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INTRODUCTION

The program FundExpert automates the access to many families of mutual funds using automated service telephones, providing that you make the required arrangements with these funds. NOTE: for Fidelity funds, you must join the FAST (Fidelity Automated Fast Telephone) service. The program permits a speedy, access to these funds: obtaining individual quotations and balances including the last purchase/sale/exchange of shares in your account. An additional feature is the automated transfer of funds from your bank to some groups of funds, or between funds in certain groups.

The program maintains a record of all the transactions and calculates the actual return on investment in these funds, taking into account dividends and the change in share price. The price quotations for different stocks, funds, or bonds can be also downloaded from CompuServe(R), used to update all records, and plotted as a function of time .

A separate section of the program permits compilation of all investments in Treasury, Municipal and Corporate bonds. The yield to maturity of these bonds is calculated and payment dates listed. If an interest payment is due within 30 days, then this entry is highlighted for your convenience.

Another section is devoted to direct investments in the stock market, and a routine is provided for making buy/sell orders by telephone, directly to the host computer at Fidelity Brokerage. There is also a section for recording your investments in bank accounts, such as Certificates of Deposit, or Money Market accounts.

Any sale/purchase of shares, or bonds can be recorded by simply moving the mouse to the desired location, clicking the left mouse button and inserting the new value into the dialog box that appears on the screen, and then clicking on the "OK" or "CANCEL" buttons. The program will record automatically each such change as purchase or sale. Alternatively you may record a new transaction by selecting "Transactions" from "Investments" menu (see "Updating an account"). The program maintains a permanent record of all transactions, calculates the actual yield on investment for individual accounts as well as provides the "purchase date and price" and "selling date and price" for all "closed positions".

PROGRAM CONFIGURATION

At the first startup of the program you will be presented with the configuration routine.   This routine can be reached at any other time by clicking mouse on "Utilities" - "Program configuration".

You must respond to all the questions presented on the screen, but you may leave the default choices (incl. blank). You can move between the fields using a mouse, or the TAB key. Some fields require a text input, others are simple buttons that can be selected (or de-selected) using a mouse or the key board.

You will be prompted for modem port, and asked to select the mutual fund families that should be displayed on the selection screen in the future. Please note that you cannot choose more than seven mutual fund families from the list (plus the Fidelity Funds that are a compulsory choice). You can   add up to three families of funds that are not listed in the program, however you will not be able to avail yourself of any dialing routines when connected to these funds.   You may also add the "Fidelity Brokerage" account at this time (see the specific instructions for the use of this option).

NOTE: If you do not have a modem, or do not want to use one, type   0   when asked for the modem's port. If you do use a modem, make sure that it is connected and turned on before starting this program.

If you do have modem, you will be asked for its maximum speed of transmission and the appropriate initializing string. If you wish to use the special module for downloading quotation from CompuServe, you will be also requested to provide the CompuServe local telephone number, your ID and the password.

You will also be asked for the directory path to BankExpert program that was written by the same author and supports standard home accounting needs. For the explanation of this feature, see "BankExpert" section of this manual.

STARTING PROGRAM

    Using the FundExpert is straightforward. To start the program   you MUST click the mouse on the "File", this will drop the menu:

      Open...
      Print...
      Exit this program
      Exit Windows

Now click on "Open...", this will present the menu:

      Portfolio #1
      Portfolio #2
      Portfolio #3

You MUST click on the "Portfolio #1", to activate most of the other menu options. If you wish to terminate the program, but remain under Windows - click on the "Exit this program". The "Exit Windows" selection terminates the program and the Windows operating system and brings back the DOS command line.

IMPORTANT NOTE: The program uses two windows to display information. In the Main Window (background color - light blue) all selections are accomplished by using a mouse to point the selections and then clicking the left mouse button to confirm it. In the Supplementary Window (background color - white) the mouse does not operate and all selections must be made by entering the appropriate number (or text) from the keyboard and pressing the   <ENTER>   key to complete the transmission.

UPDATING AN ACCOUNT

When the "account screen" is displayed, you may change the number of shares, price, or yield of any account by clicking on that number with the mouse and updating the information through the dialog box that is displayed on the screen. If you increase the number of shares, the program will inquire whether this is a purchase, or divident. If you decrease the number of sales, the program will assume a sale.

NOTE: be sure to update the "price" prior to any transaction.

An alternative method of recording transactions with an existing account (only stocks and mutual funds) is to select "Transactions" from the "Investments" menu and to respond to all the questions as they appear on the screen.

NEW ACCOUNTS

    After you have chosen the desired family of funds, stocks, bonds, or banks, you will be presented with the screen summarizing all your accounts in that selection. If you desire to add a new account to the list, select   "Tools" on the main Menu Bar. This will display the drop menu, from which select "Enter new account". You will be next presented with a list of questions to answer: Fund number, Fund description, your account number, stock symbol (optional - required for automated downloading of share prices), security code (if none required, enter 99), Social Security number (optional, it is required by some Funds), number of shares on the account, the share yield and price (Note: no. of shares, their yield, and price should be entered on a single line, separated by blank spaces). After you answered all the questions, the screen containing the summary of all your accounts will reappear.

NOTE: The questions will differ slightly if you add an account to Stocks, Bonds, or Banks.

DELETING EXISTING ACCOUNT

    To delete an existing account, select with the mouse "Tools" on the main Menu Bar. This will display the drop menu, from which select "Delete existing account". At this point, a dialog box will appear and you will be asked for the account number.

NOTE: The account number is a single letter displayed in the left-most column of the "Account screen" tabulation.

    A deletion of an account will cause also the deletion of all recorded transactions on this account in the "Transaction Log", if you so choose (see later).

NOTE: You cannot delete ALL the funds on any given screen.

SORTING ACCOUNTS

    You may rearrange your accounts to any desired order by   selecting   "Tools" on the main Menu Bar. This will display the drop menu, from which select "Sort accounts". At this point, a dialog box will appear and you will be asked for the account number.

NOTE: The account number is a single letter displayed in the left-most column of the "Account screen" tabulation.pressing.

You will be asked which record should be moved, enter its position (eg. A). Next you are asked to which position the record should be moved. Enter the desired new position (eg. B) .   Repeat the procedure until all accounts have been sorted.

GAIN/LOSS SCREEN

As you change a listing of all the accounts with a given Fund and/or change the amount of shares that you own in these accounts, an additional information is being developed in the supplementary screen called "Gain/Loss screen".   You can access this screen by selecting "Windows" from the main menu bar, followed by the selection of "Gain-loss screen" from the drop-down menu. The screen presents the Fund number, account name, the amount of money that you invested (ie. all the purchases, less all the sales), the current value, the total profit/loss and average percentage of gain/loss over the period from the date shown on the screen.

NOTE: For description of gain/loss screen for bonds **see later.**

The average percentage gained/lost on investment ("av. %") during the period, starting on the date shown, is simply the total capital gains (re-invested dividends plus change in shares' price) divided by the total amount invested during that period. Note that any distributions (such as dividends) that were not re-invested, are not included in the gain/loss calculations.

You are permitted to change the date, and this will cause all the PERCENT gain/loss calculations to commence from that date only. Note that in the calculation of the average percentage gained/lost on investment ("av. %"), all shares purchased prior to that date are automatically re-priced to the price recorded on that (or nearest to it) date and thus the result of these calculations is greatly influenced by the selection of the correct date.

The annualized gain/loss (ann. %) is the quarterly compounded, annual interest rate, that would produce the same average percentage gain/loss during the period, as the one calculated above, if a lump sum was invested at the beginning of the period at the "ann. % " rate.

The Total Gain/Loss and Average % Change for the particular family of Funds are presented in the top right-hand corner of the screen. The Total Gain/Loss is the amount compiled from ALL the records available in SHARE.LOG file, while the Average % Change is the average for all transactions that occurred AFTER the date shown in the table.

You can change back to the account screen by selecting "Accounts screen".

TRANSACTIONS' LOG

A log of all the transactions. ie. any change in the number of shares, is maintained separately and can be accessed by selecting "Windows" from the main menu bar, and next choosing "Transactions' log" from the drop-down menu. The last column that is displayed, "amount paid ($)", represents the amount paid for the purchase (if positive), or amount received from sale (if negative), or will be equal to   0   if the transaction was a result of dividend distribution. No changes can be made to these records.

FIDELITY BROKERAGE

This section of the program will permit you to interact with the host computer for placing the buy/sell orders and obtaining stock quotations through the Fidelity Brokerage. Note that the Fidelity Brokerage has been placed under the category of Mutual Funds, ie. you reach it by selecting "Mutual Funds" from the main menu bar. Simply follow the instructions as they appear on the screen and listen to the responses through the telephone receiver. The dialing sequence has been timed to correspond to the various questions asked by the host computer, at one point you have a choice of two responses, depending on the question asked by the computer. Since the sequence is rather complicated, you should first try it out and be prepared to cancel the order when the host computer offers this option at dialog's end..

NOTE: during the configuration of the program, if you choose the "Fidelity Brokerage" , you will need to either accept the default values for their transaction charges, or to insert the modified ones (custom set).

ANALYSIS OF INVESTMENTS

In the following calculations it is assumed that all the Money Market funds and bank accounts had a constant value of deposited dollars throughout the period, and equal to the currently recorded balances. In calculation of the value of bonds portfolio, you are given an option to correct the value of bonds not bought at par (ie. 100) for a change in their value with time. If this option is selected the actual price paid is corrected by a factor ;

$$corr.price = price\ paid - N1/N2 * (100 - price\ paid)$$

where N1 is the number of days the bond was owned and N2 is the number of days from the day of purchase to maturity.

"Summary of investments" gives a summary of all your investments in the mutual funds (subdivided into: stock funds, bond funds and money market funds), as well as your bond,   stocks, and bank accounts . The summary will be presented both as the dollar value and percentage of total capital. The total value of dividends per year from the bonds and average yield is also given, as well as the amount of dividends due before the end of the current calendar year. You may select an option "Correct bond values for the REMAINING time to maturity" - this option, when exercised, will give a rough correction to the bond values as a result of shortening their time to maturity while they are held in the portfolio.

The program will also calculate the total capital gains in the Stock and Bond Mutual Funds since the beginning of the current year. (NOTE: You are advised to price ALL the mutual funds on January 1st, as the program searches for the prices dated nearest to that date and uses them for the calculation of   the total value of bond and stock funds at the beginning of the current year.) Starting in April of each year, the program will also calculate the projected (estimated) values for the annual income - assuming that it will continue to grow at the same rate.

An additional routine "Budget" is provided to assist in recording annually the projected versus achieved investment goals. This routine requires that it be entered just before January 1 of each year to record (automatically the present value of the portfolio), and just after January 1st to record the starting value of the portfolio and the new goals.

CAPITAL GAINS CALCULATIONS

IRS Schedule D (capital gains) requires a report of "purchase date and cost/base" and "sales date and gross sale price". Frequently your sale lots may differ in the number of shares from the purchase lots. Three different reporting methods are approved by IRS:

1. First In, First Out (FIFO) method
2. Specific identification method
3. Category averaging method

This part of the program will provide the required information for all three method. However you are advised to consult the IRS regulations on use of these techniques.

(a)   A common method for reporting such sales is known as FIFO (ie. "First in, first out"). The program does these calculations for you and you can obtain the report by selecting "Sales log" from the selection screen. The "sales log" does not include any Money Market Fund transactions. The program gives you an option either to list ALL the transactions, or only those lots that were sold between a selected "starting date" and "final date".

NOTE: the "Date bought" and "Date sold" are highlighted for all "long term sales" (ie. when the assets were held for more than 360 days).

You may also delete all the "closed" positions (ie. all lots of shares that have been sold). However you are advised that selection of this option may introduce small errors in calculation of gain/loss in all the accounts.

(b)   Specific identification method allows you to identify the particular lot that you are selling and the program will record your selection for future use. After you select the particular security that you wish to sell, the program displays a listing of all the available transactions. The list includes the date of the transaction, number of shares purchased, number of remaining shares and their purchase (base) price. The number of remaining shares represents the number of shares that has not been sold in any of the previously recorded transactions.

(c)   Category averaging method permits you to use as the basis the average price of all identical securities that were bought at different times. The program will calculate these averages for you. You may select either "single category" or "double category". The "double category averaging" method gives the average for securities held for less than one year, and those held for more then one year.

YIELD OF BONDS

A separate routine (available from the initial selection screen) is provided for calculating yield to maturity and duration of bonds. The yield to maturity is calculated by three different methods. The first two:

1. Moody's equation

and   2. S&P equation

have been published by these two, well known companies. However they implicitly assume that the annual premiums are re-invested at the interest rate of the bond. This is not necessarily true. For instance you may purchase a bond having a nominal interest rate of 9%, but be able to reinvest the proceedings at only 4%. In the third calculation there is no such assumption. You select the interest rate that you expect to obtain on invested annual premiums, and the computer calculates what would be the equivalent, annualized, compounded interest rate if the funds were held to bond's maturity.

The Moody's equation   requires a number of iterations and you may find some delay before the results are printed (particularly with slower computers and/or bonds of long time to maturity). The delay time may be controlled by selecting the default (fast), or "more precise" (slower) iteration interval at the opening screen for the procedure.

The duration of bonds is also calculated, since this provides a measure of sensitivity of the bond to interest fluctuations. In the last column, the projected change in the value of the bond is calculated for 1% change in the interest rates prevailing in the marketplace.

COMMUNICATION WITH MUTUAL FUNDS

To initiate communications you must select "Communication" from the main menu bar. Next select "Dial host computer" from the drop-down menu. This will cause the modem to dial the appropriate telephone number that refers to the current "Account screen". Once the dialing is completed, you may select your next action. To terminate your connection with the host computer, you should select "Hang-up telephone from the drop-down menu.

Once the dialing is completed, a number of selections under the "Account info." (on the main menu bar) become available, you may choose: account balance, last purchase, last sale, share price, exchange between accounts, transfer from bank and "next instruction" . If you select account balance or share price, you must follow your selection by clicking the mouse over the ACCOUNT DESCRIPTION for the account about which you are enquiring. The host computer will respond vocally (listen to it on the telephone receiver) soon after the dialing is completed.

You may now update the records (eg. new price, or change in the number of shares) by pointing and clicking the mouse on the appropriate number in the "Account screen" tabulation. This will initiate an input routine: the selected number will turn red and a dialog box asking for the new value will appear. You may continue these actions repeatedly until you obtain all the desired information for all the funds in a given family.

NOTE: The Benham, Merrill Lynch, and Vanguard families of funds allows you to repeat the actions initiated by either "Account balance" or "Share price", BUT if you wish to switch from one to another, you must first indicate your desire by selecting "Next instruction" on the drop-down menu. This procedure is not required by the other families of funds.

You may change the values of: number of shares, yield and their price. Please note that whenever you change the number of shares, the computer interprets it as a purchase/dividend/sale and will make the appropriate record of the transaction.   In order to record the correct price of shares that were bought/sold, ALWAYS change the price before changing the number of shares!

The updated screen is automatically displayed. Note that the prices and yields of all other funds on the screen that have the same "Fund Number" are also automatically updated. This feature is particularly useful if you have several accounts with the same Fund (eg, regular and IRA ones). You will also find the date of the last record change in the upper, right corner of the screen.Each time you change the price of the share - the new price and the date of change will be recorded in the file HISTORY.DAT, which is subsequently used for plotting that data.

ACCOUNT BALANCE

The account balance and the current value can be obtained by the method described above. Once you go through that procedure, you can also obtain additional information for that particular account by selecting: last purchase, or last sale from the drop-down menu.

TRANSFER OF SHARES BETWEEN ACCOUNTS

Several families of funds permit the use of this service for exchange of shares between your active accounts and/or setting up of a new account. However, you must use the individual account numbers rather than the "family" ones. For instance in Fidelity group of funds you are not allowed to use numbers starting with letter "T". Unfortunately, the author was unable to obtain the detailed instructions for this procedure for all families of funds at the time of setting up this program.

In order to start this procedure, select "Account info." from the main menu bar, and then select "Exchange between accts" from the drop-down menu.   A dialog box will now appear answer the questions as they appear in the top three lines on the screen. You must await response from the Host computer, when it is so indicated on the screen. At the end of the procedure the Host computer gives you the final choice of either accepting or cancelling the transaction as spelled on the screen and spoken by the Host computer on the telephone.

NOTE: Whenever you are asked to provide "account (rec. no)", respond with the letter (eg. A) corresponding to that fund. If you wish to open a new account, you must provide the Fund No. as specified by the prospectus. After each selection/response press   <ENTER>   key.

TRANSFER OF FUNDS FROM BANK

    In order to use this service, special arrangements must be made with your Fund Manager (as eg setting up of "Money Line" for Fidelity funds). You must use the individual account numbers rather than the "family" ones.

    In order to start this procedure, select "Account info." from the main menu bar, and next choose "Transfer from bank" from the drop-down menu. Answer all the questions as they appear in the Supplementary Window. At the end of the procedure the Host computer gives you the final choice of either accepting or cancelling the transaction as displayed on the screen and spoken by the Host computer on the telephone.

NOTE: Whenever asked to provide "account (rec. no)", respond with the letter (eg. A) corresponding to that fund and found in the left-most column of the tabulation.

CUSTOMIZED DIALING ROUTINE

    The user is given an opportunity to design up to five customized dialing routines. In order to do so, select "optional dialing" from the selection screen and you will be given the next choice of: dialing, setup, and correction.

    Select "setup" and follow the instructions on the screen to enter the telephone number and the dialing sequence. You may use numbers in any combination with the following symbols: (-   ) .   In addition, you may use a comma whenever you wish to introduce a pause in dialing. Each comma is equivalent to a pause of 2 seconds. Press <ENTER> when finished.

    You may alter/correct your dialing sequence by choosing "correction" from the menu. You will then be presented with the current sequence and you can type the corrected sequence immediately underneath the old one.   Press   <ENTER> when the corrections are completed.

STOCKS, BONDS, AND BANK ACCOUNTS

   IF you select "Stocks" or " Bonds from the Main Menu, you enter a separate routines. In most respects the screen display and operation resemble the corresponding features of the section dealing with the Mutual Funds. The following differences should be noted however:

1. The dividends and other distributions that are not re-invested, are not included in the gain/loss calculations.
2. A deletion of any share record from the Account Screen, may also delete all related transactions from the Transaction Log, if you so select.
3. An additional screen of data "Bond calculations and Payment dates" can be reached by selecting "View" from main menu bar, followed by "Gain/loss screen" from the drop-down menu.. The following additional information is provided on this screen:
   a. Actual yield to maturity of the bond, calculated using S&P formula using two basis: "orig" - assuming that the bond was purchased on date shown, "today" - assuming that the bond was purchased today. The second alternative is useful in evaluating the change in the bond's yield as its market value changes.
   b. Payment dates and the amount paid.   For your convenience, any payments that are due within the next 30 days, and 10 days after the pay date, are highlighted.
4. In the section devoted to bank accounts ("Banks"), it is suggested that you use following descriptive titles:
    CD   -   Certificates of Deposit
    MM   -   Money Market accounts
    SAV -   Saving accounts
    REG - Other checking accounts

BankExpert PROGRAM

    A complementary program, BankExpert, is available for "home financing" ie. maintenance of checking accounts, printing checks, obtaining balances. If you are using it for maintaining your current bank accounts, you may transfer balances in the selected bank accounts to this program by selecting "Data from BankExpert" (under "Tools" menu). They will appear, here, on the "Banks" screen. Simply make the appropriate menu selections.

DELETE TRANSACTIONS' LOG DATA

This routine allows to delete:
    (a) all records,
    (b) all transactions in Money Market funds and "dividends" (prior to specified date),

If the dividend payments are combined prior to a selected date, that date is automatically recorded on the "Gain/Loss" screen and all future calculations of gain/loss will start from that date. It is recommended that the option (b) should be enacted once a year, as close as possible to the Jan. 1.

    These techniques are useful for reducing the size of the SHARE.LOG file, which is limited to 600 records.

CANCEL LAST SHARE TRANSACTION

This routine permits to cancel the last transaction that involved a change in the total number of shares, ie. sale, purchase or dividend.

PRINTING

   If you desire to print any of the screens as it is displayed, select "Printer" and choose "Turn printer on". Next go back to the desired screen, it will be printed as it appears in the window. The printing option will remain active until you return to the "Printer" selection and choose "Turn printer off".

DOWNLOADING QUOTATIONS FROM CompuServe

NOTE: You can download ONLY the price quotations for the securities already listed in one of the existing accounts (mutual funds, or stocks) and displayed on the appropriate "account screen". The stock symbol of such securities MUST be identical to the symbol used by CompuServe(R) . In order to download the quotations from CompuServe(R)   select "Quotes" from the main menu bar.

   Select from "Investments" - "New listing" . This will list all your mutual funds and stocks. Next you may "Correct existing listing" to remove not needed items and check that all listed securities have a valid symbol. If some symbols are incorrect, or missing, select "Change securities' symbols" from the "Quotes" menu.
   If the listing is satisfactory, select "Download quotes". This will initiate the communication module. Select "Dial CompuServe(R) from the "Communication" menu. The program will now dial CompuServe(R) and obtain quotes for all the investments listed. Press   <ENTER>   when requested to do so. This will terminate the module and return you to the Main Program which will automatically update prices of all the securities that you listed previously.

DEMO. DATA

In the Shareware (unregistered) version of the program you are given an opportunity to use demo. data to familiarize yourself with the program. To use this option, select "Use of demo. data" from the "Utilities" menu, and next proceed to the "Main menu" to select desired accounts. A small note will appear in the upper, left corner to indicate that demo. data is being used.

PLOTTING MODULE

The "Plotting module" is a separate module accessed from the "Utility" menu: select "Plotting".

All changes in prices of mutual funds, shares, and bonds are automatically recorded in the file HISTORY.DAT . You may plot this data by entering the "Plotting module" and selecting the particular group of data by answering a few questions on the display screen. The data is plotted as price (on the Y-axis) versus the number of days (on the X-axis) since the first entry.

If a share distribution has occurred (as capital gains, or stock split) you may correct all the previous (recorded) quotations by selecting the routine from the menu and entering the fractional (decimal fraction) number of shares that have been distributed per one share owned. You should perform this procedure only once for each share distribution, since all the records are permanently corrected.

A list of the historical data may also be recorded to widen the period covered by the plot, however only the securities listed in any one of the accounts (and displayed on the "account screen") can be entered.

As an additional feature in this program you may add a plot of a "moving average" to aid in your investment decisions. A "moving average" is a plot of an average taken over the previous n weeks, where you can select the value of n, versus the number of days and it tends to eliminate any minor variations in prices. For a longer term predictions it is preferred to use a 30-week average, but that can only be done with a data base stretching for at least 1 year. If you select 1 week, the plot will almost coincide with the actual data points. A good compromise is to take an intermediate value of 10 weeks.

NOTE: For successful creation of a plot of "moving averages" it is necessary to record the price variations at constant time intervals: daily, or weekly. For an average investor it is suggested that weekly routine is satisfactory.

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YIELD OF BONDS

A separate routine (available from the initial selection screen) is provided for calculating yield to maturity and duration of bonds. The yield to maturity is calculated by three different methods. The first two:

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