdrawals) to skip in the Number to skip field. For example, if you want to make three payments and then skip two, enter 2 in this field.

6. Enter the amount (if any) to be made on skipped periods in the Amount when skipped field. This amount is usually zero.

The number of payments before the first skipped payment

Regular payment amount

The number of payments to skip

The amount to be paid during skipped periods
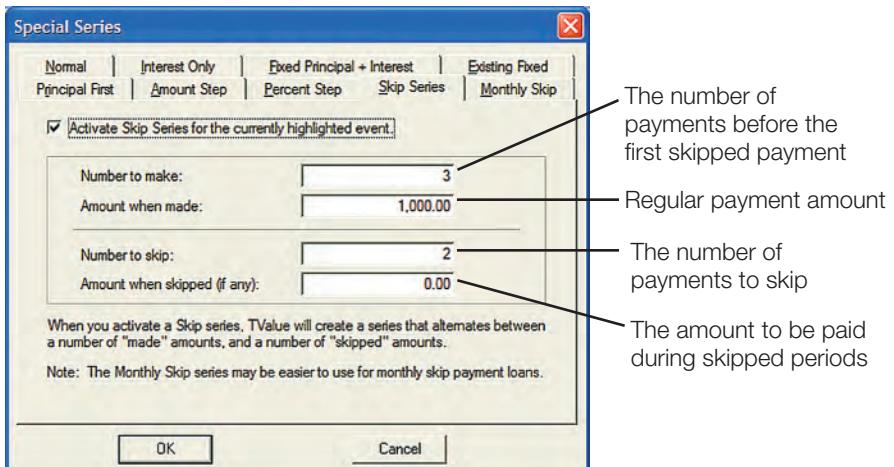
7. Click **OK** when you are finished to close the dialog.

After you close the dialog, the figure from the Amount paid when made field will be displayed in the Amount field on the Cash Flow Data window. You can then enter the total number of payments in the series.

The series indicated in the dialog on the previous page will create three regular 1,000 payments followed by two 0 payments. The following series would be produced if eight payments are entered in the Number field on the schedule:

| 1,000 | 1,000 | 1,000 | 0 | 0 | 1,000 | 1,000 | 1,000 |

Use the Amount paid when skipped field in the Skip Payment dialog to enter an amount for skipped payments other than zero. If you enter 50 in the Amount to Skip field, the following series will be produced:

| 1,000 | 1,000 | 1,000 | 50 | 50 | 1,000 | 1,000 | 1,000 |

Existing Fixed

An Existing Fixed series is used to generate cash flows for an existing fixed principal or interest only series at any date in the life of the loan.

Use this type of series to value an existing fixed payment to principal note at a different rate than that specified in the note. It is also useful when you are discounting a series of interest only payments at a different rate.

Note   An Existing Fixed series is used to compute the value of an existing loan. Do not use it to set up a new loan. Use the Fixed Principal + Interest or Interest Only series (discussed earlier) for the original setup of a principal plus interest loan.

To generate cash flows from an existing fixed principal series

1. Click the far right untitled column on a cash flow line or right-click on the cash flow line and select **Special Series**.

2. Choose **Existing Fixed**. The Existing Fixed dialog will appear.

3. In the Note balance field, enter the balance that is remaining on the existing note. This balance will be used to compute the interest for each period.

4. In the Rate for note field, enter the note rate. This rate will be used to calculate the total payment amount.

5. In the Principal payment field, enter the principal payment that will be made each period. The total payment for each period is the combination of the entered principal amount and the computed interest for each payment.
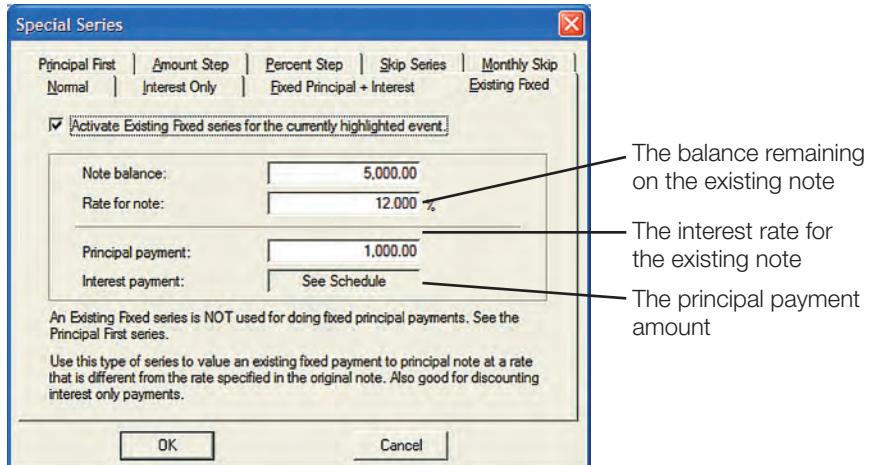
The balance remaining on the existing note

The interest rate for the existing note

The principal payment amount

6. Click **OK** when you are finished to close the dialog.

After you close the dialog, the principal payment will be displayed in the Amount field on the Cash Flow Data window. You can then enter the total number of payments in the Amount field. TValue amortization software will automatically calculate the payment amounts when the amortization schedule is prepared.

TValue amortization software uses the note balance, principal payment, and rate for the note to generate the cash flows. With five payments specified in the Number field, the following series will be generated:

1,050   1,040   1,030   1,020   1,010

Principal First

You can select Principal First payments to allocate payments towards principal first even if there is outstanding interest due. This allocation of payments is only available with U.S. Rule (simple interest) amortization.

To allocate payments to principal

1. Click the far right untitled column on a cash flow line or right-click on the cash flow line and select **Special Series**.

2. Choose **Principal First**. The Principal First dialog will appear.

3. Enter the payment amount in the Total payment amount field. If the amount is unknown, type **U**.

4. Select **Activate Principal First series for the currently highlighted events**.
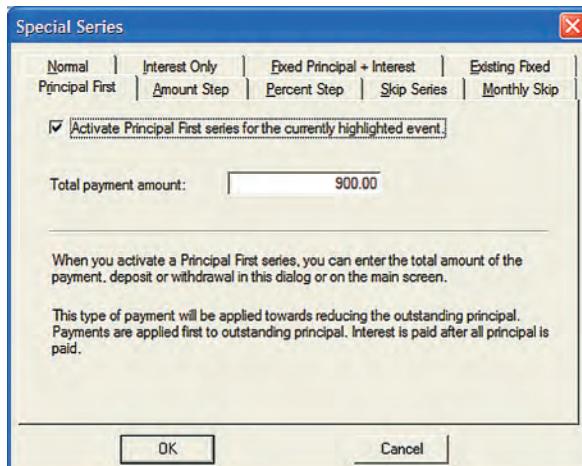
5. Click **OK** to close the Special Series dialog.

Entering Points and Fees for APR Calculations

For many loans, especially mortgages, there may be up-front charges that need to be included for purposes of computing the annual percentage rate (APR). If points or other charges are included in a mortgage, the computed APR will be higher than the nominal annual rate.

You can enter charges in TValue software by clicking the right column of a loan cash flow line or by right clicking a cash flow line and choosing Points and Fees. The dialog for entering points and fees appears below.

Points and Fees for APR Calculations

Amount of loan:		140,000.00
Points paid on loan:	1.500 % =	2,100.00
Prepaid interest:		
5 days @	30.30 =	151.50
Other charges:		300.00
Amount financed:		137,448.50

OK   Cancel

- The dollar value of points on loan
- The number of prepaid interest days
- TValue software calculates this amount and uses it to compute the APR
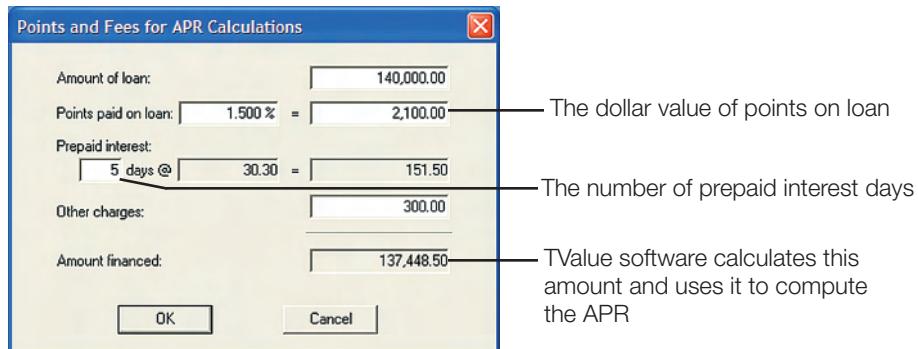
The Points and Fees dialog can only be used with a loan event on the first cash flow line. There can only be one loan with points and fees.

To enter points and fees for a loan

1. Click the far right untitled column of a loan cash flow line or right click a loan cash flow line and choose **Points and Fees**.

2. Enter the points, prepaid interest, and other changes in the Points and Fees dialog.

3. Click **OK** when you have entered all the loan charges.

The following are descriptions of the various fields in this dialog.

Amount of Loan

This field represents the amount of the loan without points, prepaid interest, or finance charges. This is the same amount that is displayed in the Amount field of the cash flow line for the loan. If you have not entered the loan amount, you can do so here.

Points Paid on Loan

This field displays the number of points charged on the original loan amount. Points are up-front charges generally computed as a percentage of the loan amount. For example, if a $100,000 note is negotiated with "two points" or 2 percent, as shown in the previous dialog, the lender will charge 2,000 as a finance charge.

Enter the number of points in the field. TValue software will calculate the corresponding dollar amount from the number of points entered. You can also enter the dollar amount and let TValue software calculate the number of points.

Prepaid Interest Days

This field is used to enter the number of days between the close of escrow and the date when the first interest period begins.

For example, if escrow closes on January 10 and payments start February 15, you would enter 5 in the Prepaid interest days field. The payment due on February 15 would then include interest for exactly one month. The interest for the five days from January 10 to January 15 will be counted as part of the total finance charge.

Enter the number of days in the field. TValue software will calculate the corresponding dollar amount from the number of days entered.

TValue software will not allow you to enter payment dates that are within the prepaid interest period.

Other Charges

This field is used to enter other charges that are required to get the loan. These charges are counted as part of the total amount financed that is used when calculating the APR for the loan.

Enter the total amount of other charges required to get the loan.

Amount Financed

The amount in this field is automatically calculated from the information in the other fields. It is the amount of the loan, minus points, prepaid interest, and other finance charges.

Calculating an Annual Percentage Rate

TimeValue Software TValue amortization software will calculate the Annual Percentage Rate (APR) for the note and display it at the end of the amortization schedule for disclosure purposes. The disclosure you see is in compliance with the specifications in Regulation Z. It will appear as shown here (in reduced size):

ANNUAL PERCENTAGE RATE The cost of your credit as a yearly rate.	FINANCE CHARGE The dollar amount the credit will cost you.	Amount Financed The amount of credit provided to you or on your behalf.	Total of Payments The amount you will have paid after you have made all payments as scheduled.
8.132 %	$ 141,508.30	$ 137,448.50	$ 278,956.80

You can choose to display or hide the APR calculation from the schedule.

To calculate and display the Annual Percentage Rate (APR)

1. From the Setup menu, choose **Report Setup**.

2. Select **APR Information** and click **OK**.

3. Enter the cash flow information for the problem and click the **Amortization Schedule** tab. Adjust for rounding if needed. The Amortization Schedule window will then be displayed.

4. Scroll to the bottom of the amortization schedule to see the APR disclosure information.

CALCULATING AND CREATING AMORTIZATION SCHEDULES

Calculating and Restoring Unknowns

When provided with enough information, TValue software can compute an unknown value. This unknown might include an interest rate, the loan or payment amount, or the number of payments. You give TValue software the information you know and it does the rest. TValue software takes into account all the relationships between amounts, dates, and interest rates.

If you don't know the value of a particular variable, such as a payment amount, set it to Unknown by typing "U" in the field. Only one type of field can be designated as unknown at a time. If you don't specify an unknown, but there is a discrepancy between the amount of the loan and the payments made, TValue software will calculate the remaining balance and display the choices you have for dealing with the leftover amount. Usually, this discrepancy can be resolved by changing the dates or amount of cash flows or by altering the interest rate.

After you compute an unknown, TValue software can restore the unknown(s) to allow you to change other variables and recompute if needed. TValue software will also compute the balance on a loan as of a given date.

You can choose the commands to calculate and restore unknown values from the Compute menu or use the keyboard equivalents. You can also compute unknowns by clicking Calculate on the tool bar.
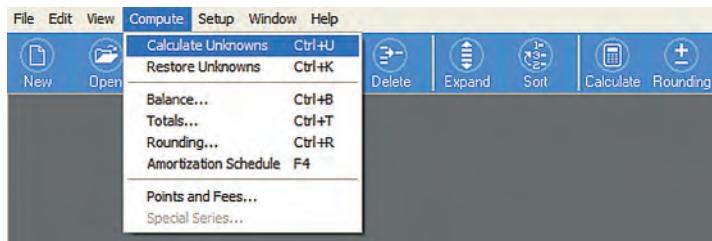
The Compute menu also includes commands that let you specify loan charges for APR calculations. This command is covered in detail in the TValue amortization software Basics chapter.

Calculating Unknowns

When TValue software calculates, it computes the value of any field that contains the entry "Unknown." If no fields are designated as unknown when a calculation is performed, TValue software will determine if any balance remains unaccounted for.

The fields that can be designated as unknown include interest rate, amount, and number of events. To enter an unknown, type **U** in one of these fields.

Only one type of field can be designated as unknown at a time. You can, however, designate more than one unknown amount or rate. For example, you can designate multiple payment amounts as unknown in the same schedule. You cannot, however, designate both a payment amount and the number of payments as unknown.

To calculate an unknown

1. Enter the information for the schedule you are working on. Declare any unknown values as Unknown by typing **U** in those field(s).

2. Click **Calculate** on the tool bar or choose **Calculate Unknowns** from the Compute menu. You can also press **F9** or **Ctrl+U** to calculate.

The calculated value will replace the Unknown on the schedule.

Rounding Amounts

If any amount remains unaccounted for after computing, TValue software refers to it as a Rounding amount. This amount will be displayed in the Rounding dialog. If no unknown values exist when the Calculate command is chosen, any remaining balance, positive or negative, will be accounted for in the Rounding dialog.

To calculate and account for the rounding amount

1. From the Compute menu, choose **Rounding**, or click **Rounding** on the tool bar.

The Rounding dialog will appear as shown on the following page.
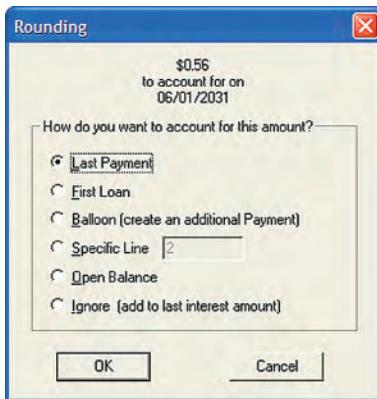
Negative amounts, usually indicating an overpayment, are followed by a minus (-) sign.

2. Choose an option and click **OK** to adjust the rounding amount. Click **Cancel** to return to the cash flow data without making any changes.

The choices in the Rounding dialog allow you to account for any rounding amount. Descriptions of these fields follow.

Last Payment or Last Withdrawal   Applies any rounding amount to the last payment or withdrawal. If the last payment is entered as part of a series, it will be placed on a separate cash flow line with the rounding amount added to or subtracted from it.

First Loan or First Deposit   Adjusts the first loan amount to eliminate the rounding amount. This option may not entirely eliminate a rounding amount since you are adjusting the loan. It may create a new rounding amount.

Balloon   Creates a new payment or withdrawal one period after the last event. The amount of the event will equal the rounding adjustment plus any accrued interest for the period.

Specific Line   Adjusts the cash flow line you specify to eliminate the rounding amount. It may create a new rounding amount.

Open Balance   Leaves the rounding amount as an open balance. This balance will be shown on the amortization schedule. You cannot do APR calculations if you select this option.

Ignore   Adjusts the last interest amount in the amortization schedule so that the balance equals zero.

Restoring Unknowns

If you want to restore the unknown value(s) after calculating, you can choose the Restore Unknowns command from the Compute menu, or simply type **U** in the calculated field again.

To restore unknowns

1. From the Compute menu, choose **Restore Unknowns**, or press **Ctrl+K**.

Displaying a Totals Summary

After calculating, you can display a totals summary. These totals include loans, payments, deposits, withdrawals, and interest. If a rounding amount has been left as an open balance, the Totals window will display the amount of the open balance. You can reconcile the balance by clicking Calculate.

Note If the schedule you are working on contains loan charges for Annual Percentage Rate (APR) calculations, TValue amortization software can generate the disclosures you need for truth-in-lending requirements. Commonly called a Reg Z disclosure, this summary is seen at the bottom of the amortization schedule if you have **APR Information** selected in the Report Setup dialog.

To display a totals summary

1. From the Compute menu, choose **Totals**, or click the **Totals** button on the Amortization Schedule tab. The Totals dialog will appear as shown below.
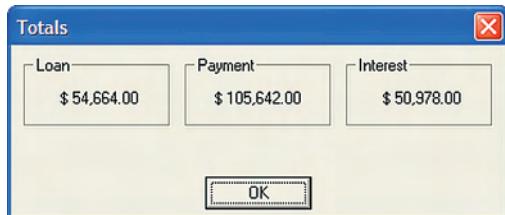
The Totals dialog will display User event names if you have used them in the schedule. If you want to summarize the User event totals into User Loan/Payment or User Deposit/Withdrawal categories only, you can select that option in the Report Setup dialog.

Calculating a Balance or Balance Date

TimeValue Software TValue amortization software can calculate the balance on an investment or loan as of a given date. TValue software will also calculate the date when a certain balance is reached.

When you choose Balance from the Compute menu, the Balance dialog will appear.
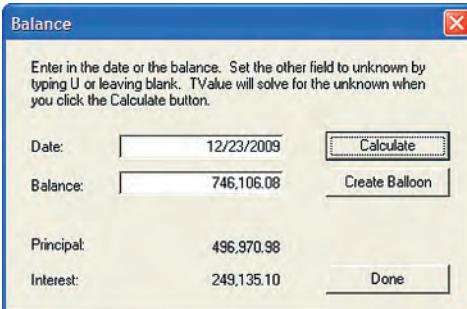
Between payment dates, the balance is computed using a stub-period approach. The stub-period approach is equivalent to removing all payments after the balance date and solving for a single unknown payment at that date.

For Rule of 78 computations, the balance is calculated using a prorated approach. Refer to the TValue software Help for more information about this method.

To calculate a balance as of a particular date or the date when a specified balance is reached

1. Choose **Balance** from the Compute menu.

2. Enter the date or the amount of the balance.

3. Type **U** in the field you would like to calculate or leave the field blank.

4. Click the **Calculate** button in the dialog and the date or balance will be calculated and displayed.

   If the date you enter falls after the last cash flow, the Create Balloon button will be enabled. If you click that button, TValue software will add a final payment or withdrawal, one period later, that will pay off the loan or withdraw the final balance.

5. To close the Balance dialog, choose **Done**.

Compute and Input Settings

TValue software comes preset to handle the majority of financial calculations. You may never have to alter any of the standard settings for your work. If, however, you work with calculations that vary from normal compound interest, you will find that TValue software will accommodate most any situation.

Additional variables besides the compounding, interest rate, or loan and payment amounts may affect calculations in TValue software. They include the compute method (Normal, U.S. Rule, Rule of 78, or Canadian) and the year length. In TValue software, these variables are collectively referred to as the Compute Setup and can be changed to meet your requirements.

TValue software also lets you change input default settings. These settings control the default compound period, event type, first payment default date, and default directory for File Save and Open. These items are collectively referred to as the Input Setup.

The settings that initially appear in the Input Setup window are the default settings. You can change these settings and save them as the new defaults by using the **Save settings from ALL tabs as the default for new schedules** check box at the bottom of the Setup window.

Compute Setup

When choosing Compute Setup from the Setup menu, TValue software displays a dialog of variables that affect how the product computes interest. When saving a TValue software file, the compute settings are included in the saved file.
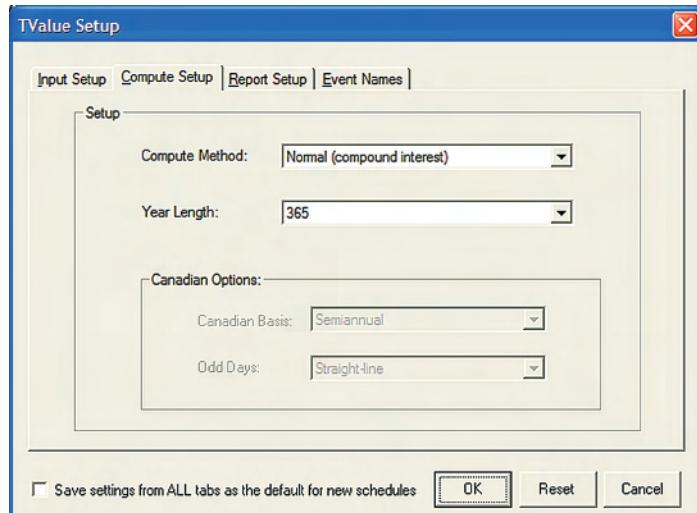
The settings in the dialog pictured above are the default settings.

To change the Compute Setup

1. From the Setup menu, choose **Compute Setup**.

The Compute Setup dialog will appear with the current settings.

2. Change settings by clicking on a field and choosing a selection from the drop-down menu that appears.

To save any changes to the Compute Setup (and other Setup windows) as default values for new schedules, select **Save settings from ALL tabs as the default for new schedules.**

3. Click **OK** when done or **Cancel** to ignore changes made in the dialog. The **Reset** button can be used to reset all the settings in the Setup dialogs to the original TValue amortization software defaults.

The settings in the Compute Setup dialog are described below.

Compute Method

The Compute Method controls how TValue amortization software computes interest. Choose Normal (compound interest), U.S. Rule (simple interest - no compounding), Canadian, or Rule of 78.
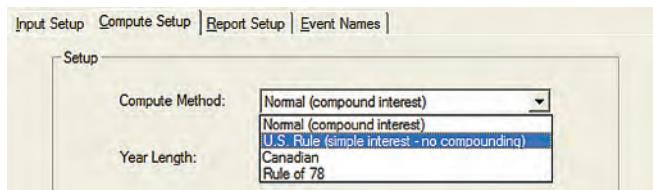
To change the compute method, choose an option from the drop-down menu. The current method will be highlighted.

Normal (compound interest) This is ordinary compound interest. This method is also known as the actuarial method. At the end of each compound period, the unpaid interest for the period is added to principal and becomes subject to interest in the following compound period. Payments are applied first to interest and then to principal.

U.S. Rule (simple interest - no compounding) With U.S. Rule, interest is never charged on interest. Any unpaid interest is held as a separate non-interest bearing balance. With U.S. Rule, you have the option to make payments to principal first even if there is outstanding unpaid interest. The U.S. Rule compute method is often referred to as "simple interest."

Rule of 78 A method of allocating interest over time. The total amount of interest on a loan is computed in advance. This interest total is then considered earned in proportion to the periodic time balances.

Restrictions on use of Rule of 78: Cannot be used with special series, such as fixed-principal + interest and percent step series. Interest rate changes, multiple loans, open balances, or deposits/withdrawals are also not allowed.

Canadian Payments are generally made monthly or quarterly, but interest is usually compounded semiannually. When producing an amortization schedule, an equivalent monthly rate of somewhat less than 1/6 the semiannual rate is used to apportion interest. This is the only setting that allows compound intervals greater than the payment interval.

Year Length

The year length affects how TValue software computes the daily interest amount for exact days and daily compounding, and odd day periods. To change the year length, click the Year Length field and choose an option from the drop-down list. The current choice will be highlighted.

365 Choose 365 to compute daily interest for odd periods using 1/365 of the nominal annual rate.

364 Choose 364 to compute daily interest for odd periods using 1/364 of the nominal annual rate. This method is useful when you are working with weekly payments and want your daily rate for stub periods to be exactly 1/7 of the weekly rate.

360 Choose 360 to compute daily interest for odd periods using 1/360 of the nominal annual rate. This method is useful when you are working with monthly compounding and want to treat odd days as 1/30 of a month.

Canadian Options

You can set the Canadian Options when you choose Canadian as the Compute Method.
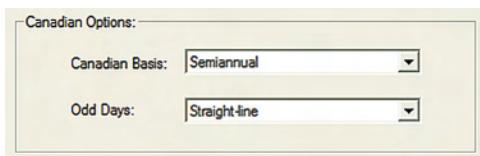
Canadian Basis   This determines the compounding or calculation basis. The Canadian Basis is either annual or semiannual. Choose **Annual** to calculate interest on an annual basis. Except for mortgages, the annual basis is used in nearly all cases. Choose **Semiannual** to compute interest on a semiannual basis. This is commonly used for Canadian mortgages.

Odd Days   This setting controls the calculation of interest for odd days or stub periods. The Straight-line method computes interest for each day without compounding. This is similar to exact days compounding. The Compounded method compounds interest for each odd day. This is similar to daily compounding.

Input Setup

When you choose Input Setup from the Setup menu, the Input Setup dialog displays the input defaults. Use this dialog to specify defaults, such as compound period, event type, date, or default save and open directory.
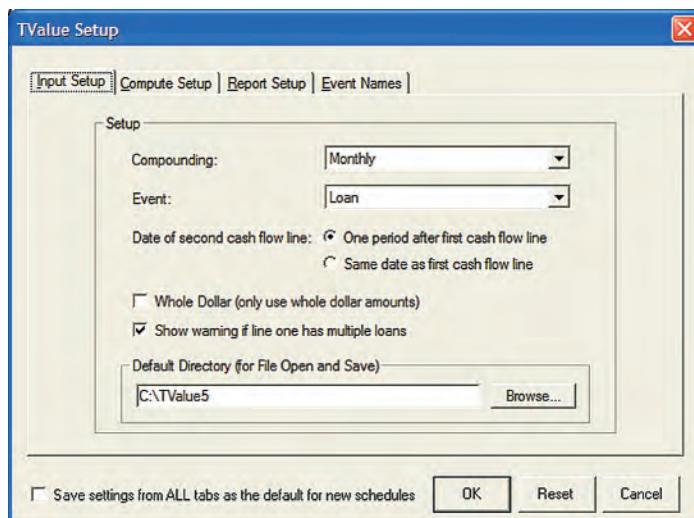
The settings in the dialog pictured above are the default settings.

To change the Input Setup

1. From the Setup menu, choose **Input Setup**.

The Input Setup dialog will display the current settings.

2. Select the options you want.

To save any changes to the Input Setup (and other Setup windows) as default values for new schedules, select **Save settings from ALL tabs as the default for new schedules.**

3. Click **OK** when done or **Cancel** to ignore changes made in the dialog. The **Reset** button can be used to reset all the settings in the Setup dialogs to the default settings that are originally shipped.

The settings in the Input Setup dialog are described in detail below.

Compounding

This setting determines the compounding period that will appear when starting a new schedule. Select the desired period from the drop-down menu.

Event

This setting determines which event will appear on the first cash flow line of a new schedule. If you choose Loan, the default event for the first cash flow line will be Loan, and subsequent cash flow lines will default to Payment. If you select Deposit, the default event for the first cash flow line will be Deposit, and later lines will default to Withdrawal. If you select User Loan or User Deposit, they operate in the same fashion as described for Loan and Deposit, respectively.

Date of second cash flow line

This setting determines whether the default date of the second cash flow line is in advance or arrears on a new TValue software schedule.

One period after first cash flow line   Select this option if you want the first payment or withdrawal date to default one period after the loan or deposit - commonly known as "in arrears." This is the default choice for most loans and mortgages.

Same date as first cash flow line   Select this option if you want the first payment or withdrawal date to default to the same date as the loan or deposit on the first cash flow line. This is the choice for a payment that is made "up front" or "in advance." This default is common for leases.

Whole Dollar

The Whole Dollar setting determines if amounts are entered as whole amounts (i.e., no cents).

If selected, all entered amounts will be rounded and displayed to the nearest dollar amount. For example, if you enter 100 or 100.49, you get 100. If you enter 100.50, you get 101. In most cases you will not need to use the Whole Dollar mode. This mode is useful when amounts are over 100,000,000 and cents are just a distraction.

Show warning if line one has multiple loans

When this is selected, TValue amortization software will notify you if you have more than one Loan on the first cash flow line. Many first time users make the mistake of entering the number of payments there. Experienced TValue software users may want to turn this option off.

Default Directory (for File Open and Save)

This setting determines the directory that TValue amortization software will display for saving and opening files.
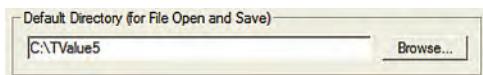
Click the **Browse** button and select the drive and directory or type the path directly.

To save this directory as the default for future sessions of the software, select **Save settings from ALL tabs as the default for new schedules** from the bottom of the Setup window before clicking **OK**.

Displaying and Printing an Amortization Schedule

After you calculate for any unknowns in TValue software, you can produce an amortization schedule. This schedule displays details about the interest and principal components of the events.

The amortization schedules produced will vary depending on the type of events you are working with. TValue software automatically chooses between reports that show loans/payments and reports that show deposits/withdrawals. If you have multiple loans in a single schedule, the format is also automatic.

The contents of the report, such as when to show totals or whether to display the interest rate can be controlled. A sample amortization schedule is shown here as it would appear on your screen.

Cash Flow Data		Amortization Schedule				
Setup...	Header/Footer...	Fonts...	Totals...	Send to Excel	Send to Word	

08/16/2007 4:48:36 PM Page 1

Lockwood automobile loan

Compound Period .... : Monthly

Nominal Annual Rate .... : 8.000 %

CASH FLOW DATA

Event	Date	Amount	Number	Period	End Date
1 Loan	04/15/2007	21,646.00	1		
2 Payment	06/01/2007	440.44	60	Monthly	05/01/2012

AMORTIZATION SCHEDULE - Normal Amortization

	Date	Payment	Interest	Principal	Balance
Loan	04/15/2007				21,646.00
1	06/01/2007	440.44	220.72	219.72	21,426.28
2	07/01/2007	440.44	142.84	297.60	21,128.68
3	08/01/2007	440.44	140.86	299.58	20,829.10
4	09/01/2007	440.44	138.86	301.58	20,527.52
5	10/01/2007	440.44	136.85	303.59	20,223.93

Normal Amortization, 365 Day Year

The buttons along the top of the Amortization Schedule window give you quick access to setup options, headers and footers, fonts, and even exporting to Microsoft Word and Microsoft Excel.

Displaying an Amortization Schedule

TimeValue Software TValue amortization software lets you see what the amortization schedule looks like on your screen before you print. You must first compute any unknowns to view an amortization schedule.

To display an amortization schedule on the screen

1. After entering all the information in the Cash Flow Data window, click the **Amortization Schedule** tab or press **F4**.

2. If the Rounding dialog appears, choose an option and click **OK**.

    The amortization schedule will display on the screen.

3. To return to the Cash Flow Data window to make changes, click the **Cash Flow Data** tab or press **F4**.

Printing an Amortization Schedule

You can print an amortization schedule at any time. It is not necessary to display the amortization schedule on your screen before printing.

To print an amortization schedule

1. After entering all the information in the Cash Flow Data window, click the **Print** button or choose **Print** from the File menu. It is not necessary to have the Amortization Schedule window displayed to print an amortization schedule.

2. If the Rounding dialog appears, choose an option and click **OK**.

3. Click **Print** on the tool bar or choose **Print** from the File menu.

    The Print dialog is displayed. The information in the dialog is determined by the printer driver that you are using and may vary from printer to printer. To change the default settings that appear here, choose **Print Setup** from the File menu.

4. Choose the Printer and Print Range. Enter the number of copies to print.

5. Click **OK** to begin printing the amortization schedule or click **Cancel** to close the Print Dialog and return to TValue amortization software.

Exporting an Amortization Schedule

You can export the contents of an amortization schedule so you can use it in other applications. Once exported, these files cannot be read or imported back into TValue software. To have the data available for future modification in TValue software, you should first save it as a TValue software file.

When you export files to a spreadsheet program like Excel, the files created contain no calculation formulas

Exporting an Amortization Schedule to Word or Excel

If you have Microsoft Excel or Word (Version 97 or above) you can automatically export the amortization schedule information to both these applications. Excel and Word give you additional flexibility for displaying and printing schedules.

Note   The automatic export feature is not compatible with versions prior to Excel 97 or Word 97. If you are using Microsoft Word 95 or Excel 95, or a word processor or spreadsheet application from another manufacturer, you can save the amortization schedule to a file that you can edit with your application.

To automatically export an amortization schedule to Microsoft Word or Excel

1. After entering all the information for a schedule in the Cash Flow Data window, click the **Amortization Schedule tab** or choose **Amortization Schedule** from the Compute menu.

2. If the Rounding dialog appears, choose an option and click **OK**.

3. Click either the **Send to Word** or **Send to Excel** button. Microsoft Word or Microsoft Excel will automatically start and a new document will be created in the application for the exported schedule. This process may take a few moments.

Exporting an Amortization Schedule to a File

You can save the amortization schedule from TValue software in a file format of your choice. This file can then be opened for use in other applications.

To export an amortization schedule to a file

An exported amortization schedule cannot be read by TValue software. Save a copy of the TValue software file with the Save command if you need to edit it in TValue amortization software.

1. Choose **Export Schedule** from the File menu. Select the file type from the Export Schedule dialog and click **OK**.

   All the information entered on the amortization schedule, including special series and points and fees information, will be exported.

2. Type a name in the File Name field of the Save As dialog. TValue software will add the appropriate three-character extension to your file name when you save it.

3. Select the location of where you want to save the file and click **OK**.

Exporting an Amortization Schedule to XML

You can save the amortization schedule from TValue software as an XML document.

For more information about creating an XML document with TValue software, contact TimeValue Software at 1-949-727-1800, 1-800 426-4741, or support@TimeValue.com.

To export an amortization schedule to XML

1. Choose **Export Schedule** from the File menu.

2. Select **XML** as the file type from the Export Schedule dialog and click **OK**.

3. Type a name in the File Name field of the Save As dialog. TValue software will add the ".xml" extension to your file name when you save it.

4. Select the location of where you want to save the file and click **OK**.

Changing the Report Setup

The Report Setup dialog indicates which items and totals are included on the amortization schedule.

When you create a new TValue software schedule, the settings that appear in the Report Setup dialog are the default settings. You can change these settings and save them as the defaults for new schedules by selecting "Save settings from ALL tabs as the default for new schedules" at the bottom of the Setup window. Each schedule stores its own report setup. The values can be different from one schedule to the next.

To change the Report Setup

1. From the Setup menu, choose **Report Setup**.

The Report Setup dialog will display the current settings. The default settings in the Report Setup dialog are shown below.
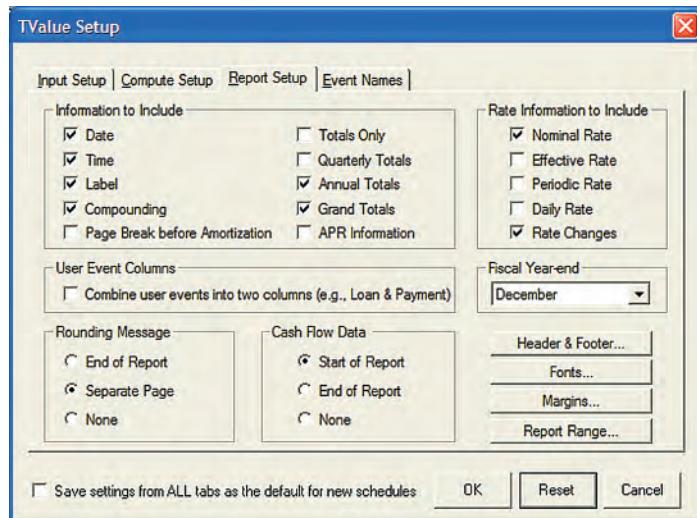
2. Select the options you want.

To save any changes to the Report Setup (and other Setup windows) as default values for new schedules, select **Save settings from ALL tabs as the default for new schedules**.

3. Click **OK** when done or **Cancel** to ignore changes made in the dialog. The **Reset** button can be used to reset all the settings in the Setup dialogs to the original TValue amortization software defaults.

Information to Include

The Information to Include check boxes in the Report Setup dialog let you specify which items will be included on the amortization schedule.

Date   Places the system date at the top of the amortization schedule.

Time   Places the current time at the top of the amortization schedule.

Label   Prints the text from the Label field at the top of the amortization schedule. If you add a header to the schedule, the label will print below the header.

Compounding   Includes the compound period on the first page of the amortization schedule.

Page Break before Amortization   Forces a page break between the last line of the cash flow information (compound period, rates, and cash flow data) and the amortization detail. The amortization schedule starts on a new page.

Totals Only   Includes only the selected totals on the schedule. The individual details of the loans, payments, and other events will not be included on the report when this option is selected.

Quarterly Totals   Includes quarterly totals on the amortization schedule.

Annual Totals   Includes annual totals on the amortization schedule.

> You can change the fiscal year-end month to change the annual total breaks. For example, a March fiscal year-end will show the annual totals after the March activity. Use the **Fiscal Year-end** setting in this dialog.

Grand Totals   Includes grand totals on the amortization schedule.

APR Information   Controls whether an annual percentage rate (APR) summary is printed on the amortization schedule. If selected, the summary prints at the end of the schedule on a separate page. If an open balance occurs in the TValue software schedule, "Undefined" will appear in the APR field on the schedule.

Rate Information to Include

The Rate Information check boxes in the Report Setup dialog let you specify the interest rate information included in the report.

Nominal Rate   Includes the nominal annual rate on the first page of the amortization schedule.

Effective Rate   Includes the effective annual rate on the first page of the amortization schedule.

Periodic Rate   Includes the periodic rate on the first page of the amortization schedule.

Daily Rate   Includes the daily rate on the first page of the amortization schedule.

Rate Changes   Includes rate change events on the amortization schedule.

User Event Columns

If you are using user event names, select this option to combine the user events into two columns on the amortization schedule. If this option is not selected, the user events that are used in the cash flow data window will be displayed in individual columns on the amortization schedule.

Fiscal Year-end

When you include quarterly and annual totals on an amortization schedule, TValue software defaults to show these totals based on a calendar year-end (e.g., December). You can choose to display these totals based on a different fiscal year-end.

Rounding Message

If any amount remains unaccounted for after computing, TValue amortization software refers to it as a Rounding amount. If this amount is unaccounted for before printing an amortization schedule, it will be displayed as a Rounding message on the schedule. If you have chosen to leave an open balance after computing, the rounding message will reflect this.

The Rounding Message buttons in the Report Setup dialog let you specify the placement or omission of the rounding message on the amortization schedule.

End of Report   Prints the rounding message at the end of the last page of the amortization schedule.

Separate Page   Prints the rounding message on a separate page.

None   Omits the rounding message from the amortization schedule.

Cash Flow Data

The cash flow data is the information you entered in the Cash Flow Data window of a TValue software schedule. The information includes events, dates, amounts, etc. The Cash Flow Data buttons let you specify the placement or omission of the cash flow data on the amortization schedule.

Start of Report   Prints the cash flow data before the amortization information, normally on the first page of the report.

End of Report   Prints the cash flow data after the amortization information.

None   Omits the cash flow data from the amortization schedule.

Header & Footer

A header is descriptive text that prints at the top of the first page of the amortization schedule. A footer is descriptive text that prints in the bottom margin of each page on an amortization schedule. For example, you could include a company name and address in a header, and information about the preparer of the report in the footer.

You can create or retrieve a header and footer for the active schedule by clicking the Headers & Footers button in the Report Setup dialog or on the Amortization Schedule window. The Header & Footer dialog will appear.
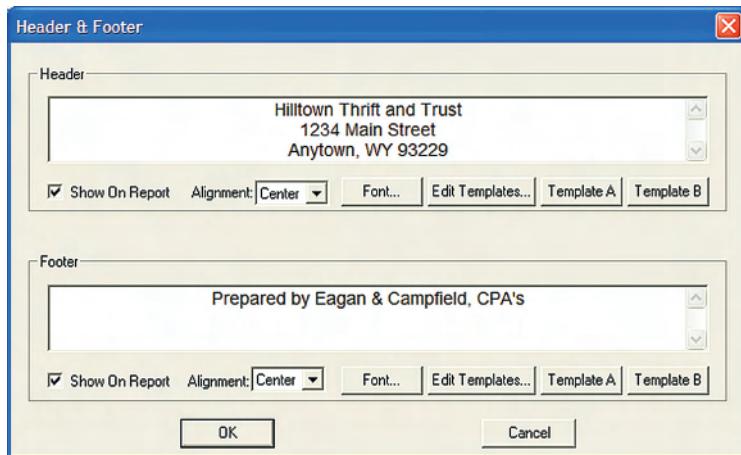
If one header or footer is common to most of the schedules you produce, you can create a default header and footer setup that automatically applies to new schedules.

Use the **Template A** and **Template B** to store two headers and two footers that you can retrieve instead of typing in a new header for each report. You can change the stored headers and footers by clicking on **Edit Templates**.

The **Alignment** field and **Font** button on the Header & Footer dialog let you control the position and appearance of the header and footer on the report.

Select **Show On Report** to include the displayed header and footer on the amortization schedule.

Fonts

Click the **Fonts** button from the Report Setup dialog to open the Fonts dialog. From this dialog you can change the font and style of the text on reports. This determines how characters appear on the screen and in print.

Margins

Margins are the space around the edges of the page where nothing is printed. In general, the amortization schedule appears in the printable area inside the margins. Use the Margins settings to determine how much empty border you want when the amortization schedule is printed. The Margin settings do not effect how the schedule is displayed in the Amortization Schedule window.

Click the **Margins** button in the Report Setup dialog to open the Margins dialog where you can specify the width of the margins around the page. The margins you select will apply to all pages of the current schedule.

Report Range

Click the **Report Range** button from the Report Setup dialog to display the Report Range dialog where you can specify the first and last date you want included on the amortization schedule. The periodic totals (quarterly, annually, etc.) shown on the report will display amounts for the time period selected.

Calculating and Creating Amortization Schedules

COMMON EXAMPLES

Monthly Payment Amount

Background   Normal amortization, functionally known as compound or actuarial amortization, computes interest at the end of every compound period. If a payment is received at that point, it is applied first to interest and then to principal. If not all of the interest for the compound period is paid, the unpaid interest is added to the principal and becomes part of the basis for calculating the interest due for the next compound period.

Facts   Miller Equipment Co. sells machinery to Wendland on June 11, 2007, for $27,000. They allow a trade-in of $4,000 on used equipment and take a 9 percent note calling for 28 equal monthly payments beginning August 3, 2007.

Needed   The monthly payment amount.

Settings   This example assumes Normal amortization, 365 day year.

1.   Enter the information as shown below.

You could have subtracted the 4,000 trade-in from the initial loan amount to arrive at a 23,000 loan amount. You then could have omitted the payment on line 2.

2.   Click **Calculate** on the tool bar to compute the payment amount.

Solution   The monthly payment will be 918.72.

Loan With Balloon Payment

Facts   Samuel borrows $100,000 from Kingston Finance on November 24, 2007. The loan bears interest at 7.29% and calls for 120 equal monthly payments beginning December 24, 2007. Samuel plans to pay off the remaining balance with a balloon payment after 60 payments

Needed   The monthly payment amount and the balloon payment amount.

Settings   This example assumes Normal amortization, 365 day year.

1.   Enter the information for the original loan as shown below.

	Cash Flow Data		Amortization Schedule			
Label: Samuel loan				>>		Choose a selection that specifies the period of time between events on a cash flow line. The period is usually the same as the
Compounding: Monthly		**Nominal Annual Rate:**	7.290 % >>			

	Event	Date	Amount	Number	Period	End Date	
1	Loan	11/24/2007	100,000.00	1			
2	Payment	12/24/2007	Unknown	120	Monthly	11/24/2017	

Normal Amortization, 365 Day Year
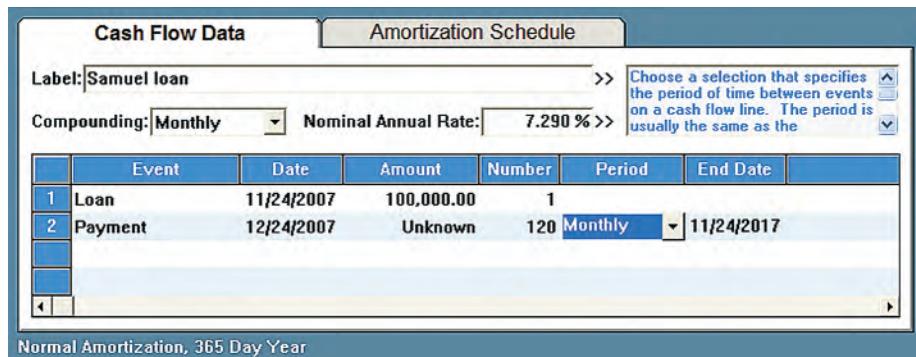
2.   Click **Calculate** on the tool bar to calculate the payment amount.

The monthly payment based on a 10 year (120 months) amortization is 1,176.09.

3.   Change the number of payments on line 2 from 120 to **60**. This represents the number of payments made before the balloon payment.

4.   Enter a payment for an unknown amount on the date of the balloon as shown below.

	Event	Date	Amount	Number	Period	End Date	
1	Loan	11/24/2007	100,000.00	1			
2	Payment	12/24/2007	1,176.09	60	Monthly	11/24/2012	
3	Payment	11/24/2012	Unknown	1			

5.   Click **Calculate** on the tool bar to calculate the balloon payment amount.

Solution   The payment amount amortized over 120 months is 1,176.09. The balloon payment on November 24, 2012 will be 58,985.98.

Monthly Skip Payment Loan

Facts Consolidated Equipment is providing financing for Kennamer, who is purchasing a $185,000 harvester on March 1, 2007. The down payment is $30,000 and the nominal annual interest rate is 7 percent. The loan is to be paid in equal monthly installments over a five-year term, with payments beginning April 15, 2007. To accommodate Kennamer's seasonal cash flow problems, no payments are due in January, February, or March.

Needed The monthly payment for the months when payments are made.

Settings This example assumes Normal amortization, 365 day year.

1. Enter the information as shown here:

2. Right-click anywhere on the second cash flow line and choose **Special Series**. Choose **Monthly Skip** as the type of series. Enter the skip payment information in the dialog as shown below.
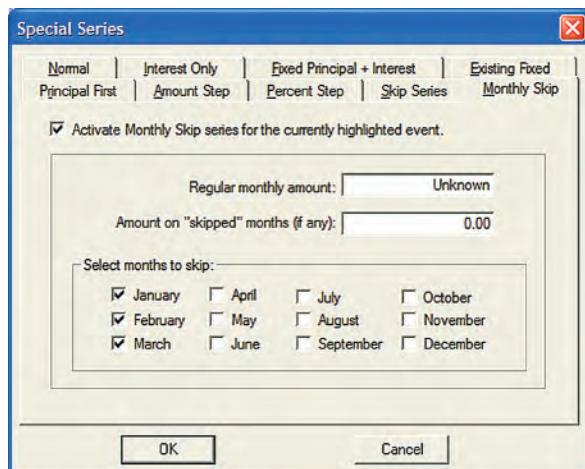
3. Click **OK** when you are finished with the dialog.

The right column of the Cash Flow Data window will display "Monthly Skip" to indicate the Skip Payments.

Your schedule should look like this:

4. Click **Calculate** on the toolbar.

Solution   The monthly payment will be 4,067.95.

Comment   The amortization schedule will show payments of 0.00 in January, February, and March of each year to represent the skipped payments.

Lease Payment With Residual

Background   The event names and weighted unknown features in TValue amortization software, version 5 are particularly useful for leasing scenarios. You can label the various events for commission, first and last payment, residual, and other nonstandard events. You can use weighted unknowns to easily calculate the amount of two unknown advance payments. Both these features are illustrated in the following example.

Facts   Cirrus Industries leases a printing press with a fair market value of $168,440 to Martel Printing on July 1, 2007. Terms of the lease call for two payments to be made at inception followed by 58 monthly payments. The annual interest rate is 8.29%. The payments are to be calculated assuming a 20% residual at the end of the lease term of $33,688.

Needed   The monthly payment amount.

Settings   This example assumes Normal Amortization, 365 day year.

First, create event names called Lease, Lease Payment, and Residual to use in this problem.

1. Press **F8** or right-click the first cash flow line and select **Event Names**.

2. Select the Loan and Payment User events. Enter **Lease** as User Loan Name 1, **Lease Payment** as User Payment Name 1, and **Residual** as User Payment Name 2. These event names are the default names and can also be reset by clicking the **Reset** button in the Event Names window. The Event Names window will look like this:
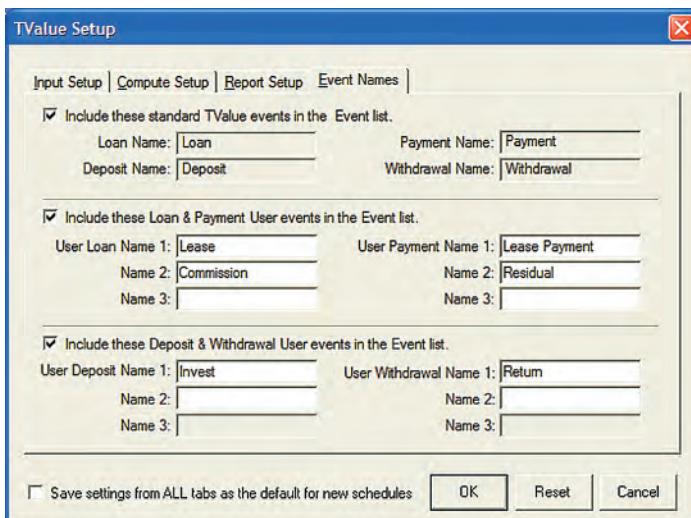
If you would like these events to be available for schedules in the future, check **Save settings from ALL tabs as the default for new schedules**.

3. Click **OK** to close the Event Names window.

You can now choose Lease, Payment and Residual as events.

4. From the Setup menu, choose **Input Setup** or press **F5**.

5. Select **Same date as first cash flow line** for the Date of second cash flow line setting.

6. Click **OK** to close the Input Setup window.

7. Enter **Martel Printing press lease** in the Label field. Choose Monthly as the compounding and enter **8.29** as the Nominal Annual Rate.

8. On the first cash flow line, choose **Lease** as the event, type **070107** as the date, and enter the amount of **168,440**.

9. On the second cash flow line, choose Lease Payment as the event, be sure the date is **07/01/2007**, and type **2x** in the Amount field.

Your screen will look like this:

The 2.000x in the Amount field represents the two unknown payments at the lease inception. (*The use of weighted unknowns such as 2x are described more on page 31*.)

10. Enter the remaining information for the lease as shown on the following page.

	Event	Date	Amount	Number	Period	End Date	
1	Lease	07/01/2007	168,440.00	1			
2	Lease Payment	07/01/2007	2.000×	1			
3	Lease Payment	08/01/2007	Unknown	58	Monthly	05/01/2012	
4	Residual	07/01/2012	33,668.00	1			

Normal Amortization, 365 Day Year

Note   Notice the date of the Residual on line 4 has been advanced two months to occur at the end of the lease term since two payments were taken upon inception. This date may vary for your situation.

11.   Click **Calculate** on the tool bar to calculate the payment amount.

Solution   The monthly payment is 2,943.36. Two payments up front total 5,886.72.

Implicit Rate on a Lease

Facts   Christopher is considering leasing a new automobile through PML Leasing. The fair market value of the automobile in October 15, 2007 is $35,948.40. The lease calls for $5,008.83 due on the date of the lease and 60 monthly payments of $401.06 beginning November 15, 2007. The estimated value of the vehicle at the end of the term (October 15, 2012) is $19,411.92.

Needed   The rate (implicit rate) on the lease.

Settings   This example assumes Normal Amortization, 365 day year.

First, create events called Lease, Lease Payment, and Residual to use in this problem.

1. Press **F8** or right-click the first cash flow line and select **Event Names.**

2. Select to include the Loan and Payment User events. Enter **Lease** as User Loan Name 1, **Lease Payment** as User Payment Name 1, and **Residual** as User Payment Name 2.

    These event names are the default names and can also be reset by clicking the **Reset** button in the Event Names window.

3. Click **OK** to close the Event Names dialog.

    Lease, Lease Payment, and Residual should now be available as choices from the Event field.

4. Enter the lease information as shown below.

	Event	Date	Amount	Number	Period	End Date
1	Lease	10/15/2007	35,948.40	1		
2	Lease Payment	10/15/2007	5,008.83	1		
3	Lease Payment	11/15/2007	401.06	60	Monthly	10/15/2012
4	Residual	10/15/2012	19,411.92	1		

Normal Amortization, 365 Day Year

Notice that in this example the date of the Residual is the same as the end date of the lease payments.

5. Click **Calculate** on the tool bar.

Solution   The implicit rate on the lease is 9.742 percent.

Interest Only and Normal Payments

Facts   Santos accepts a note from Kelley in payment for his business. The note, dated September 5, 2007, has a face amount of $500,000. Monthly interest only payments at 9 percent start October 1, 2007 and continue through July 1, 2012 (58 payments). The remaining balance is to be paid off in 60 regular monthly payments beginning August 1, 2012.

Needed   The amount of the interest only and regular monthly payments.

Settings   This example assumes Normal amortization, 365 day year.

1.   Enter the information on the first two cash flow lines as shown below.

2.   Click the far right untitled column of the second cash flow line and select Interest Only as the series. Click **OK** to exit the Special Series window.

3.   On the third cash flow line, choose **Payment** as the event and enter **080112** as the date. Enter **U** for unknown in the Amount field.

4.   Enter **60** in the Number field and choose **Monthly** as the period.

5.   Click **Calculate** on the tool bar then click the Amortization Schedule tab.

Solution   The payment during the payoff phase is 10,379.18. The interest only payment amounts will display on the amortization schedule.

Present Value of an Existing Note

Background   A common present value calculation is to compute the current value of the remaining payments in a payment stream. To do so with TValue amortization software, you first enter a loan with an unknown amount on the present value (valuation) date, then enter payments remaining after that date. **When you are calculating a present value, only the cash flows that remain are used in the calculation**. Those that have already occurred are not considered.

This method is useful for discounting a mortgage or trust deed. You can use these steps to determine what to pay for a note in order to receive a predetermined yield on the investment. These steps are also useful for determining the value of a structured settlement.

Facts   Fleury holds a note from Applegate calling for the payment of $5,000 per year for seven years beginning January 17, 2008. A final payment of $3,284.39 is due January 17, 2014. Fleury plans to sell his note to Lockwood on September 5, 2007. The note is to provide an annual yield of 15.5 percent to Lockwood.

Needed   The value of the note at September 5, 2007.

Settings   This example assumes Normal Amortization, 365 day year.

1.   Enter the information as shown below. Note that only the payments remaining after the valuation date of September 5, 2007 are important.

Cash Flow Data		Amortization Schedule				

Label: Applegate note >> Enter the number of times the event occurs. For a Loan or Lease, the number is usually 1. To calculate the number, type "U"

Compounding: Annual   Nominal Annual Rate: 15.500 % >>

	Event	Date	Amount	Number	Period	End Date
1	Loan	09/05/2007	Unknown	1		
2	Payment	01/17/2008	5,000.00	6	Annual	01/17/2013
3	Payment	01/17/2014	3,284.39	1		

Normal Amortization, 365 Day Year

2.   Click **Calculate** on the tool bar to compute the value of the remaining payments on September 5, 2007.

Solution   The calculated loan amount of 21,712.19 represents the present value of the remaining payments on September 5, 2007. Fleury should sell the note to Lockwood for this amount to yield 15.5 percent.

Accelerated Paydown of a Mortgage

Background   In this example, we will show you the difference between a 30-year conventional loan and two methods of paying off the loan faster by making additional principal payments.

Scenario One   We will solve for the payment on a 30-year mortgage.

Scenario Two   We structure a biweekly mortgage. We will take the payment amount from the 30-year mortgage and divide the monthly payment in half. This amount will be paid biweekly (every two weeks).

Making biweekly payments is a popular way of cutting the term of a mortgage. Since there are 26 biweekly periods in a year, you end up making the equivalent of one extra payment each year (26 biweekly half payments is the same as 13 regular monthly payments).

Scenario Three   We will make monthly payments with a small addition to our regular monthly amount. The additional monthly amount will be equal to one monthly payment divided by 12. This method will accelerate the paydown of the mortgage, similar to a biweekly plan, but with fewer individual payments.

Scenario One Facts   Azevedo borrows $275,350 on July 1, 2007 to buy a new home. The loan calls for 360 monthly payments starting August 1, 2007. The annual interest rate is 7.125%.

Needed   The monthly payment amount and the total interest that will be paid over the 30-year term.

Settings   This example assumes Normal Amortization, 365 day year.

1. Enter the information for the loan as shown below.

2. Click **Calculate** on the tool bar to compute the monthly payment amount. The monthly payment on this 30-year loan is 1,855.08.

3. From the Compute menu, select **Totals**. TValue amortization software will display the following totals:

Loan	Payment	Interest
$ 275,350.00	$ 667,828.80	$ 392,478.80

OK

Solution   If you make all 360 payments of 1,855.08, you will end up paying 392,478.80 in interest over the term of the loan.

Scenario Two   Dividing the monthly payment on a 30-year mortgage in half and using that amount to make biweekly payments is a popular way of cutting the term of the mortgage. Since 26 half-payments (13 full payments) are made instead of 12 full payments, the loan will be paid off faster. So, the reason a biweekly loan works, stems from the fact that one extra payment is made each year.

Scenario Two Facts   Take the monthly payment for the Azevedo loan of 1,855.08 and divide that payment in half. The biweekly payment works out to be 927.54 (1,855.08 / 2).

Needed   The new term of the loan and the total interest that will be paid on the loan.

1. Enter the biweekly mortgage payment information as shown below.

	Cash Flow Data		Amortization Schedule			
Label:	Azevedo mortgage - biweekly payment			>>	Enter the number of times the event occurs. For a Loan or Lease, the number is usually 1. To calculate the number, type "U"	
Compounding:	Biweekly	Nominal Annual Rate:	7.125 % >>			
	Event	Date	Amount	Number	Period	End Date
1	Loan	07/01/2007	275,350.00	1		
2	Payment	07/15/2007	927.54	Unknown	Biweekly	Pending

Normal Amortization, 365 Day Year

Notice that the compounding is changed to Biweekly and an unknown has been entered for the number of payments.

2. Click **Calculate** on the tool bar to compute the number of biweekly payments.

3. From the Rounding dialog that appears, select **Balloon** and click **OK**.

4. From the Compute menu, select **Totals**. TValue amortization software will display the following totals:

Solution   The Biweekly loan will be paid in full on January 12, 2031. The term of the loan will reduce from 360 months (30 years) to 614 biweekly payments (23.62 years). The total interest paid on the biweekly loan will be 293,852.54.

Scenario Three   Making an additional principal payment with the regular monthly mortgage payment will save interest and reduce the term of a mortgage. TValue software will automatically apply the additional payment amount to principal.

Scenario Three Facts   Take the monthly payment for the Azevedo loan of 1,855.08 and divide that payment by 12. The result is 154.59. We will add that amount to the regular monthly payment of 1,855.08. The total monthly payment will then be 2,009.67.

Needed   The new term of the loan and the total interest that will be paid on the loan.

1. Enter the additional principal payment information as shown below.

2. Click **Calculate** on the tool bar to compute the number of monthly payments.

3. From the Rounding dialog that appears, select **Balloon** and click **OK**.

4. From the Compute menu, select **Totals**. TValue amortization software will display the following totals:
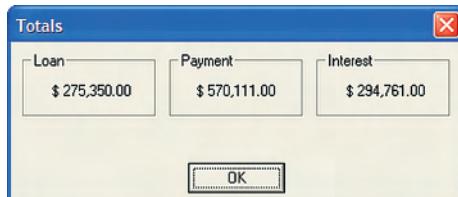
Solution   The additional principal payment loan will be paid in full on March 1, 2031. The term of the loan will be reduced from 360 monthly payments (30 years) to 284 monthly payments (23.67 years). The total interest paid will be 294,761.00.

Summary	Total Interest	Loan Payoff Term
30-year mortgage	392,478.80	30 years*
Biweekly mortgage	293,852.54	23.62 years*
Additional principal mortgage	294,761.00	23.67 years*

* The annual payments on the 30-year mortgage are 22,260.96 (1,855.08 x 12). The annual payments on both the biweekly mortgage and additional principal mortgage are 24,116.04.

Return on Investment

Background   There are many ways to evaluate the performance of an investment. The most common is the Internal Rate of Return (IRR) calculation. The IRR is the annualized yield calculated from a series of cash flows. The TValue amortization software IRR is represented by the calculated Nominal Annual Rate.

Facts   Alexander Oil is planning on building a new derrick in the Alaskan Wilderness at a total cost of $30,000,000. This amount must be paid by January 2, 2007. The estimated yearly cash flows from the oil obtained is $4,500,000 per year for the first ten years, $3,000,000 per year for the second ten years, and $2,000,000 per year for the third ten years. They plan on selling the project for $10,000,000 on January 2, 2038.

Needed   The IRR on the estimated cash flows.

Settings   The problem asumes Normal Amortization, 365 day year.

1.   Enter the cash flow information as shown below.

2.   Click **Calculate** on the tool bar to compute the Nominal Annual Rate.

Solution   The Nominal Annual Rate displays the IRR of 13.208%.

What If?   What would the final selling price have to be for a 13.3% return?

1.   Change the Nominal Annual Rate to **13.3**%.

2.   Type **U** for the final Return amount on line 5.

3.   Click **Calculate** on the tool bar.

Solution   To get a 13.3% return, Alexander Oil would need to negotiate a final selling price for the project of 17,983,269.10.

Future Value

Background   One of the most common questions asked of Financial Planners is, "How much money will I have in the future?" Future value calculations with TValue amortization software provide a way to answer that question.

Facts   P. Pincher has managed to save $1,000. He is going to deposit that money in a savings bond yielding 5%, on July 10, 2007. He would like to know how much that investment will be worth in 25 years.

Needed   The balance on July 10, 2032.

Settings   This example assumes Normal Amortization, 365 day year.

1.   Enter the following cash flow information.

Cash Flow Data		Amortization Schedule				
Label: P. Pincher savings bond					>>	Enter the amount of the event. To calculate the amount, type "U" for Unknown. The maximum entered or calculated amount is
Compounding: Annual		**Nominal Annual Rate:**		5.000 % >>		

	Event	Date	Amount	Number	Period	End Date	
1	Deposit	07/10/2007	1,000.00	1			
2	Withdrawal	07/10/2032	Unknown	1			

Normal Amortization, 365 Day Year

Solution   The amount available for withdrawal on July 10, 2032 is 3,386.35.

Proof   P. Pincher is a skeptical man. He does not believe that he can more than triple his money over that time period using such a modest growth rate. He would like to see the details of the interest accruals during the time period.

1.   Click on line 3 of the existing schedule to create a new cash flow line. Enter the information as shown below. Click **OK** when asked if you would like to temporarily suspend date checking.

	Event	Date	Amount	Number	Period	End Date	
1	Deposit	07/10/2007	1,000.00	1			
2	Withdrawal	07/10/2032	3,386.35	1			
3	Withdrawal	07/10/2008	0.00	24	Annual	07/10/2031	

2.   Click **Sort** on the tool bar.

3. Click the **Amortization Schedule** tab to display the amortization of the withdrawal amounts.

You will notice that for each of the 0.00 withdrawals, TValue amortization software displays the amount of interest calculated since the last withdrawal date.

Caution   It is possible to alter calculations by inserting 0.00 payments on dates other than regular payment dates. The 0.00 payments can cause compounding of interest on the odd days. In this case, the calculation was not altered by inserting the 0.00 payments because these payments occurred on the same date as the annual compound. For more details, see "Odd-days" in the TValue amortization software on-line help.

APPENDIX

Appendix A: Keyboard Shortcuts / Right-click Menu

Function Keys and Ctrl Key Combinations

F1	Help
F2	Drop-down menu or dialog for current field
F4	Toggle between Cash Flow Data and Amortization Schedule
F5	Input Setup
F6	Compute Setup
F7	Report Setup
F8	Event Names
F9	Calculate unknowns

Ctrl+A	Select all
Ctrl+B	Calculate a balance
Ctrl+C	Copy
Ctrl+D	Delete cash flow line
Ctrl+E	Expand cash flow lines
Ctrl+F	Sort cash flow lines
Ctrl+I	Insert cash flow line
Ctrl+K	Restore Unknowns
Ctrl+N	Create a new schedule
Ctrl+O	Open a saved schedule
Ctrl+P	Print
Ctrl+R	Check Rounding
Ctrl+S	Save
Ctrl+T	Totals
Ctrl+U	Calculate unknowns
Ctrl+V	Paste
Ctrl+X	Cut
Ctrl+Z	Undo

Special Keys

K or **T**	(In an amount field) Multiplies amount by 1,000
H	(In an amount field) Multiplies amount by 100,000
M	(In an amount field) Multiplies amount by 1,000,000
1x, 2x, 3x, etc.	(In an amount field) Weighted unknowns
d or **m** or **y**	(In a date field) Adds one day or month or year
D or **M** or **Y**	(In a date field) Subtracts one day or month or year
Event menu	Type the first letter of an event to choose that event
Compound period	Type the first letter of a compound period to choose that compound period
Period	Type the first letter of a period to choose that period

Right-click Menu

When you click your right mouse button on a cash flow line the following drop-down menu will appear:

Right-clicking on a cash flow line displays the drop-down menu
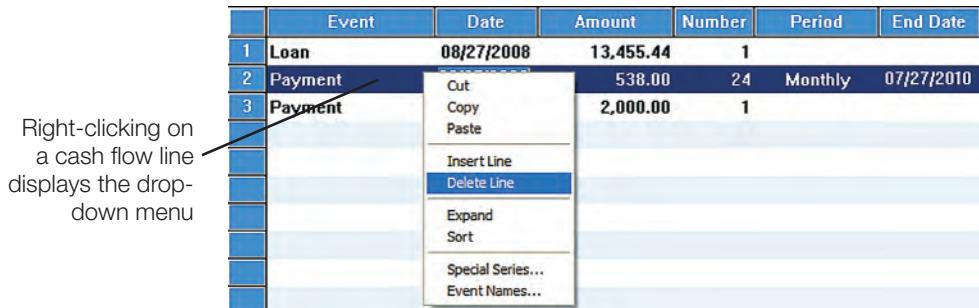
Use this menu to quickly insert or delete cash flow lines, select a Special Series, access custom Event Names, and enter Points and Fees for APR calculations.

The menu above will appear when you right click on a cash flow line that has a Payment, Deposit, or Withdrawal event. If the first event is a loan, the drop-down menu for that line would contain a Points & Fees selection.

Appendix B: TValue Software Help System

Many topics touched upon in this user's guide are explained in greater detail within the TValue amortization software Help system. The help system is available by selecting **TValue Help Contents** from the Help menu or by pressing **F1** from most fields in TValue amortization software.

Some topics that are expanded on in the TValue software Help include the following:

- Add-on interest

- Annual Percentage Rate (APR)

- Annual Percentage Yield (APY)

- Balance calculations

- Compounding periods: Monthly, Quarterly, Semiannual, Annual, Exact Days, Daily, Weekly, Biweekly, Half-month, 2-month, 4-month, 4-week, and Continuous.

- Interest computation methods: Normal (Compound interest), U.S. Rule (Simple interest), Canadian, and Rule of 78.

- Internal rate of return (yield)

- Multiple loans

- Negative amortization

- Odd days and stub periods

- Simple interest

- And much more...!

Appendix C: Changes from TValue Software Version 4

For those who are accustomed to using TValue software, version 4, we welcome you to TValue software, version 5. Version 5 delivers a host of new and enhanced features and an improved, easier-to-use interface. We have listed the changes you should know about within this document. This is not an exhaustive list of differences between TValue software, version 5 and previous versions, but it describes the changes that will be noticed by the experienced TValue software user.

For a more complete look at the new and enhanced features in TValue software, version 5, go to the TValue software Help menu and choose **What's new in TValue**.

Click the Amortization Schedule tab to calculate and amortize

Instead of clicking on Calculate and Amortization buttons, now just click on the **Amortization Schedule** tab or press the **F4** key to calculate and display the amortization schedule.

You'll notice the All, Part, or Totals only choices have been removed for quicker access to the schedule. To print only a portion of the shedule, click the **Report Range** button in the Report Setup dialog. Totals Only can be selected from the Report Setup dialog also.

Use long file names for your saved schedules

Use as many characters as you need to give file names to your saved schedules. And, if you wish to change the default Save and Open directory, choose **Input Setup** from the Setup menu and select the default directory.

Right-click menu from a cash flow line

Use the right mouse button on a cash flow line to access editing commands as well as Special Series, and Points and Fees.

SS and PF buttons replaced by right-click

The Special Series, and Points and Fees dialogs are available by using the right mouse button or clicking on the far right column of a cash flow line. Two new special series have been added: Monthly Skip and Principal First.

Where are the Setup menus?

The Input, Compute, and Report Setup dialogs have been consolidated onto the Setup menu.

Custom event names have moved to the Event Names dialog

To create event names such as Lease, Investment, Savings, Bond, etc., you can use the new Event Names dialog. You can create up to three custom names for each user event, You can reach the Event Names dialog by choosing **Event Names** from the Setup menu or by pressing **F8**.

Label field defaults as file name

The first 50 characters you enter in the Label field will default as the file name when you Save. You will be able to edit the final file name before saving.

Principal First payment allocation is now a special series

You no longer have to allocate a Normal payment to make a principal first payment when interest is accrued. Now just right-click the payment line, choose **Special Series**, and select **Principal First**.

New Sort command replaces Merge All and Compress

The **Sort** command on the tool bar allows you to enter events without being concerned whether the dates are in order. This command will also perform the same function as the Compress command did in version 4.

Totals command now on the Amortization Schedule window

The **Totals** button has been moved to the Amortization Schedule window. You can also access the Totals command from the Compute menu.

Delete cash flow lines without selecting the entire line

Just click on any field in a cash flow line and then click the **Delete** button on the tool bar.

Detail Lines replaced by Totals Only in the Report Setup

To turn off the details of the individual payments in an amortization schedule, select **Totals Only** in the Report Setup dialog.

Export schedules directly to Microsoft Excel and Word

The **Send to Excel** and **Send to Word** buttons on the Amortization Schedule window will instantly export the schedule for editing. For versions of Excel and Word earlier than '97, choose **Export Schedule** from the File menu.

Delete unwanted saved TValue software files easily

Version 4 users will appreciate the ability to easily delete unwanted TValue amortization software files. Just choose **Open** from the TValue software File menu and locate the file(s) you want to delete. Right-click the file you want to delete and choose **Delete**.

Availability for up to 3,999 events per cash flow line

This limit has been lengthened from 999 to allow even more options when structuring loans or investments that cover prolonged time periods.

Enter up to 4,000 cash flow lines

The version 4 limit of 400 cash flow lines has been increased so now you can enter the individual payments for a 30-year loan with weekly payments.

New, Open, and Save commands on the tool bar

Now it couldn't be easier to perform these common file functions. No more hunting through the File menu when you want to save or open a file.

Display and print over 15,000 lines of information

For greater levels of detail on reports over longer periods of time, you now have the benefit of expanded amortization schedules.

Input and calculate larger dollar amounts up to 9.99 billion

Now you can enter up to 9,999,999,999.99 in normal display mode and up to 999,999,999,999 in whole dollar mode.

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Solutions for
Financial Professionals

TValue™
Amortization Software, Version 5

TimeValue Software™ TValue™ amortization software is the industry standard for accurately amortizing loans, leases, and any time value of money calculation. All the top 100 accounting firms and more than 500,000 financial professionals worldwide rely on the ease-of-use, accuracy, and flexibility of TValue amortization software. With TValue amortization software, you can solve any time value of money calculations and print amortization schedules in seconds. If you deal with loans that have irregular payments, balloons, or rate changes, then TValue amortization software is the tool you need. No matter how simple or complex, TValue amortization software makes it easy and saves you time.

TValue Engine™
Software Development Kit

TimeValue Software™ TValue Engine™ development software is the same calculation engine that powers TValue™ amortization software and is a proven source for software developers. The TValue Engine software is an ActiveX (COM), dynamic link library (DLL) that easily links to your front-end application to create accurate calculations. With the TValue Engine development software, you can integrate numerous financial calculations into your application while substantially reducing your development time.

TCalc™
Online Financial Calculators

Your website should reflect the level of service and value you provide to your clients/customers. With easy-to-use TCalc™ online financial calculators from TimeValue Software,™ you can instantly profession-alize your website with customizable, user-friendly online financial calculators that will give your clients/customers a tool for everyday financial decisions. Research shows that Internet-based financial calculators are one of the most popular pages on a website. TCalc online financial calculators provides a complete set of calculators that are professional, informative, educational, and easy-to-use. TimeValue Software TCalc online financial calculators can be up and running in minutes and seamlessly integrates into the exact look and feel of your website. Your clients/customers will benefit from using TCalc online financial calculators to help answer everyday financial questions (e.g., mortgage, investment, retirement, personal, and leasing). To see a complete list of TCalc calculators please visit **www.TimeValue.com/tcalc.aspx**

Solutions for
Tax Professionals

TaxInterest™
IRS/State Interest and Penalty Software

Accurately calculate interest and penalties on federal income taxes, calculate interest on state income taxes, and perform FIN 48 interest calculations. When you prepare an amended or late return, do you guess at the penalty amount and tell your client to wait for the penalty notice from the IRS? When a notice of penalties and interest arrives, do you glance at it to see if it "looks right"? If so, there is a better way. Let TimeValue Software™ TaxInterest™ IRS/State interest & penalty software be your interest and penalties expert.

PayrollPenalty™
Failure to Deposit Penalty Abatement Software

As a tax professional, you are bound to see IRS payroll deposit penalties. One in three businesses pays a penalty each year for not making their deposits on time. The shocking fact is that taxpayers are being significantly overcharged by the IRS. TimeValue Software™ PayrollPenalty™ failure to deposit penalty abatement software can help you instantly and substantially reduce IRS failure-to-deposit payroll penalties for 940, 941, 943, and 945 filings, with 100% acceptance by the IRS. By using allocation methods allowed by tax law (REV. PROC 99-10), PayrollPenalty software can save your clients thousands of dollars per filing. Ask us about our special bundle pricing discount when you also purchase Tax941 software.

Tax941™
IRS Payroll Tax Interest, Penalty, and Forms Software

Accurately predict and verify IRS payroll tax interest and penalty calculations, and reliably print error-free IRS payroll tax forms. Each year, the IRS sends out more than 4 million payroll penalty notices. Until Tax941™ IRS payroll penalty, interest, and forms software from TimeValue Software, there was no easy way to see if a penalty was right. With Tax941 software, you can double check an IRS notice in minutes. Tax941 software also gives you peace of mind in knowing that the IRS forms you produce are error-free. Comprehensive error-checking assures accuracy that is second to none. Ask us about our special bundle pricing discount when you also purchase Payroll-Penalty software.

File In Time™
Due Date Tracking and Task Management Software

Easily and efficiently track all due dates and manage every task in your office. Keeping track of all the time sensitive jobs in your office, your staff workloads, and filing dates can be overwhelming to manage. Index cards, calendars, tax software, and spreadsheets all eventually fall short. TimeValue Software™ File In Time™ due date tracking and task management software is guaranteed to make your task tracking easier and help your firm run smoother. You'll easily see the progress of your office workflow and be assured that no deadlines will slip through the cracks.

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Guarantee

If you don't have a need for any TimeValue Software product, you may return it within one year of purchase and TimeValue Software will promptly refund the purchase price, less shipping and handling charges.

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