Dow Jones
Information Service
User's Guide

Radio Shack

Dow Jones Frequently Used Codes

Database	Symbol	Code	To Get
News	♦	I/DJA	Latest Dow Jones Average
Quotes	♪	TAN	Latest Tandy stock quote
Financial Statistics	$	TAN/P	Tandy stock price performance
News Headlines	♦	G/EXE 01	White House news headlines
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Dow Jones Information Services

Operating Hours

6 A.M. to 3 A.M. (Eastern Time) Monday-Friday

7 A.M. to 3 A.M. (Eastern Time) Weekends/Holidays

Billing

When you use Dow Jones Information Services, you will be billed by Dow Jones only. Communication costs of the communications network or alternate networks are included as part of Dow Jones' regular rates.

Contents

4. If you want the most recent *Wall Street Week* transcript, type A (ENTER).

If you want to see what the previous three transcripts are about, type B (ENTER). Dow Jones will then display the available choices preceded by a number. For instance:

Your screen should look like this:

```
                INDEX OF W$W
   PRESS FOR
      01    JULY 3 --   SPECIAL MID-
            YEAR REVIEW AND OUTLOOK
      02    JUNE 26 -- ELLIOT SMITH
            PRESIDENT, BACHE HALSEY
            STUART METAL CO, INC,
      03    JUNE 19 -- MARK HULBERT,
            "THE HULBERT FINANCIAL
            DIGEST"
      04    JUNE 12 -- NEWTON ZINDER,
            E,F, HUTTON & CO, INC,
```

If you wanted to examine the June 19th transcript, for example, just type 03 (ENTER); for the July 3rd transcript, type 01 (ENTER) etc.

To return to Dow Jones from *Wall Street Week*, press (SHIFT)(?), then type a Dow Jones access code. **Note:** ENTER QUERY *will not* be displayed on the screen after you press the key-combination of (SHIFT)(?); scrolling will cease, however, and you can type an access code such as .TAN (ENTER).

To disconnect from the information service altogether, press the key-combination of (SHIFT)(?), then type DISC (ENTER).

Dow Jones Information Services also provides access to transcripts of *Wall Street Week*, a weekly Public Broadcasting Service program hosted by Louis Rukeyser and devoted to economic developments.

Transcripts of the program are made available to you through Dow Jones (by the Maryland Center for Public Broadcasting) on the Thursday following a specific broadcast. Transcripts of the three previous programs are also available through the information service.
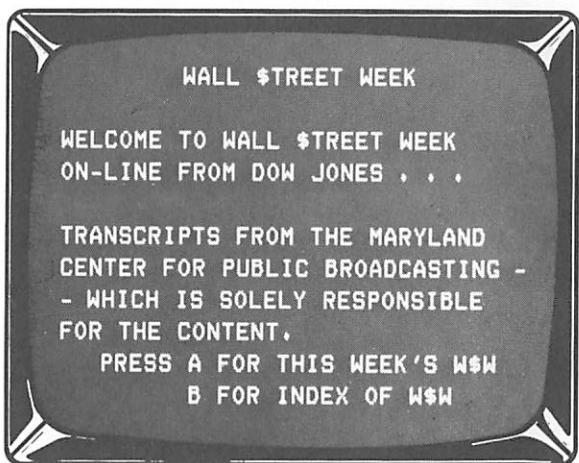
To use *Wall Street Week*, follow these steps:

1. First start up Dow Jones Information Services as described earlier in this manual.

2. When Dow Jones ask you the ENTER QUERY, type:

   " (ENTER)

3. Your screen will then display:

Your screen
should look
like this:

```
      WALL $TREET WEEK

WELCOME TO WALL $TREET WEEK
ON-LINE FROM DOW JONES . . .

TRANSCRIPTS FROM THE MARYLAND
CENTER FOR PUBLIC BROADCASTING -
- WHICH IS SOLELY RESPONSIBLE
FOR THE CONTENT.
      PRESS A FOR THIS WEEK'S W$W
           B FOR INDEX OF W$W
```

Introduction

Dow Jones Information Services makes available the following information (much of which is cross-coded, making data both quick and simple to find):

- **News**, as recent as 90 seconds and as old as 90 days, from the pages of the *Wall Street Journal, Barron's*, and the *Dow Jones News Service* (the "Broadtape").

- **Current market quotes** on listed common and preferred stocks and warrants, corporate bonds, and options. These quotes are updated continuously as trades occur (except for the minimum 15-minute delay established by the exchanges). Nasdaq OTC stocks are updated hourly. Selected U.S. Treasury notes, bonds and mutual funds are updated daily.

- **Detailed financial statistics** (stock price, volume, and fundamental financial indicators) available for all New York and American Stock Exchange traded companies plus 800 over-the-counter traded companies. (This information is supplied by Media General Financial Services, Inc.)

- *Wall Street Week.* Transcripts of the popular PBS television program which is devoted to the latest economic developments. (Supplied by the Maryland Center for Public Broadcasting.)

Short Interest Ratio — Short interest for the latest month reported, divided by average daily volume for the month corresponding to the report. The figure shows the number of days it would take to cover the short interest if the trading rate continued at the rate of the month covered by the report.

Footnotes

NA — Item not applicable to this stock.

NE — Negative earnings invalidate calculation.

NC — Data required for calculation not available.

q — Based on first quarter information.

s — Based on second quarter information.

n — Based on third quarter information.

f — Based on fiscal year information.

* — When applied to 12-month earnings, an asterisk indicates an actual amount for an interim period, other than a quarterly multiple, resulting from a fiscal year change.

* — As applies to beta figures, an asterisk denotes a coefficient at least as large as its probable error (i.e., .6745 times the standard error of its mean).

G — Value calculated greater than allowed range.

L — Value calculated less than allowed range.

a — When used with the price gain index, it means the index is derived using the latest 12 months' E.P.S. estimate.

a — Under current dividend yield, an 'a' indicates a stock dividend.

b — Price gain index derived by using last year's fiscal E.P.S. estimate.

b — Indicates cash plus stock dividend when applied to dividend yield column.

x — Price gain index calculated using next year's fiscal E.P.S. estimate.

Z — Interest coverage greater than 99.9 times.

X — No interest.

5-Year Growth Rate — The figure is arrived at by the least squares method, using dividends actually paid for the first five years and the indicated rate for the sixth point.

Ratios

Profit Margin — The profit margin of the company based on latest 12 months' revenue and earnings.

Return on Common Equity — Based on the latest 12 months' earnings per common share and an estimate of common equity per share during interim periods. In fiscal periods, the equity is from the latest balance sheet.

Return on Total Assets — Based on the latest 12 months' total earnings and the total assets as reported in the company's latest fiscal year balance sheet.

Debt to Equity — The total long-term debt of the company as a percentage of the total common equity of the company, both from the latest annual balance sheet.

Interest Coverage — Profit before taxes plus interest, divided by interest, taken from the latest annual income statement.

Shareholdings

Market Value — Latest reported shares outstanding times latest closing price per share of the common stock.

Latest Shares Outstanding — Latest reported shares outstanding, adjusted for any subsequent stock splits or dividends.

Held by Banks-Funds — The single figure here represents shares held by all federally chartered banks with equity assets exceeding $75 million and all registered investment companies with assets exceeding $7 million. Shares held are adjusted for any stock splits or stock dividends that occur subsequent to the quarterly reporting date of the institutions covered. The data are furnished by Computer Directions Advisers, Inc.

Insider Net Trading — Net change in insider holdings — purchases vs. sales — based on the latest SEC report in thousands of shares. 0 means there were no transactions or transactions netted out to 0; +0 means transactions netted to purchases of fewer than 500 shares, and −0 means transactions netted to sales of fewer than 500 shares.

Starting-Up

When you're ready to access Dow Jones Information Services, follow these steps:

Note: If you have a printer and wish to use it, turn it on now, before loading the software package.

1. Load the information service software as explained in your version of the *TRS-80® Videotex User's Guide.*

2. Dial the "host" system's telephone number. (See the *Dow Jones Operating Guide and Directory of Symbols* or contact Dow Jones Customer Service for the TYMNET or TELENET number nearest to you.)

3. Once the phone connection is made and you hear the high-pitched tone, proceed as described in your modem/terminal owner's manual (direct modem or telephone interface).

   Terminal users, press any key and hang-up the telephone.

   Direct modem users, set the MODE switch to ORG and hang-up the telephone.

   Telephone interface users, be sure the MODE switch is set to O, DUPLEX switch to F, and place the telephone handset into the cradle.

4. The information service will then ask you to PLEASE TYPE YOUR TERMINAL IDENTIFIER. You should type A. (Do not press (ENTER)!)

5. Then the service will ask you to PLEASE LOG IN. Type DOW1 ;; (Do not press (ENTER)!) **Note:** The second semi-colon will not be displayed on your screen.

6. When you're asked WHAT SERVICE PLEASE???, type DJNS (ENTER).

7. The host system will then ask you to ENTER PASSWORD. Type your personal password and press (ENTER). You will then be connected to Dow Jones Information Services.

   Note: For your protection, your password will not be displayed as you type it. If you make a mistake while typing, the network will give you another chance to type it correctly.

8. When Dow Jones asks you to ENTER QUERY, you should proceed as described later in this manual.

When you're ready to disconnect from Dow Jones, just type DISC (ENTER).

The Service will then display your sign-on and sign-off times. You'll also get a record of these times when Dow Jones sends you a monthly bill listing your usage time, followed by the prompt PLEASE LOG IN:. If you wish to remain off-line, ignore this prompt and, after a couple of minutes, OFF LINE will be displayed. To go off-line immediately, simply unplug the modem or telephone.

As can be seen, this index will vary upward based on whether upward price moves are accompanied by high and increasing volume. These moves, of course, are regarded by many as a favorable sign.

Stocks by Industry — Fundamental Data

Revenue			Earnings								Dividends					
	Pct. Change			Per Share							Current Rate			Payout		
Last 12 Mos.	Last Qtr.	Year to Date	Last 12 Mos.	Last 12 Mos.	Last Fiscal Year	Pct. Change			5-Year Growth Rate		Amt.	Yield	5-Year Growth Rate	Last FY	Last 5Yrs.	Last X-Dvd Date
						Last Qtr.	FY to Date	Last 12 Mos.								
$Mil	%	%	$Mil	$	$	%	%	%	%		$	%	%	%	%	

Ratios								Shareholdings					
	Return on												
Pro-fit Mar-gin	Com-mon Equity	Total Assets	Rev-enue to Assets	Debt to Eq-uity	Int-erest Cov-erage	Cur-rent Ratio	Mar-ket Value	Latest Shares Out-standing	Held by Banks-Funds	Insider Net Trad-ing	Short-Int-erest Ratio	Fiscal Year Ends
%	%	%	%	%	-	-	$Mil	000	000	000	Days	Mo.

Revenue and Earnings

It should be noted that 12-month figures are trailing ones, calculated from figures shown in the latest interim reports and latest fiscal year reports, when appropriate. Fiscal figures are as reported by the company. Interim figures are based on cumulative data. All earnings per share figures are fully diluted ones and calculations based on them reflect such dilution. The footnote under Earnings Last 12 Mos. governs all revenue and earnings figures: q meaning first quarter; s, first six months; n, first nine months; and f, fiscal year.

5-Year Growth Rate — The five-year growth in fully diluted earnings per share arrived at through the least squares method, brought up to date through each interim by time-weighting the sixth point, and with appropriate adjustments for negative earnings years.

Dividends

Dividends are the latest indicated rate, and the yield is based on that amount and the latest close.

Up Market — The betas for up markets are calculated on the basis of the latest eight upward moves of 5% or more in The Media General Composite Market Index. At the eighth point, once a 5% swing has been attained, the beta is recalculated at a new moving high point as the market move continues, until a 5% reversal has occurred. Where there is only a partial record of a given stock's price, a minimum of four swings of 5% or more is required for the beta calculation.

Down Market — Same as the above, except the betas are calculated on the basis of 5% down swings in the Composite.

The calculation itself is an unweighted average of the stock's percentage change during a "swing period" divided by the market's percentage change during a "swing period." The co-efficient is noted by an asterisk where the beta is at least as large as its probable error (i.e., .6745 times the standard error of its mean).

Volume

Shares — The stock's reported total volume, for the last full trading week of the month.

Dollars — The above volume figure times the latest closing price (bid).

% of Shares Outstanding — The latest weekly volume as a percentage of the company's latest reported shares outstanding.

Liquidity Ratio — A measure of how much dollar volume was required, during some recent time period to move a stock's price up or down by one percentage point.

The ratio is calculated by accumulating the daily percentage changes of each issue for each trading day of the month, whether they are plus or minus, and then dividing this total percentage figure into total dollar volume for the month.

On-Balance Index — Relates the up market volume of the stock during the past four weeks to its change in price, through the following equation:
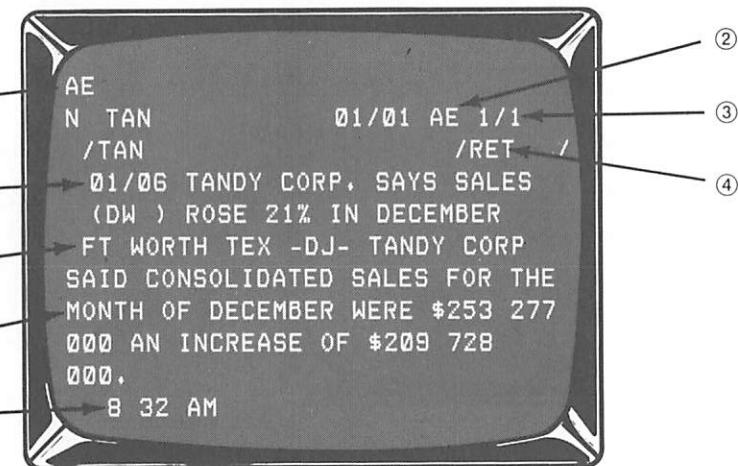
$$\text{Index} = (200) \; \frac{(S_{-1})}{(S_{-0})} \; \frac{(P_{-1})}{(P_{-0})} \; \frac{(V_{-1})}{(V_{-2})}$$

Where:

S_1 = Average Daily Shares Traded in Latest Four Weeks
S_0 = Average Daily Shares Traded in Prior Four Weeks
P_1 = Stock Price End of Latest Four Weeks
P_0 = Stock Price End of Prior Four Weeks
V_1 = Average Daily Shares Traded for Day in which the Stock Price was Up in Latest Four Weeks
V_2 = Total Average Daily Shares Traded During Latest Four Weeks

A Summary of Available Dow Jones Information

If you're a new Dow Jones subscriber, we suggest you familiarize yourself with the kinds of information available by carefully reading this section.
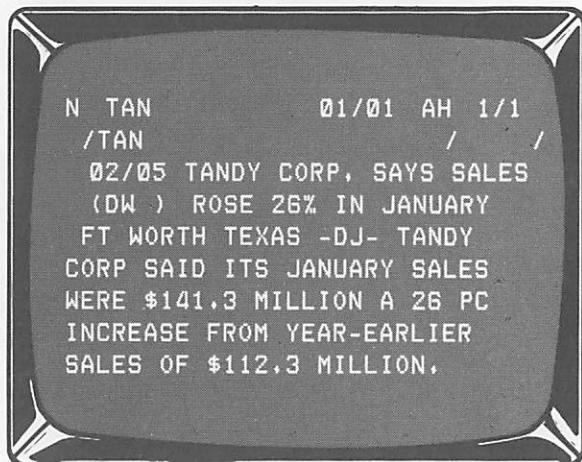
Sample News Story

① **Story Request Code**
② **Story Identifier Code**
③ **Story Length Indicator** This is page 1 of a 1 page story.
④ **Other categories** where story is filed.
⑤ **Headline** Also contains the date story was filed and the information source.
⑥ **Story Source** WJ = *Wall Street Journal*, BR = *Barron's*, DJ = *Dow Jones News Services*, DW = Both Dow Jones and the *Wall Street Journal*, NR = *Dow Jones News/Retrieved Service*)
⑦ **Story**
⑧ **Time of day story was filed**

To Get The Latest News On A Company

Desired Information	Procedure	Example
For the most recent news on a specific company:	1. Type ⋅ (period) 2. Type a company code 3. Press **(ENTER)**	⋅TAN **(ENTER)**

Your screen should look like this:

```
N  TAN              01/01  AH  1/1
/TAN                      /    /
  02/05 TANDY CORP, SAYS SALES
  (DW ) ROSE 26% IN JANUARY
  FT WORTH TEXAS -DJ- TANDY
  CORP SAID ITS JANUARY SALES
  WERE $141.3 MILLION A 26 PC
  INCREASE FROM YEAR-EARLIER
  SALES OF $112.3 MILLION,
```

Note: We've used TAN (for Tandy Corporation) as a sample company code. A few company codes are included in this Guide. All available company codes (which are the same as the stock symbols) are in the *Operating Guide and Directory of Symbols* which is mailed to all new Dow Jones Information Services subscribers. This directory includes companies traded on the New York Stock Exchange as well as those traded on the American Stock Exchange, and stocks traded Over-The-Counter (OTC).

Incidentally, if the story you're reading isn't complete, just press **(ENTER)** to "turn" to the next "page."

Relative Price Index — Calculated on the following formula:

$$\text{Relative Price Index} = \frac{300 \text{ (latest closing price)}}{a \text{ (Estimated Common Equity/Share)} + b \text{ (Latest 12 Mos. EPS)} + c \text{ (Ind. Div. Rate)}}$$

Price and Volume

Where a = average Price/Equity ratio of stocks on data base;

b = average Price/Earnings ratio of stocks on data base;

c = average Price/Dividend ratio of stocks on data base.

Price Movement

Price Gain Index — The most current forward estimate of earnings per share, multiplied by the company's 5-year average P/E ratio, and then divided by current price. The index thus shows the ratio of potential to current price, if the EPS estimate is correct, and the historic P/E ratio is achieved. If there is no footnote by the figure, the index is derived from an estimate of E.P.S. for the fiscal year ending in the current calendar year. When another estimate is used, footnotes are used as follows, with a, b, and x referring to fiscal years ending with calendar year dates as indicated.

a = Latest 12 months E.P.S.

b = Last Year's estimate.

x = Next Year's estimate.

When the Price Gain Index shows "NE," there is no E.P.S. estimate and a negative 12 month E.P.S.

Beta Co-Efficients — This co-efficient is a measure of how much a given stock tends to change in price relative to the market as a whole. A beta co-efficient of 1 would mean that the market and that given stock tend to move the same. A 5% move in the market, theoretically, should produce a 5% move in the stock. A co-efficient of 2 suggests that the stock will tend to fluctuate twice as much as the market. If the market moves up 5%, then the stock would be expected to move up by 10%. A co-efficient of 0.5 indicates that the given stock will move one-half as much as the market, either up or down.

IndustriScope betas are calculated on the basis of up markets and down markets.

Appendix D / Using Media General

Stocks by Industry — Price and Volume

Price Change					Change Vs. S&P 500					Price Range				
Last				Year to Date	Last				Year to Date	Last Close	52-Week		5-Year	
Trading Week	4 Weeks	13 Weeks	52 Weeks		Trading Week	4 Weeks	13 Weeks	52 Weeks			High	Low	High	Low
%	%	%	%	%	%	%	%	%	%	$	$	$	$	$

Relative Price					Price Action				Volume					
P/E Ratio			Price to		Rel- ative Price Index	Gain Index	Betas		This Week					On Bal- ance Index
Curr- ent	5-Year Avg.		Com- mon Equity	Rev. Per Share			Up	Down	Shares	Dollars	% Shrs. Out- standing	Liq- uidity Ratio		
	High	Low												
-	-	-	%	%	%	%	-	-	(000)	$000	%	$000		-

Relative Price

P/E Ratio — Current — Based on the latest closing price (bid) and the trailing 12 months' earnings per share.

In an effort to eliminate distortions, any calculations involving P/E ratios to determine industry averages ignore those companies with P/E's greater than 50. Any stock with a current or 5-year average P/E greater than 50 will show an NC in that field and in the Price Gain Index.

P/E Ratio — 5-Year Average High (Low) — Based on the high (low) price in each of the previous five years and the fiscal year earnings for the five years.
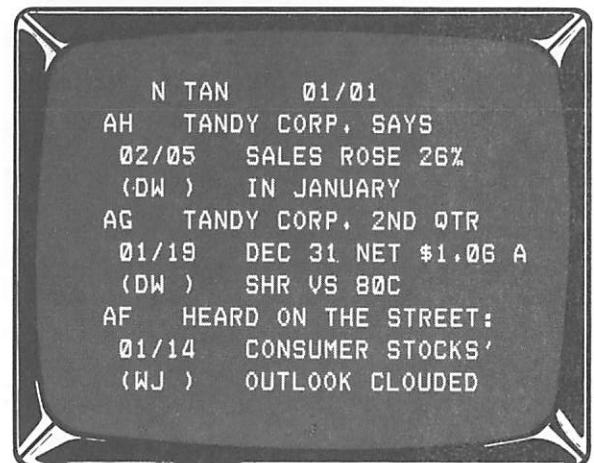
Price to Common Stock Equity — The latest closing price (bid) per share divided by the current estimated common equity per share (approximated by adding the latest fiscal common equity per share to the current interim EPS and subtracting interim indicated dividends paid).

Price to Revenue Per Share — The latest closing price (bid) per share divided by the trailing 12 months' revenue per share.

To Get The Headlines On A Company

Desired Information	Procedure	Example
To scan the most recent headlines on a company:	1. Type . (period) 2. Type a company code 3. Press (SPACEBAR) 4. Type the number 01 5. Press (ENTER)	.TAN 01 (ENTER)

Your screen should look like this:

```
     N TAN      01/01
AH    TANDY CORP. SAYS
  02/05     SALES ROSE 26%
  (DW )     IN JANUARY
AG    TANDY CORP. 2ND QTR
  01/19     DEC 31 NET $1.06 A
  (DW )     SHR VS 80C
AF    HEARD ON THE STREET:
  01/14     CONSUMER STOCKS'
  (WJ )     OUTLOOK CLOUDED
```
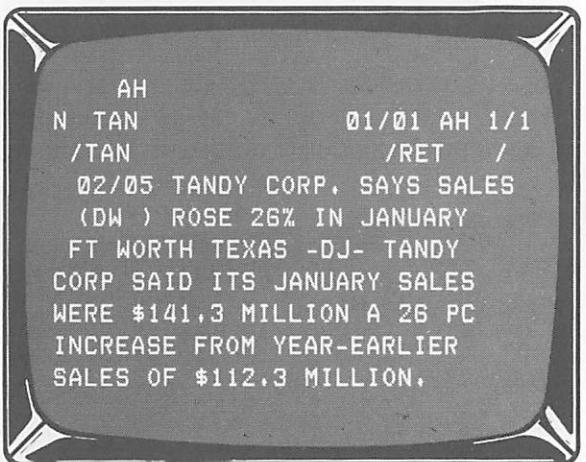
To get to the next page and more headlines, press (ENTER) again.

To Get A Story That Interests You

Desired Information	Procedure	Example
To find a story you're interested in:	1. Type the two-letter code that is to the left of the headline. 2. Press **(ENTER)**	AH **(ENTER)**

Your screen should look like this:

```
          AH
N  TAN                 01/01 AH 1/1
/TAN                     /RET   /
02/05 TANDY CORP. SAYS SALES
(DW ) ROSE 26% IN JANUARY
FT WORTH TEXAS -DJ- TANDY
CORP SAID ITS JANUARY SALES
WERE $141.3 MILLION A 26 PC
INCREASE FROM YEAR-EARLIER
SALES OF $112.3 MILLION.
```

Industries

Accounting	I/FIN
Advertising	I/COM
Aerospace	I/ARO
Airlines	I/AIR
Appliances	I/ELE
Autos, Auto Parts	I/AUT
Banks	I/BNK
Broadcasting	I/COM
Casino and Gambling	I/CNO
Chemicals	I/CHM
Computers	I/OFF
Construction (Also Materials)	I/CON
Cosmetics	I/FAB
Electric & Electronics	I/ELE
Farm Equipment	I/FAR
Farm Products	I/CMD
Financial	I/FIN
Food and Beverage	I/FAB
Food Stores	I/RET
Hospital Supplies	I/PHA
Household Products	I/FAB
Industrial Equipment	I/IND
Insurance	I/FIN
Land Development	I/REL
Leasing	I/FIN
Machine Tools	I/IND
Mining & Metals	I/MIN
Movies	I/COM
Mutual Funds	I/FIN
Natural Gas & Pipelines	I/LNG
Nuclear-Power, Fuel, etc.	I/NUK
Office Equipment	I/OFF

Industries (Cont.)

Paper	I/PUL
Packaging	I/PUL
Petrochemicals	I/CHM
Petroleum	I/PET
Pharmaceuticals	I/PHA
Plastics	I/CHM
Publishing	I/COM
Pulp & Paper	I/PUL
Railways	I/TRA
Real Estate, Reits	I/REL
Restaurants	I/FAB
Retailing	I/RET
Rubber	I/RUB
Securities Industry	I/SCR
Ship Lines, Builders	I/TRA
Supermarkets	I/FAB
Telephone, Telegraph	I/UTI
Textiles & Apparel	I/TEX
Thrift Institutions	I/BNK
Tobacco	I/FAB
Transportation (Not Airlines)	I/TRA
Truck Lines	I/TRA
Utilities	I/UTI

Appendix C / Subject Area Codes

General News

General News	I/GEN
Hot Business News	H/
Headlines of the Hour	I/HOH
New York News	NYORK
All	A/

Economic News

The Economy	I/ECO
Economic Indicators	I/EMI

Cost of Money

Monetary News	I/MON
Bond Market News	I/BON

Stock Market Activity and Company Earnings, Dividends, and Takeover News

Daily Calendar	I/CAL
Active Stocks	I/ACT
Stock Market	I/STK
Tender Offers, Mergers, Acquisitions	I/TNM
Bankruptcies	I/BCY
Block Trades	I/BLK
Buybacks	I/BBK
Dow Jones Averages	I/DJA
Barron's News	BRRNS
Earnings Reports	I/ERN
Dividend Actions	I/DIV
Labor	LABOR
Executive Changes	WNEWS
Stock Symbol Changes	BRSYM

Commodities News

Commodities	I/CMD

Foreign Area News

General Foreign News	FORGN
Canada	CANDA
Latin America	LATAM

Foreign Area News (Cont.)

Europe	EUROP
Japan	JAPAN
Far East	FREST
Mideast	MDEST
Africa	AFRIC

U.S. Government News

General Government News	GOVMT
Executive Branch News	G/EXE
Congressional News	G/CNG
Supreme Court	G/SUP
Agriculture Department	G/AGD
Justice Department	G/JUS
Civil Aeronautics Board	G/CAB
Defense Department	G/DEF
Energy Department	G/ERG
Internal Revenue Service	G/IRS
Taxes	TAXES

Banking Regulatory Agencies

Federal Reserve Board	G/FED
Treasury Department	G/TRE

Federal Regulatory Agencies
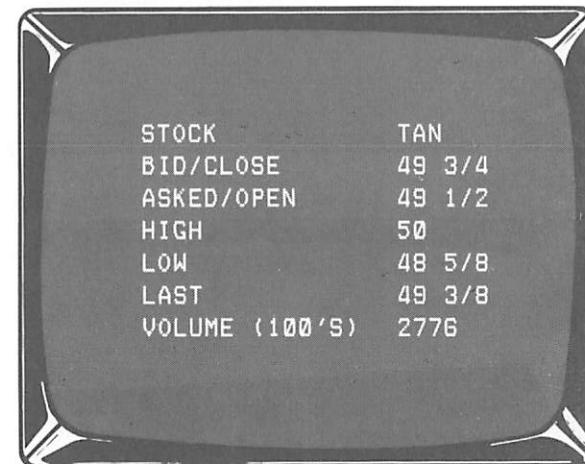
Environmental Protection Agency	G/EPA
Federal Communications Commission	G/FCC
Food and Drug Administration	G/FDA
Federal Trade Commission	G/FTC
Interstate Commerce Commission	G/ICC
Securities and Exchange Commission	G/SEC

To Get The Current Stock Quote For A Company

Desired Information	Procedure	Example
To find the quote on a stock:	1. Type , (comma) 2. Type a company code 3. Press **ENTER**	,TAN **ENTER**

Your screen should look like this:

```
STOCK            TAN
BID/CLOSE        49 3/4
ASKED/OPEN       49 1/2
HIGH             50
LOW              48 5/8
LAST             49 3/8
VOLUME (100'S)   2776
```

Note: Company codes for stock quotes are the same as the company codes for new stories.

Desired Information	Procedure	Example

For daily quotes for the most recent month:	1. Type **;** (semi-colon)
	2. Type the number of the exchange you want:
	  1 = New York
	  2 = American
	  3 = Pacific
	  4 = Midwest
	3. Type a company code.
	4. Press **(SPACEBAR)**
	5. Type **P1** for the most recent 12 days or **P2** for the days 13-24.
	6. Press **(ENTER)**
		;1TAN P1 (ENTER)
		;2TAN P2 (ENTER)

For quarterly or monthly summaries:	1. Type **;** (semi-colon)
	2. Type a company code.
	3. Press **(SPACEBAR)**
	4. Type the last two digits of the desired year.
	5. PRess **(SPACEBAR)**
	6. Type either **Q** or **M**
	  Q = Quarterly
	  M = Monthly
	7. Press **(ENTER)**
		;TAN 80 Q (ENTER)
		;TAN 79 M (ENTER)

Note: OTC stocks do not require an "exchange" number. Composite quotes are not available.

After receiving quotes, you can get the most recent 12 day quotes by typing **;** **(ENTER)**.

If you use the TELENET network to access Dow Jones Information Services, follow this start-up procedure:

1. Dial the "host" system's telephone number.

2. Once the phone connection is made and you hear the high-pitched tone, proceed as described in your modem/terminal owner's manual (direct modem or telephone interface).

   Terminal users, press any key and hang-up the telephone.

   Direct modem users, set the MODE switch to ORG and hang-up the telephone.

   Telephone interface users, set the MODE switch to O, DUPLEX switch to F, and place the telephone handset into the cradle.

3. When the modem is set, press **(ENTER)** twice.

4. TELENET will respond with system information and then ask you to identify your terminal by displaying the prompt **TERMINAL=**. You should press **(ENTER)**.

5. The host system will then prompt you with **@** (the at symbol). You should type **C**, press **(SPACEBAR)**, type **60942** and press **(ENTER)**. For instance: **C 60942 (ENTER)**.

6. When you're asked **WHAT SERVICE PLEASE???**, type **DJNS (ENTER)**.

7. Next, the host network will ask you to **ENTER PASSWORD**. Type your personal password and press **(ENTER)**. You will then be connected to Dow Jones Information Services.

8. When Dow Jones asks you to **ENTER QUERY**, you should proceed as described in this manual.

When you're ready to disconnect, type **DISC (ENTER)**. After you've disconnected from the network, the host will display your log-on and log-off time and the date. Then the **@** will re-appear (prompting you to log-on). If you wish to remain off-line, ignore this prompt and, after a couple of minutes, **OFF LINE** will be displayed.

Note: Under TELENET, **(SHIFT)(?)** does not interrupt a headline or story.

Also, TELENET will only connect with Dow Jones Information Services between 6 A.M. and 6 P.M. Eastern Standard Time, Monday through Friday excluding holidays.

U.S. Treasury Bonds and Notes			
Rate	Name	Current Quotes	Symbol
8⅞%	June 1983 Notes	#	BAQR
4%	February 1988-93	#	BFCA

For daily quotes, your screen should look like this:

```
¡TAN P1
STOCK 1TAN

DATE       HIGH       LOW
CLOSE      VOL(100/S)
07/14/81   28 5/8     27 3/4
28 5/8     2481
07/15/81   29 3/4     29
29 3/8     1750
07/16/81   30 1/8     29 5/8
29 3/4     2473
```

For monthly summaries, your screen should look like this:
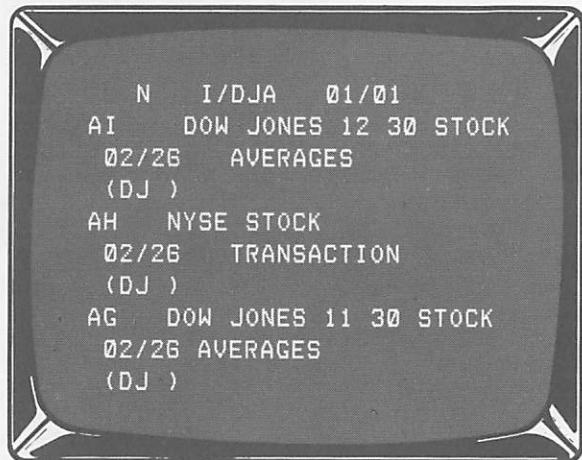
```
¡TAN 80 M
STOCK 1TAN

      1980 MONTHLY SUMMARY
DATE       HIGH       LOW
CLOSE      VOL(100'S)
01/80      33         28 5/8
32 1/4     11535
02/80      37 1/8     29 1/4
36 3/4     15013
03/80      37 1/8     31 1/8
33         21410
```

To Get Headlines In A General Subject Area

Desired Information	Procedure	Example
For subject area headlines:	1. Type . (period) 2. Type a subject code 3. Press (SPACEBAR) 4. Type 01 5. Press (ENTER)	.I/GEN 01 (ENTER) .H/ 01 (ENTER) .I/DJA 01 (ENTER) .MDEST 01 (ENTER)

Your screen should look like this:

```
      N    I/DJA    01/01
AI      DOW JONES 12 30 STOCK
   02/26     AVERAGES
   (DJ )
AH     NYSE STOCK
   02/26    TRANSACTION
   (DJ )
AG    DOW JONES 11 30 STOCK
   02/26 AVERAGES
   (DJ )
```

Note: A complete list of available subject codes can be found later in this Guide.

Appendix A / Sample Codes

Common and Preferred Stocks, and Warrants

Security	Exchange	Current Quotes	Historical Quotes	Financial Statistics	Symbol
Exxon Corp.	NYC	,	;	$	XON
Nabisco Inc.	NYC	,	;	$	NAB
Seintech Corp.	AMC	,	;	$	SMH
Frontier Airlines	AMC	,	;	$	FA
Tandy Corp.	NYC	,	;	$	TAN
AT&T	NYC	,	;	$	T
Eastman Kodak	NYC	,	;	$	EK
Anheuser Busch	OTC	,	;	$	BUD

Corporate Bonds

Security	Exchange	Current Quotes	Symbol
Clark Equip. Co. 9⅝% 1999	NY	/	CKLD
Dow Chemical 4.35% 1988	NY	/	DOWL
NCR 9% 1985	NY	/	NCRE

Mutual Funds

Fund Name	Current Quotes	Symbol
Capital Bond	+	AGCBX
Price Rowe Growth	+	PRGRX
Janus Fund Inc.	+	JANSX

Stock Price And Volume

Information is made available on:

- The current price compared to the price in the last trading week as well as the previous four, 13, and 52 weeks. Information is also given for the year to date.
- The price change compared to Standard and Poor's 500 Stock Index for the same period of time.
- The price range for the last year compared to the price range for the previous five years.
- Price-earnings ratios for the current year compared to the five-year high/low and average.
- The current stock price relative to common equity, revenue per share, and relative price index.
- Price volatility measured by Gain Index and Beta factor.
- The volume of shares traded in the latest week as well as liquidity ratio and the On-Balance Index. (Data includes shares, dollars, and percent of shares outstanding.)

Fundamental Data

Detailed financial statistics also include information concerning a company's fundamental data. This includes:

- Revenue for the last year in addition to changes in revenue compared to the last quarter as well as the year-to-date.
- Earnings — for a single year; per share for the last 12 months; for the last fiscal year; percent change for last quarter; for the fiscal year to date; for the last 12 months; the five-year growth rate.
- Dividends — current amount and percent yield; five-year growth rate; pay out for the last fiscal year and the last five years, last ex-dividend date.
- Financial ratios — profit margin percent; return on common equity and total assets; revenue to assets; debt to equity; interest coverage; the current ratio.
- Shareholding — market value; shares outstanding; shares held by institutions; insider net trading; short interest ratio.
- The date the fiscal year ends.

To Get Detailed Statistics On A Company

Desired Information	Procedure	Example
For detailed stock price and volume information on a company:	1. Type $ (dollar sign) 2. Type a company code 3. Type / (slash) 4. Type P 5. Press (ENTER)	$TAN/P (ENTER)
For fundamental data on a company's revenues and earnings:	1. Type $ (dollar sign) 2. Type a company code 3. Type / (slash) 4. Type F 5. Press (ENTER)	$TAN/F (ENTER)
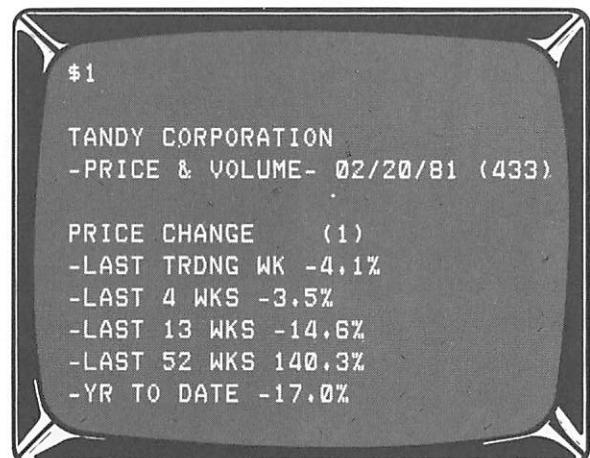
Note: Since this information is stored on three "pages," you can specify the page you want by typing (after you typed the above):

$1 (ENTER)   (for page 1)
$2 (ENTER)   (for page 2)
$3 (ENTER)   (for page 3)
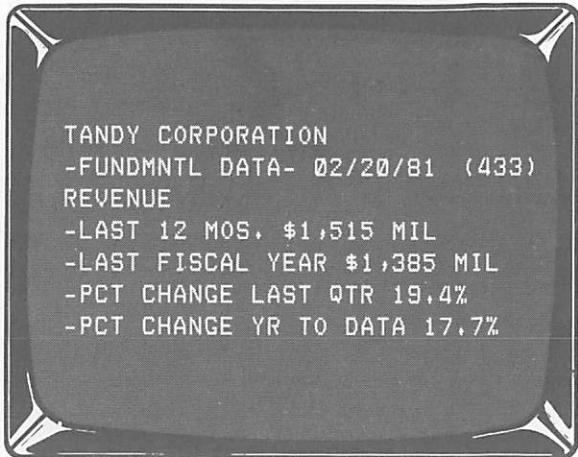
Your screen should look like this:

```
$1


TANDY CORPORATION
-PRICE & VOLUME- 02/20/81 (433)


PRICE CHANGE    (1)
-LAST TRDNG WK -4.1%
-LAST 4 WKS -3.5%
-LAST 13 WKS -14.6%
-LAST 52 WKS 140.3%
-YR TO DATE -17.0%
```

Your screen should look like this:

```
TANDY CORPORATION
-FUNDMNTL DATA- 02/20/81 (433)
REVENUE
-LAST 12 MOS. $1,515 MIL
-LAST FISCAL YEAR $1,385 MIL
-PCT CHANGE LAST QTR 19.4%
-PCT CHANGE YR TO DATA 17.7%
```
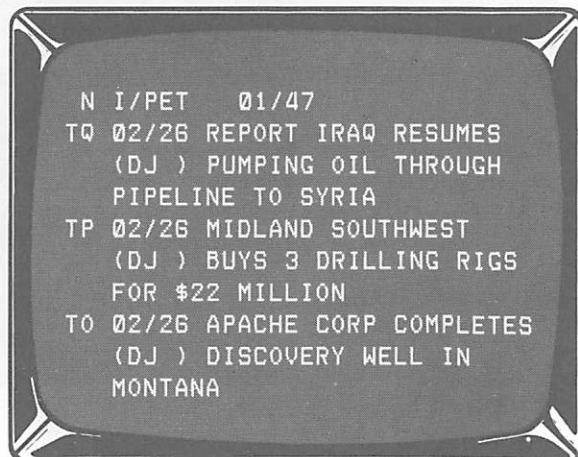
To Get The Headlines On An Industry

Desired Information	Procedure	Example
For headlines on an industry (such as steel, auto, etc.):	1. Type . (period) 2. Type an industry code 3. Press (SPACEBAR) 4. Type 01 5. Press (ENTER)	.I/PET 01 (ENTER)

Your screen should look like this:

```
N I/PET    01/47
TQ 02/26 REPORT IRAQ RESUMES
   (DJ ) PUMPING OIL THROUGH
   PIPELINE TO SYRIA
TP 02/26 MIDLAND SOUTHWEST
   (DJ ) BUYS 3 DRILLING RIGS
   FOR $22 MILLION
TO 02/26 APACHE CORP COMPLETES
   (DJ ) DISCOVERY WELL IN
   MONTANA
```

Note: Industry codes are listed later in this Guide.

Dow Jones Information Services gives you access to detailed financial statistics for many companies. To obtain this information:

1. Type $ (dollar sign) (for financial statistics).

2. Type the company code or industry codes.

   • For companies, use the same code you used for stock quotes and news.

   • For industries, use the special industry codes sent with the *Operating Guide and Directory of Symbols*. (There are 180 industries coded.)

3. Type / (slash).

4. Type the letter P (for Stock Price and Volume Statistics) or F (for Fundamental data) (These are described below).

5. Press (ENTER).

For the first page of statistics, type:

$1 (ENTER)

For the second and third pages, type $2 and $3 respectively.

For example:

$TAN/P (ENTER)	(for Tandy Corporation stock price statistics)
$1 (ENTER)	(for page 1 of above)
$2 (ENTER)	(for page 2 of above)
$TAN/F (ENTER)	(for Tandy Corporation fundamental statistics)
$433/P (ENTER)	(for electronics industry composite stock price statistics)

Information Included in Financial Statistics

Financial statistics are updated by Media General Financial Services, Inc. on a weekly basis.
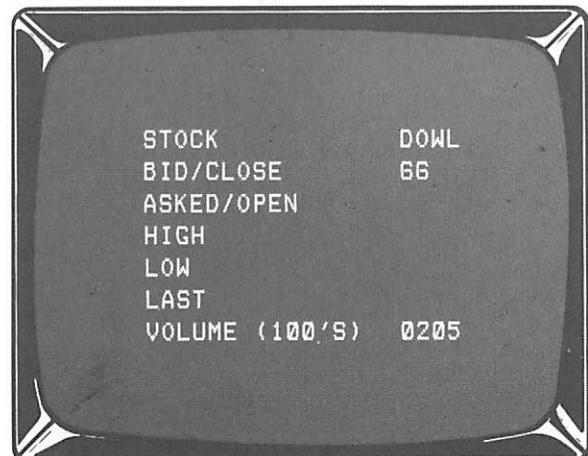
These statistics include information on earnings, dividends, price-earning ratios, and stock-price performance relative to market indicators for companies listed on the New York and American stock exchanges and on 800 selected OTC companies. These statistics also include composite information on 180 industries.

To Get Quotes On Bonds, Mutual Funds, or U.S. Treasury Bonds and Notes
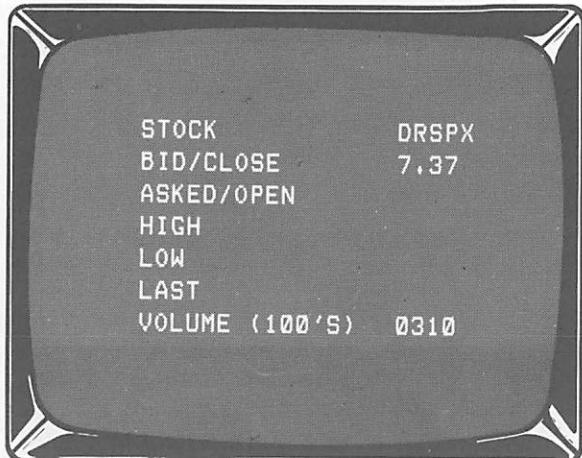
Desired Information	Procedure	Example
For quotes on bonds:	1. Type / (slash) 2. Type a company code 3. Press (ENTER)	/DOWL (ENTER)
For quotes on mutual funds:	1. Type + (plus) 2. Type a company code 3. Press (ENTER)	+DRSPX (ENTER)
For quotes on U.S. Treasury bonds and notes:	1. Type # (number sign) 2. Type a company code 3. Press (ENTER)	#BAST (ENTER)

Note: Bond, mutual fund, and U.S. Treasury issue symbols can be found in the *Operating Guide and Directory of Symbols*.
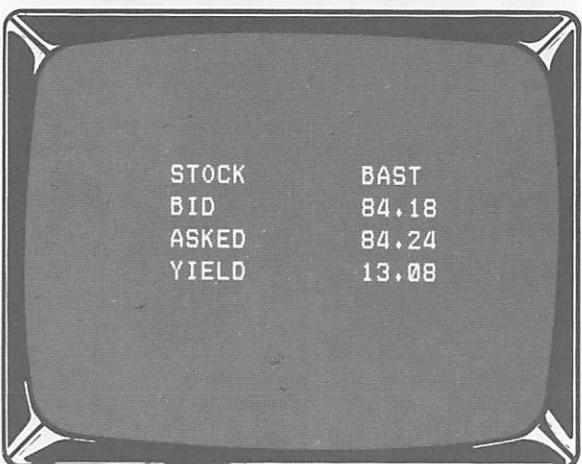
For quotes on bonds, your screen should look like this:

```
STOCK              DOWL
BID/CLOSE          66
ASKED/OPEN
HIGH
LOW
LAST
VOLUME (100'S)     0205
```

For quotes on mutual funds, your screen should look like this:

```
STOCK            DRSPX
BID/CLOSE         7.37
ASKED/OPEN
HIGH
LOW
LAST
VOLUME (100'S)   0310
```

For quotes on U.S. Treasury bonds and notes, your screen should look like this:

```
STOCK      BAST
BID        84.18
ASKED      84.24
YIELD      13.08
```

Price information is updated continuously as trades occur on the different listed exchanges. (Don't forget, however, there is the minimum 15 minute delay on all pricing information.) This price information is available for:

- Common and preferred stocks and warrants on four U.S. stock exchanges (New York, American, Pacific, and Midwest). Dow Jones Information Services subscribers can access both composite prices and individual exchange prices.

  These quotes include the previous day's close and the current day opening price as well as the high/low and latest price and volume. If a stock is not yet traded, the *Close* column reflects its last traded price and the *Volume* column reflects the date of that trade.

- Corporate bonds on three exchanges (New York, American, and Pacific). The *Volume* figure reflects the value of the bonds traded. If it is not yet traded, the *Close* column reflects its last traded price and the *Volume* column reflects the date of the trade.

- Options from five exchanges (Chicago Board Options Exchange and the American, Pacific, Midwest, and Philadelphia Stock Exchanges). *Volume* reflects the number of contracts traded. If it is not yet traded, the *Close* column reflects the contract's last traded price and the *Volume* column reflects the date of that trade.

Quotes are also available for:

- The national OTC market, with bid and ask prices updated six times each day — on the hour — between 11 A.M. and 5 P.M. (Eastern Time). Volume is updated once each business day at approximately 6 P.M. (Eastern Time).

- Mutual fund sell (net asset value) and buy (markup) quotes are updated once each day at approximately 6 P.M. (Eastern Time). Before that time, only the net asset value and the date of the last trade are given.

- Selected U.S. Treasury issues are updated each day at 6 P.M. (Eastern Time) with bid, ask, and yield. The point in a quote is a device to separate the round figures from the fraction. (For instance, 99.16 is the same as $99^{16}/_{32}$.) Government bonds are traded in thirty-seconds.

Current Day Quote Request Samples		
Database	**Market Quote Request**	**Request Format**
Stocks	Tandy (Composite)	,TAN **(ENTER)**
Stocks	Tandy (NYSE)	,1TAN **(ENTER)**
Corporate Bonds	Ashland Oil 6.15% 1992	/ASHK **(ENTER)**
Mutual Funds	Capital Bond	+AGCBX **(ENTER)**
U.S. Treasury Notes & Bonds	9⅝% Aug., 1981 Notes	#BAMB **(ENTER)**
Options	Exxon, $55 July 1981 options	-XONGP **(ENTER)**

Option Symbols Formula

To access the options database, type − (hyphen); then type the stock symbol. (Do not press **(SPACEBAR)** between hyphen and symbol.) See your newspaper for option months and strike prices. Add the one-letter month code and the one-letter strike price code. Then press **(ENTER)**. Strikes adjusted for stock splits may use a different primary symbol.

Month Codes		
	Call	Put
JAN	A	M
FEB	B	N
MAR	C	O
APR	D	P
MAY	E	Q
JUN	F	R
JUL	G	S
AUG	H	T
SEP	I	U
OCT	J	V
NOV	K	W
DEC	L	X

Strike (Exercise) Price Codes			
5	A	55	K
10	B	60	L
15	C	65	M
20	D	70	N
25	E	75	O
30	F	80	P
35	G	85	Q
40	H	90	R
45	I	95	S
50	J	100	T

Letters U thru Z for non-standard strikes and fractionally adjusted prices.

Hints and Tips

- **Don't forget!** When you've obtained all the information you need and are ready to disconnect from the Service, type: DISC **(ENTER)**.

- To interrupt, press and hold **(SHIFT)** **(?)** or, if your terminal has a **(BREAK)** key, press it.

- If you make a mistake, don't worry. Just press and hold the control key (see your Computer's *User's Guide*) and type X. This will cancel your original query. You should then re-enter the entire line. Another way (which works in most cases) is to press **(ENTER)** and re-enter the entire line. If you get the message SEE YOUR REP, please hang up and try again.

- Don't forget to press the "do-it" key (i.e., the carriage return, **(ENTER)**) since the Service won't "hear" you until you do. You should press it after typing any information or when you want to get to the next page of information.

- After you've logged-off the network, the host will tell you your sign-on and sign-off times, followed by the date. Then the host will tell you to PLEASE LOG IN again. If you wish to remain off-line, ignore this prompt and, after a couple of minutes, OFF-LINE will be displayed.

Notes:

Dow Jones Information Services news files go back 90 days. This database has special codes covering general news, economic news, the cost of money, stock market activity, company earnings and dividends, news on many industries, takeover news, commodities news, foreign news, and U.S. Government news. In addition, it has a code for each of the companies whose stock is traded on the New York Stock Exchange, the American Stock Exchange, and the OTC Nasdaq market.

If you need the news about a particular company:

1. Type • (period) (for news).
2. Type the category or company symbol (if applicable). See the *Operating Guide and Directory of Symbols* for a list.
3. Press (SPACEBAR)
4. Type Ø1 (for page 1 of headlines).
5. Press (ENTER).

For example:

•TAN Ø1 (ENTER)   (Tandy Corporation headlines)
•TAN (ENTER)   (Tandy Corporation latest story)
•NAB Ø1 (ENTER)   (Nabisco headlines)
•G/EXE Ø1 (ENTER) (Executive branch of government headlines)
•H/ (ENTER)   (Current day "hot" news)
•I/PET Ø1 (ENTER) (Petroleum Industry headlines)

To get a specific story behind a headline, type the two-letter code located to the left of each headline and press (ENTER).

If you want to interrupt the printing of headlines so you can get a story, press and hold (SHIFT)(?).

To get to the next page of headlines, press (ENTER).

To return to the headline list after looking at a story, type the number of the desired headline page and press (ENTER). The top line of each headline page carries a notation such as Ø1/Ø6. This means "The first page (Ø1) of a total of six pages (Ø6)." After you've entered the category, you can skip pages when searching headlines.

To obtain a current market quote:

1. Type one of the following characters to obtain the desired database:

Character	Database
, (comma)	Stocks (common and preferred) and Warrants
/ (slash)	Bonds (corporate and foreign)
- (hyphen)	Options
+ (plus)	Mutual Funds
# (number sign)	U.S. Treasury Issues

2. Type the symbol for the security you want. (See the *Operating Guide and Directory of Symbols*.)

3. To access preferred stocks, type + (plus) after the stock symbol.

   To access warrants, type % (percent) after the stock symbol.

   To access issued stocks, type @ (at) after the stock symbol if it is traded on the New York or American Stock Exchange. Type V after the stock symbol if it is traded OTC.

   Special Note For Common Stocks: To access a quote from a specific stock exchange — but not the composite — first type the number of the exchange (1 = New York, 2 = American, 3 = Pacific, 4 = Midwest) and then the stock symbol. No number is needed for OTC quotes. If no number is used for companies traded on an exchange, the composite quote will be given.