

Personal Portfolio Manager 7

User's guide



by OWL Software

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GETTING STARTED

INTRODUCING PERSONAL PORTFOLIO MANAGER

Welcome to OWL Software's Personal Portfolio Manager (PPM). PPM is a fully integrated system that combines portfolio management with technical analysis to provide individual investors with a tool to help organize and analyze the information that is critical to making informed investment decisions.

The PPM program provides complete tracking of security and cash transactions with automatic computation of net worth, capital gains, unrealized gains, return on investment, asset allocation and much more. PPM also allows you to organize your information into up to 999 portfolios and produce reports for a single portfolio or any combination of portfolios. This allows you to set up portfolios to record investments held in your name, by other family members, by members of an investment club or by investment clients. As well, you could set up separate portfolios for retirement savings, children's education, speculating, different brokerage accounts and even hypothetical portfolios to follow the advice of an investment newsletter.

Simply tracking investments is not enough. The PPM program also includes powerful tools to help you analyze current and potential investments. Technical analysis features stock charting tools that provide visual analysis of price movements. Available technical indicators include: moving averages, on-balance volume, stochastic oscillators, Wilder's RSI, MACD, relative strength (i.e., Ratio Cantor), polynomial trend analysis and correlation analysis. In addition to technical analysis charts, comparative analysis of annualized total return can be generated to identify your best and worst performing investments.

If you have an internet connection, you can download current price quotes with the click of a button to keep all your data up to date.

SYSTEM REQUIREMENTS

PPM requires Windows 98 or higher, a hard disk with approximately 3.5 megabytes of free space, 64 Megabytes of RAM, and a Windows compatible graphics printer.

PROGRAM SETUP

Personal Portfolio Manager has several options that must be set prior to running reports and entering data. These options are accessed by choosing "Preferences" in the "File" menu. The preferences options are used to set an access password and to choose: the printer and set its paper orientation; the font used to display and print reports and; the number of months a security must be held for capital gains to be considered medium or long term.

SET PASSWORD

The Password option is used to enable or disable password protection for running Personal Portfolio Manager.

To enable password protection:

1. Click the **Set Password** button
2. Enter your password and click OK
3. Confirm your password by entering it again.

The same process is used to change your password. Setting a blank password disables password protection.

WARNING: OWL SOFTWARE WILL CHARGE A FEE FOR RECOVERY OF DATA IF YOU LOST OR HAVE FORGOTTEN YOUR PASSWORD.

REPORT FONT

The Report Font menu selection selects the font and font size that will be used for displaying and printing reports. As a starting point, we recommend using Arial at 10 pitch or Times New Roman at 12 pitch.

PRINTER

When printing reports, PPM sends reports to the default window's printer using the default printer orientation (i.e., Portrait or Landscape). The **Printer Setup** button may be used to change the default printer, default orientation and other printer options supported by your printer.

LONG AND MEDIUM TERM MONTHS

When PPM computes capital gains, it differentiates between long term, medium term and short term capital gains. In order that PPM does not become obsolete when there is a change in the tax law, the program allows user definition of these holding periods. The default setting is zero months for medium term and 12 months for long term.

Note: PPM computes the minimum holding period as the number of months specified plus one day.

Hint: If your local tax laws do not differentiate between long, and medium term gains then set the "Medium Term Months" to zero. If there is no differentiation between long, medium and short term capital gains, set both the long and medium term months to zero. All gains will then be reported as long term gains. The default settings are appropriate for investors in the USA.

UPGRADING FROM PERSONAL PORTFOLIO MANAGER FOR DOS

The "Data Conversion" option located on the File – File Maintenance menu is provided for individuals that are upgrading to PPM version 7 from PPM version 4 through 6.

After clicking the **Data Conversion** button, a file dialog screen will appear. Select the drive and directory where your old PPM data files are stored. The default directory is c:\PPM6. Once the correct directory has been selected, the program proceeds with the file conversion.

As compared to earlier DOS versions of PPM, PPM 7 provides expanded capabilities for tracking investment objectives, cash accounts and bonds. Because the older versions do not contain all of the data needed to support

these expanded features, some manual editing is needed after conversion of PPM files. The following paragraphs describe information that must be edited or entered into PPM 7 after converting files.

INVESTMENT OBJECTIVES

Since specification of investment objectives was not available earlier versions, the investment objective is undefined for all transferred securities, savings, other assets and liabilities. To assign investment objectives to assets transferred from OPPM, select the asset type in the define menu then select the asset (i.e., stock, bond, etc.). Select an investment objective by clicking the **Select** button next to the investment objective field. Investment objectives should be defined for all stocks, bonds, savings and other assets transferred to PPM 7.

BONDS

PPM 7 requires that the face value of each bond be entered as part of the bond definition. If you have transferred bonds from OPPM, select the Bonds option in the Define menu. Select a bond in the list and enter the face value of the bond on the Bond definition screen. Repeat this for all bonds transferred to PPM 7.

Under the old version you may have entered false purchase quantities for bonds to compensate for prices which are quoted as a percentage of face value. For example, if you purchased a \$1000.00 bond, you may have entered the purchase quantity as 10 so that the net worth report would show the value of the bond as \$1000 with a quoted price of 100%. If you did enter false purchase quantities then you will need to correct them manually. Purchase quantities may be edited by selecting Transactions → Bond → Edit/Delete Transaction.

SAVINGS, OTHER ASSETS AND LIABILITIES

Whereas older versions maintained a single record containing only the present value of savings, other assets and liabilities, PPM 7 maintains a complete transaction history for these items. When savings, other assets and liabilities are transferred to PPM 7, a single record each account is created. The record contains the present value from the old version and carries the date the data was transferred. You may leave these records alone and simply enter deposits and withdrawals beginning after the last transaction entered into the old version.

Optionally, you may choose to enter old transactions (i.e., deposits, withdrawals, etc.) back to some date such as the beginning of the year. If you do enter old transactions, you will need to edit the record created during the transfer. When editing the record, be sure to change the date to one before the transactions to be entered and the amount to reflect the balance as of the first of the old transactions to be entered.

OPTIONS

Support for option trading is not provided in PPM 7. Full support for option trading is provided in Master Investor by OWL Software.

TECHNICAL SUPPORT

If you are unable to resolve a question or you have difficulty running PPM, please call us or send us a letter or email describing the problem. Include the program version number, the exact text of the error message (if any)

and a complete description of the problem, the option you were running when the error occurred and any supplemental data that you entered under the option. If possible, please also include a disk created using the **Backup Data Files** button (your data will be held in strict confidence). We will investigate the problem and respond as quickly as possible.

Answers to frequently asked questions are available on our web site at: <http://www.owlsoftware.com>

Our technical support group can be reached at:

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Crownsville, MD 21032

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<http://www.owlsoftware.com>

LEARNING PERSONAL PORTFOLIO MANAGER

PPM is distributed with sample data so that you can become familiar with the various options and capabilities of the program before entering your own data.

The following paragraphs provide instructions for using some of the key elements of PPM. We encourage you to experiment with all of the reports, charts and data entry screens to become thoroughly familiar with PPM before entering your own data.

PROGRAM ORGANIZATION

Personal Portfolio Manager is operated through the use of standard windows menus. The main menu contains the following options:

File	Provides options for setting user preferences and for maintaining data files.
Define	Provides options for entering and editing: portfolio names; investment objectives; cash accounts; security names, ticker symbols, target and stop loss prices.
Transactions	Provides options for entering and editing: purchases and sales of stocks, bonds and mutual funds; deposits and withdrawals to cash accounts; and changes in the value of other assets and liabilities.
Income	Provides options for entering investment income including interest, dividends and capital gain distributions reported by a mutual fund.
Prices	Provides options for updating current and historic prices by downloading them from the internet, importing from a file or entering them manually.
Reports	Provides access to over 20 reports.
Charts	Provides access to analytical charts
Help	Provides access to the on-line user's guide.

MANAGING PORTFOLIOS

A central feature of PPM's capabilities is the ability to create reports for any one portfolio or for any combination of portfolios.

From the main menu choose **Reports -> Status Reports -> Net Worth** then select all portfolios by clicking the **All** button. Click Run to display the report. Note how the report separates the assets and liabilities for each portfolio. Again, choose **Reports -> Status Reports -> Net Worth** then select all portfolios by clicking the **All** button. This time, check the Composite Portfolios box before clicking the **Run** button. Note how the report composites the portfolios together as if they were a single portfolio.

In organizing your finances, you should consider dividing your assets into enough portfolios to show the finest level of detail that you require when reporting on a single portfolio. At the minimum, we recommend that a portfolio be created for each category of tax treatment (taxable, tax deferred, tax exempt, etc.) that applies to your assets. In addition, you may want to consider adding hypothetical portfolios to test various trading systems or to monitor the performance of advisory newsletters. To add, rename or delete portfolios from your system, choose **Define -> Portfolios**.

PPM gives you the ability to move assets from one portfolio to another. For example, to move a share lot from one portfolio to another choose **Transactions -> Stocks -> Edit/Delete Transaction**. Select a stock then select a share lot. When the security transaction screen is displayed, click the **Portfolio** button. From the displayed menu you may then select an alternate portfolio. Optionally, you may click the **New** button to create a new portfolio where the share lot will reside.

To move a savings account from one portfolio to another, choose **Define -> Cash/Savings Accounts** then select the type of account to be moved. After selecting the account, click the **Portfolio** button to change the portfolio. The process for moving other assets and liabilities from one portfolio to another is the same as for cash accounts.

Note: stocks, bonds and options are defined independently of any portfolio since a given security may reside in many different portfolios. Conversely, savings/cash accounts, other assets and liabilities are defined within a portfolio since they can reside in only one portfolio at a time.

TRACKING CASH ACCOUNTS, OTHER ASSETS AND LIABILITIES

Within PPM, Cash Accounts can be thought of as any cash based account including bank savings accounts, checking accounts, money market mutual funds, certificates of deposit and brokerage cash management or sweep accounts. PPM maintains a complete transaction history of all deposits and withdrawals.

Cash transactions are entered by choosing Transactions -> Cash Accounts from the main menu. Choose the cash account from the listing of defined cash accounts. When the listing of existing transactions for the selected account appears, choose a transaction to edit or click the **New** button to enter a new deposit or withdrawal. When the Savings screen is displayed, enter the transaction date, amount (plus or minus) and any "Memo" text you may need to describe the transaction. Click the **Save** button to save the transaction.

The present balance of savings accounts may be viewed by selecting choosing **Reports -> Status Reports -> Holdings-by-Type -> Cash Accounts**. A ledger of deposits and withdrawals can be viewed by choosing **Reports -> Transactions for Selected -> Cash Accounts**. Similar reports are available for other assets and liabilities.

Other assets are generally property based and may include real estate, cars, rare coins, stamp collections and any other property that has a market value. The value of such assets may be tracked in the same way that cash accounts are tracked.

Liabilities are any cash amount or property that you owe to someone else. They include the mortgage on your house, car loans, installment debt, etc.

TRACKING SECURITY TRANSACTIONS

The PPM program provides complete tracking of security transactions with automatic computation of capital gains, unrealized gains and return on investment. Security transactions are entered using options on Transactions menu.

To record a purchase of a stock or mutual fund choose the **Transactions->Stock/Mutual Fund->Buy** from the main menu. Choose the Stock or Mutual Fund you want to buy followed by the portfolio where you want the share lot to reside. When selecting the stock and portfolio, you have the option of defining a new stock/mutual fund or portfolio if needed. Once you have chosen the stock and portfolio, you can enter the trade date, number of shares and cost information then save the record.

Each time a new security transaction is entered and saved, PPM offers an option to withdraw funds from a cash account to pay for the purchase or deposit funds to a cash account when shares are sold. Clicking the **Yes** button on the Sweep Funds dialog allows you to select a savings account for the deposit or withdrawal.

PPM allows you to designate the cost basis accounting method to be used when selling shares of a stock or mutual fund that you own. When computing capital gains, PPM uses the cost basis (including commissions) and the net sale amount (after commissions) to determine the gain. PPM also separates gains into long, mid and short term based on the Holding Periods in your preferences. View a capital gains report by choosing **Reports->Income Reports->Realized Capital Gains->All**. More detailed information, including commission amounts, is available in the transaction reports.

TRACKING PRICES

Options on the **Prices** menu are used to maintain current and historic price and volume data for stocks, mutual funds, market indexes, and bonds. Price and volume data may be entered manually, imported from data files or downloaded from the internet. PPM is capable of maintaining daily price histories on each security. This price history forms the basis for computations of net worth, return on investment, portfolio valuations, unrealized gains, etc. In fact, the current and historic prices are used in nearly all of the reports produced by PPM.

To manually enter or edit price and volume data for a stock or mutual fund, choose **Prices -> Edit Prices -> Stock/Mutual Fund**. On the Quotes window click the **Stock** button and select one of the listed issues. Enter the date of the price quote, the volume, open, high, low and closing prices. If you enter a date for which a price quote already exists, the existing quote will be displayed. You may also click the **Browse/Edit** button to view a list of existing quotes for the selected stock or fund.

When you have finished entering or editing a price quote, click the **Save** button to save the quote to disk. You may then select other securities or click the **Done** button to return to the main menu.

TRACKING INVESTMENT INCOME

The Income menu provides options for entering and editing income derived from your investments. Income can be in the form of interest, dividends, long, mid and short term capital gains distributions from a mutual fund or other income. Note that PPM automatically tracks capital gains from the purchase and sale of securities. Manual entry of capital gains is required only for capital gains distributions from a mutual fund.

To add interest income from a savings account choose **Income -> Cash/Savings Accounts**. After selecting one of the listed accounts a listing of previously entered income transactions for the selected account will appear. Click the **New** button to add a new income item and fill in the Income form. The income type can be changed by clicking the down arrow in the Income Type box. Click the **Save** button to save the transaction.

Each time a new income record is added you will have the option to reinvest the income. If the income was derived from a cash or other asset account the program will display a dialog box asking if you want to deposit the income into the account from which it was derived. If the income was derived from a security, you will have the opportunity to purchase additional shares of the issue using the income or sweep the income into a cash account.

Options under Income Reports option in the Reports menu summaries of interest, dividend and other income entered using the options in the Income menu.

TECHNICAL ANALYSIS

There are two basic types of stock market analysis. These are fundamental analysis and technical analysis. Fundamental analysis uses corporate earnings, assets, liabilities, cash flow, etc. as a basis for projecting future performance of a security. Technical analysis uses price movements as its primary basis for performance predictions. Technical analysis is based on the belief that the fundamental analysis of individual securities is already built into its price movements and can, therefore, be virtually ignored.

STOCK CHARTS

PPM's three basic stock charting options are accessed by choosing Charts from the main menu. The three basic stock charts are described in the following paragraphs. A variety of technical indicators may be overlaid on each of the three basic charts. These are accessed by clicking on command buttons at the bottom of the chart display.

The **Single Issue** option plots price and volume movements of a selected security or market index. Try this chart by choosing **Stock Charts -> Single Issue**. Once a chart has been displayed, you may click the **New** button at the bottom left of the chart to select another security to be displayed. Other buttons display technical indicators that are described below.

The **Relative Performance** option plots a comparative analysis of the price movements of one security against another security or a market index. Prices of the two selected securities are plotted using the same relative scale. The price bars and axis labels are color coded to the security names. Try this chart by choosing Stock Charts -> Relative Performance. Be sure to select 2 different stocks from the subsequent menus.

The **Correlation** chart performs a least squares linear regression analysis on the price movements of one security versus another security or index. Correlation is the statistical means of determining whether the prices of one security move in direct relation to the prices of a market index or another security. After entering the year ending date, select the two securities to be used in the correlation analysis.

Correlation analysis operates by plotting a scatter-gram of the closing prices of the first security (measured on the y-axis) against the corresponding closing prices of the other security or index (measured on the x-axis). Once the points have been plotted, the straight line that best fits the points is computed and plotted. The line is computed using a least squares linear regression. The program displays the formula for the plotted line, the standard deviation (the standard error between plotted prices and the line), and the correlation coefficient.

Correlation coefficients range from zero to plus or minus one and provide an indication of how good the price relationship is between the two securities. Values near plus or minus one indicate that there is a strong relationship between the price movements of the two securities. Values closer to zero (-0.75 to +0.75) indicate poor correlation. If the coefficient is negative, it means that a negative price relationship exists (a price increase in one yields a corresponding price decrease in the other).

After plotting the scatter-gram, a price chart of the first selected security is plotted. The solid green band denotes the predicted prices for the security within plus or minus one standard deviation.

The Correlation chart is most useful when there is a high degree of interdependence between two securities (i.e., correlation coefficient is greater than 0.9 or less than -0.9). Under these circumstances, a sudden deviation of the price outside the solid area may indicate a change of market sentiment towards the stock. Such changes in

sentiment are often the result of an unexpected change in earnings, a buy or sell recommendation from a major broker, takeover rumors, etc. Rather than a signal to buy or sell, it is a signal to research any recent news on the company.

TECHNICAL INDICATORS

Technical indicators may be overlaid on any of the three basic stock charts by clicking the button that corresponds to the indicator to be plotted. These indicators and their interpretation are described in the following paragraphs.

The **MA** button plots a simple moving average. Click the **MA** button and enter a moving average period in the displayed dialog then click OK. The period entered is the number of data points over which the average is computed. Simple moving averages are commonly interpreted to give a Buy signal when the price is above the moving average line and a Sell signal when the price is below the moving average line. While this method is useful in a trending market, it yields poor results (frequent buy and sell signals) in a horizontal market.

The **Exp MA** button plots an exponential moving average. Click the **Exp MA** button and enter a moving average factor in the displayed dialog then click OK. The moving average factor is the weight applied to each new point when it is added to the previous value. That is, a factor of 10 means that each new point is given a weight of one tenth of the previous average when computing the new average. The formula for this is:

$$E_i = E_{i-1} + (\text{Price}_i - E_{i-1}) / \text{Factor}$$

Exponential moving average lines are interpreted in the same manor as simple moving average lines.

The **Fit** button uses a best fit algorithm to fit a polynomial curve to the closing prices. Click the **Fit** button and enter a polynomial order from 1 to 9 then click the **OK** button. The polynomial order refers to the number of elements in the polynomial equation used to determine the best fit line. A polynomial order of 1 is a straight line. Curvature and complexity of the line increases as the polynomial order is increased. The formulation of a fourth order polynomial is:

$$Y = A + BX + CX^2 + DX^3 + EX^4$$

The best fit line can generally be regarded as a price trend. A buy is thought to be signaled when the line is moving up and prices are below the line. Conversely, a sell is signaled when the line is trending downward and prices are above the line.

The **OBV** button plots On-Balance Volume. On-Balance Volume is a technical indicator that shows the strength of price movements by incorporating volume information. When the stock closes higher than the previous period's close, the volume is added. Conversely, when the stock closes lower, the volume is subtracted. The cumulative value is plotted as a single line that is overlaid on the price chart. Click the **OBV** button to display the On-Balance Volume line

The main advantage of this indicator is in determining the level of market support for a price advance or decline. For example: if the price of an issue is increasing over a period and the on-balance volume is relatively flat over the same period, it indicates that the price advance has poor support and may not be sustained.

The **MACD** button plots the indicator known as Moving Average Convergence Divergence. MACD is computed as the rate at which two exponential moving average lines move relative to one another. Click the **MACD** button and

enter exponential moving average weights for the fast and slow line. *Hint: The fast weight must be less than the slow weight.*

MACD is plotted on the bottom chart having a simple plus, zero, minus scale shown on the right of the chart To help you understand MACD, you may also want to plot the Exponential Moving Average lines that correspond to the weights of your fast and slow MACD lines. Comparing the MACD plot to the corresponding Exponential Moving Averages, you will see that MACD is positive when the slope of the fast moving average is greater than the slope of the slow moving average. MACD is zero when the two moving average lines are exactly parallel.

MACD is interpreted as giving a buy signal when it crosses the zero line moving from negative to positive. A sell signal is given when the MACD falls from positive to negative.

The **RSI** button plots Wilder's Relative Strength Index. Click the **RSI** button and enter the RSI period. The RSI period is the number of points (i.e., days or weeks) over which each RSI value is computed. The formulation is:

$$RSI = 100 - 100/(1+U/D)$$

Where U is the average of the days closing higher during the period and D is the average of the days closing lower over the period. A 14 day interval is the default period on 6 month charts.

RSI is generally interpreted as showing an overbought condition (sell signal) when the value is above the 70% line. An oversold condition (buy signal) exists when the value is below the 30% level.

The **%KD** button plots the Stochastic Oscillator (%K) and the Smoothed Stochastic Oscillator (%D). The stochastic oscillator is formulated as:

$$\%K = 100 * (\text{Closing Price} - \text{Lowest Low}) / (\text{Highest High} - \text{Lowest Low})$$

where the highest high and lowest low are determined over the period you enter. The smoothed stochastic oscillator (%D) is the exponential moving average of %K. The factor used in the moving average is the number of %K periods.

Click the **%KD** button to plot the stochastic oscillator. The stochastic oscillator (%K) is plotted in cyan and the smoothed oscillator is plotted in blue. The generally accepted interpretation of %KD states that an overbought condition exists when the %K crosses %D and both are above 70% and pointing downward. Conversely, an oversold condition exists (buy signal) when %K crosses %D and both are trending up but below 30%.

A simpler interpretation of %KD, and one that we prefer, is to buy when %K is higher than %D and sell when %K is lower than %D.

The **Clear** button clears any previously plotted oscillators or volume data from the lower chart and displays a clean grid for plotting MACD, RSI and %KD. The **Vol** button re-plots the volume bar chart.

ENTERING YOUR OWN DATA

Once you have become familiar with the various elements of the PPM program and the way they are linked to your data, you will want to begin using PPM operationally with your own data. The following is a step by step procedure for setting up PPM with your own data.

Delete the sample data. To delete the sample data and prepare the databases to accept your own personal data choose **File -> File Maintenance -> Erase All Data.**

Define Portfolios. To create a new portfolio, choose **Define -> Portfolios** from the main menu. In organizing your finances, you should consider dividing your assets into enough portfolios to show the finest level of detail that you require when reporting on a single portfolio. At the minimum, we recommend that a portfolio be created for each category of tax treatment (taxable, tax deferred, tax exempt, etc.) that applies to your assets.

Define Investment Objectives. To define a new investment objective choose **Define -> Investment Objectives** from the main menu. PPM uses investment objectives to classify the allocation of assets in asset allocation reports and charts. Your definition of investment objectives should reflect the type of asset allocation output you desire.

Define cash accounts and enter transactions. To define a new cash account choose **Define -> Savings/Cash Accounts.** Once you have defined a cash account you may enter cash transactions using Cash Accounts option on the Transactions menu. Enter an opening balance as an initial deposit. We suggest that for old accounts, you use the balance at the beginning of a year as your opening balance and enter only deposits and withdrawals that are subsequent to that date.

Define securities and enter trades. To define a new security choose the security type from the define menu. Start with securities that you currently own then follow up with indexes and securities that you want to track for comparative analysis and possible later purchase. After a security has been defined you may record purchases and sales of that security using options in the Transactions menu. **NOTE: When entering old security transactions, it is important to enter them in chronological order.**

Enter investment income. To enter investment income use the income menu and choose the type of asset from which the income was derived. We suggest that you limit your data entry to the current tax year.

Enter or import current and historic price quotes. Security price quotes may be entered or imported using the options on the Quotes & Splits page. If you do not have a source of historic price data, you may wish to limit your price entries to the current prices and build from there. If you choose this course, be aware that the Net Worth chart and Portfolio Change report will be accurate only from this date forward. To gain some additional accuracy you might consider entering historic price quotes monthly going back to when each security was originally purchased.

After completing this initial setup, maintaining accurate records of your finances is a matter of entering new transactions when they occur and downloading, importing or entering current price quotes for securities.

INVESTMENT DECISIONS

Remember that investing in stocks and bonds is a form of gambling. The best any program, trading system or analytical technique can hope to achieve is to provide information that will improve your odds of success. PPM will not make investment decisions for you nor will it make recommendations. It is up to you, the user, to interpret the information presented by PPM using your knowledge, experience and intuition. To make your use of PPM more enjoyable, and perhaps more profitable, we suggest that you read some of the many books that are available on portfolio management, stock chart interpretation and market timing.

THE FILE MENU

The File menu offers options for customization of PPM, and file maintenance including data backup and restore. In addition, special file maintenance options are provided to help with maintaining some of the large data files used by the system.

Options in the Preferences submenu are described under Program Setup.

FILE MAINTENANCE

BACKUP DATA FILES

The Backup option creates a backup copy of your data files. Select the drive and directory where you want to store the backup files.

Note: If you are backing up to a floppy disk, be sure to insert a formatted diskette before selecting that drive. Be aware PPM cannot split individual files across floppy disks. If an individual file (usually prices.dbf) is larger than will fit on a single floppy disk, you must backup to a directory on your hard disk.

RESTORE DATA FILES

The Restore option copies backup data files created with the File Backup option, to your hard disk and recreates the necessary index files. If your backup data consists of multiple disks, you must insert the disks in the proper order.

Note: When you restore data files, all data present on your system will be overwritten.

RE-INDEX DATA FILES

The Re-Index option recompiles the database index files. Use this option after any abnormal exits from the program or if you find that data is missing from your files.

COMPOSITE DAILY PRICES

If you find that you do not look at daily (6 month) stock charts that cover periods earlier than a specific date, you can dramatically reduce the amount of disk storage required to maintain your data. The Composite Old Prices option replaces daily stock price records prior to a specified date with weekly composite price records. A weekly composite record is composed of the week's open, close, highest high and lowest low prices, and the week's total volume. This can dramatically improve the performance of weekly stock charts because the program no longer needs to form the weekly composite prices.

DELETE OLD PRICES

As you continue to accumulate data, you may find that you no longer have a need to look at charts containing historical prices that are older than a certain date. The Erase Old Prices option is provided so that you can quickly delete old price quotes from your hard disk. This will save disk space and improve the performance of your system. See also Composite Old Prices.

Hint: If you think that at some point in the future you may want to look at old price charts for a specific issue, use the price list report and export the prices to a tab delimited file. You will then be able to import the data at a later date if the need arises.

DELETE OLD NET WORTH VALUES

PPM maintains a database containing the weekly net worth for all portfolios. This database is used for Net Worth charts and the Portfolio Change report. If your requirements are such that you do not need to look at net worth values prior to a specific date, you can save the disk space that is taken up by those records.

Hint: Net Worth data records are automatically created each time you run a report or chart that requires a data point that is missing from the net worth database.

CONVERT OPPM 6 DATA

This option is provided for individuals that are upgrading to PPM 7 from an earlier version of PPM. The option reads data from Versions 5 and 6 and performs the data conversions needed to build the new version 7 databases.

Operation of this option is discussed under [Upgrading from Personal Portfolio Manager for Dos](#) in the Getting Started section.

ERASE ALL DATA

PPM is distributed with sample data that is provided to help new users become acquainted with the capabilities of the system without having to enter their own data. Once you are ready to begin entering your own personal financial records, the Erase All Data option provides a quick means of removing all of the sample data from the system.

DEFINE

The Define menu offers options to create, edit and delete master definitions of securities, savings accounts, other assets, liabilities, portfolios, and investment objectives.

Selecting one of these options loads a pop-up menu containing the names of all of the items defined for the selected option. To edit or delete a previously defined item, select it from the menu. To add a new definition, click the **New** button at the bottom of the menu.

When you delete an item under the Define menu, the program automatically deletes all records that cross reference that master definition. For example, if you delete a stock's master definition the program also deletes all of that stock's transactions along with any price/volume data that has been entered for that stock.

DEFINE - PORTFOLIOS

As the term is used within Personal Portfolio Manager, a portfolio is a logical grouping of financial assets and liabilities. Portfolios are defined as follows:

Data Field	Description
Portfolio Name	A descriptive name that identifies the portfolio.

When a portfolio definition is deleted, all transactions and income records assigned to that portfolio will either be deleted or optionally may be transferred to another portfolio.

DEFINE - INVESTMENT OBJECTIVES

As the term is used within Personal Portfolio Manager, an investment objective is a user defined class of assets. This may be defined in terms of investment objectives (i.e., growth, tax free income, capital appreciation, etc.) or any other classification scheme that is appropriate for the individual user. Investment objectives are defined as follows:

Data Field	Description
Investment Objective	A descriptive name the asset class.

When an investment objective is deleted, PPM requires that you select another objective to replace the deleted objective. All assets having the deleted objective are reassigned to the replacement objective.

DEFINE - STOCK, MUTUAL FUND OR INDEX

Stocks, mutual funds and indexes are defined as shown below.

Data Field	Description
Stock Name	The name of the stock, mutual fund or index
Symbol	The ticker symbol, Sedol or Cusac number used to identify the issue in files containing current or

	historical price quotes that will be downloaded or imported using the Prices/Import option.
Dividend/Yr.	The amount of the annual dividend for this stock or mutual fund. This amount is usually listed in the financial pages of your newspaper. Note: Enter a monetary amount -- not a percentage.
Investment Objective	The user defined asset class of the issue. See Investment Objectives above.
Target Price	The price you are hoping the issue to rise to before selling.
Stop Loss Price	The price at which you will sell the issue to minimize losses should the price fall.

If you delete a stock, mutual fund or index definition, all transactions, income (interest, dividends, and capital gains) and price history data for that issue will also be deleted from PPM's data files.

DEFINE - BOND

Bonds defined as shown below:

Data Field	Description
Bond Name	The name of the Bond
Symbol	The ticker symbol, Sedol or Cusac number used to identify the issue in files containing current or historical price quotes that will be imported using the Prices/Import option.
Coupon Yield %	The stated coupon yield of the bond. Equivalent to the interest rate if the bond were purchased at face value
Face Value	The face value of the bond.
Maturity Date	The date the bond matures.
Investment Objective	The user defined asset class of the bond. See Investment Objectives above.
Target Price	The price you are hoping the issue to rise to before selling.
Stop Loss Price	The price at which you will sell the issue to minimize losses should the price fall.

If you delete a bond definition, all transactions, income (interest, dividends, and capital gains) and price history data for that bond will also be deleted from PPM's data files.

DEFINE - CASH ACCOUNTS

Savings and other cash basis accounts are defined as follows:

Data Field	Description
Account Name	An identifying name of the cash account.
Portfolio	The portfolio in which the account resides.
Account Number	The identifying number of the account.
Interest Rate	The current interest rate paid on this account.
Investment Objective	The user defined asset class of the cash account. See Investment Objectives above.

If you delete a savings definition, all transactions and income data for that account will also be deleted from PPM's data files.

DEFINE - OTHER ASSETS

Other assets are generally property assets such as real estate, fine art, coin collections, etc. that you wish to track using PPM. They are defined as follows:

Data Field	Description
Asset Name	A name or description of the asset
Portfolio	The portfolio in which the asset resides.
Account Number	The identifying number of the account. (optional)
Growth Rate	An estimated rate at which the asset appreciates.
Investment Objective	The user defined asset class of the asset. See Investment Objectives above.

If you delete an asset definition, all transactions and income data for that asset will also be deleted from PPM's data files.

DEFINE - LIABILITIES

Liabilities include the mortgage on your house, car loans and other debt. Liabilities are defined as follows:

Data Field	Description
Liability Name	An identifying name of the liability.

Portfolio	The portfolio in which the liability resides.
Account Number	The identifying number of the account.
Interest Rate	The current interest rate paid on this account.

If you delete a liability definition, all transactions for that liability will also be deleted from PPM's data files.

TRANSACTIONS MENU

The transactions entered under the transaction menu fall into the two classes of security transactions (i.e. buying and selling stocks and bonds) and cash type transactions (i.e., increases or decreases to the value of cash accounts, other assets and liabilities). These are described below.

SECURITY TRANSACTIONS

BUYING SECURITIES

To buy a security, choose the security type from the Transactions menu then choose the Buy option. Select the security from the list of pre-defined securities or click the **NEW** button to define a new security. After selecting the security or defining the security, choose the portfolio in which the new purchase should reside. Once you have chosen the security and portfolio, the Security Transaction screen will be displayed.

The security transaction screen contains the following information that is to be filled in at the time of purchase.

Data Field	Description
Security Name	A command button on the top left of the screen is labeled with the type of the security to be purchased. Click on the command button change the security being purchased.
Portfolio	Click on the Portfolio command button to change the portfolio where the purchase lot will reside.

Purchase Information

Data Field	Description
Purchase Date	The date you purchased the security or option
Number of Shares	The number of shares of the security being purchased. For bonds this is the number of bonds. For options, this is the number of shares covered by the option.
Cost	The total purchase price of security or option excluding commissions and fees.
Commission	The commission paid to a broker or dealer for purchasing the shares
Other Cost	Any other costs of purchasing the shares such as margin costs.
Total Cost	This is automatically computed as the sum of the principal, commission and other cost.

Cost Basis	Computed - You may override this value.
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In addition to purchase information, the security transaction screen also contains sales information. Note that this information appears only for the purpose of editing sale information after it has been posted using the Sell option.

Sales Information

Data Field	Description
Date Sold	The date you sold the security or option
Gross Amount	The gross (total) amount of the sale. For stocks, this is the selling price times the number of shares.
Commission	The commission paid to a broker or dealer when selling the security.
Other Selling Cost	Enter any other taxes, fees or expenses associated with the sale of the shares.
Net Amount	Computed - Gross amount less commission.
Cost Basis	Computed - You may override this value.
Gain/Loss	Computed - Net amount less cost basis.

Hint: When you receive dividends or capital gains distributions that are reinvested in shares of the same stock or mutual fund, use the Income menu to record the income then select "Yes" from the Income Reinvested dialog box to record the number of shares purchased with the dividend or capital gains distribution.

SELLING SECURITIES

To sell a security than you hold, choose the security type from the transactions menu then choose the Sell option. Select the security to be sold then select the portfolio which holds the shares you sold. The Sell screen will then be displayed showing the total number of shares of the selected security that are held in the chosen portfolio

Hint: If more than one portfolio is involved in the sale of a security the total sale must be divided into one sale for each portfolio. Alternatively, you may reassign purchase lots into a single portfolio prior to entering the sale.

The sell screen contains the following information.

Sell Screen Data

Data Field	Description
Name	Click the command button to select the name of the security being sold.

Portfolio	Click the command button to select the portfolio that holds the shares to be sold.
Shares Held	Computed - the sum of shares held for the specified security in the specified portfolio. This is the maximum number of shares that may be entered into the shares sold field.
Date Sold	The date you sold the security or option.
Shares Sold	The number of shares or bonds sold.
Gross Amount	The gross (total) amount of the sale. For stocks, this is the selling price times the number of shares.
Commission	The commission paid to a broker or dealer when selling the security.
Other Cost	The total of taxes, fees and other expenses related to the sale of the security.
Sale Method	PPM supports IRS approved cost basis accounting methods for First In - First Out, Specific Identification, Single Category Cost Averaging and Double Category Cost Averaging. Select the method that applies to the sale transaction. Note - In the USA, cost averaging methods apply only to mutual funds and once you sell shares using a cost averaging method, all subsequent sales of that fund must use the same method.
Net Amount	Computed - Gross amount less commission.
Cost Basis	Computed - You may override this value. The computed amount is based on the selected Sale Method.
Gain/Loss	Computed - Net amount less cost basis.

SHORT SALES

A short sale occurs when someone sells stock that they do not hold or do not want to transfer at the time of the sale. To obtain the stock for the short sale, the seller borrows identical stock from a broker to deliver to the buyer. At some later date, the seller must cover the borrowed shares either by delivering shares that he or she already owns or by buying the stock on the open market.

To record a short sale in PPM, choose **Transactions -> Stock/Mutual Fund -> Sell Short**. PPM will then display the Short Sale screen. The Short Sale screen contains the following information to be filled in at the time of the short sale.

Short Sale Data

Data Field	Description
Stock	Click the command button to select the name of the stock being sold.
Portfolio	Click the command button to select the portfolio where the short position is to be held.
Short Sale Date	Enter the date the shares were sold short.
Shares Sold	Enter the number of shares sold short.
Gross	Enter the total amount of the short sale.
Commission	Enter the amount of the sales commission plus any additional fees you had to pay to borrow the stock.
Other Cost	Any other cost associated with the short sale transaction.
Net	Computed: Gross less Commission/Other Cost.

Once a short position has been opened by entering the information above, it will appear on reports as having a negative value (i.e., open short positions represent a liability since you owe the shorted shares to the broker you borrowed them from).

To cover, or close, a short position choose **Transactions -> Stock/Mutual Fund -> Cover/Edit Short Position** and select the short position to be covered. The Short Sale screen will be displayed containing the information that was entered when the short position was opened. The following data must be entered to cover the short position.

Cover Short Data

Data Field	Description
Cover Date	The date you delivered shares to your broker to cover the borrowed shares.
Cover with New Purchase	Select this command button to if you needed to purchase the stock to cover the short position. After clicking this command button fill in the rest of the information on the screen.
Cover with Existing Shares	Select this command button if you are covering the short position with shares you already own. After clicking this button, select the share lots and enter the number of shares from each lot that were delivered to cover the short position. Once you have completed your entries the balance of the information will be filled in by the program and you can click the Save button

Acquisition Date	The date the shares were acquired
Cost	Cost of shares sold
Commission	The purchase commission
Other Cost	Any other cost associated with the purchase of the stock delivered to the broker.
Total Cost	Computed: Sum of the cost, Commission, and other cost
Cost Basis	Computed: This value may not be overridden on short sales.
Gain	Computed: Net less Cost Basis.

TRACKING CASH ACCOUNTS - OTHER ASSETS AND LIABILITIES

The three buttons labeled “Cash Accounts”, “Other Assets” and “Liabilities” provide the means for recording changes in the value of accounts of the corresponding type.

Before recording cash account, other asset or liability transactions, the account must be pre-defined using options in the Define menu. Once an account has been defined, transactions may be recorded using the “Deposits and Withdrawals” option for Cash Accounts or the “Increases and Decreases” option for Other Assets and Liabilities.

Hint: Income accrued to a cash or other asset account should be entered using the options in the Income menu. Once the income has been entered, a dialog box will be displayed allowing the income to be deposited directly to the cash or asset account. In addition to income, funds may be automatically deposited to and withdrawn from cash accounts when buying and selling securities.

Hint: To change a deposit to a withdrawal, place a minus sign in front of the amount.

INCOME MENU

The Income menu provides options for entering and editing income derived from your investments. Income can be in the form of interest, dividends, long, mid and short term capital gains distributions from a mutual fund or other income.

NOTE: PPM automatically tracks capital gains from the purchase and sale of securities. Entry of capital gains is required only for capital gains distributions from a mutual fund.

To add, edit or delete income, choose the source of the income (i.e., Stock, Bond, Cash Account, etc.) from the income menu followed by the actual stock or account from which the income was derived. Choose a previously entered income record or click the **New** button to enter a new record.

On the Income screen select the type of income from the pull-down menu. Note that the default income type depends on the type of security selected (i.e., dividends for stocks, interest for bonds and savings, etc.). After selecting the income type, enter the date the income was received and the amount of income. Click the **Save** button when you have finished entering the required information.

Each time a new income record is added you will have the option to reinvest the income. If the income was derived from a savings or other asset account the program will display a dialog box asking if you want to deposit the income into the account from which it was derived. If the income was derived from a security then you will have the opportunity to purchase additional shares of the issue using the income or sweep the income into a cash account.

If you edit or delete income that was previously swept into a savings account or used to purchase additional shares of a security, you must also edit or delete the corresponding transaction.

PRICES MENU

The Prices Menu offers options to maintain current and historic price and volume data for stocks, mutual funds, market indexes, bonds and options. Price and volume data may be entered manually or downloaded from the internet or imported from other data files that are available from a variety of information services. PPM is capable of maintaining daily price histories on each security and adjusting the data for stock splits. This price history forms the basis for computations of net worth, return on investment, portfolio valuations, unrealized gains, etc. In fact, the current and historic prices are used in nearly all of the reports produced by PPM.

In addition to security price and volume data, PPM also maintains a database containing weekly valuations of net worth for each portfolio. The Build Net Worth History option in the Prices menu provides a means of maintaining this database.

ENTERING PRICE AND VOLUME DATA

Price and volume data may be entered, edited or deleted by choosing the appropriate security type from the Prices menu. Once the appropriate security type is chosen, the Price Quotes screen will be displayed with the following information.

Manual Price Entry Data

Data Field	Description
Security Name	Click the command button (labeled Stock/Fund, Bond or Option as appropriate) to select the security for which prices are to be entered, edited or deleted. After entering prices for a given security, you may click this button to select another security of the same type (Stock, Bond, etc.).
Quote Date	Enter the quote date for which prices are to be entered, edited or deleted. Alternatively, an existing quote for the security may be selected by clicking on the Browse button.
Volume	Enter the share volume in hundreds.
Last, High, Low, Open	If you are entering a new quote, the high, low and open fields will be automatically filled in with the value of last when it is first entered. This saves time when entering quotes for mutual funds that have no daily high, low or open price.
Save	Click the Save button to save any changes you have made to the price record displayed.
Delete	Click the Delete button to delete a displayed price record. The delete button is enabled only when an existing price

	record is displayed. Once a record is deleted, you may undelete it by clicking the UnDelete button.
Exit button	Click the Exit button to exit price entry mode after all entries have been saved.

DOWNLOADING AND IMPORTING PRICE QUOTES

Current and historic price and volume data is available from a wide variety of sources. These include the internet, on-line services such as CompuServe and AOL as well as others who provide historic price information on diskette. Formats for over 20 popular services are pre-defined in PPM.

DOWNLOADING QUOTES

Because the internet is ever changing, we recommend that you check our web site at <http://www.owlsoftware.com> for current information on supported quote servers and any special considerations you may need when downloading quotes from the internet. Information specific to supplied download and import specifications is provided in Appendix A.

If your system does not automatically connect to the internet when you launch your internet browser then you will need to manually connect to the internet before downloading quotes.

NOTE: AOL Users should connect to AOL using the AOL software before clicking the download button.

To download quotes:

- Choose **Prices -> Download/Import** from the main menu. Choose one of the Data Formats that begin with "Download" (e.g., "DOWNLOAD-Yahoo North American"). When you have chosen a format that PPM can download, the button caption will change from "Import" to "Download."
- After selecting a download format, set the "Accept Quotes Beginning From" and "Through" dates then Click the button labeled **Download**. Note: Quotes containing dates that are not within the entered dates will be rejected.
- If you are not already connected to the internet, your dialer dialog box will be displayed. Select the service and enter your user name and password. Click the **Connect** button. The program will dial out and retrieve the quotes. *HINT: The program does not disconnect from the internet after downloading quotes.*
- When the program has finished retrieving the quotes it will import the quotes and display a message indicating the number of quotes that were successfully imported and the number that were appended (i.e., new data records).

IMPORTING QUOTES

To import quotes, choose **Prices -> Download/Import** from the main menu.. Note, there are several items that must be set up correctly to successfully import quotes. The Import Quotes screen will be displayed with the following information.

Import Quotes Screen

Data Field	Description
Data Format	Select a data format that begins with "IMPORT" that

	applies to the data file to be imported. Note: Import format names that end in “.L” and “.C.” have special meaning. See Format Name under Defining Import Formats below.
Accept quotes dated From - Through	Enter the date span of the quotes that you want to import. Only those quotes dated between the specified beginning and ending dates will be imported. The default is the current date.
Import File	Enter the file name that contains the price data to be imported. Alternatively, click the Browse button to display a standard file dialog box where you may select the file to be imported. The default is the last file imported.

Once the above information has been entered, click the **Import** button. During the import process, PPM will display the quotes as they are loaded. When the entire file has been processed, PPM will display a message box with the count of records that were actually loaded into the database.

DEFINING DOWNLOAD & IMPORT FORMATS

Download and import formats can be added and edited as needed to support changes in data sources and new data sources. To add a new format or edit an existing format click the **Download/Import Quotes** button on the Quotes and Charts page. To edit an existing format, select that format from the Data Formats drop down menu.

The Setup menu (located in the top left corner of the Download / Import Quotes screen provides access to the format definitions.

Options in the Setup menu include:

Add Delimited Format Adds a new delimited format. Delimited formats are for data files that have their fields separated by a delimiting character such as a comma or a tab.

Add Tabular Format Adds a new tabular format. Tabular formats describe data files that have data in fixed columns that are separated by spaces.

Edit Current Format Edits the format that is selected in the Data Formats field.

Delete Current Format Deletes the format that is selected in the Data Formats field.

The following data must be entered on the import format screen.

Import Format Definition Screen

Data Field	Description
Format Name	Enter a descriptive name for the data format. Special Format for London Exchange Quotes: Format

Data Field	Description
	<p>names that end in “.L” (period followed by capital L) are reserved for importing London Exchange quotes from some services that output the quotes in units of British pence. Special code has been added to PPM to convert these quotes from pence to decimal pounds. The conversion takes place only when both the Format Name and Ticker Symbol end in “.L”.</p> <p>Special Format for Quotes in Cents/Pence: Format names that end in “.C” (period followed by capital C) are reserved for importing quotes that are expressed in cents. Special code has been added to PPM to convert these quotes from cents to decimal amounts (i.e., the value is divided by 100).</p>
Date Format	<p>The purpose of the Date Format entry is to tell PPM how to interpret date character strings so that the program knows which characters refer to the month, day and year. The date format entry is actually a template that uses Y’s refer to the year, M’s for the month and D’s for the day. This is best explained by example.</p> <p>If Dates look like Enter</p> <p>10/30/93 MM/DD/YY</p> <p>10/30/1993 MM/DD/YYYY</p> <p>30/10/93 DD/MM/YY</p> <p>30.10.93DD.MM.YY</p> <p>931030 YYMMDD</p> <p>10/30 MM/DD</p>
Starting and Ending Columns (Tabular Formats)	<p>When defining a tabular format you must tell PPM the text column in which each data field starts and ends. If a field does not appear in the data file, enter a zero for the starting and ending column for that field.</p> <p>To determine the starting and ending columns of each field, use an ASCII text editor such as Notepad to examine the file. Make a note of the column in which each data field starts and ends.</p>
Field Numbers (Delimited Formats)	<p>When defining a delimited format you must tell PPM number of the field in which each data item appears. If a</p>

Data Field	Description
	<p>field does not appear in the data file, enter a zero for the field number.</p> <p>To determine the field numbers, examine the file using an ASCII text editor. Count from the left starting with one and add one to the field number each time a delimiter character is encountered.</p>
Alternate Close	<p>This entry is used to define an alternate position for the closing price. The alternate close field is used when the number of fields in the record is less than the Total Fields Per Record definition below</p> <p>Some data files change the format of the data depending on the type of security that is being downloaded. Most commonly, a data service might use a different format for mutual funds than it uses for stocks.</p>
Volume Divided by:	<p>Depending on the data service you use, the share volume may be listed as the exact number of shares, hundreds of shares, thousands of shares, etc. The volume divisor allows you to convert the listed share volume to the volume in hundreds of shares that PPM expects.</p>
Reject Invalid Dates	<p>Depending on the time-of-day when a file was downloaded, some data services substitute the time for the date. Normally PPM would reject such a record as having an invalid date. However, if you enter "N" in this field (i.e., do not to reject invalid dates), these records will be accepted by PPM and assigned a date equal to the Ending Date.</p>
Total Fields per Record	<p>Enter the number of data fields in a record that does not use the alternate close. <i>Hint: the alternate close is used whenever the record contains fewer fields than the total entered here.</i> You can force PPM to use the alternate close by entering a number of fields greater than exist in the records to be imported.</p>
ASCII Value of Delimiter	<p>Enter the ASCII decimal value of the character used to separate fields in the record. ASCII decimal values are listed in the back of most DOS manuals.</p>
Download Host URL	<p>The internet address of the site where the quotes are being downloaded. <i>Hint: This is the basic http address.</i></p>

Data Field	Description
Download Command Prefix	The portion of the html command used to display quotes that precedes the ticker symbol(s)
Download Command Suffix	The portion of the html command used to display quotes that follows the ticker symbols.
Max Quotes	The maximum number of quotes that can be retrieved in a single batch. PPM will continue processing batches until all quotes have been downloaded. Note: where multiple quotes can be retrieved, PPM assumes that the quotes are shown on the html command line separated by plus "+" signs. If your service uses another character then set the max quotes to one.

Hint: Some data files that appear to be tabular (text in fixed columns) are actually tab delimited.

RECORDING STOCK SPLITS

To record a stock split, click the **Stock Split** button on the Quotes and Splits page, then select the security type (Stock, Option, etc.) then select the security that split. On the Split Definition screen enter the following information.

Stock Split Data

Data Field	Description
Split: <u>XXX</u> For: <u>YYY</u>	Enter the ratio of the stock split such as <u>2</u> for <u>1</u> or <u>3</u> for <u>2</u> , etc. Stock dividends are also entered as a ratio. For example, a 10% stock dividend would be entered as <u>1.1</u> for <u>1</u> .
Effective Date of Split.	Enter the date when the stock split became effective.

When a stock split is recorded, PPM updates historical stock prices having dates on or before the effective date of the split in line with post split prices. For example, prices occurring on or before the effective date of a 3 for 2 split are multiplied by a factor of 2/3.

If you hold shares of a stock on the effective date of a stock split, PPM also adjusts the number of shares held to reflect the stock split. For example, if you hold 100 shares of a stock when it splits 3 for 2, PPM will increase the number of shares by a factor of 3/2 (i.e., the 100 shares becomes 150 shares). Share lots that have already been sold are not affected by recording a stock split.

Hint: Before recording a stock split you should be sure that your share positions in that stock are correct and reflect your share positions on the effective date of the stock split.

Warning: If a stock split occurs after shares have been sold, the return on value report will be computed using pre-split shares at post-split prices. While the starting and ending values will be incorrect, the Return on Value will be correct.

RE-COMPUTING HISTORICAL NET WORTH

PPM automatically creates a file containing weekly net worth values for each portfolio. These records are created whenever a portfolio change report or Net Worth chart needs a net worth value that does not already exist in the file. If the value already exists in the file, it is not recomputed thus saving time when running the report or chart.

Occasionally, users will need to enter, edit or delete information that, invalidates the net worth values that were previously computed and stored in the file. These entries include reassignment of assets from one portfolio to another, backdated transactions and corrections to price data.

If any of these conditions occur, the **Rebuild Net Worth** button may be used to rebuild the weekly net worth values so that they reflect the current status of entries in your data files.

NOTE: If your portfolio contains securities that had splits that were applied after the security or some portion of it was sold then the historic net worth computed for that security will not be accurate since it will be computed using split adjusted prices but not split adjusted shares.

REPORTS

The PPM report generator provides for generation of a variety of customized reports. Where appropriate, each report can be customized by the user for specified time spans and/or combinations of portfolios. All reports may be either printed, viewed on-screen, or exported for use in other programs. When exporting for use in a word processor, use the Plain Text option. When exporting reports for use in a spreadsheet or database application; use the Tab Delimited option.

Hint: The File -> Preferences sub-menu contains options for selecting your default printer, and the font and font size used for reports. If the report text runs together, select a smaller font or font size for report generation. We recommend the font Times New Roman at a pitch of 10 to 12 points, if available.

Hint: If when printed the output seems to print on only partial pages then you have selected a font size that is too large and requires the program to scale it down in order for it to fit on the page. This scaling down of the font when printed causes the page breaks to be seemingly too frequent.

The reports divided into 4 primary categories:

Status Reports Include Net Worth, Open Positions, Unrealized Gains and other reports that indicate the state of your investments

Income Reports Include reports that detail information related to income that may be needed for tax purposes. They include realized capital gains, interest and dividend income and a variety of transaction summary and detail reports.

SecurityTransaction Summary Provides a summary of stock and bond transactions for a given period of time..

Transaction Detail Lists all entered information for transactions for a specific security, cash account, other asset or liability or account.

Performance Reports Reports that detail the performance of investments such as return on investment, Portfolio Internal Rate of Return, etc.

Master Definitions A single report detailing the internal definitions of all securities and accounts entered into Personal Portfolio Manager.

STATUS REPORTS

NET WORTH

The Net Worth report provides a detailed listing of the present value of all stocks, bonds, savings, other assets and liabilities for included portfolios. Subtotals are provided for each asset category. In standard mode, subtotals are also provided for each included portfolio. In Composite Report mode, all included portfolios are reported as if they were a single portfolio. Stock and bond values are computed using price data for the date of the report or for the nearest preceding date if none is available for the selected date. If you have not entered any price data for a given stock or bond, its value will be based on your most recent transaction preceding the date of the report.

INVENTORY

The Inventory report provides a summary of the value of all securities held, the unrealized capital gains and the available cash in individual portfolios as of a specified date.

OPEN POSITIONS

The Open Positions report provides a quick summary of open positions in stocks, mutual funds and bonds. For each security the report lists the number of shares held, the average cost per share, current share price, total cost of shares held, current value and the unrealized gain or loss.

HOLDINGS BY TYPE

The Holdings by Type report provides a listing of open positions of a specific type. The report may be generated for Stocks-Mutual Funds, Bonds, Savings, Other Assets or Liabilities. The report lists the present value of all open positions for the type selected.

UNREALIZED GAINS

The Unrealized Gains report provides a measure of the gains and losses that would be realized if stocks and bonds were sold at present prices. Gains and losses are marked either short, mid or long term depending on the length of time the shares were held and the defined holding periods (see Program Setup). Long, mid and short term subtotals are provided for each included portfolio. The report can be generated for either all securities in the selected portfolios or for a single security.

ASSET ALLOCATION

The three Asset Allocation reports list the allocation of assets either by portfolio, by asset type or by investment objective. Allocation for each class (i.e., portfolio, type or objective) is expressed as the total asset value of the class and the percentage of total assets in the class relative to the total assets of all classes. Each of the three reports may be run for any combination of portfolios.

Hint: A graphical representation of asset allocation is available. See Charts/Asset Allocation.

TARGET - STOP STATUS

The Target - Stop Status report generates a listing of the status of the current price versus your target and stop loss prices for each security. The listed status is "OK" if the current price is between the stop loss and target prices. "ABOVE TARGET" indicates the current price is greater than the target price and "BELOW STOP" means the current price is less than the stop loss price.

INCOME REPORTS

CAPITAL GAINS

The Capital Gains report generates a listing of the capital gains and losses realized from sales of securities over a given time period. The report can be generated for either all securities in the selected portfolios or for one security in selected portfolios. You will enter the period of time to be covered by the report.

Gains and losses are marked either short, mid or long term depending on the length of time the shares were held and the predefined holding periods (see Program Setup). Note that capital gains distributions from mutual funds are also included in this report.

INTEREST

The Interest report generates a listing of interest income received from selected portfolios over a user specified time span. Interest income is listed in chronological order for each security. Subtotals are provided for each security and for each portfolio.

DIVIDENDS

The Dividend report generates a listing of dividend income received from selected portfolios over a user specified time span. The dividends are listed in chronological order for each security. Subtotals are provided for each security and for each included portfolio.

OTHER INCOME

The Other Income report generates a listing of the income identified as "other income" when it was entered using one of the Income options. The report can be generated for a user selected time span and any combination of portfolios. Like interest and dividend income, other income is listed in chronological order for each security. Subtotals are provided for each stock, bond, savings account or other asset and for each included portfolio.

SECURITY PURCHASES AND SALES

The report generates a listing of all purchases followed by all sales of stocks, bonds and options. The report shows the number of shares purchased or sold, the share price and the total cost of purchases (including commissions) or the net amount (after commissions) for sales.

SECURITY TRANSACTION SUMMARY

The security transaction summary report lists a summary of all the purchases and sales of stocks and bonds during the selected reporting period. Purchases are listed in chronological order followed by sales.

TRANSACTION DETAIL

The Detailed Transactions report provides a detailed listing of transactions for a single security, savings account, other asset or liability. From a series of menus, you will select the security type, the specific security or account, and the portfolios to be included in the report. The report then lists all transactions for the selected item during the user specified time span.

SECURITY TRANSACTIONS

For security transactions, the report lists the transaction date, number of shares, share or option cost, commissions and other costs. If the security was sold or the option was exercised the report also lists the gross amount of the sale, sales commission, cost basis and the gain or loss.

CASH - OTHER ASSET - LIABILITY TRANSACTIONS

For savings, other assets and liabilities the Detailed Transaction report produces a ledger showing each credit and debit to the account during the specified reporting period along with the balance on each transaction date.

PERFORMANCE REPORTS

RETURN ON INVESTMENT

The Return On Investment (ROI) report lists the actual return including dividends on share lots that were held **at any time during** the reporting period. If the share lot was sold, the ROI reflects the annualized return during the period the shares were held. If the share lot was not sold, the ROI reflects the return from the purchase date to the ending date of the report.

Note: ROI will be listed as zero for share lots that were bought and sold on the same day and share lots having zero cost. ROI will also be listed as zero for any share lots with a present value of zero.

RETURN ON VALUE

The Return On Value (ROV) report lists the actual return including dividends on share lots that were held **during the entire** reporting period. The ROV computation differs from the Return On Investment in that ROV includes **only** the income and unrealized capital gains that were derived during the reporting period whereas the ROI report includes income and capital gains over the entire holding period.

Hint: While the ROI report shows how an investment has performed since it was purchased, the ROV report shows how an investment has performed over a specific holding period.

PORTFOLIO INTERNAL RATE OF RETURN (IRR)

The Portfolio IRR report computes the internal rate of return (return on investment) for an entire portfolio over a given period of time. The computation is performed by adding all the income (i.e., interest, dividends, other

income and both realized and unrealized capital gains) accrued in a portfolio and dividing it by the average net asset value of the portfolio during that period.

Hint: The accuracy of this report is dependent on complete and accurate data entry. If you fail to enter income items such as mutual fund dividend and capital gains distributions, the report will not reflect true returns. In addition, income items must be entered into the portfolio from which they were derived or they will be credited to the wrong portfolio.

THEORETICAL PERFORMANCE

The Theoretical Performance report computes the annualized yield over the reporting period for all stocks, bonds, options, savings and other assets. The Income Rate column of the report indicates the theoretical income that would be derived from the issue based on the defined annual dividend (for stocks and mutual funds), the coupon rate (for bonds), the interest rate (for savings) and appreciation rate for other assets. The Capital Gain column is based on changes in the price of securities over the period of the report.

Note: The performance is theoretical because the income rate is based on defined income rates and not on actual income received.

PORTFOLIO CHANGE

The Portfolio Change report lists the net worth, and the monetary and percentage change in net worth of selected portfolios between two user specified dates. PPM converts the user specified dates to week-ending dates and either computes or retrieves the net worth for those two dates.

Note: Net worth values for the current week are always computed then stored in the Net Worth file. Historic net worth values (for weeks earlier than the current week) are computed only if a net worth value for the specific week is not already available in the Net Worth file. See Re-computing Historical Net Worth for more information.

PRICE CHANGE

The Price Change report lists the prices and the monetary and percentage change in prices of all securities between two user specified dates.

PRICE LIST

The Price List report shows the open, high, low, last and volume for a specified security over a selected time period.

Hint: Use the Export option to create a file containing prices that can be imported by another program. The Export option can create a tab delimited text file that can be imported by most spreadsheet and database programs. You may want to use a text editor to remove page and column header lines before importing the prices into your spreadsheet or other application.

MASTER DEFINITIONS

The Master Definitions report lists all defined securities, assets and liabilities showing their type (security type, savings, other asset or liability), account number or security symbol and investment objective.

CHARTS

ASSET ALLOCATION

Asset allocation charts display the percentage of assets assigned to each category in the form of either a pie chart or a bar chart. The assets may be categorized by portfolio, by asset type or by investment objective. The three asset allocation charts are graphical representations of the information available in the Asset Allocation reports.

Note: If you select plotting of a pie chart and have more than 8 slices to be plotted, the program will automatically revert to a bar chart.

NET WORTH

The Net Worth chart provides a graphical representation of changes in the value of one or more portfolios over time. Charts are plotted in the form of an area graph or a ribbon (line) graph. When multiple portfolios are plotted on a single chart, the area graph will show cumulative results with each portfolio stacked on top of the preceding portfolio. The maximum number of portfolios that may be included in a 3 year Net Worth chart is 8.

Note: The first time a Net Worth chart is plotted it may take a considerable amount of time to compute and store net worth values for each week to be plotted. Subsequent plotting of Net Worth charts covering the same period will use the stored values and will therefore be displayed much faster.

Hint: To see the maximum detail of value changes plot only one portfolio at a time. Note that negative net worth values are not plotted.

STOCK CHARTS

Options in the Stock Charts menu provide for display of technical analysis charts. Each time you select one of the three options in the Stock Charts menu, the Chart Span dialog box will be displayed allowing you to enter the duration (i.e., 6 months, 1 year, 2 years or 3 years) and the ending date (i.e., date of the last point plotted) of the chart. Charts plotted for duration's of longer than 6 months use weekly composite data formed from daily quotes. A weekly composite quote is formed by extracting opening price, highest high, lowest low and the closing price for the week.

The **Options** button on the Chart Span dialog box provides access to additional chart display options as shown below. Once set, the option settings remain in effect until changed.

Chart Options Dialog

Option	Description
Candlestick Chart	This option enables plotting of technical analysis charts in the candlestick format instead of the default bar chart format. Candlestick charts are useful in recognizing patterns of opening versus closing prices. When the

	opening price is less than the closing, the price range between the opening and closing price is displayed as an open box. Conversely, when the opening price is greater than the closing price the range is displayed as a filled or solid box. <i>Hint: if you imported or entered data that lacks valid opening prices the candlestick chart will not produce valid results on 6 month charts.</i>
Show Price Grid Show Date Grid	When enabled, a horizontal price grid and vertical date grid is drawn on the chart. You may want to disable these options if you are planning to print the chart on a non-color printer.
Show Target/Stop Loss Prices	When enabled, horizontal lines showing the defined target price and stop loss price are plotted on the chart. The lines are plotted only when they are within the range of prices plotted on the chart. The Target line is plotted in green and the Stop Loss line is plotted in red.
Use Log Scale for Prices	When enabled, the price portion of the chart will be plotted using a logarithmic scale instead of the default linear scale. Logarithmic scaling has the advantage of showing equal percentage price moves with the same vertical change regardless of the actual price.

After entering the chart span and setting any display options, you will select the security or in the case of the Relative Strength and Correlation charts the two securities to be plotted.

Along the bottom of each stock chart there are a series of command buttons that provide access to technical indicators and allow plotting of another security using the same chart span and option settings. Refer to the Technical Indicators section for a discussion of interpretation of technical indicators.

The function of the command buttons are described below.

Stock Chart Command Buttons

Button	Description
New	After completion of your analysis, click the New button to select another security to be plotted.
MA	Plots a simple moving average based on the user defined number of weeks.
Exp MA	Plots an exponential moving average based on the user defined point weight.
Fit	Plots a best fit 1st to 9th order polynomial curve. The

	"order" (1 to 9) of the polynomial is user defined. A first order polynomial is a straight line. Curvature and fit precision increase as the order of the polynomial increases.
OBV	Plots On-Balance Volume.
MACD	Plots Moving Average Convergence Divergence based on the user defined fast and slow point weights.
RSI	Plots Wilder's Relative Strength Index using a user defined period.
%KD	Plots stochastic oscillator (%K) and the slow stochastic oscillator (%D) using a user defined period.
Clear	Clears the bottom chart of volume or plotted oscillator data.
Vol	Re-plots the volume in the bottom chart

SINGLE ISSUE

The Single Issue chart displays the industry standard Price/Volume chart or, optionally, a candlestick chart for one security at a time.

The Price/Volume chart is the basic chart shown in most newspapers. It provides a graphic display of the open, high, low and closing prices, and trading volume. The price portion of the chart is scaled to provide the maximum vertical distribution of prices. That is, it is vertically stretched to just cover the range of prices to be displayed.

RELATIVE PERFORMANCE

The Relative Performance chart compares the price movements of two different securities. After entering chart duration and any option changes, select the two securities to be charted together. Prices for the first security you chose will be displayed on the left axis and prices of the second security will be displayed on the right axis and are color keyed to the plotted prices. The relative performance is plotted at the bottom of the chart as an area plot. A rising line indicates that the primary stock (the first stock selected) is performing better than its counterpart.

Relative Performance, also known as relative strength or ratio cantor is most commonly used to compare a stock to a known index. The best index to use for a given stock is an index that is well correlated with the stock to be examined. Therefore, when analyzing a semiconductor stock it would be best to compare it to a "Tech" stock index or the NASDAQ index which is heavily weighted in technology stocks.

The common interpretation of Relative Performance is to buy stocks that are outperforming their market sectors and sell stocks when they are underperforming their market sectors.

CORRELATION

Correlation is the statistical means of determining whether the prices of one security move in direct relation to the prices of a market index or another security. After entering chart duration and any option changes, select the two securities to be used in the correlation analysis.

Correlation analysis operates by plotting a scatter-gram of the closing prices of the first security (measured on the y-axis) against the closing prices of the other security or index (measured on the x-axis). Once the points have been plotted, the straight line that best fits the points is computed and plotted. The line is computed using a least squares linear regression. The program displays the formula for the plotted line, the standard deviation (the standard error between plotted prices and the line), and the correlation coefficient. The mathematical formulation of these items is shown below.

Least squares linear regression line is defined by: $Y = B + AX$ where:

$$A = (N * \text{Sum}(X_i * Y_i) - \text{Sum}(X_i) * \text{Sum}(Y_i)) / (N * \text{Sum}(X_i^2) - \text{Sum}(X_i)^2)$$

$$B = (\text{Sum}(Y_i) / N) - A * (\text{Sum}(X_i) / N)$$

The standard deviation is given as S where:

$$S = \text{Sqrt}((\text{Sum}(Y_i - (B + A * X_i))^2) / (N - 2))$$

The correlation coefficient "R" is given by:

$$R = (N * \text{Sum}(X_i * Y_i) - \text{Sum}(X_i) * \text{Sum}(Y_i)) / \text{Sqrt}((\text{Sum}(X_i - \text{Mean}(X))^2 * (\text{Sum}(Y_i - \text{Mean}(Y))^2))$$

Correlation coefficients range from zero to plus or minus one and provide an indication of how good the price relationship is between the two securities. Values near plus or minus one indicate that there is a strong relationship between the price movements of the two securities. Values closer to zero (-0.75 to +0.75) indicate poor correlation. If the coefficient is negative, it means that a negative price relationship exists (a price increase in one yields a corresponding price decrease in the other).

After plotting the scatter-gram, a price chart of the first selected security is plotted. The solid fill area plotted on the price chart represents the solution to the least squares regression -- plus or minus one standard deviation (e.g., if the two securities were perfectly correlated then the solid fill area would be centered on the closing prices of the first security).

The Correlation Chart is most useful when there is a high degree of interdependence between two securities (i.e., correlation coefficient is greater than 0.9 or less than -0.9). Under these circumstances, a sudden deviation of the price outside the standard error area may indicate a change of market sentiment towards the stock. Such changes in sentiment are often the result of an unexpected change in earnings, a buy or sell recommendation from a major broker, takeover rumors, etc. It is always a signal to be wary.

OWL PRODUCT INFORMATION

'Otto-Williams Ltd. (OWL Software) is committed to producing intuitive, easy to use, software solutions that meet the challenges of today's fast paced world. OWL programs have been rated among the best software available by major publications including *PC World*, *Computer Novice* and the *Financial Times*.

No more deciphering complex programs and plowing through confusing software manuals. At OWL, we listen to our customers and design our programs to be easy to use with: simple menus, context sensitive help, on-line user's guides, and sample data where needed, to help you get started fast. Our programs allow you to be fully operational within minutes.

MASTER INVESTOR

MI is a fully integrated system that combines portfolio management with technical analysis. The purpose of MI is to help individual investors and professional money managers organize and analyze the information that is critical to making informed investment decisions.

PERSONAL PORTFOLIO MANAGER

Personal Portfolio Manager is an easy to use portfolio management and technical analysis system designed specifically for individual investors who invest with a long term horizon.

SIMPLE BUSINESS ACCOUNTING

Simple Business Accounting (SBA) is an easy-to-use accounting system designed specifically, for use by small and home based businesses. This new generation of our top rated accounting system (Basic Bookkeeping) has been completely redesigned for Windows 95 and includes an all new interface and powerful new features.

SIMPLE BUSINESS INVOICING & INVENTORY

Simple Business Invoicing and Inventory (SBII) is a complete sales management system that includes: invoicing, inventory management, automated billing, mailing list management, and sales tracking. Invoices and bills can be printed on plain paper or your own letterhead.

GST / VAT ACCOUNTING

GST / VAT Accounting (GVA) is an easy-to-use accounting system designed specifically, for use by small and home based businesses that need to track collection and payment of Goods and Services Taxes (GST) or Value Added Taxes (VAT). This is a specialized version of our top rated Simple Business Accounting software.

GST / VAT INVOICING

GST / VAT Invoicing (GVI) is a complete sales management system that includes: invoicing, inventory management, automated billing, mailing list management, and sales tracking. This specialized version of our Simple Business

Invoicing and Inventory is designed to meet the tracking and reporting requirements of jurisdictions that charge a Goods and Services Tax (GST) or Value Added Tax (VAT).

BASIC BOOKKEEPING

Basic Bookkeeping (BBK) is a very easy-to-use accounting system that is specifically designed for small and home based businesses. This single entry accounting system is very straightforward and avoids financial jargon so you don't need to be an accountant to understand and use the program.

BOOKKEEPING FOR REALTORS

Bookkeeping for Realtors (BFR) is a specialized version of our popular Basic Bookkeeping program. This very easy-to-use accounting system is specifically designed for real estate sales professionals who need a fast accurate means of keeping track of their income and expenses including auto mileage.

Please check our web site at <http://www.owlsoftware.com> for current prices and availability.

APPENDIX A - DOWNLOAD AND IMPORT CONSIDERATIONS

Several items must be setup correctly in order to properly import quotes. They are:

- Ticker symbols in PPM must precisely match the ticker symbols found in the file to be imported. Ticker symbols are entered on the stock/mutual fund definition screen (Option Define/Stocks - Mutual Funds). One common mistake is to accidentally place a leading blank in front of the Ticker symbol. If the ticker symbol in PPM has a leading blank it won't match the symbol found in the import file.
- The format of the file being imported must match the format expected by PPM. On the PPM Import screen select the format that matches your import file by clicking the down arrow in the combination box.
- The dates of quotes in the import file must be included within the range of dates entered on PPM's import screen. PPM rejects quotes that are outside the range of dates defined on the import screen. Some import files may contain quote times instead of dates or may not contain dates at all. If this is the case, PPM assumes that the quotes is from the ending date of the range of dates entered on the import screen.

DOWNLOADING QUOTES AUTOMATICALLY

DOWNLOAD-YAHOO FINANCE

Personal Portfolio Manager can retrieve current quotes for North American and most other exchanges directly from the Yahoo quote server. Before utilizing this feature, it is useful to visit the web site and check to insure that the ticker symbols used are the same as those defined in Personal Portfolio Manager. This is particularly important if you are retrieving quotes from non US exchanges or quotes for indexes such as the Dow Jones Industrial Average.

Note: Ticker symbols for quotes for non-US exchanges have a suffix consisting of a period followed by the abbreviation for the exchange (e.g., the symbol for Air Canada on the Toronto exchange is "AC.TO", the symbol for Air France Group on the Paris exchange is "417533.PA"). Go to <http://finance.yahoo.com> and use the Symbol Lookup – World Markets option to check for the correct symbol to use.

DOWNLOAD-YAHOO LONDON .L

Personal Portfolio Manager can retrieve current quotes for the London stock exchange directly from the Yahoo finance quote server. Before utilizing this feature, visit the web site and check to insure that the ticker symbols used are the same as those you have defined in Personal Portfolio Manager. The ticker symbols used by this service have a period followed by a letter that indicates the exchange appended to the ticker symbol. For example, the British Airways symbol on the London exchange is expressed as "BAY.L". You must include this notation in the stock ticker symbol defined in Personal Portfolio Manager to successfully download and import these quotes. **NOTE:** London exchange quotes delivered by this server are expressed in Pence. The program is configured to convert these quotes from pence to decimal Pounds Sterling. Fund shares must also use the ".L" representation and not the GBnnnnnnn notation.

Hint: Go to <http://uk.finance.yahoo.com> and use "Symbol Lookup" to check for the correct symbol.

DOWNLOAD-YAHOO AUSTRALIA / NEW ZEALAND

Personal Portfolio Manager can retrieve current quotes for Australia and New Zealand exchanges directly from the Yahoo Australia quote server. Before utilizing this feature, visit the web site and check to insure that the ticker symbols used are the same as those defined in Personal Portfolio Manager. The ticker symbols used by this service have a suffix composed of a period "." followed by an abbreviation for the listing exchange. For example, the "Australian and New Zealand Banking Group symbol on the Australian exchange is expressed as "ANZ.AX". You must include this notation in the stock ticker symbol defined in Personal Portfolio Manager to successfully download and import these quotes.

Hint: Go to <http://au.finance.yahoo.com> and use "Symbol Lookup" to check for the correct symbol.

DOWNLOADING QUOTES MANUALLY

COMPUSERVE CIM (COMPUSERVE INFORMATION MANAGER) QUOTES

Current stock quotes can be obtained from CompuServe when using the CompuServe Information Manager (DosCim or WinCIM) by selecting the Quotes option under the Services menu. The CompuServe software permits you to pre-define the ticker symbols for the quotes you want to retrieve. Once you have defined a group of ticker symbols, select "Quotes" followed by "Get All" to display the current quotes for all pre-defined issues. To download these quotes to your hard disk select "SAVE" or "SAVE AS" under the File menu.

Make a note of the directory in which you save the file as well as the file name. You will need to enter this information to import the saved data. We recommend that you use the same file name each time you download quotes and select the overwrite option to replace the previously downloaded file.

WARNING: Data downloaded using the CIM Quotes option often contains an update time and not an update date. Records that do not contain an update date are assumed to be dated on the ending date of the import time span.

DOW JONES NEWS RETRIEVAL SERVICE (DJNRS)

PPM supports quotes retrieved from Dow Jones News Retrieval's current quotes (//CQ), historical quotes (//HQ) and Dow Jones Averages (//DJA) databases.

//HQ: The historical quotes database allows you to retrieve up to one year's worth of daily quotes for stocks. After selecting the HQ database set your communications program to begin logging to a new file. Enter the symbol of the stock followed by "P1" (e.g., IBM P1). DJNRS will display 12 days of quotes for the selected stock. Each time you press the return key, the preceding 12 days of quotes will be displayed until a full year's of quotes have been displayed. After you have retrieved all the quotes you are interested in, set your communications program to stop logging. *Hint: you may save historical quotes for multiple stocks to a single log file.*

//CQ: The current quotes database allows you to retrieve current quotes for stocks and mutual funds. After selecting the CQ database set your communications program to begin logging to a new file. Enter the symbols of the stock or mutual funds you want to retrieve. You may enter up to 5 symbols at a time separated by a space. DJNRS will display current quotes for each selected security. You may enter more symbols as needed. After you have retrieved all the current quotes you are interested in, set your communications program to stop logging.

Warning: do not save current quotes for multiple dates in the same log file. Since the DJNRS CQ database does not display the date, PPM is unable to distinguish the date that the quote applies to.

//DJA: The Dow Jones Averages database allows you to retrieve up to one year's worth of daily quotes for the various Dow Jones Averages. After selecting the DJA database set your communications program to begin logging to a new file. Enter the symbol of the average you want to retrieve quotes for followed by "P1" (e.g., DJI P1). DJNRS will display 12 days of quotes for the selected average. Each time you press the return key, the preceding 12 days of quotes will be displayed until a full year's of quotes have been displayed. After you have retrieved all the quotes for a selected Dow Jones Average, set your communications program to stop logging. **Warning:** do not save different averages to the same log file. PPM reduces volumes of Dow Jones Averages by a factor of 10. When loaded, DJA volumes are in units of thousands instead of hundreds as shown in the DJA download file.

AMERICA ONLINE (AOL)

Current or closing stock and mutual fund quotes can be obtained using the Display Portfolio feature of America Online for Windows. After signing onto America Online, click on the Quotes and Portfolios Icon then Click on "Portfolios."

If you have not already entered ticker symbols for the issues you wish to track, enter each ticker symbol then click on "Add to Portfolio." The ticker symbols you add to your portfolio are retained for all future sessions so you only need to enter them once.

To display current prices for issues in your AOL portfolio, click on "Display Portfolio." To download the quotes, click the **Download** button in the portfolio window then select the download format (we recommend using the Metastock format. These quotes can be imported using the predefined "AOL Portfolio Metastock" format. (Note: other formats are also predefined but the Metastock format provides more data).

Historic quotes can also be downloaded from AOL and imported using the predefined "AOL Historic" format. To access historic quotes on AOL, click the Historic Quotes icon on AOL's Quotes and Portfolios screen.

PRN-5 FORMAT (FARPOINT BBS)

The PRN-5 format is an ASCII -- comma delimited format having records of the following form:

date,high,low,close,volume

where the date is in the form "YMMDD" and prices are in decimal format. For example, a record for 30 October 1993 would be written:

931030,27.5,26.125,27.25,30643

All records in a given PRN-5 file are for a single issue (ticker symbol). The Farpoint BBS provides free (except for the cost of the phone call) downloading of historical stock quotes in PRN-5 format. Data is available for most stocks listed on US stock exchanges. When downloading from this service you will download one file for each stock using one of several supported file transfer protocols such as XModem. The phone number for Farpoint BBS is (312) 274- 6128.

PRN-7 FORMAT (QUOTE.COM SINGLE ISSUE HISTORICAL DATA).

The PRN-7 format is an ASCII -- comma delimited format having records of the following form:

date,open,high,low,close,volume,open interest

where the date is in the form "YMMDD" and prices are in decimal format. For example, a record for 30 October 1993 would be written:

931030,26.750,27.500,26.125,27.250,30643,0

Mutual fund data is written as

date,NAV (net asset value)

Quotes in this form are available via Internet FTP from Quote.Com (there is a charge for each file downloaded). For information about this service send EMail to: support@quote.com or visit their web page at <http://www.quote.com>.

PRN-8 FORMAT (QUOTE.COM EMAIL)

The PRN-8 format is an ASCII -- comma delimited format having records of the following form:

symbol,date,open,high,low,close,volume,open interest

where the date is in the form "YMMDD" and prices are in decimal format. For example, a record for 30 October 1993 would be written:

GE,931030,26.750,27.500,26.125,27.250,30643,0

Mutual fund data is written as

symbol,date,NAV (net asset value)

Quotes in this form are available via Internet EMail and FTP from Quote.Com. For information about this service send EMail to: support@quote.com or visit their web page at <http://www.quote.com>.

JUST DATA (AUSTRALIAN STOCK EXCHANGE)

PPM will import daily stock quotes downloaded from "Just Data" data service in Australia (Just Data, 26 Bellevue Street, Highgate Hill, Q 4101, Phone 008 777 972 or (07) 899 2148). Downloaded file data should be in the following form:

ad19900814cnAdtSdbJDvn1.0 Header / date record

cABCs1f1050h1100l1050a1100v65000 Stock price records

cCBAs1f990h1020l980a1000v1022

cDBAs1z2200v45000

yUGa2220.7 Index price records

The above format is exactly as the data is downloaded from Just Data and should not be modified by any of Just Data's available data conversion utilities. If multiple days of data are contained in a single file, the price records for each day must be separated by a Header/Date record.

MICROSOFT INVESTOR: [HTTP://INVESTOR.MSN.COM/](http://investor.msn.com/)

Microsoft Investor offers relatively convenient downloads of current quotes via their "Portfolio" feature and is the only site that we are aware of at this time to offer free historic quotes. Before you can download quotes, you will need to download and install Microsoft's "Investor" software (a free browser plug-in).

Downloading Current Quotes

Once you have downloaded and installed the plug-in, you will be able to set-up a tracking portfolio containing the ticker symbols of the stocks you want to track. The system also has the capability of recording the number of shares and purchase cost. For the purposes of downloading current quotes, only the ticker symbol is required. For privacy reasons, we recommend that you do not enter your number of shares and purchase cost information.

After setting up the portfolio find the File menu on the portfolio screen and choose "E_xport" > "P_rices to T_ext File" or "P_ortfolio to T_ab Delimited File". A dialog box will appear asking you to supply the file name and optionally choose a directory. Remember the name you give the file and the directory where the file is saved. You will need this information when you later import the quotes into PPM.

When importing this data to PPM, choose the import format that corresponds to the export option chosen (i.e., MS Investor Prices for "P_rices to T_ext File" and MS Investor Port for "P_ortfolio to T_ab Delimited File").

Downloading Historic Quotes

In MS Investor choose the "Stocks" link from the links in the title bar of the Microsoft Investor site. Under Stock Research choose "Historical Charts." Enter the symbol for a stock or mutual fund. Once the chart is displayed, click the **Options** button followed by the view tab to choose Daily, Weekly or Monthly quotes. Click the **Period** button to choose the number of months or years of data you want to download. After selecting all your options, choose the **Export Data** button to download the prices.

Depending on your system and browser configuration, one of the following actions will occur.

A dialog box will appear giving you the option of saving the file or specifying what application you want to use to view the file. Choose the Save File option.

The file will be displayed in your browser as plain text. Click the File menu in your browser and choose Save As. In the file dialog box under file type choose "Plain Text."

The file will be displayed using Notepad. Click the File menu in Notepad and choose Save. You can then close the Notepad application.

The file will be displayed in an Excel spreadsheet. Click the File menu in Excel and choose Save. Note, that when closing Excel, it may display a dialog box asking if you want to re-save the file in Excel format. Answer NO.

In each case, make a note of the name of the file you saved and the exact directory where it was saved. You will need to supply this information to PPM when you import the file.

When importing this data to PPM, choose the “MS Invest Historical” import format in Personal Portfolio Manager.

QUOTE.COM: [HTTP://WWW.QUOTE.COM/](http://www.quote.com/)

Both current and historic quotes can be obtained from Quote.Com. There is a usage fee for this service. See PRN - 7 and PRN - 8, above for information on importing two of the available formats.

MONEYWORLD: [HTTP://WWW.MONEYWORLD.CO.UK](http://www.moneyworld.co.uk)

Moneyworld offers free quotes from the London Exchange. Downloadable quotes include the FT-100 and FT-250.