

Dow Jones

Software for
Investment

Dow Jones

**Dow Jones
Investor's Workshop™**

officially. The final must begin with a letter and be 200 words or
less.

When preparing the test name, you will have 5 or 6 minutes to use the names
already in use. If you choose a name, the instructions are usually
given right when you start the test. If you choose a name, you will
be told whether it is. The question is: what name will you use?

Reading a test

When you read the test, you will have 5 or 6 minutes to read the test.
The test is given to you in a room where you will be sitting.

Reading the test, the test

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IMPORTANT: THE ATTACHED INSTRUCTIONS ARE CORRECTIONS TO THE MANUAL.

PLEASE NOTE: THIS PROGRAM ASSUMES A 6-MONTH LONG TERM CAPITAL GAIN
HOLDING PERIOD FOR SECURITIES PURCHASED AFTER JUNE 22, 1984.

I-Access DJN/R

Type I to go online to Dow Jones. When prompted, insert your Text Disk into the drive. Select the network and log on as you did in the Sample Session.

Once you are successfully online, you'll receive the Dow Jones News/Retrieval copyright notice and the prompt Enter query at the bottom of the screen. Displayed in the lower left corner is a note indicating how full the current text is. You may save the current text to disk or throw it away by flushing it from the memory at any time the prompt Enter query is on the screen. Refer to the instructions below. The Fact Finder and Fact Finder Supplement will provide instructions on using News/Retrieval.

There are also online ways to become familiar with the service. For example, type //MENU and press the RETURN key for a list of current databases and instructions on accessing them; or //INTRO for important database announcements.

Paging through a text while online

Type CTRL P when you see the prompt Enter query. The text that you've collected can be paged through by pressing the arrow keys or scrolled a line at a time by pressing the space bar. To quit the paging mode and to enter another query, press the ESC key.

Saving a text

Type CTRL A when you see the prompt Enter query. Then type S. Next you assign a text name for the data you're going to collect and save in EZ Terminal. (You will need to remember this name later when you want to view or print the data offline.) The text name must begin with a letter and cannot exceed 10 characters.

When prompted for the text name, you can type ? or CATALOG to see the names already in use. CAUTION: If you re-use a name, the information previously saved under that name will be replaced. After the text is saved, you can collect another text. The maximum number of text names per disk is 20.

Flushing a text

Type CTRL A when you see the prompt Enter query. Then type F. This process removes the current text from memory so that you may collect another text.

Disconnecting from Dow Jones

Type CTRL A when you see the prompt Enter query. Then type D to log off from Dow Jones and return to the main menu.

LINE CORRECTION TO PAGE D-1

The last line of the Charting Section should read:

To chart stocks on an RTR Data Disk with Investor's Workshop, the RTR Data Disk must never have held more than 25 stock histories and it must be configured for exactly 256 days.

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Dow Jones

**Dow Jones
Investor's Workshop™**

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and Dow Jones & Co., Inc.

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Table of Contents

How to Use This Manual

i-1

Introduction

1-1

Dow Jones News/Retrieval 1-1
Information Waiting for You 1-2
Who Should Use Investor's Workshop? 1-5
Documentation Updates 1-5
Your Investor's Workshop Package 1-6

Getting Started

2-1

Required Equipment and Its Setup 2-1
Obtaining Your Password 2-1
Your Investor's Workshop Disks 2-2
Making Choices 2-2
Setting Up 2-3

Sample Session

3-1

The Program in Depth

4-1

Portfolio Manager 4-1
Charting 4-5
Utilities 4-8
EZ Terminal 4-9

Table of Contents

Appendices

Appendix A	A-1
Appendix B	B-1
Appendix C	C-1
Appendix D	D-1
Appendix E	E-1
Appendix F	F-1

Glossary

G-1

Calendar of Trading Days

Index

How to Use This Manual

i-1

This manual is designed to help you obtain maximum benefit from your new program as quickly as possible. It is organized into the following key sections.

Introduction

Describes the program's features, Dow Jones News/Retrieval®, and the Investor's Workshop user. Also reviews the items included with your package.

Getting Started

Please read this section carefully! It contains important information about the equipment, setup, and disks required by the program. It also tells you how to get a password for Dow Jones News/Retrieval.

Sample Session

Takes you through several of the program's major capabilities with step-by-step instructions.

The Program in Depth

Gives detailed information on everything you can do with Investor's Workshop. Explains how to enter portfolio transactions; update your securities; collect data for charting; construct bar charts, moving averages, and trendlines; customize reports; and access any Dow Jones database.

Appendices

Tells you how to interpret reports and charts, handle short sales, and use the Dow Jones Market Analyzer in conjunction with this program. Lists error messages with ways to recover.

Documentation Updates

Keeps you aware of new information regarding Investor's Workshop.

Welcome to Dow Jones Investor's Workshop, an efficient tool for monitoring your stock and bond portfolios. Here's what you can do.

- Update a portfolio automatically from Dow Jones News/Retrieval, or manually from the keyboard
- Generate reports of profits and losses
- Access all Dow Jones data bases for current news and information on the securities you follow
- Chart your stocks with data collected from Dow Jones
- Analyze your charts using moving averages and trendlines

Investor's Workshop eases the task of portfolio management. You enter your current open transactions and then, each time you make a trade, add this information to the list. The program keeps track of gains and losses. Whenever you want to see the current value of the issues in your portfolio, you can easily access Dow Jones News/Retrieval and update them.

The program also helps you with your investment decisions. For example, knowing that a stock has appreciated in price, you may ask if it is time to sell and take your profit. This is a difficult decision to make, requiring more information.

With Investor's Workshop, you can call up Dow Jones News/Retrieval and obtain recent stories on the stock. Information on current earnings as well as earnings estimates is available, and much more.

You can also access the Dow Jones Historical Quotes database and collect up to one year of daily volume, high, low, and close data. You can then chart this data in a standard bar chart. An introductory discussion of bar charting and the use of moving averages and trendlines is found in Appendix B.

Dow Jones News/Retrieval

With the program's EZ Terminal, you can take advantage of all the databases available from Dow Jones News/Retrieval, the nation's leading interactive information service.

Whether you want exclusive news from The Wall Street Journal or the latest sports statistics, information from News/Retrieval is available 7 days a week, 22 hours a day.

Dow Jones News/Retrieval is a quick, easy-to-use service—a vital and productive tool in your daily business decisions. You can manage your information to become more efficient, without wasting valuable time.

Here's How It Works

Using your Apple, a telephone, and a modem, you request information from Dow Jones News/Retrieval.

Dow Jones brings you the latest news from its central data bank over telephone lines. It's a convenient service that helps you manage your business and investments better and provides in-depth information on demand.

Information Waiting for You**Dow Jones Business and Economic News****Dow Jones News**

Stories from The Wall Street Journal, Barron's, and the Dow Jones News Service.

The Wall Street Journal Highlights Online™

Major news headlines and summaries from The Wall Street Journal.

Free Text Search of Dow Jones News

A powerful tool to search by key words over 250,000 articles in the Dow Jones News database, dating back to 1979.

Weekly Economic Update™

A review of the week's top economic events and a glimpse of the month ahead.

Financial and Investment Services**Corporate Earnings Estimator™**

Consensus earnings-per-share forecasts by analysts at over 60 major brokerage firms.

DISCLOSURE II™

Business and financial information from Securities and Exchange Commission filings.

Media General Financial Services

Detailed corporate financial data on 3,150 companies and 170 industries.

Weekly Economic Survey™

Weekly forecasts of the money supply and other critical indicators by economists and money market dealers.

Forbes® Directory

Rankings and summary financial data of all the companies in the Forbes 500's.

Official Airline Guide

Schedules for 650 airlines worldwide, including both major carriers and regional lines, as well as fare information for all flights in North America.

Japan Economic Daily

Same-day coverage of major business, economic, and political news from Japan, along with a comprehensive daily wrap-up of activity in Japan's financial market.

Merrill Lynch Research Service

Highlights of reports prepared by the Securities Research Division of Merrill Lynch, Pierce, Fenner & Smith, Inc.

Dow Jones Quotes™**Current Quotes**

Common and preferred stocks and warrants, bonds, mutual funds, U.S. Treasury issues, options (minimum 15-minute delay during market hours).

Historical Quotes

Daily volume, high, low, and close on common and preferred stocks and warrants (now covers a full year).

Historical Dow Jones Averages™

Available for industrials, transportation, utilities, and 65 stock composites.

General News and Information Services

Master Menu

A complete online listing of the information contained in the News/Retrieval service.

Academic American Encyclopedia

Edited for electronic distribution with more than 30,000 articles.

News/Retrieval World Report

Front-page world and national news updated throughout the day.

Wall Street Week Online™

Verbatim transcripts from the four most recent Wall Street Week PBS-TV shows.

News/Retrieval Sports Report™

Statistics, scores, and standings for enthusiasts.

News/Retrieval Weather Report™

Two-day weather forecasts for more than 90 domestic and foreign cities.

Cineman Movie Reviews

New and current releases, as well as thousands of movies dating back to the 1930's; coming attractions; and interest ratings on over 50 movies weekly.

Comp-U-Store™

Electronic shopping service offering more than 50,000 brand-name products.

News/Retrieval Symbols Directory™

An online listing of over 15,000 corporate stock and bond issues, Treasury issues, foreign bonds, stock options, and mutual funds.

Words of Wall Street

Definitions of over 2,000 business and financial terms used by professional investors.

MCI Mail

A mail service for sending printed or electronic letters, memos, reports, and other written communications to anyone...anywhere.

Dow Jones News/Retrieval frequently expands its service. You can learn about new databases and current online rates by typing **//INTRO** and pressing the **RETURN** key when you enter EZ Terminal. This special database reports the latest developments from the News/Retrieval service. Another special database, **MASTER MENU** (**//MENU**), provides online access instructions for all data bases, new and old.

Who Should Use Investor's Workshop?

If you follow the stock market and want an efficient way to manage your portfolio and to chart the performance of your securities, then this program is for you. You can update and evaluate your securities daily, without spending a lot of time. You'll have more freedom to research your buy and sell decisions.

The authors welcome all comments and suggestions concerning this package. Please send them to:

Dow Jones & Co., Inc.
Dow Jones Software Publishing
P.O. Box 300
Princeton, NJ 08540

Documentation Updates

Important—Please Note: To keep pace with the rapid changes in the computer industry, this manual contains a section called Updates, where new information, revisions, and important tips are contained. Checking the Updates section at the end of the manual will ensure that you obtain maximum benefit from your Investor's Workshop.

Your Investor's Workshop Package

Included in this package are:

- Investor's Workshop manual
- Investor's Workshop System Master Disk
- User agreement entitling you to a password for Dow Jones News/Retrieval
- Registration card with 60-day warranty
- One hour of unrestricted use of Dow Jones News/Retrieval

Please fill out the registration card. Be sure to indicate your account number, which you will get when you call Dow Jones for your password. (If you already have a password, you can find your account number on an invoice.) Mail this postage-paid card so that you can be informed of revisions and other information vital to keeping your Dow Jones Investor's Workshop a useful tool.

Required Equipment and Its Setup

- Apple IIc
- One disk drive (second drive optional)
- Apple Modem 300/1200, Hayes Smartmodem 300 or 1200, or acoustic modem connected to port 2
- Printer connected to port 1

Note: You must have an Apple Imagewriter to print charts.

OR

- 48K Apple II Plus or 64K Apple IIe
- One Disk II Drive (second drive optional) connected to slot 6
- Apple Modem 300/1200, Hayes Smartmodem 300 or 1200, or acoustic modem
- Super Serial Card for the modem in slot 2
- Printer connected to slot 1

Note: To print charts, you must have either (a) an Apple Imagewriter with Super Serial Card, or (b) an Intelligent Interface and compatible printer.

The section Setting Up contains additional information about the hardware configuration.

You'll also need three blank single-sided, double density disks.

Software

Apple DOS 3.3

Obtaining Your Password

Before using Investor's Workshop, contact Dow Jones & Co., Inc. to obtain a password for Dow Jones News/Retrieval. A toll-free customer service number (800-257-5114) is available for this purpose. (In New Jersey, Alaska, Canada, or Hawaii, call 609-452-1511.) If you already have a Dow Jones password, you will not need a new one. However, call the Customer Service Hotline to register for your free hour and to learn of any special information regarding this program.

After you receive your password, fill in all requested items on the contract, including your account number. Then sign it and return it to Dow Jones.

Phone numbers for access to Dow Jones News/Retrieval, symbols, and detailed instructions on using the service can be found in your *Dow Jones News/Retrieval Fact Finder* and *Fact Finder Supplement*, which will be sent to you after you receive your password.

Your Investor's Workshop Disks

The Investor's Workshop System Master Disk enclosed with your package is permanently write-protected (no notch). Make a copy of this disk using the copy program on your Apple DOS 3.3 System Master Disk. Then store the original Investor's Workshop System Master Disk in a safe place. Use your copy to run Investor's Workshop. We will refer to the copy as the Program Disk.

You will also need two initialized disks labeled Portfolio Disk and Text Disk. Your Apple owner's manual contains instructions for initializing disks.

Making Choices

When running Investor's Workshop, you make choices to indicate what you want to do. For ease of selection, the program displays the options available to you.

When a list of choices is displayed, one of them is highlighted. Pressing the **RETURN** key is your way of saying that the highlighted choice is the one you want. The **up**, **down**, **left**, and **right arrow** keys, as well as the **space** bar, are used to highlight other choices. If your Apple does not have up and down arrow keys, use **CTRL J** and **CTRL K**.

Sometimes you will see a cursor prompting you for a response. In this case, you can either press the **RETURN** key to accept the existing entry (the default), or indicate another choice.

The **ESC** key allows you to stop a procedure and return to a previous menu.

Note: We do not always tell you to press the **RETURN** key after making a selection, even when required. We will, however, remind you from time to time.

Setting Up

Step One

With the Investor's Workshop Program Disk in drive 1, start your system as you normally do. The **main menu** appears with selection **A** highlighted.

Step Two

Highlight selection **G, Setup**, by pressing the **space** bar several times, or by typing **G**. Then press the **RETURN** key. A list of setup parameters will be displayed.

Number of drives (1 or 2).....	2
Printer (Y or N).....	Y
Modem type (A,K,P, or N).....	A
Baud rate 1200/300 (1 or 3).....	300
Password	

Where required, this list must be corrected to reflect your system. It also allows you to store your Dow Jones News/Retrieval password on the Program Disk.

Step Three

At the prompt **Any corrections?** press the **RETURN** key for **YES**. The cursor will move to the current number of drives setting.

Step Four

Press the **RETURN** key to accept the value 2 if you have two disk drives, or type the alternate choice, 1. Now set the remaining parameters in the same way.

Step Five

If you indicate that you have a printer, you'll be **prompted** for additional information. Apple IIc users have two choices:

- (1) Imagewriter, which is required to print charts, or
- (2) Other type

Apple II Plus and Apple IIe users have three choices. To print charts, (1) or (2) below is required.

- (1) Imagewriter with Super Serial Card
- (2) Intelligent Interface with compatible graphics printer that is activated by an ASCII command sequence (for example, CTRL I G RETURN)
- (3) Other type

Note that your selection is not shown on the screen.

Step Six

Select the modem type from the four choices displayed. If you have an Apple Modem 300/1200 or a Hayes Smartmodem 300 or 1200, choose **A**. These are the only modems that can be dialed automatically by the program.

Type **K** if you have an auto-dial modem (other than the Apple Modem 300/1200 or the Hayes Smartmodem 300 or 1200) that has to be dialed from the keyboard. Whenever you log on to Dow Jones News/Retrieval, you will be **prompted** to select Echo On or Echo Off. If your modem is set for full-duplex operation, you should select Echo Off; otherwise, each keystroke you send to the modem will be displayed on the screen twice. If your modem is set for half-duplex operation, choose Echo On to display each keystroke, or Echo Off for no display.

Type **P** if you must physically (or manually) dial the phone number yourself.

Step Seven

The baud rate is the speed at which your modem operates. If you don't have a modem, just press the **RETURN** key at this entry. Otherwise, select 1200 or 300 baud.

Step Eight

When you get to Password, you have two options. First, you can type the **password** you received from Dow Jones News/Retrieval; it will then be stored on the Program Disk and automatically sent to Dow Jones whenever you log on.

Note that you can delete a password by positioning the **cursor** over the first character, typing **D**, and pressing the **RETURN** key.

Second, you can choose not to store your password by pressing the **RETURN** key. In this case, you will type your password each time you log on to Dow Jones.

Step Nine

When all the parameters are correct, press the **right arrow** key to select **NO**, followed by the **RETURN** key. Then press the **RETURN** key again to save the changes.

Step Ten

Next, a phone number screen will be displayed. Here you enter the **telephone numbers** you'll use to access Dow Jones News/Retrieval.

Special communications networks called packet switchers route your call to Dow Jones. Current packet switchers include Tymnet, Telenet, UNINET, and Datapac (alternate).

If you choose to log on through Tymnet, Telenet, or UNINET, the program automatically handles the required steps for you. Datapac and future networks are called "alternate" because the log-on steps are not automatic; you handle them yourself, following the specific network instructions. These instructions are supplied by Dow Jones Customer Service or the network.

For now, use the current screen to store telephone numbers for the chosen network or networks. Phone numbers are listed in your *Fact Finder* and *Fact Finder Supplement* (UNINET numbers are available from Dow Jones Customer Service).

If you selected A for modem type in setup, the program is going to dial the number for you, and it's very important that you enter the correct dialing sequence.

For example, if you have an Apple Modem 300/1200 or a Hayes Smartmodem 300 or 1200, you may need to type **9,4521018** to indicate the access number for an outside line (9), a pause (,), and then the number itself (4521018).

Select **YES** to enter or change a number, and press the **RETURN** key to move down the list. You can enter up to three numbers for each network. When a network is accessed automatically, the program tries the first number listed. If unsuccessful, it dials the next number, and so on.

Step Eleven

When the numbers are correct, select **NO**. Then select **YES** to save them.

Your Program Disk is now set up correctly. Unless one of your setup parameters changes, you will not need to record information on the Program Disk again. For this reason, we recommend that you write-protect the disk.

You're now ready for the Sample Session in the next chapter. It will show you how easy it is to enter transactions, generate reports, and chart stocks with Investor's Workshop.

The Sample Session gives you a quick look at the major features of Investor's Workshop. Before you begin, make sure you have read the section Getting Started. You must have a Program Disk (a copy of the System Master Disk) that has been set up correctly, and an initialized disk labeled Portfolio Disk.

If you have one disk drive, you will need to switch disks at various places throughout the Sample Session. Messages on the screen will remind you to switch disks as required.

In the Sample Session, you will:

- Enter two stock transactions in a portfolio
- Update your portfolio by obtaining quotes from Dow Jones News/Retrieval
- Display a report on your portfolio
- Obtain historical data (last 48 days) from Dow Jones News/Retrieval for the two stocks
- Chart the historical data

Step One

From the Investor's Workshop **main menu**, type **B** for **New Transaction** and press the **RETURN** key.

Step Two

When **prompted**, insert your Portfolio Disk into the drive and press the **RETURN** key. The program recognizes that the disk is not configured as required. At the prompt **Use it for one?** just press the **RETURN** key to indicate **YES**. Note the **warning** on the screen, and then press the **space** bar.

Step Three

The first transaction you'll record is a 100-share purchase of DJ. You bought the stock on February 1, 1983, at \$35.00 per share, with brokerage fees of \$90.00. You'll designate a low price target of \$30.00, a high price target of \$50.00, and an annual dividend of \$0.60 per share. On a report, the program will alert you if the current price falls below the low target or moves above the high target. The low target, for example, could be the level at which you would consider selling to minimize your loss, and the high target could be your short-term price objective.

Respond to the prompts as follows:

Prompt	Type
Symbol	DJ
Type	S
Buy/Sell	B
# of shares	100
Date	2/1/83
Total cost	3590
Low price	30
High price	50
Fees	90
Dividend	.60
Exp. date	Press the RETURN key
ID	Press the RETURN key

Step Four

Now double-check your entries. If you've made a typing error, press the **RETURN** key for **YES** at the question **Is there a correction?** Then type the correct **information** as required. Otherwise, press the **right arrow** key to select **NO**, followed by the **RETURN** key.

Step Five

You're now ready to enter your second transaction. At the question **Enter another?** press the **RETURN** key for **YES**. Respond to the **prompts** as follows:

Prompt	Type
Symbol	GD
Type	S
Buy/sell	B
# of shares	300
Date	1/20/83
Total cost	10750
Low price	33
High price	50
Fees	250
Dividend	1.00
Exp. date	Press the RETURN key
ID	Press the RETURN key

Step Six

Check and correct your entries as required. Then at the prompt **Is there a correction?** press the **right arrow** key for **NO**, followed by the **RETURN** key. When asked if you want to enter another transaction, select **NO** and press the **RETURN** key. Then press the **RETURN** key to save the information. The two transactions will be recorded on your Portfolio Disk.

Step Seven

You're now ready to access Dow Jones News/Retrieval to obtain quotes for DJ and GD. Make sure that your modem is properly connected and turned on. Type **M** for **Quotes from DJN/R** from the **main menu** and press the **RETURN** key. Now type the **date** of the last trading day (for example, 3/20/84) and press the **RETURN** key. If today is a trading day, you may type **today's date**.

Step Eight

Indicate the **network** you wish to use by highlighting it and pressing the **RETURN** key. If you didn't store your Dow Jones News/Retrieval password on the Program Disk, type the **password** now, as **prompted**. Follow the **instructions** on the screen to log on. If you selected A for modem type in setup, the program will automatically dial the number for you. Otherwise, follow the **prompts** on the screen to dial the number as required.

Step Nine

The program will retrieve the quotes for DJ and GD, save them on your Portfolio Disk, update the portfolio, and then return to the **main menu**.

Step Ten

To evaluate your portfolio, type **A** for **Portfolio Report** and press the **RETURN** key. At the **report format** screen, just press the **RETURN** key for **NO** in response to **Any changes?** When **prompted** for the title, type **SAMPLE** and press the **RETURN** key. Then press the **RETURN** key to accept the default date.

Step Eleven

Your report will now be displayed. It shows the current price per share, obtained from Dow Jones News/Retrieval (CURRENT \$); the profit (PROFIT); and the percent gain or loss (%). The purchase price (PURCHASE \$) is based on the total cost, which includes brokerage fees.

Step Twelve

Press the **RETURN** key for the report summary. To return to the main menu, press the **RETURN** key, then the **ESC** key.

Step Thirteen

Next you'll retrieve historical data for the two stocks so that you can chart their day-to-day price action. First type **P** for **Charts from DJN/R** and press the **RETURN** key. Since this is the first time you've ever charted DJ or GD, you need to record the two symbols on the Portfolio Disk. Press the **RETURN** key to indicate **NEW** stock. At the **prompt** for the symbol, type **DJ** and press the **RETURN** key. Press the **RETURN** key to accept the default value **STOCK**. Now press the **RETURN** key again for **NEW**. Type **GD** and press the **RETURN** key; press the **RETURN** key for **STOCK**. Note that the Portfolio Disk is now ready to store DJ and GD data to be used in charting.

Step Fourteen

Press the **right arrow** key and **RETURN** to select **LOG ON**. Press the **right arrow** key and **RETURN** to indicate that you want to retrieve the same amount of data (number of pages) for both symbols. At the next **prompt**, type **4** and press the **RETURN** key to retrieve 4 pages (48 days) of data.

Step Fifteen

Indicate the telephone network, and log on as before. The program will retrieve the historical data from Dow Jones and store it on your Portfolio Disk. It will then display information about the retrieval if there was a problem. If you see any notes, read them carefully; you may want to repeat the retrieval process so that you can continue with this Sample Session.

Step Sixteen

To chart the data collected, type **E** for **Chart Stock** from the **main menu** and press the **RETURN** key. Select **DJ** from the list of two stocks by pressing the **RETURN** key. Press the **RETURN** key again to chart all 48 days of data.

Step Seventeen

From the options below the chart, type **A** for **AVERAGE** and press the **RETURN** key. Press the **RETURN** key to construct a 12-day moving average of the closing prices.

Step Eighteen

Now type **D** for **DISPLAY**, followed by the **RETURN** key. Dotted lines on the chart correspond to the per-share cost of your DJ purchase and the low and high price targets, provided they fit within the price range charted.

Step Nineteen

Press any **key** for the previous screen. Then select **QUIT** to return to the **main menu**.

Step Twenty

This completes the instructions for the Sample Session. The next steps tell you how to delete the Sample Session data so that you can start your own tasks with a clean Portfolio Disk.

Step Twenty-one

Type **D** for **Edit Transaction** and press the **RETURN** key. When the list of transactions appears, press the **RETURN** key, type **B**, and press the **RETURN** key again. Both transactions will now be preceded by an asterisk (*).

Step Twenty-two

Type **X** to display the first transaction. Type **D** for **Delete** and press the **RETURN** key for **YES**. Type **Y** at the question **Are you sure?** Now go through the same procedure to delete the other symbol.

Step Twenty-three

When asked **Review the list?** select **NO** and press the **RETURN** key. Then press the **RETURN** key again to save the information. The transactions will then be deleted from your Portfolio Disk.

Step Twenty-four

Now type **F** for **Delete Stock** from the **main menu** and press the **RETURN** key. First select **QUOTE LIST** by pressing the **RETURN** key. Press the **RETURN** key again to select the first symbol; press the **RETURN** key one more time for the second symbol. Both symbols will be preceded by an asterisk. Type **X** to delete them.

Step Twenty-five

Repeat step 24, this time selecting **CHART LIST**.

Portfolio Manager

You'll choose **main menu** items **A-D** to enter and maintain your security transactions and to get reports.

All transactions are recorded in a master list. You may assign an ID to each transaction to identify its account or portfolio.

Important—Please Note: In this part of the program, you must have an initialized Portfolio Disk (see the section Your Investor's Workshop Disks in Getting Started). If you have never before used the Portfolio Disk to store data, the program will recognize that it is not configured as required. It will then configure the disk to hold up to 80 transactions (portfolio entries), and data for charting up to 25 stocks, for a total of not more than 80 security symbols in all. Just follow the prompts on the screen to configure the disk. You can also refer to step 2 in the Sample Session.

A — Portfolio Report

Make this selection to get reports on all or some of your transactions. The specific information included in the report will depend on the report format selected.

Report format:

Transactions — OPEN CLOSED ALL
ID restriction — NO YES
Equity type restriction — NO YES
Ticker restriction — NO YES
Output to — VIDEO DISPLAY PRINTER

The current format selections are highlighted. If no change is required, press the **RETURN** key. Then enter a **title** for the report, and the **date**. The title can consist of up to 25 characters. The date must be typed in numerical form, for example, 2/15/84. The default is the date on which you last entered quotes (automatically or manually).

The program will then display a list of all your open transactions. If the report is more than one page, press the **RETURN** key for the next page. After the last page, press the **RETURN** key for a summary.

To change the report format, select **YES** at the prompt **Any changes?** Then make the desired selections. For example, to get a report on a specific account, select **YES** for ID restriction. Then type the **character** that identifies the account.

In the same way, transactions can be restricted to closed or all; equity type can be restricted to stocks, options, mutual funds, bonds, Treasury bills, averages, and miscellaneous; and the ticker can be restricted to a specific security symbol.

See Appendix A for a sample report and an explanation of the report entries.

B — New Transaction

Make this selection to enter a new transaction, for example, when you buy a stock or sell a stock short. Also use it to make entries in the miscellaneous category, which allows you to record non-security assets (or securities not listed by Dow Jones News/Retrieval).

When you enter a new transaction, it is designated as open. It remains that way until you close it out using main menu selection **C, Close Transaction**.

When entering a new transaction, you are asked for the information that follows.

Note: You can display your options for any entry by typing **?**. For example, if you type **?** when asked for **Type**, the seven choices are shown at the bottom of the screen.

You can correct a previous entry by pressing the **up arrow** key and reentering the information. After making the correction, press the **RETURN** key to continue where you left off. Do not use the down arrow key in this correction procedure.

When prompted for

Type

Symbol

The security **symbol** listed by Dow Jones News/Retrieval, for example, AAPL for Apple Computer, Inc. Symbols can be found in your *Fact Finder* and the online Symbols Directory.

Type

- 1** for stock
- 2** for option
- 3** for mutual fund
- 4** for bond
- 5** for Treasury bill
- 6** for average
- 7** for miscellaneous

Note that you can also enter the first letter of the item (for example, S for stock), except for miscellaneous.

Buy/sell

- B** for new purchase
- S** for short sale

of shares
Date

The **number** of shares purchased or sold short
The month, day, and year of the transaction, for example, **1/22/84**

Total cost

Dollar value of the entire transaction; you may include commissions and fees if you wish. This entry cannot exceed \$999,999.99.

Low price

A price target below the current price. On a report, the STATUS column indicates when a security falls below this target. It may, for example, be the level at which you want to sell to minimize your loss. This entry is optional; press the **RETURN** key to skip it.

High price

A price target above the current price. On a report, the STATUS column indicates when a security moves above this target. This entry is optional; press the **RETURN** key to skip it.

Fees

Amount of fees and commissions. The report summary keeps track of total fees paid.

Dividend

The annual per-share dividend currently being reported.

Exp. date

On a report, the YIELD column uses this figure to calculate expected annual yield based on current value. The date when a bond or option expires. On a report, the STATUS column indicates when you are within 30 days of the expiration date. (If this entry is not applicable, just press the **RETURN** key.)

ID

A single character (except ?) that identifies the portfolio or account for a transaction. Use the Account Registration Form in Appendix F to keep track of your IDs.

When all the entries are correct, select **NO** at the prompt **Is there a correction?** You'll then have a chance to enter another transaction if you wish. Remember to save the information when you are finished.

C — Close Transaction

Make this selection to close out all or part of an open transaction, for example, when you sell shares that were bought previously, or when you buy shares to cover a short sale.

All transactions stored on the Portfolio Disk will be displayed. Use the **up** and **down arrow** keys to move through the list, and press the **RETURN** key to select the transaction or transactions you want to close out. These will be preceded by an asterisk. Then type **X**.

Information on the first transaction will be displayed. To close out the transaction, select **YES** at the question **Close this transaction?** The cursor will move to the # of shares entry. Press the **RETURN** key to close out the entire position, or enter the applicable **number** of shares if this is a partial liquidation.

For example, you may sell 100 shares of an original 200-share purchase. The original 200-share purchase will be adjusted to reflect the 100 shares sold, and will be closed out. A new transaction will be entered to reflect the 100 shares you still own, the date they were originally purchased, and their original cost.

The date refers to the date on which the transaction was closed out. Type the **month, day, and year** (for example, 3-22-84).

The total price refers to the total value of the closing transaction, for example, the amount received when an open purchase is sold. In a partial liquidation, this is the total value of the shares being closed out.

The fees refer to the commission and other costs associated with the transaction.

D — Edit Transaction

Make this selection to modify existing information or to delete an entire transaction from the Portfolio Disk.

Use the **up** and **down arrow** keys to move through the list of transactions, and press the **RETURN** key to select the ones you wish to edit or delete. These will be preceded by an asterisk. Then type **X**. The first transaction is displayed, with your options listed at the bottom of the screen.

Do not use the edit feature to close out a transaction; instead, use **main menu** selection C.

It is recommended that you avoid editing closed transactions. However, if this becomes necessary, do so with the following in mind:

- (1) If the closed transaction is to remain closed, you must not reenter the low and high price targets or the expiration date.
- (2) If the closed transaction is to be reopened, you should enter all information except the date and the total cost.

Charting

Choose **main menu** item **E** to use the charting feature of Investor's Workshop. The program will construct a bar chart of selected data previously collected from Dow Jones (main menu selection P) or entered manually (main menu selection R). You can then draw moving averages and trendlines on the chart.

Your Portfolio Disk is used in this part of the program. Remember that this disk must be initialized by Apple DOS 3.3 and configured by the program. See the note at the beginning of the section Portfolio Manager for further information and restrictions.

When you type **E** for **Chart Stock**, the program displays the list of symbols available for charting. From the list, select the one you're interested in. Note that you can chart all the data available for that symbol, or choose fewer days. Just press the **RETURN** key to chart all the data, or type the **number** of days.

Below the bar chart is a list of your options. Use the **arrow** keys to select the one you want, or type the **initial** letter of the option (for example, type A for AVERAGE). After highlighting your choice, you can type **?** for an explanation.

The options are listed below, with a brief description of each one.

Clear	Remove existing moving averages and trendlines from the current bar chart.
Average	Construct a simple moving average of the closing prices for the stock. Press the RETURN key for a 12-day moving average, or type the number you prefer.
Line	Construct a straight line. You must select two points on the screen; the line is drawn through these points. The program will prompt you for the first point and display an x in the top left portion of the screen. Use the arrow keys to move the x to the first point and press the RETURN key. Then repeat the procedure for the second point. You can move the x quickly on the Apple IIc and the Apple IIe by holding down the arrow key; on the Apple II Plus, use the REPT key.
Display	Review the transactions for the stock, one at a time. A dotted line corresponding to the per-share cost is drawn if it falls within the price range charted. For open transactions, the high and low price targets (see the section Portfolio Manager) are also represented by dotted lines if they fall within the price range. If you have several transactions for the stock, press the RETURN key to display the next one, or press the ESC key to return to the previous screen. The dotted lines for the last transaction are retained on the chart.

Time Change

Change the time range of the chart. You must select a start date and an end date for the desired time period. The default start date is determined by the number of days you chose to chart. To select a new start date, press the **right arrow** key to move forward one day at a time, or press the **space** bar to move to the first day of the next month. An x will appear on the chart to mark the date selected. After you've selected that date, press the **RETURN** key.

The default end date is the most recent one available. Press the **RETURN** key to select the default date, or press the **left arrow** key to move backward one day at a time. You can also press the **space** bar to move back to the last day of the preceding month. Once you've selected the new end date, press the **RETURN** key.

Print

Print the chart (see the chapter Getting Started for information on the required printer setup). If you're using an Intelligent Interface, you are **prompted** to enter the command sequence required by the printer.

New Issue

Chart another stock.

Quit

Return to the Investor's Workshop **main menu**.

Utilities

This section describes the three utility options available to you from the **main menu**.

F — Delete Stock

Make this selection to remove a security symbol from one of the two lists stored on your Portfolio Disk.

Quote List

This list contains both your transaction symbols and your chart symbols. It is used by the program to update portfolios and stocks used in charting (by update, we mean get current quotes). Remove a symbol from this list only if you have (a) closed out all transactions for that symbol and (b) do not want to continue updating it for charting purposes.

Chart List

This list contains the symbols and the data used in charting. Removing a symbol from this list does not remove it from the **QUOTE LIST**.

When you type **F**, you are **prompted** to select **QUOTE LIST** or **CHART LIST**. Highlight your choice and press the **RETURN** key. If **prompted**, insert your Portfolio Disk into the drive. The program will display the symbols on the list you selected. Indicate the ones you wish to delete, using the **arrow** keys and the **RETURN** key.

The selected symbols are preceded by an asterisk. Type **X** when you're ready to delete them.

G — Setup

See the section Setting Up in the Getting Started chapter for information on this selection.

H — Change Disk

Make this selection to change Portfolio Disks. If you have several Portfolio Disks, switching to a different one at another place in the program may cause problems and should be avoided.

EZ Terminal

EZ Terminal lets you take advantage of all the databases available from Dow Jones News/Retrieval. You can gather a variety of information and save it to disk for offline viewing and printing. The information you collect and save in EZ Terminal is called *text*.

You will use your Text Disk in this part of the program. See the section Your Investor's Workshop Disks in the Getting Started chapter if you haven't already initialized a disk.

Important—Please Note: Do not use your Portfolio Disk in EZ Terminal. Use only your initialized Text Disk.

I — Access DJN/R

Type **I** to go online to Dow Jones. When **prompted**, insert your Text Disk into the drive. Next you assign a text name for the data you're going to collect and save in EZ Terminal. (You will need to remember this name later when you want to view or print the data.) The text name must begin with a letter and cannot exceed 10 characters.

When **prompted** for the text name, you can type **?** or **CATALOG** to see the names already in use. *Caution:* If you re-use a name, the information previously saved under that name will be replaced.

The maximum number of text names per disk is 20.

Select the network and log on as you did in the Sample Session.

Once you are successfully online, you'll receive the Dow Jones News/Retrieval **copyright notice** and the prompt **Enter query** at the bottom of the screen. Refer to your *Fact Finder* and *Fact Finder Supplement* for instructions on using News/Retrieval.

There are also online ways to become familiar with the service. For example, type **//MENU** and press the **RETURN** key for a list of current databases and instructions on accessing them; or **//INTRO** for important database announcements.

After receiving data in response to a query, you can reformat it if your Apple has an 80-column display. Just type **CTRL P**. (Apple IIc owners: CTRL refers to the control key.)

Saving a Screen

To save the current screen of data to disk, type **CTRL A** when you see the prompt **Enter query**. Then type **S**. After the screen has been saved, you can continue to collect data.

Disconnecting from Dow Jones

Type **CTRL A** when you see the prompt **Enter query**. Then type **D** to log off from Dow Jones and return to the **main menu**.

J — View Text

Make this selection to display data on the screen once you are offline. You must enter the **text name** for the data you wish to view. The program will then display the first page of data saved under this name. Press the **space** bar to scroll through the text one line at a time, or press the **arrow** keys to scroll through the text by page. The **ESC** key returns you to the **main menu** when you are finished.

K — Print Text

Enter the **text name** when **prompted**. All pages of data saved under this name will be printed.

L — Delete Text

Enter the **text name** when **prompted**. All data saved under this name will be deleted from the Text Disk to make room for new data.

With **main menu** selections **M-S**, you can automatically and manually enter data for your portfolio securities and your chart stocks. You'll need your Portfolio Disk in this part of the program.

M — Quotes from DJN/R

Make this selection to automatically update all open portfolio transactions and all chart stocks by obtaining current quotes from Dow Jones. You will be **prompted** for the date of the last trading day. If today is a trading day and you enter today's date, you will get current quotes (the final quotes of the day if the markets have closed). If the markets are not open today, enter the date of the most recent trading day to retrieve that day's closing quotes.

Important—Please Note: If your chart stocks are not up to date (there is data missing), quotes will be collected for the date you specify and the missing quotes will be filled in with the prior close. To correct this, you should collect the quotes for the missing days automatically with **main menu** selection **P**, or enter the quotes manually with **main menu** selection **R**.

Follow the screen instructions to log on to Dow Jones. The data will be retrieved and stored on your quote list, and all open portfolio transactions and chart stocks will be updated.

If communications are interrupted for any reason, you must log on again from the beginning. However, the program remembers where it left off, and you can continue from that point if you'd like.

N — Quotes / Keyboard

Make this selection to manually update your open portfolio transactions. You will be **prompted** for the date of the quotes you're going to enter. The program then displays the quotes that were last stored. Press the **RETURN** key to accept a quote. To change it, type the new **value** in decimal form.

If you prefer the eighths format, be sure to insert a **space** between the whole number and the fraction. For example, type **23 3/4** for 23.75. The program automatically converts all prices to decimal form.

When you are finished, you have the chance to make corrections as required, and then to save the information to disk.

O — Quotes from DJMA

Make this selection to transfer current quotes from a Dow Jones Market Analyzer Temporary Work Disk onto the Investor's Workshop Portfolio Disk. The Temporary Work Disk must have no more than 80 symbols.

When **prompted** for the last trading day, type the **date** associated with the quotes to be transferred. You will be prompted for the Temporary Work Disk, then for the Portfolio Disk.

Appendix D contains additional information for Market Analyzer owners.

P — Charts from DJN/R

Make this selection to automatically fill in missing data for existing chart stocks, or to collect data on a new stock to be charted. The program will display the list of existing chart symbols. You can choose to bring all or some of them up to date, or to collect data on a new one, as explained below.

Note that you cannot bring a chart stock up to date if more than 128 days (approximately 6 months) are missing. Instead, you must delete the stock from the chart list (**main menu** selection **F**), and then collect all the data (**main menu** selection **P** or **R**).

All

Choose ALL to bring every symbol up to date. You may not need the same amount of data for all symbols. The **prompts** allow you to specify the amount of data for each. The data is collected in 12-day pages, so specify enough pages to include all missing days. Then follow the log-on instructions.

Selected

Choose **SELECTED** to specify one or more of the symbols on the screen. Then use the **arrow** keys and the **RETURN** key to make your choices. An asterisk precedes the selected symbols. When all selections are made, type **X**. You'll need to specify the **number** of days of data to collect. Proceed as in **ALL** above.

New

Choose **NEW** to add a stock to be charted. Then specify the **symbol** and the **type**. Note that historical data from Dow Jones is currently available for stocks and Dow Jones averages (industrial, utility, transportation, and 65 stock composites); therefore, you can accept the default type (**S** for **STOCK**), or enter **A** for **AVERAGE**. Select **LOGON** after you've entered all symbols. Now you must specify the **number** of days of data to collect. Respond appropriately to the screen prompts.

The symbols used in collecting data for averages are:

IND — Dow Jones Industrial Average
UTL — Dow Jones Utility Average
TRN — Dow Jones Transportation Average
65 — Dow Jones 65 Stocks

If you are unexpectedly disconnected from Dow Jones while retrieving data for a chart stock, select **LOGON** again to continue the process.

R — Charts / Keyboard

Make this selection to manually add missing data to an existing chart stock, to manually enter data for a new chart item, or to edit existing chart data.

You can add up to 128 days of missing data (approximately 6 months). If there is more than 128 days of data missing, you must delete the stock (**main menu** selection **F**) and start over again (**main menu** selection **P** or **R**).

You cannot enter data for a date prior to January 1, 1982.

The existing chart stocks are listed on the screen.

All

Choose **ALL** to add missing data to or edit existing data for every symbol listed. Then enter **today's date** as prompted. The most recent data for the first symbol is displayed; the cursor is positioned on the date of the first missing day. Now you have four options:

- (1) Press the **RETURN** key to accept the default date. Then type the **volume**, **high**, **low**, and **close** (remember to press the **RETURN** key after each entry). You can continue entering information this way, up to 128 days.
- (2) Press the **up arrow** key to move the cursor to the line you wish to edit. Press the **RETURN** key to accept the date on that line. Then enter the correct **information**.
- (3) Type a **trading date** prior to the default date. The program will display a page of data that includes the date specified, and you can edit it as in (2) above.
- (4) Type a **trading date** after the default date. Then enter the **volume**, **high**, **low**, and **close** as in (1) above. Later you can fill in the days that are still missing with **main menu** selection **P** or **R**.

You can enter data in decimal or eighths format. For the eighths format, remember to type a **space** between the whole number and the fraction. For example, type **17 3/8**, which the program will convert to 17.38.

When the cursor is positioned on a date, you can type **N** to go to the next symbol, or **X** to stop the procedure.

Selected

Choose **SELECTED** to add missing data to or edit existing data for specific symbols. Select the symbols using the arrow keys and the **RETURN** key. An asterisk precedes the selected symbols. Type **X** when you have made your selections. Then type **today's date** as **prompted**. Enter the **data** as described under **ALL**. When the cursor is positioned on a date, type **N** to go to the next symbol, or type **X** to stop the procedure.

New

Choose **NEW** to manually enter data for a new chart item. When **prompted**, enter the **symbol** and the **type**. The default type is **STOCK**. To change it, enter the appropriate **letter** or symbol, as shown below:

- S** - Stock
- B** - Bond
- O** - Option
- A** - Average
- M** - Mutual Fund
- T** - Treasury Bill
- I** - An item other than the above

The beginning date is the date on which your data will start. You should start as far back as you will ever want to go, since the program does not let you append prior data to existing data. Remember that you may not enter a date before January 1, 1982.

On the next screen, the program provides the beginning date for you. Enter the **volume**, **high**, **low**, and **close**. To stop the procedure, type **X** when **prompted** for a date, or type **N** to enter data for another symbol.

Important—Please Note: The program recognizes and skips weekend dates. However, it does not recognize weekdays on which the markets are closed, such as holidays. You must therefore enter data for such dates. The previous close is suggested. To remove these unnecessary dates, go to **main menu** selection **P** and collect enough pages of data from Dow Jones to cover the holidays.

S — Adjust for Split

Make this selection to adjust data for a stock that has split. First choose the stock symbol from the list on the screen. Then enter the **date** of the last day that has to be adjusted, followed by the **type of split** (for example, a 2 for 1 split). The split must be entered in this format.

In the case of a 50% stock split, you should record a 3 for 2 split, since you will end up with 3 shares for every 2 you started with.

Each portfolio entry for the adjusted stock will show the new number of shares. The volume data for a chart stock is adjusted to maintain dollar values. For example, in a 3 for 2 split, the prices prior to the split are multiplied by 2/3, and the corresponding volumes are multiplied by 3/2.

It will be apparent from a chart or a report that a stock has split. You should always update your portfolio before adjusting for a split (particularly if any portfolio transactions for that stock have never been updated).

Below is an explanation of the entries on an 80-column report. If you have a 40-column video display, your screen reports will be slightly different. See the section 40-column Video Display at the end of this appendix.

A sample report is also included. Note that figures are rounded to two decimal places.

Symbol	Security symbol.
Shares	Number of shares held.
Purchase \$	Total per-share cost. For a short sale, this is the amount received per share.
Current \$	Current per-share value. If you haven't ever updated the quotes, this will be same as the per-share cost.
Profit	Current gain (loss) of the transaction.
Yield	Percent yield based on the annual dividend. The yield on short sales is negative (see Appendix C).
Status	This column consists of four subcolumns. The first two give the following information. Open short sales are always treated as short term (see Appendix C).
	B Open purchase S Open short sale C Closed purchase or short sale SH Short term (held less than 1 year) LG Long term (held more than 1 year)
	The remaining two subcolumns pertain to the expiration date and the low and high price targets you're allowed to enter with each transaction.
	ED Expired (past the expiration date) EG Within 30 days of the expiration date + Current price is above your high target - Current price is below your low target

%

Percent gain (loss) over the holding period, calculated according to the following rules:

Open purchase: Current price minus purchase price, divided by purchase price.

Short sale: Amount received minus current price, divided by amount received.

Closed transaction: Selling price (amount received) minus purchase price, divided by purchase price.

APG

Annualized percentage gain (loss). This is the percent gain (loss) applied to a 1-year holding period. For example, a 10% gain in a transaction over a 6-month holding period translates into an APG of 20%. Note that the magnitude of the APG can be quite large when applied to a short holding period. For example, a 10% loss over a 1-day holding period results in an APG of -3650%.

Summary Report

These are totals that appear after the transaction report. They are based on all the transactions in the report.

Total Fees Paid

Sum of all fees entered; closed transactions include the fees for both the purchase and the sale.

Fee Percentage

Total fees paid as a percentage of the total amount paid and received.

Short-term Profit (Loss)

Sum of short-term profits minus short-term losses.

Long-term Profit (Loss)

Sum of long-term profits minus long-term losses.

Total Profit (Loss)

Short and long term combined.

Current Value

Total value of all shares evaluated at current prices.

Percent Gain

Current portfolio value minus purchase price, divided by purchase price.

Portfolio Yield

Total annual dividend as a percentage of current portfolio value.

Weighted Average APG

Annualized percent gain or loss of the total portfolio in which the APG of each transaction is weighted according to the percent of the total portfolio value it represents.

40-column Video Display

40-column reports differ from 80-column reports as follows:

- The SHARES and APG columns are not shown
- Dollar values are truncated (shortened) when necessary
- S means short term
- L means long term
- X means expired
- E means within 30 days of expiration date

Sample Report

SAMPLE 04/13/84								
SYMBOL	SHARES	PURCHASE #	CURRENT \$	PROFIT	YIELD	STATUS	%	APG
DJ	100	35.90	38.00	210.00	2	B LG	6	5
GD	300	35.83	47.13	3387.50	2	B LG	32	28

TOTAL FEES PAID: \$340.00
FEE PERCENTAGE: 2.3%

SHORT TERM PROFIT (LOSS): \$0.00
LONG TERM PROFIT (LOSS): \$3597.50
TOTAL PROFIT (LOSS): \$3597.50

CURRENT VALUE: \$17937.50
PERCENT GAIN: 25.1%
PORTFOLIO YIELD: 2%

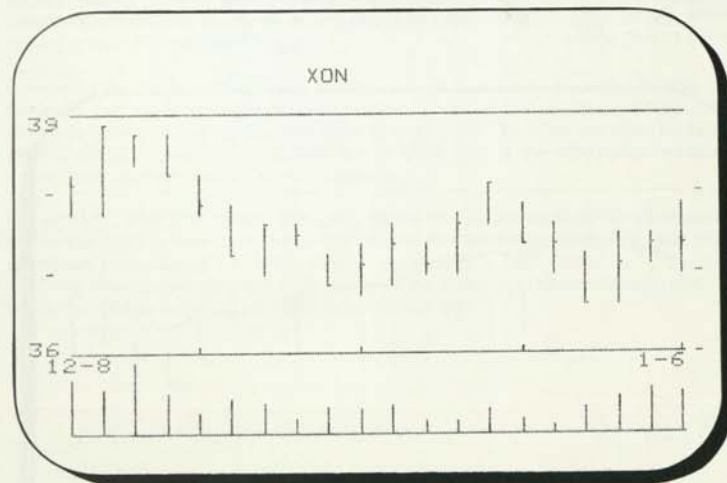
WEIGHTED AVERAGE APG: 21.2%

This discussion will be helpful to those who are not familiar with bar charts and the use of moving averages and trendlines.

Bar Charts

A bar chart displays composite daily volume and price action. Its horizontal axis represents days, and its vertical axis represents price and volume magnitude.

For each day, a vertical line segment (or bar) is drawn from the low (the lowest price at which the stock traded) to the high, with a tic-mark indicating the price of the last trade. Below each daily trading bar is another vertical line segment that illustrates the number of round lots (100 shares) traded that day.

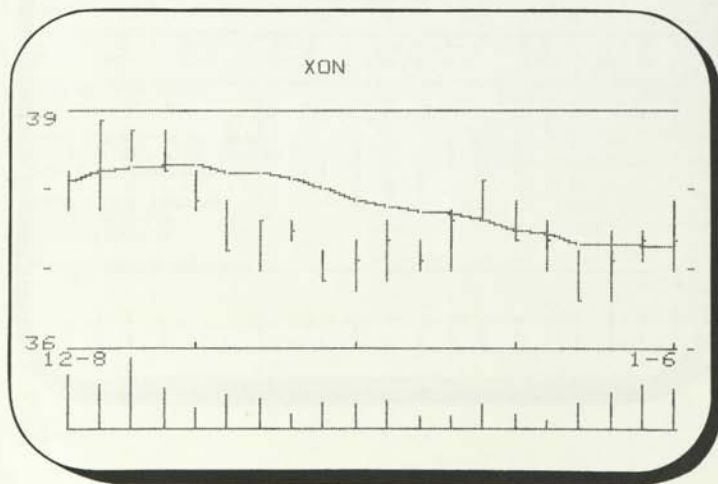


Above is a bar chart of Exxon from December 8, 1983, through January 6, 1984. The far right-hand bar shows that the price on January 6 ranged from 37.00 to 37.88, with the last trade at 37.38. The corresponding bar at the bottom shows the January 6 trading volume for easy comparison with previous volumes.

Bar charts provide a quick look at the current stock price relative to the past, allowing you to observe unusual changes in trading activity. Technical analysts take this a step further by using past price action to anticipate future price action. Two standard tools they use in this regard are moving averages and trendlines. These two tools are available to you with Investor's Workshop.

Moving Averages

With Investor's Workshop, you can construct simple moving averages on your bar charts. Below is the same bar chart of Exxon with a 12-day simple moving average of the closing prices.



The concept of moving averages allows you to compare the current price with the average closing price over a recent time period, and to draw some conclusions based on the comparison. For example, if the current price is above the average closing price over the past 12 days, then you might conclude that the stock is doing better than it has on average. Based on this interpretation, some investors might decide to buy the stock.

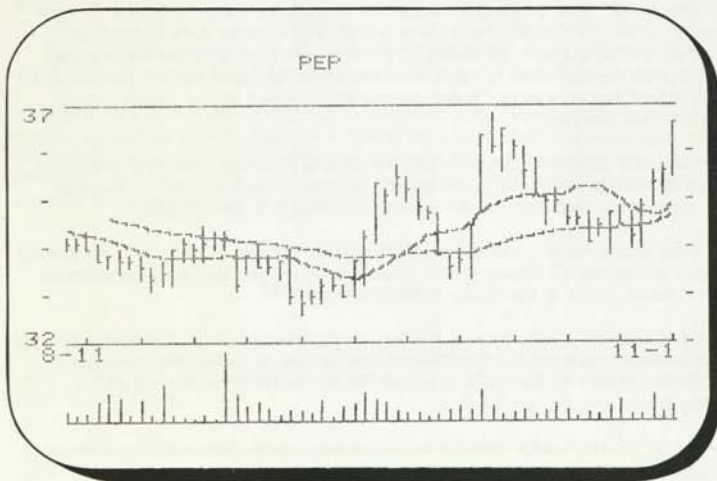
However, you could also conclude that the stock is currently overpriced, since it is above its average level. This might suggest to other investors to sell or sell short. The apparent contradiction can be settled only through further analysis.

A 12-day simple moving average is constructed by plotting, at each day, the average of the most recent 12 closing prices. These average values are then connected to form a curve, which is the 12-day moving average.

Take a look at the 12-day moving average on the previous chart. It indicates that the average closing price for the 12-day time span ending on December 8 was around 38.13. On January 6, the curve is around 37.38, which is the average of the closing prices over the last 12 days.

Comparing the stock price with the moving average is, in many respects, thought to be crude. For short-term averages (the number of days in the average is below 20), the stock price and the moving average frequently cross. To adjust for daily fluctuations in the stock price, many analysts would rather look at the relationship between a short-term average and a long-term average.

For example, when the 12-day average is above the 36-day average, the conclusion is that the stock is now doing better than it has over the longer term. The next chart of PepsiCo from August 11, 1983, through November 1, 1983, shows a 12-day and a 36-day moving average. At the beginning of the chart, the 12-day average was below the 36-day average, indicating a downward bias.



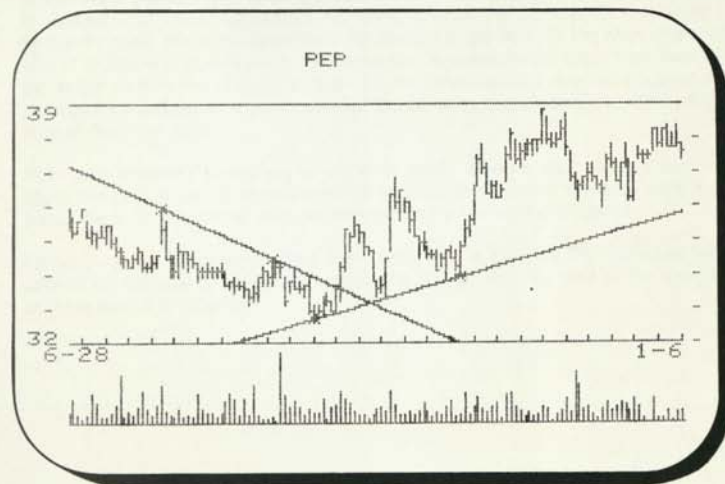
As the stock action improved, the two averages crossed, with the short-term average above the long-term average. This suggests a change in direction, which was later confirmed.

Trendlines

A trendline is a straight line whose construction is dictated by past data. It is called a support trendline when rising, and a resistance trendline when falling.

A support trendline is constructed by connecting two successive low points with a straight line. The only restriction is that the second low point is higher than the first. The theory suggests that once a support trendline is in effect, the stock price will tend to stay above it. When the stock price falls below a support trendline, support has been lost and the price trend has changed from up to down.

A resistance trendline is thought to act in the opposite way. It is constructed by connecting two successive highs, where the second high is below the first. The stock retains its downward bias until the trendline is broken.



Appendix B — Bar Chart Analysis

The above chart of Pepsico (from June 28, 1983, through January 6, 1984) shows first a resistance and then a support trendline. The resistance trendline was broken in September and has since been following the support trendline, which was dictated by the low before the break and the low immediately following the break.

Together, moving averages and trendlines can be used to improve your trading results. In particular, they can help you decide when to buy or sell a stock. Add to these technical analysis tools the ability to update your data daily and to obtain current stories, and you will be able to manage your portfolio more efficiently.

In short selling, you sell shares that you do not own or that you are not willing to give up, with the understanding that you will produce them at a later date. If you own the shares, the procedure is called selling short against the box. In either case, the shares are borrowed from a third party.

A short position is covered (closed out) when the borrowed shares are produced by purchase on the open market or, in the case of a short against the box, from your inventory. In either case, you are responsible for any dividends that are paid on the stock while the short position is open.

A short sale involves two dates: the date of the short sale and the date the position is covered. The former establishes the selling date for the purpose of determining long-term gains; the latter determines the applicable tax year. In the case of a short sale of shares you do not own, the transaction is always short term, regardless of the length of time the position is open. On the other hand, a short sale against the box results in a long-term gain, provided the covering shares were long term at the time of the short sale.

How does Investor's Workshop handle short sales? When a short sale transaction is open, the gain or loss is always reported as short term; and if the stock pays a dividend, the yield is negative (you are responsible for paying the dividend).

For your reports to properly reflect a short sale that is covered, the procedure will depend on the type of short sale (against the box or not), the date of the short sale, and the date it is covered.

If the short sale is not against the box, the shares are considered to have been sold on the date the covering shares are purchased, thus showing a short-term gain or loss in the year the short sale is closed. For this to happen, you should change the date of the short sale to the covering date, and then close out the transaction.

If the short sale is against the box, a different approach is required. When shares you own are sold short, instead of entering a sell transaction, you should close the transaction whose shares will be used to cover the position. This establishes the holding period for long-term considerations, but does not necessarily apply to the current year for tax purposes.

At the end of the current year, you will want a report of gains and losses applicable to that year, and if your short position has not yet been covered, you will want to ignore it. One way to accomplish this is to assign a special ID to all applicable transactions, and not the short sale, and then restrict your report to this special ID.

When your short sale against the box is covered, you will want to show both the applicable tax year and the short- or long-term nature of the position. If the date of the short sale established the position as long term, then you should edit the transaction and change the sell date to the date the short sale was covered. This places the gain or loss in the correct tax year and retains its long-term nature. If the date of the short sale established the position as short term and if it is still short term on the covering date, then this procedure works as well.

The last situation is that of a short sale against the box that was established as short term by the date of the short sale, but would be reported as long term if the covering date is used as the selling date. You will want to use the covering date to reflect the correct tax year and still have the transaction reported as short term. One way to do this is to change the purchase date of the transaction used to cover the short sale to an appropriate later date, and then close the transaction using the covering date.

This discussion is for owners of the Dow Jones Market Analyzer who wish to consolidate use of the two programs.

Charting

You can use your Portfolio Disk as an RTR Data Disk to chart your chart stocks with the Market Analyzer. When **prompted** for the stock symbol, note that you must enter **6** characters. To chart IBM, for example, you would type **IBM** followed by 3 spaces. To chart stocks on an RTR Data Disk with Investor's Workshop, the RTR Data Disk must never have held more than 25 stock histories.

Daily Updates

You can update your Portfolio Disk from a Temporary Work Disk using selection **O** on the Investor's Workshop **main menu**. However, you cannot have more than 80 symbols on the Temporary Work Disk. All open portfolio transactions and all chart stocks will be updated.

Histories

You can use the Market Analyzer to automatically fetch a stock history and store it on your Portfolio Disk. Do not, however, use the Market Analyzer to manually key in a stock history on your Portfolio Disk; this will cause problems.

Multiple-day Updates

Do not use the Market Analyzer to do a multiple-day update on your Portfolio Disk. Instead, use selection **P** on the Investor's Workshop **main menu**.

Transfer Histories

You can use the transfer feature of the Market Analyzer to transfer stock histories from an RTR Data Disk to a Portfolio Disk, and vice versa. However, when transferring from the Portfolio Disk to the RTR Data Disk, you must type 6 characters for each symbol. For example, to transfer DJ historical data, you must type DJ followed by 4 spaces.

What do you do if something doesn't work? This section addresses that question. First, it discusses problems that may occur during communication with Dow Jones News/Retrieval; second, it deals with general problems that may arise in the everyday use of the program.

Communications Problems

Always make sure that you have specified the correct baud rate for your modem and that your system is set up as required. If you have an Apple IIc, the modem must be attached to port 2. If you have an Apple II Plus or an Apple IIe, a Super Serial Card must be inserted in slot 2. If you're using an Apple Modem 300/1200 with an Apple II Plus or an Apple IIe, switch 3 on the modem should be down.

If your system is not set up this way, STOP. You've found out why you're having communications problems. Your system must be set up as specified.

Symptom

The program cannot get past the first step of log on.

Possible Cause

1. The baud rate you have specified is not correct.
2. The cable connecting the modem to the computer may have pins 2 and 3 reversed.
3. The Super Serial Card may be set in Terminal Mode (Apple II Plus and Apple IIe only).

Action

1. Check the baud rate stored in setup (main menu selection G).
 2. A data communications cable is required. See your dealer.
 3. Follow the instructions in your Super Serial Card manual to position the jumper block properly and to set switches SW1-5 and SW1-6 correctly.
-

Symptom	During log on, all characters shown on the screen are garbled (unreadable).
Possible Cause	You have specified the wrong baud rate for your modem.
Action	Check the setup (main menu selection G) and enter the correct baud rate.

Symptom	The program will not automatically dial your modem.
Possible Cause	You're using the wrong type of modem for auto dialing.
Action	The program will only automatically dial the Apple Modem 300/1200 and the Hayes Smartmodem 300 and 1200. You must specify A for modem type in setup. If you have a different auto-dial modem, you may be able to use it by dialing from the keyboard (specify K for modem type).

Symptom	The program clicks for 10 seconds and then displays Connection Lost (Apple IIc only).
Possible Cause	The modem cannot accept characters and has locked up. This may occur if the phone connection is unexpectedly lost.
Action	Turn the modem power off and on; then restart the dialing procedure.

Symptom	Data being retrieved has erratic garbled characters.
----------------	--

Possible Cause	<ol style="list-style-type: none"> 1. You have a bad phone line. 2. The operator is signaling that there is an incoming call. 3. An extension on the same line was picked up. 4. There are bad or loose cable connections.
-----------------------	--

Action	<ol style="list-style-type: none"> 1. Start log on again. 2. Use a phone line dedicated to data communications. Otherwise, there will be problems if you have an incoming call while your computer is connected. 3. Start log on again. 4. Turn off all power. Check cable connections. Start log on again.
---------------	---

Symptom	After log on or data retrieval was interrupted, you cannot log on again.
----------------	--

Possible Cause	The modem was left in an improper status (for example, off the hook).
-----------------------	---

Action	Turn the modem power off and on; then try log on again.
---------------	---

Other Problems

If the program encounters an error from which it can't recover, it displays a message such as ERROR 8 AT 1840. The first number is the Applesoft or DOS error number; the second number indicates the line where the problem was noted. These errors occur infrequently, and only in unusual situations.

Symptom	While a disk is being initialized, the message ERROR 8 AT 1840 appears, or the disk drive just spins.
Cause	The disk is bad, or has been formatted previously with PRODOS or SOS.
Action	Turn the computer power off and on. Start Investor's Workshop. From the main menu, type Q for Quit and press the RETURN key; then type Y to confirm. Remove the Program Disk from the drive and replace it with the disk you're trying to initialize. Type IN-ITHELLO,D1 and press the RETURN key. If the Applesoft prompt returns with no error message, the disk is o.k. Start the program as you normally do and try the disk again. Otherwise, you will see an error message, which means the disk is probably bad. Try a new disk.

Symptom	ERROR 9
Cause	The disk is full.
Action	Use your Portfolio Disk only for storing Investor's Workshop portfolio data.

Symptom	ERROR 53
Cause	Stock data exceeds 32,767.
Action	If this problem occurs during charting, use main menu selection R to look at the data and change any numbers above 32,767.
Symptom	ERROR 77
Cause	There are too many portfolio transactions and/or chart stocks on your Portfolio Disk.
Action	Delete old closed transactions.

Appendix E— Troubleshooting

account ID	a single character that identifies a specific account or portfolio
auto dial	the procedure in which the program dials the telephone numbers stored on your Program Disk
chart list	the list of symbols for all stocks that can be charted; it is stored on your Portfolio Disk
chart stock	a stock for which you've collected data from Dow Jones for the purpose of charting
closed transaction	a transaction that has been both bought and sold
close out a transaction	to sell shares in an open purchase, or to replace shares borrowed in an open short sale (see Appendix C)
current quote	the most recent trading price
cursor	a symbol on the screen (such as a flashing square) that prompts you for a response
Dow Jones Historical Quotes	a News/Retrieval database that contains past price and volume information
Dow Jones Market Analyzer	a technical analysis software package published by Dow Jones & Co., Inc.
echo off	a keyboard dial instruction that suppresses the display of keystrokes
echo on	a keyboard dial instruction that results in the display of keystrokes
equity type	stock, option, mutual fund, bond, Treasury bill, average, or miscellaneous
expiration date	the date an option becomes worthless or a bond matures; for an option, this is the third Friday of the expiration month
EZ Terminal	the feature of Investor's Workshop that allows you to access all databases available from Dow Jones

Intelligent Interface	an interface card that can print a graphics screen when the program sends it a special command
last trading day	the most recently closed trading day
log on	the procedure in which the program calls up and connects to Dow Jones News/Retrieval
moving average	a curve whose value on a given day is the average closing price over a previous time span (see Appendix B)
network	a special communications facility, such as Tymnet, that routes your call to Dow Jones News/Retrieval
online	connected with Dow Jones News/Retrieval
open purchase	a transaction in which shares were purchased and have not yet been sold
open short sale	a transaction in which shares were sold short and have not yet been replaced
open transaction	a purchase or short sale that has not yet been closed out
page of data	12 days of historical data from Dow Jones
partial liquidation	the closing out of some of the shares in an open transaction
percent yield	$\text{annual dividend} \times 100$, divided by current price
Portfolio Disk	the initialized disk on which all portfolio and charting data is stored; each one can hold up to 80 portfolio transactions and 25 chart stocks, for a total of not more than 80 symbols
Program Disk	the copy of your Investor's Workshop System Master Disk; it contains all program files
prompt	a screen message or instruction that requires a response

quote list	the list of symbols for all open portfolio transactions and all chart stocks; it is stored on the Portfolio Disk
short sale	a transaction in which you sell shares you do not yet own, with the intention of producing them at a later date
stock symbol	the Dow Jones News/Retrieval symbol for an equity issue, such as AAPL for Apple Computer, Inc.
Super Serial Card	an interface card produced by Apple Computer for a printer or modem
Temporary Work Disk	the special disk used by the Dow Jones Market Analyzer for storing current quotes
Text Disk	the initialized disk that stores news and information from EZ Terminal
trading day	a day on which the market is open
trendline	a straight line representing support or resistance (see Appendix B)
truncate	to drop decimal places, usually for space considerations; for example, 3.78 can be truncated to 3.7 or 3
update quotes	to enter current quotes for the symbols on the quote list, for subsequent portfolio evaluation
write-protect	to cover the notch on the edge of a disk, making it impossible to write information to this disk

Calendar of Trading Days—1984

Calendar of Trading Days—1985

January

S M T W T F S
 1 2 3 4 5 6 7
 8 9 10 11 12 13 14
 15 16 17 18 19 20 21
 22 23 24 25 26 27 28
 29 30 31

April

S M T W T F S
 1 2 3 4 5 6 7
 8 9 10 11 12 13 14
 15 16 17 18 19 20 21
 22 23 24 25 26 27 28
 29 30

July

S M T W T F S
 1 2 3 4 5 6 7
 8 9 10 11 12 13 14
 15 16 17 18 19 20 21
 22 23 24 25 26 27 28
 29 30 31

October

S M T W T F S
 1 2 3 4 5 6
 7 8 9 10 11 12 13
 14 15 16 17 18 19 20
 21 22 23 24 25 26 27
 28 29 30 31

February

S M T W T F S
 1 2 3 4
 5 6 7 8 9 10 11
 12 13 14 15 16 17 18
 19 20 21 22 23 24 25
 26 27 28 29

May

S M T W T F S
 1 2 3 4 5
 6 7 8 9 10 11 12
 13 14 15 16 17 18 19
 20 21 22 23 24 25 26
 27 28 29 30 31

August

S M T W T F S
 1 2 3 4
 5 6 7 8 9 10 11
 12 13 14 15 16 17 18
 19 20 21 22 23 24 25
 26 27 28 29 30 31

November

S M T W T F S
 1 2 3
 4 5 6 7 8 9 10
 11 12 13 14 15 16 17
 18 19 20 21 22 23 24
 25 26 27 28 29 30

March

S M T W T F S
 1 2 3 4 5
 6 7 8 9 10 11 12
 13 14 15 16 17 18 19
 20 21 22 23 24 25 26
 27 28 29 30 31

June

S M T W T F S
 1 2 3 4 5 6
 7 8 9 10 11 12 13
 14 15 16 17 18 19 20
 21 22 23 24 25 26 27
 28 29 30

September

S M T W T F S
 1 2 3 4 5 6 7 8
 9 10 11 12 13 14 15
 16 17 18 19 20 21 22
 23 24 25 26 27 28 29
 30

December

S M T W T F S
 1 2 3 4 5 6 7 8
 9 10 11 12 13 14 15
 16 17 18 19 20 21 22
 23 24 25 26 27 28 29
 30 31

January

S M T W T F S
 1 2 3 4 5
 6 7 8 9 10 11 12
 13 14 15 16 17 18 19
 20 21 22 23 24 25 26
 27 28 29 30 31

April

S M T W T F S
 1 2 3 4 5 6
 7 8 9 10 11 12 13
 14 15 16 17 18 19 20
 21 22 23 24 25 26 27
 28 29 30

July

S M T W T F S
 1 2 3 4 5 6
 7 8 9 10 11 12 13
 14 15 16 17 18 19 20
 21 22 23 24 25 26 27
 28 29 30 31

October

S M T W T F S
 1 2 3 4 5
 6 7 8 9 10 11 12
 13 14 15 16 17 18 19
 20 21 22 23 24 25 26
 27 28 29 30 31

February

S M T W T F S
 1 2 3 4 5 6 7 8 9
 10 11 12 13 14 15 16
 17 18 19 20 21 22 23
 24 25 26 27 28

May

S M T W T F S
 1 2 3 4 5 6 7 8 9 10 11
 12 13 14 15 16 17 18
 19 20 21 22 23 24 25
 26 27 28 29 30 31

August

S M T W T F S
 1 2 3 4 5 6 7 8 9 10
 11 12 13 14 15 16 17
 18 19 20 21 22 23 24
 25 26 27 28 29 30 31

November

S M T W T F S
 1 2 3 4 5 6 7 8 9
 10 11 12 13 14 15 16
 17 18 19 20 21 22 23
 24 25 26 27 28 29 30

March

S M T W T F S
 1 2 3 4 5 6 7 8 9
 10 11 12 13 14 15 16
 17 18 19 20 21 22 23
 24 25 26 27 28 29 30
 31

June

S M T W T F S
 1 2 3 4 5 6 7 8
 9 10 11 12 13 14 15
 16 17 18 19 20 21 22
 23 24 25 26 27 28 29
 30

September

S M T W T F S
 1 2 3 4 5 6 7 8
 9 10 11 12 13 14 15
 16 17 18 19 20 21 22
 23 24 25 26 27 28 29
 30

December

S M T W T F S
 1 2 3 4 5 6 7 8
 9 10 11 12 13 14 15
 16 17 18 19 20 21 22
 23 24 25 26 27 28
 29 30 31

Index

Account ID, 4-4
 APG, A-2
 Auto dial, 2-4
 Average, 4-14

Bar chart, 4-5, B-1
 Buy, 4-2

Change disk, 4-9
 Chart stock, 3-4, 4-6, 4-7
 Chart list, 3-5, 4-8
 Charts, 4-5, 4-13, 4-14
 Close transaction, 4-4
 Configure a disk, 2-2

Data entry, 3-1
 Delete stock, 3-5, 4-8
 Delete text, 4-11
 Delete transaction, 3-5, 4-5
 Disconnect, 4-10
 Display report, 4-1
 Display transaction, 3-5, 4-6
 Dividend, 4-3
 Dow Jones Market Analyzer, 4-13, D-1

Echo (on/off), 2-4
 Edit data, 4-14
 Edit transaction, 3-5, 4-5
 Equity type, 4-1
 Error message, E-4, E-5
 Expiration date, 4-3, A-1
 EZ Terminal, 1-4, 4-9

Fees, 4-3
 Full-duplex, 2-4

Half-duplex, 2-4
 Hardware requirements, 2-1
 High price, 3-1, A-1

ID, 4-1, 4-4
 Imagewriter, 2-4
 Intelligent Interface, 2-4

Keyboard dial, 2-4

Last trading date, 3-3, 4-12, 4-13
 Line, 4-6
 Log on, 2-5
 Low price, 3-1, A-1

Menu selection, 2-2
 Miscellaneous category, 4-2
 Modem type, 2-4
 Moving average, 3-4, 4-6, B-2 to B-4

Network, 2-5
 New transaction, 3-1, 4-2
 Open transaction, 4-1, 4-2

Partial liquidation, 4-4
 Password, 2-1, 2-5
 Percent (gain/loss), 3-3, A-2
 Portfolio Disk, 2-2, 3-1, 4-1
 Print chart, 4-7
 Printer, 2-4
 Printer display, 4-1
 Print text, 4-11
 Program Disk, 2-2

Quote list, 3-5, 4-8
 Quotes, 3-3, 4-12, 4-13

Reports, 3-3, 4-1, A-1 to A-4

Index

Save screen, 4-10
 Sell, 4-4
 Setup, 2-3 to 2-6
 Short selling, 4-2, 4-3, C-1, C-2
 Splits, 4-17
 Status, 4-3, A-1
 Summary report, 3-4, A-3
 Symbol, 4-3

Telephone network, 2-5
 Text, 4-9 to 4-11
 Text Disk, 2-2, 4-9
 Time change, 4-7
 Total cost, 4-3
 Trendline, 4-6, B-4 to B-6
 Troubleshooting, E-1 to E-6

Updates, 4-12

Video display, 4-1, A-4
 View text, 4-11

Weighted average APG, A-3
 Write-protect, 2-2, 2-6

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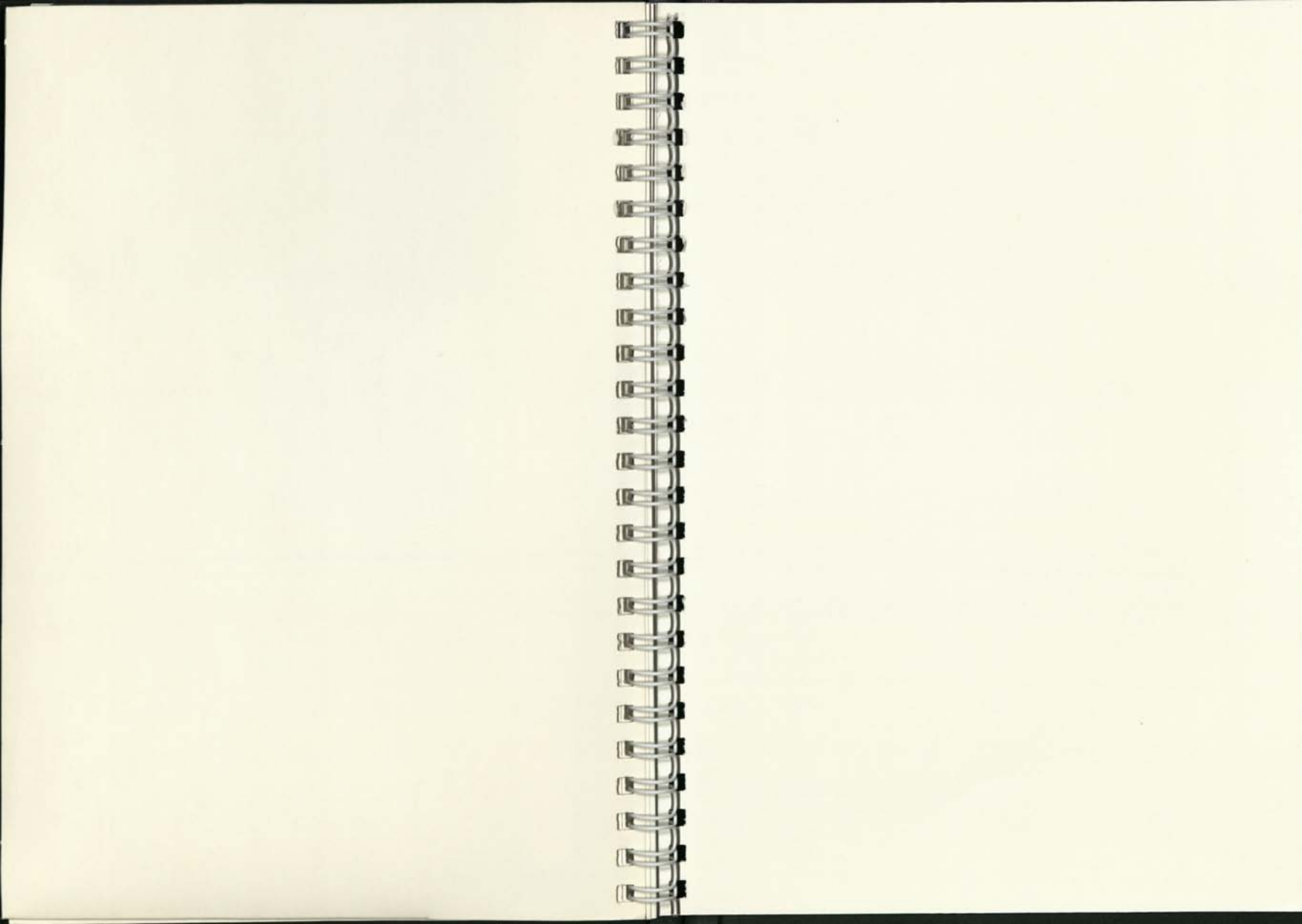
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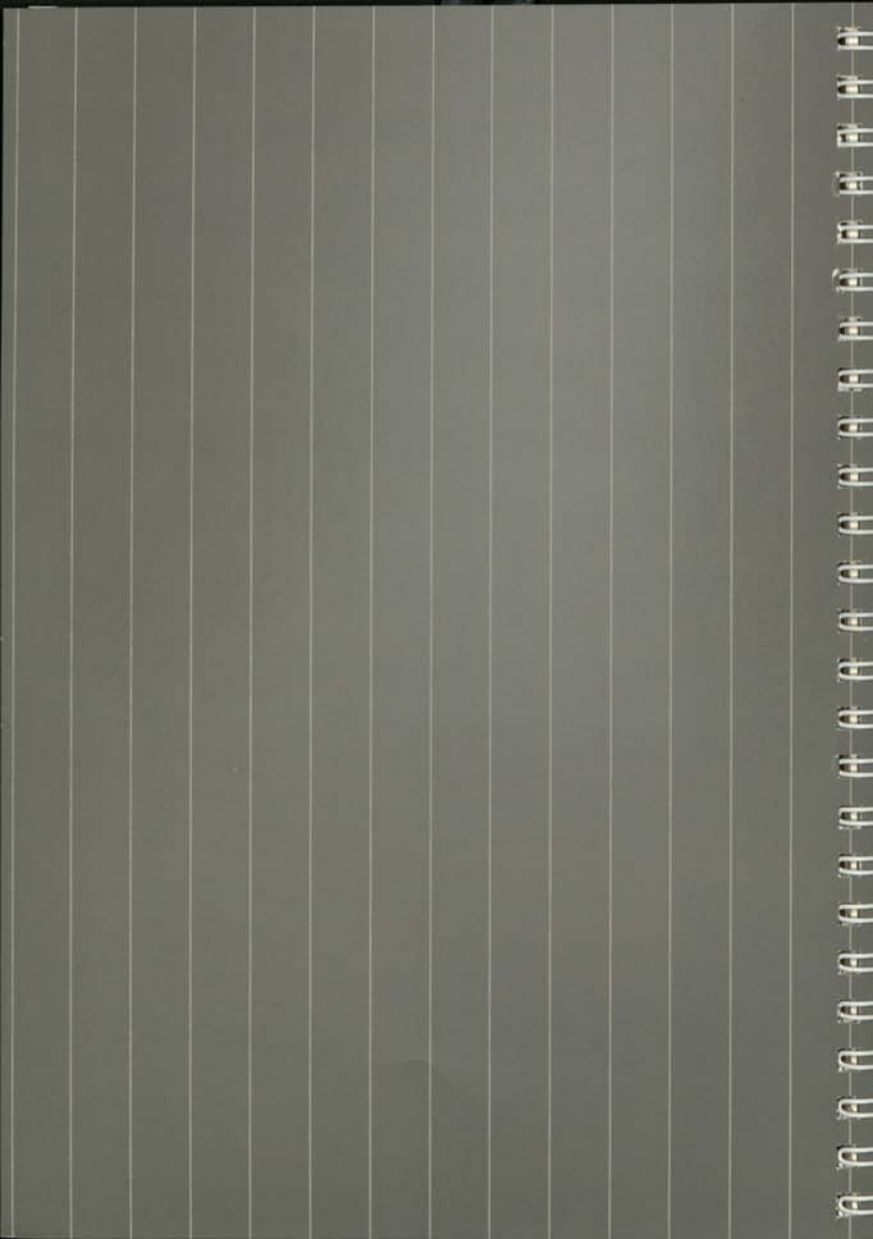
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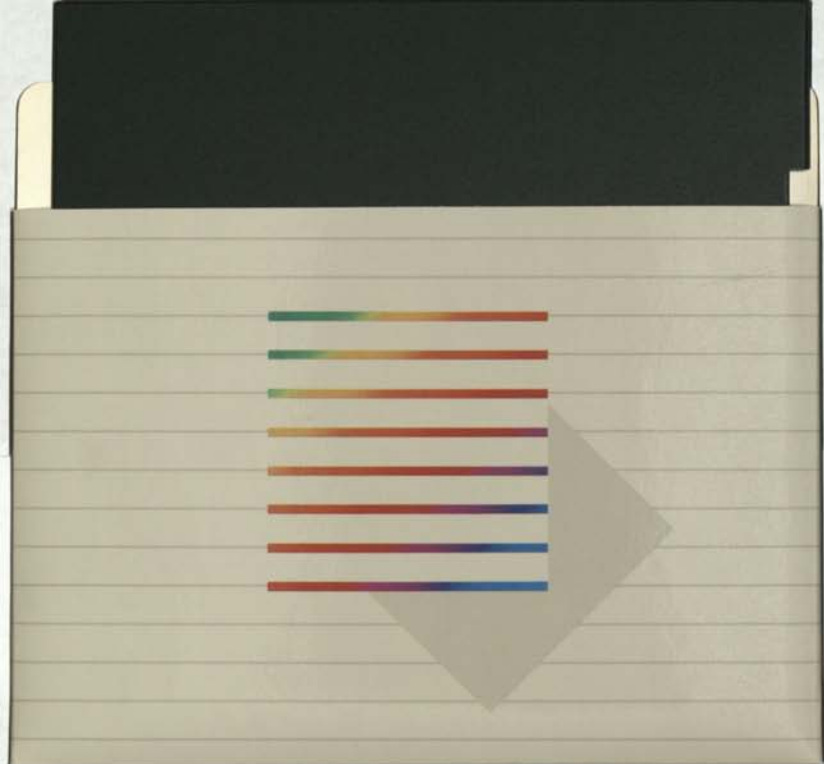
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