

Radio Shack®

TRS-80

MICRO
COMPUTER
SYSTEM

Radio Shack®

TRS-80™ COLOR COMPUTER

TRS-80 Videotex/CompuServe Information Service

CUSTOM MANUFACTURED IN USA BY RADIO SHACK  A DIVISION OF TANDY CORPORATION

Cat. No.
26-2222

CUSTOM MANUFACTURED IN USA BY RADIO SHACK A DIVISION OF TANDY CORPORATION



CompuServe Information Service Subscription Information

Here are the answers to some questions you may have about the CompuServe Information Service.

What do I get free on CompuServe?

You have received a User ID and password for "log-on" (access) and sample the CompuServe Information Service (CIS) for one FREE hour of connect time under a free sample subscription. Instructions on a sheet titled "Log-On" are included with your User ID and password. This is your opportunity to enter information on the CompuServe Information Service "Subscriber" without any initiation fee. As a customer you will pay only for the purchases you make after you have logged on. As an "Active Subscriber," you will receive a copy of our UPDATE newsletter and a complimentary subscription to our TODAY magazine.

How can I become an active subscriber to the free sample subscription?

You will need to enter information on the CompuServe Information Service agreement. Anytime during your free connect time, or for up to 90 days thereafter, you may enter your information on-line by simply selecting "Sign up for continued service" right after logging on. Before signing up, the computer will display some important initial information. It will then prompt for information such as billing address, telephone number and billing option. After you enter your responses, you will be informed that a new password will be mailed to the address you indicated. If you have not used up your entire free connect hour, you should continue to use your current password until your free time is completely used or until the effective date of your new password (printed on the new password sheet), whichever comes first. To complete the subscription process, you are to fill in the blanks and sign the printed "Service Continuation/Request and Agreement" form found in your initial package with your User ID. Enclose it in the postage paid envelope and mail it to CompuServe. If you have followed these instructions and answered all the questions on-line, you will be a CIS "Active Subscriber" upon the effective date of your new password.

How am I charged for using CompuServe?

First of all, you are to have an address within the 50 United States or Canada. You have four billing options:

- 1 & 2: You can be billed through VISA or MasterCard and incur NO additional CIS billing service charges.
- 3: Bank One of Columbus, NA, offers a VIP revolving credit billing service which has an additional billing service charge. VIP is by prior application and may be initiated by sending a letter to CompuServe Information Service, Customer Support Department, P.O. Box 20212, Columbus, OH 43220.
- 4: CompuServe offers a Direct Bill service to customers with a U.S. address. This service has a \$200 per billing period maximum limit and has an additional billing service charge.



total of your connect time requested in seeing the details of your account information on-line.

How do I access CompuServe?

CompuServe is available within a 100-mile radius of one of our network locations found in the continental United States. Telephone numbers have been assigned for each User ID. CompuServe can be used to access the network other than the terminal. An additional up-to-the-minute telephone numbers can be

What do I need to use the service?

Your computer or terminal and modem should be set at 110 through 300 baud. Additional charges will be incurred if you wish to communicate at a higher baud rate.

Is there a way to store my own information on CompuServe?

Yes, you are allotted 128,000 characters of on-line disk storage at no charge. Additional storage is available upon request in 64,000 character increments. You pay an additional weekly storage charge until you cancel the request.

Are there any other times I can use CompuServe?

After you become an Active Subscriber, you are eligible for Prime Service access from 8 a.m. to 6 p.m. Monday through Friday at a higher connect hour rate. If you are interested in subscribing to Prime Service (and have become an Active Subscriber) send us a letter requesting a "Prime Service Addendum" to CompuServe Information Service, Customer Support Dept., P.O. Box 20212, Columbus, OH 43220.

The above information is accurate as of August 1, 1982. CompuServe reserves the right to modify any of its services or offerings in an effort to provide the highest quality service possible. You may find the most current customer information either on-line or by calling CIS Customer Service at the telephone numbers below.

We hope this information has been helpful. Our Customer Service staff is available to assist you from 8 a.m. to midnight, Monday through Friday and from 2 p.m. to midnight on Saturday and Sunday, Eastern Time. The Customer Service telephone numbers are:

614/457-8650 from within Ohio or outside contiguous U.S.
800/848-8990 from outside Ohio, within contiguous U.S.

CompuServe



CompuServe Information Service Subscription Information

Here are the answers to some questions you may have about the CompuServe Information Service.

What do I get free on CompuServe?

You have received a User ID and password that allows you to "log-on" (access) and sample the CompuServe Information Service (CIS) for one FREE hour of Standard Service connect time under a free sample subscription. You will find log-on instructions on a sheet titled "Log-on Procedures" in the package with your User ID and password. You are also given the opportunity to enter information on-line and become a CIS "Active Subscriber" without any initiation or one time subscription charge. As a customer you will pay only for the services you use and purchases you make after you have used your free connect hour. As an "Active Subscriber," you will begin receiving a free monthly copy of our UPDATE newsletter plus a free introductory subscription to our TODAY magazine.

How can I become an active subscriber after I use my free sample subscription time?

You will need to enter information on-line and also mail us an agreement. Anytime during your free one hour sample subscription, or for up to 90 days thereafter, you may enter your information on-line by simply selecting "Sign up for continued service" right after logging on. Before signing up, the computer will display some important initial information. It will then prompt for information such as billing address, telephone number and billing option. After you enter your responses, you will be informed that a new password will be mailed to the address you indicated. If you have not used up your entire free connect hour, you should continue to use your current password until your free time is completely used or until the effective date of your new password (printed on the new password sheet), whichever comes first. To complete the subscription process, you are to fill in the blanks and sign the printed "Service Continuation/Request and Agreement" form found in your initial package with your User ID. Enclose it in the postage paid envelope and mail it to CompuServe. If you have followed these instructions and answered all the questions on-line, you will be a CIS "Active Subscriber" upon the effective date of your new password.

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- 4: CompuServe offers a Direct Bill service to customers with a U.S. address. This service has a \$200 per billing period maximum limit and has an additional billing service charge.

In all cases, your bill will consist of a total of your connect time usage and purchases. Customers interested in seeing the details of their usage can view their personal account information on-line.

Do I have to dial long distance to access CompuServe?

No, not if you live within the local dialing radius of one of our many CompuServe communications network locations found in most of the major metropolitan areas within the continental United States. A list of all CompuServe network telephone numbers has been included in the package with your User ID. CompuServe also provides supplementary networks that can be used to access the information service. When using a network other than the CompuServe network, you are charged an additional communications surcharge. The most up-to-the-minute information on all of the networks' telephone numbers can be found on-line.

At what rate should I set my modem to use the CompuServe Information Service?

Your computer or terminal and modem should be set at 110 through 300 baud. Additional charges will be incurred if you wish to communicate at a higher baud rate.

Is there a way to store my own information on CompuServe?

Yes, you are allotted 128,000 characters of on-line disk storage at no charge. Additional storage is available upon request in 64,000 character increments. You pay an additional weekly storage charge until you cancel the request.

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We hope this information has been helpful. Our Customer Service staff is available to assist you from 8 a.m. to midnight, Monday through Friday and from 2 p.m. to midnight on Saturday and Sunday, Eastern Time. The Customer Service telephone numbers are:

614/457-8650 from within Ohio or outside contiguous U.S.
800/848-8990 from outside Ohio, within contiguous U.S.

CompuServe

CompuServe Information Service Rates

Connect Rates⁽¹⁾ (per connect hour)

	Standard	Prime
Up to 300 baud:		
U.S. and Canada	\$ 5.00	\$22.50
1200 baud:		
U.S. and Canada	\$17.50	\$35.00

Monthly Minimum Charges

	U.S. and Canada
Standard Service	none
Prime Service	2 hours

Communications Surcharges⁽²⁾

	Standard	Prime
CompuServe number	none	none
TYMNET*:		
from contiguous U.S.	\$ 2.00 hr.	\$10.00 hr.
from Alaska	20.00 hr.	20.00 hr.
from Hawaii	10.00 hr.	10.00 hr.
from Canada	8.00 hr.	8.00 hr.

On-Line Disk Storage Charges

First 128,000 characters	none
Additional 64,000 characters (optional)	\$ 4.00 week

Premium Program Charges

Some programs have transaction charges in addition to connect time charges (e.g., MicroQuote™, Quick Quote™, Value Line Database II⁽³⁾, Energy, etc.). Transaction charges are described in the on-line introductory information, upon selection of a particular service.

Line Printer Charges

(standard form size - 14 ⁷ / ₈ x 11)	
per page	\$.10
postage & handling	1.50
minimum charge	3.50

Miscellaneous Charges

Billing Detail	\$ 3.50/report
Returned Check	10.00 each

Customer is responsible for and will be charged for any overdue account collection expense, including, but not limited to, agent fees, attorney fees, court costs and other associated expenses.

Billing Options

	Service Charge
VISA	none
MasterCard	none
VIP ⁽³⁾	\$3.00/month
Direct Bill (U.S. only)	\$3.00/statement

Hours of Operation

(determined by local time at location of network connection)

Standard Service: 6 p.m. to 5 a.m. weekdays, all day Saturdays, Sundays and announced CompuServe holidays.

Prime Service⁽³⁾: 8 a.m. to 6 p.m. weekdays.

Service between 5 a.m. and 8 a.m. weekdays is on an as-available basis. Should any part of a session occur within our Prime Service, the entire session will be billed at our Prime Service rate, otherwise it will be billed at the Standard Service rate.

(1) Connect time is billed in one minute increments, with a minimum of one minute per session. All rates exclude local telephone charges (e.g., message units, long distance, etc.).

(2) Communications surcharges apply only when the respective communications telephone line is used for connection. Each location has the option of dialing through its local TYMNET (or DataPac/TYMNET in Canada) access number or dialing a CompuServe network access number.

(3) This is an optional service available by contract only after Standard Service is established.

You can purchase the CompuServe Information Service at computer stores across the country. Check with the store nearest you, or contact CompuServe. Access packages are also included with computer and data communications equipment offered by selected hardware manufacturers.

All charges on this rate sheet and over the CompuServe Information Service are listed and payable in U.S. funds.

All information and rates are subject to change without prior notice. For the most current information, select User Information from the main menu of the information service.

TYMNET* is a registered trademark of TYMNET Incorporated.

Effective March 1, 1983

CompuServe

CompuServe Information Service Access Numbers

CompuServe Network Services (CNS) is the fastest, most reliable method of accessing the CompuServe Information Service and is available at a charge of \$5 per standard service connect hour. We urge you to check the cities listed below to see if you can access CompuServe through a CNS number.

Since the CNS network is constantly expanding you should

check the online telephone listing (available online under the "CIS Telephone Access Numbers") to get the latest additions. The information service also can be accessed through other supplemental networks for a surcharge. These numbers may be obtained by calling CompuServe Customer Service at 800/848-8990 or 614/457-8650.

These numbers are current as of April 1, 1983.

LOCATION	300 BAUD	LOCATION	300 BAUD	LOCATION	300 BAUD	LOCATION	300 BAUD
Alabama		Orlando	305 273-8780	Lansing	517 321-2388	Oklahoma	
Birmingham	205 879-2280	Tallahassee	904 222-4144	Saginaw	517 893-1161	Oklahoma City	405 946-4799
Huntsville	205 536-4405	Tampa	813 875-0633	Minnesota		Tulsa	918 585-2730
Arkansas		Georgia		Minneapolis	612 375-9163	Ontario	
Little Rock	501 666-8464	Atlanta	404 237-8113	Missouri		Toronto	416 365-9621
Arizona		Atlanta	404 237-3003	Kansas City	816 474-3770	Oregon	
Phoenix	602 994-8495	Augusta	404 733-0346	St. Louis	314 432-7585	Portland	503 232-1072
Tucson	602 748-2004	Iowa		Mississippi		Pennsylvania	
British Columbia		Des Moines	515 270-1581	Jackson	601 982-0463	Allentown	215 776-6960
Vancouver	604 687-6043	Idaho		North Carolina		Harrisburg	717 657-9633
California		Boise	208 384-5660	Charlotte	704 333-6654	Philadelphia	215 563-0814
Anaheim	714 991-8060	Boise	208 336-2052	Greensboro	919 373-1635	Pittsburgh	412 391-8818
Fresno	209 252-1892	Illinois		Raleigh	919 872-8130	Reading	215 374-1124
Irvine	714 851-9612	Chicago	312 443-1250	Nebraska		Rhode Island	
Long Beach	213 591-8392	Springfield	217 522-5101	Omaha	402 895-7131	Providence	401 781-8500
Los Angeles	213 739-8906	Indiana		New Hampshire		South Carolina	
Mountain View	415 961-7242	Ft. Wayne	219 447-0536	Merrimack	603 880-1450	Charleston	803 762-1740
Newport Beach	714 851-9612	Indianapolis	317 638-2517	New Jersey		Columbia	803 798-7903
Palo Alto	415 591-5591	Osceola	219 674-6971	Cherry Hill	609 665-6244	South Dakota	
Pleasanton	415 846-0828	Kansas		Green Brook	201 968-9000	Rapid City	605 341-4580
Rancho Bernardo	619 487-6648	Wichita	316 689-8765	Hackettstown	201 852-8502	Tennessee	
Riverside	714 359-7801	Kentucky		Newark	201 624-4885	Knoxville	615 366-1947
Sacramento	916 971-4681	Lexington	606 255-8821	Parsippany	201 285-0368	Memphis	901 452-8530
San Bernadino	714 884-3263	Louisville	502 581-9526	Parsippany	201 898-1935	Nashville	615 366-1947
San Diego	619 283-6021	Louisiana		Paterson	201 684-3434	Texas	
San Francisco	415 956-4191	Baton Rouge	504 273-0184	Princeton	609 683-4770	Austin	512 444-7234
San Jose	408 249-5361	New Orleans	504 948-9542	New Mexico		Dallas	214 761-0599
San Mateo	415 591-5591	Shreveport	318 424-4460	Albuquerque	505 345-4551	Dallas	214 761-9040
Thousand Oaks	805 497-3177	Massachusetts		Nevada		El Paso	915 565-4661
Van Nuys	213 892-7211	Amherst	413 256-8194	Las Vegas	702 878-0056	Fort Worth	817 870-2461
Colorado		Boston	617 267-2569	Reno	702 323-2072	Houston	713 225-2550
Colorado Sprgs	303 593-9200	Brockton	617 586-9803	New York		Lubbock	806 744-5091
Denver	303 629-5563	Concord	617 371-0354	Buffalo	716 837-9650	San Antonio	512 435-3883
Grand Junction	303 241-1885	Framingham	617 875-3814	Garden City	516 248-5923	Utah	
Connecticut		Hudson	617 568-8019	Hicksville	516 681-7240	Salt Lake City	801 521-2890
Bridgeport	203 366-5555	Maynard	617 897-4779	New York	212 758-4114	Virginia	
Hartford	203 236-2581	Medfield	617 359-7603	Rochester	716 458-3460	Norfolk	804 461-6128
Stamford	203 358-0015	Medway	617 533-2722	Tonawanda	716 692-2804	Richmond	804 358-8274
Waterbury	203 573-0771	Mendon	617 478-0653	White Plains	914 428-9270	Washington	
Westport	203 222-1748	Springfield	413 734-7362	Ohio		Seattle	206 634-1713
District of Columbia		Waltham	617 890-0232	Akron	216 867-1237	Spokane	509 326-0515
Washington	202 452-8930	Westboro	617 366-1577	Canton	216 455-2516	Wisconsin	
Washington	202 822-8985	Worcester	617 793-9839	Cincinnati	513 579-0908	Milwaukee	414 475-6681
Delaware		Maryland		Cincinnati	513 721-2691	Milwaukee	414 475-6935
Wilmington	302 652-8732	Baltimore	301 254-7113	Cleveland	216 566-0657	West Virginia	
Florida		Michigan		Columbus	614 457-2105	Charleston	304 768-9700
Ft. Lauderdale	305 772-3240	Ann Arbor	313 761-1202	Dayton	513 461-1064	Huntington	304 736-2331
Jacksonville	904 246-9961	Detroit	313 964-4745	Granville	614 587-0932	Parkersburg	304 422-4005
Miami	305 667-3564	Kalamazoo	616 344-2298	Toledo	419 255-8116	Wheeling	304 232-3589

CompuServe

CompuServe Information Service Log-on Procedures

After your computer terminal is connected to a modem (and, if you are using a microcomputer, you are running a terminal emulator program), you are ready to connect to the CompuServe Information Service.

1. **Dial the CompuServe Information Service** access number for your area.
2. When you hear a continuous, high-pitched tone, properly **position the telephone handset in the acoustic coupler** or depress the data button on your modem. If you do not hear the tone hang up and redial.
3. To log on to the CompuServe Information Service, you need your User ID number and your secret password. With this information, **follow the procedures illustrated below** (user entries are underlined in the example):

Example

Enter a Control C. Usually this is accomplished by holding down the Control key while the C key is also pressed. Terminal keyboards vary; for further information see the instructions for the terminal software you are using or your personal computer dealer.

The CompuServe Information Service responds with USER ID. You **enter your personal User ID number** and press the ENTER key (carriage return key on some keyboards.) If there is no ENTER key or carriage return on your terminal, consult the manual for your personal computer or your personal computer dealer.

You are prompted for secret password. **Enter your password** and press ENTER. For security purposes, your password is a nonprinting entry (in full duplex).

NOTE: Unless you are told otherwise, all lines are terminated with ENTER (a carriage return) which feeds the information you have just typed into the computer.

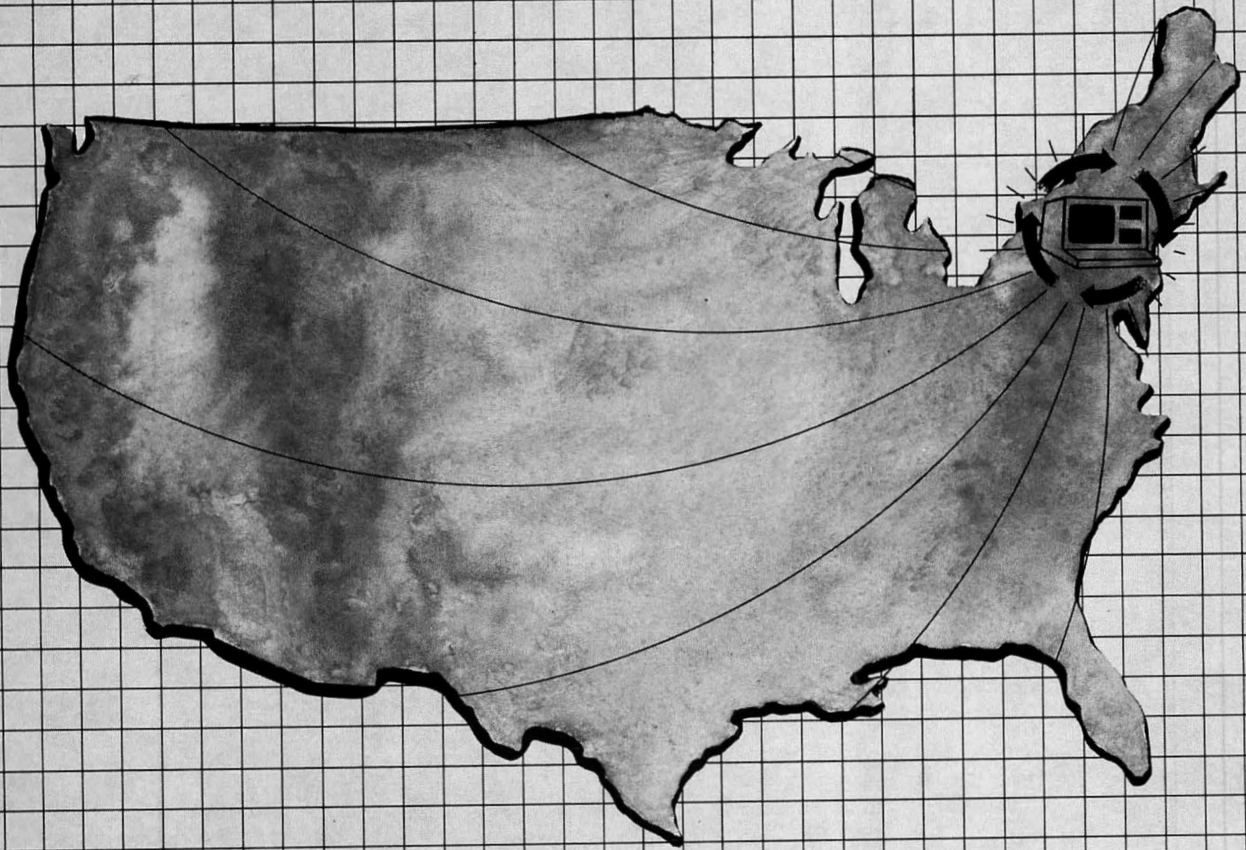
^C

User ID: 70000,11

Password: _____

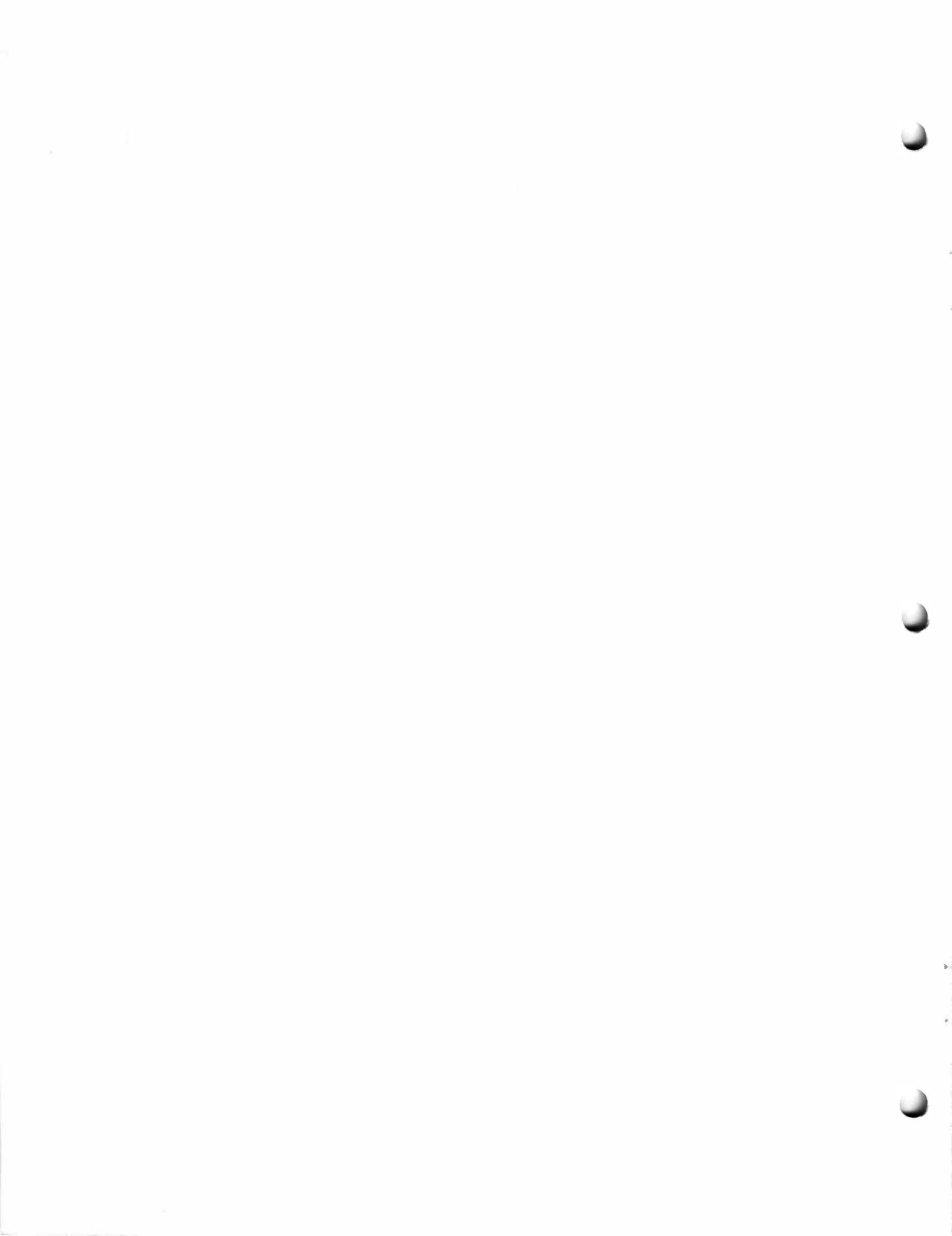
CompuServe

Dow Jones Information Service *User's Guide*



Radio Shack[®]

CUSTOM MANUFACTURED IN THE USA BY RADIO SHACK, A DIVISION OF TANDY CORPORATION



TERMS AND CONDITIONS OF SALE AND LICENSE OF RADIO SHACK COMPUTER EQUIPMENT AND SOFTWARE
PURCHASED FROM A RADIO SHACK COMPANY-OWNED COMPUTER CENTER, RETAIL STORE OR FROM A
RADIO SHACK FRANCHISEE OR DEALER AT ITS AUTHORIZED LOCATION

LIMITED WARRANTY

I. CUSTOMER OBLIGATIONS

- A. CUSTOMER assumes full responsibility that this Radio Shack computer hardware purchased (the "Equipment"), and any copies of Radio Shack software included with the Equipment or licensed separately (the "Software") meets the specifications, capacity, capabilities, versatility, and other requirements of CUSTOMER.
- B. CUSTOMER assumes full responsibility for the condition and effectiveness of the operating environment in which the Equipment and Software are to function, and for its installation.

II. RADIO SHACK LIMITED WARRANTIES AND CONDITIONS OF SALE

- A. For a period of ninety (90) calendar days from the date of the Radio Shack sales document received upon purchase of the Equipment, RADIO SHACK warrants to the original CUSTOMER that the Equipment and the medium upon which the Software is stored is free from manufacturing defects. THIS WARRANTY IS ONLY APPLICABLE TO PURCHASES OF RADIO SHACK EQUIPMENT BY THE ORIGINAL CUSTOMER FROM RADIO SHACK COMPANY-OWNED COMPUTER CENTERS, RETAIL STORES AND FROM RADIO SHACK FRANCHISEES AND DEALERS AT ITS AUTHORIZED LOCATION. The warranty is void if the Equipment's case or cabinet has been opened, or if the Equipment or Software has been subjected to improper or abnormal use. If a manufacturing defect is discovered during the stated warranty period, the defective Equipment must be returned to a Radio Shack Computer Center, a Radio Shack retail store, participating Radio Shack franchisee or Radio Shack dealer for repair, along with a copy of the sales document or lease agreement. The original CUSTOMER'S sole and exclusive remedy in the event of a defect is limited to the correction of the defect by repair, replacement, or refund of the purchase price, at RADIO SHACK'S election and sole expense. RADIO SHACK has no obligation to replace or repair expendable items.
- B. RADIO SHACK makes no warranty as to the design, capability, capacity, or suitability for use of the Software, except as provided in this paragraph. Software is licensed on an "AS IS" basis, without warranty. The original CUSTOMER'S exclusive remedy, in the event of a Software manufacturing defect, is its repair or replacement within thirty (30) calendar days of the date of the Radio Shack sales document received upon license of the Software. The defective Software shall be returned to a Radio Shack Computer Center, a Radio Shack retail store, participating Radio Shack franchisee or Radio Shack dealer along with the sales document.
- C. Except as provided herein no employee, agent, franchisee, dealer or other person is authorized to give any warranties of any nature on behalf of RADIO SHACK.
- D. Except as provided herein, **RADIO SHACK MAKES NO WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**
- E. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation(s) may not apply to CUSTOMER.

III. LIMITATION OF LIABILITY

- A. EXCEPT AS PROVIDED HEREIN, RADIO SHACK SHALL HAVE NO LIABILITY OR RESPONSIBILITY TO CUSTOMER OR ANY OTHER PERSON OR ENTITY WITH RESPECT TO ANY LIABILITY, LOSS OR DAMAGE CAUSED OR ALLEGED TO BE CAUSED DIRECTLY OR INDIRECTLY BY "EQUIPMENT" OR "SOFTWARE" SOLD, LEASED, LICENSED OR FURNISHED BY RADIO SHACK, INCLUDING, BUT NOT LIMITED TO, ANY INTERRUPTION OF SERVICE, LOSS OF BUSINESS OR ANTICIPATORY PROFITS OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR OPERATION OF THE "EQUIPMENT" OR "SOFTWARE". IN NO EVENT SHALL RADIO SHACK BE LIABLE FOR LOSS OF PROFITS, OR ANY INDIRECT, SPECIAL, OR CONSEQUENTIAL DAMAGES ARISING OUT OF ANY BREACH OF THIS WARRANTY OR IN ANY MANNER ARISING OUT OF OR CONNECTED WITH THE SALE, LEASE, LICENSE, USE OR ANTICIPATED USE OF THE "EQUIPMENT" OR "SOFTWARE".

NOTWITHSTANDING THE ABOVE LIMITATIONS AND WARRANTIES, RADIO SHACK'S LIABILITY HEREUNDER FOR DAMAGES INCURRED BY CUSTOMER OR OTHERS SHALL NOT EXCEED THE AMOUNT PAID BY CUSTOMER FOR THE PARTICULAR "EQUIPMENT" OR "SOFTWARE" INVOLVED.
- B. RADIO SHACK shall not be liable for any damages caused by delay in delivering or furnishing Equipment and or Software.
- C. No action arising out of any claimed breach of this Warranty or transactions under this Warranty may be brought more than two (2) years after the cause of action has accrued or more than four (4) years after the date of the Radio Shack sales document for the Equipment or Software, whichever first occurs.
- D. Some states do not allow the limitation or exclusion of incidental or consequential damages, so the above limitation(s) or exclusion(s) may not apply to CUSTOMER.

IV. RADIO SHACK SOFTWARE LICENSE

RADIO SHACK grants to CUSTOMER a non-exclusive, paid-up license to use the RADIO SHACK Software on **one** computer, subject to the following provisions:

- A. Except as otherwise provided in this Software License, applicable copyright laws shall apply to the Software.
- B. Title to the medium on which the Software is recorded (cassette and/or diskette) or stored (ROM) is transferred to CUSTOMER, but not title to the Software.
- C. CUSTOMER may use Software on one host computer and access that Software through one or more terminals if the Software permits this function.
- D. CUSTOMER shall not use, make, manufacture, or reproduce copies of Software except for use on **one** computer and as is specifically provided in this Software License. Customer is expressly prohibited from disassembling the Software.
- E. CUSTOMER is permitted to make additional copies of the Software **only** for backup or archival purposes or if additional copies are required in the operation of **one** computer with the Software, but only to the extent the Software allows a backup copy to be made. However, for TRSDOS Software, CUSTOMER is permitted to make a limited number of additional copies for CUSTOMER'S own use.
- F. CUSTOMER may resell or distribute unmodified copies of the Software provided CUSTOMER has purchased one copy of the Software for each one sold or distributed. The provisions of this Software License shall also be applicable to third parties receiving copies of the Software from CUSTOMER.
- G. All copyright notices shall be retained on all copies of the Software.

V. APPLICABILITY OF WARRANTY

- A. The terms and conditions of this Warranty are applicable as between RADIO SHACK and CUSTOMER to either a sale of the Equipment and/or Software License to CUSTOMER or to a transaction whereby RADIO SHACK sells or conveys such Equipment to a third party for lease to CUSTOMER.
- B. The limitations of liability and Warranty provisions herein shall inure to the benefit of RADIO SHACK, the author, owner and/or licensor of the Software and any manufacturer of the Equipment sold by RADIO SHACK.

VI. STATE LAW RIGHTS

The warranties granted herein give the **original** CUSTOMER specific legal rights, and the **original** CUSTOMER may have other rights which vary from state to state.

To be filled in by the Customer:

Dow Jones Password: _____

Network Telephone Number: _____

Alternate Network Number: _____

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.

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For further information contact:

Dow Jones Information Services
P.O. Box 300
Princeton, NJ 08540
Customer Service
1-800-257-5114 (toll free)
1-609-452-1511 (in New Jersey)

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.)

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.

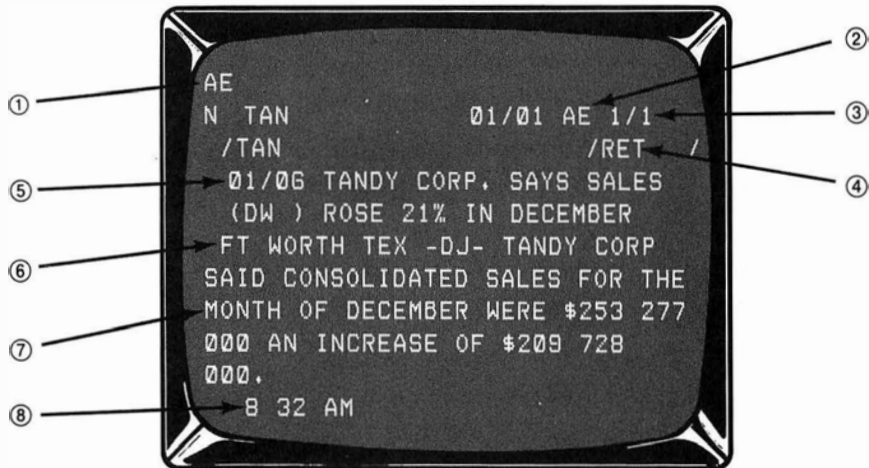
4. The information service will then ask you to PLEASE TYPE YOUR TERMINAL IDENTIFIER. You should type A. (Do not press **ENTER**!)
5. Then the service will ask you to PLEASE LOG IN. Type DOW1;; (Do not press **ENTER**!) **Note:** The second semi-colon will not be displayed on your screen.
6. When you're 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.

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.



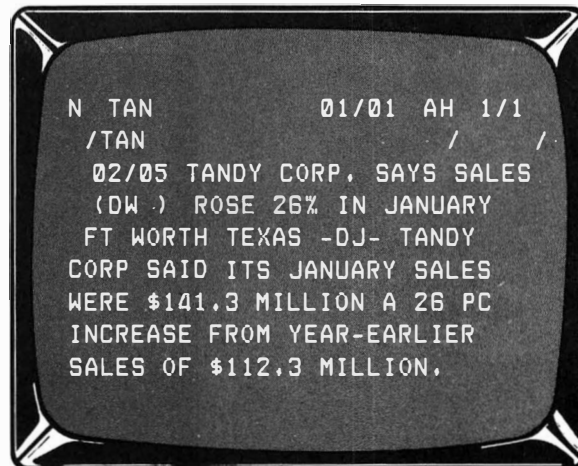
Sample News Story

- 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:	<ol style="list-style-type: none"> 1. Type . (period) 2. Type a company code 3. Press ENTER 	.TAN ENTER

Your screen should look like this:



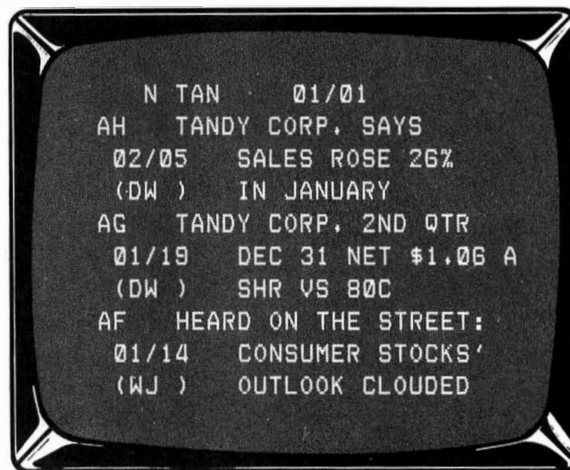
Note: We've used TAN (for Tandy Corporation) as a sample company code. A few company codes are included in this Guide. All available company codes (which are the same as the stock symbols) are in the *Operating Guide and Directory of Symbols* which is mailed to all new Dow Jones Information Services 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."

To Get The Headlines On A Company

Desired Information	Procedure	Example
To scan the most recent headlines on a company:	<ol style="list-style-type: none">1. Type , (period)2. Type a company code3. Press SPACEBAR4. Type the number 015. Press ENTER	.TAN 01 ENTER

Your screen should look like this:

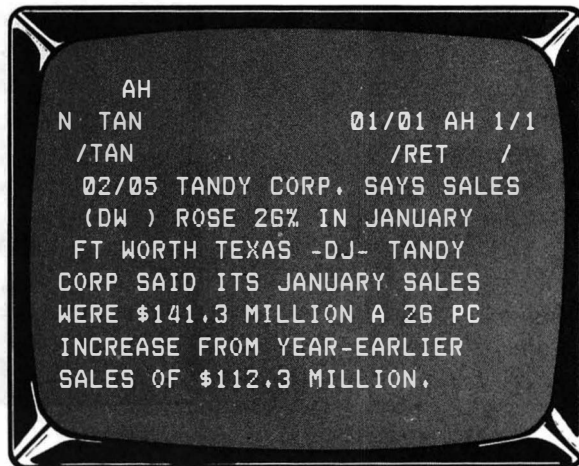


To get to the next page and more headlines, press **ENTER** again.

To Get A Story That Interests You

Desired Information	Procedure	Example
To find a story you're interested in:	<ol style="list-style-type: none">1. Type the two-letter code that is to the left of the headline.2. Press ENTER	AH ENTER

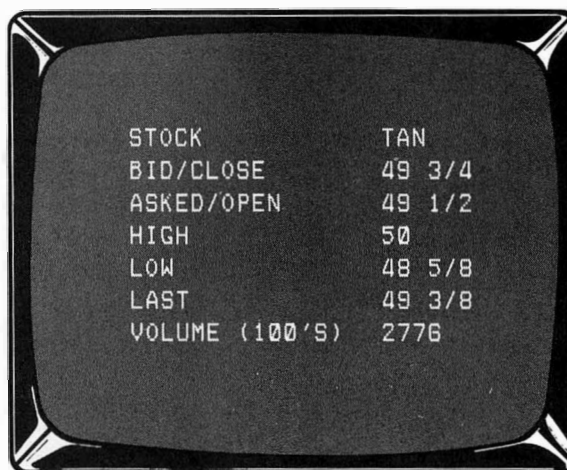
Your screen should look like this:



To Get The Current Stock Quote For A Company

Desired Information	Procedure	Example
To find the quote on a stock:	<ol style="list-style-type: none">1. Type , (comma)2. Type a company code3. 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.

To Get Historical Stock Quotes On A Company

Desired Information	Procedure	Example
For daily quotes for the most recent month:	<ol style="list-style-type: none"> 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) 	<pre> ;1TAN P1 (ENTER) ;2TAN P2 (ENTER) </pre>
For quarterly or monthly summaries:	<ol style="list-style-type: none"> 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) 	<pre> ;TAN 80 Q (ENTER) ;TAN 79 M (ENTER) </pre>

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)**.

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 00 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:	<ol style="list-style-type: none"> 1. Type . (period) 2. Type a subject code 3. Press SPACEBAR 4. Type 01 5. Press ENTER 	<pre> .I/GEN 01 ENTER .H/ 01 ENTER .I/DJA 01 ENTER .MDEST 01 ENTER </pre>

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.

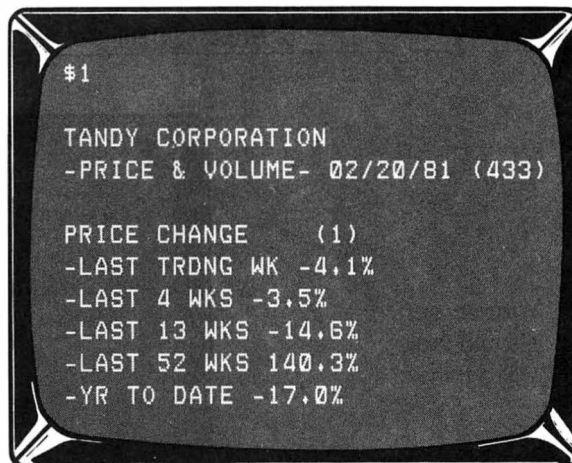
To Get Detailed Statistics On A Company

Desired Information	Procedure	Example
For detailed stock price and volume information on a company:	<ol style="list-style-type: none"> 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:	<ol style="list-style-type: none"> 1. Type \$ (dollar sign) 2. Type a company code 3. Type / (slash) 4. Type F 5. Press ENTER 	\$TAN/F ENTER

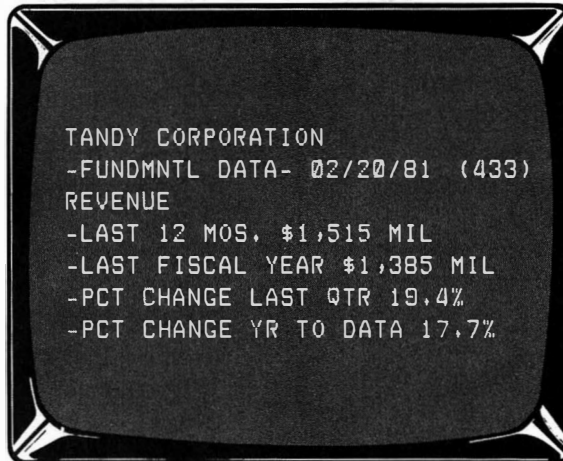
Note: Since this information is stored on three "pages," you can specify the page you want by typing (after you typed the above):

- \$1 **ENTER** (for page 1)
- \$2 **ENTER** (for page 2)
- \$3 **ENTER** (for page 3)

Your screen should look like this:



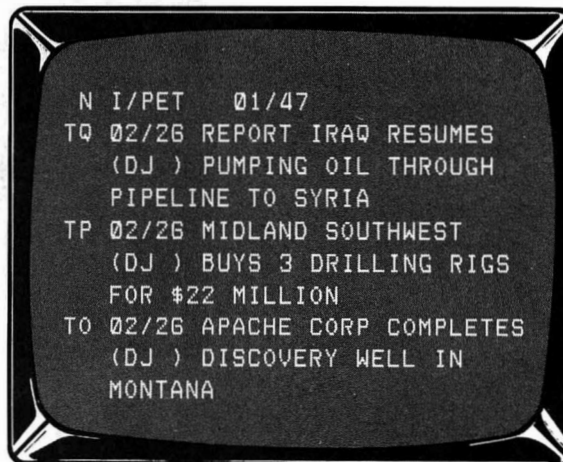
Your screen should look like this:



To Get The Headlines On An Industry

Desired Information	Procedure	Example
For headlines on an industry (such as steel, auto, etc.):	<ol style="list-style-type: none"> 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:



Note: Industry codes are listed later in this Guide.

To Get Quotes On Bonds, Mutual Funds, or U.S. Treasury Bonds and Notes

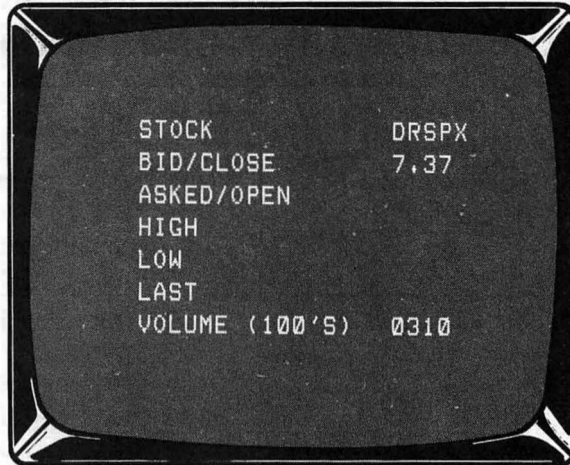
Desired Information	Procedure	Example
For quotes on bonds:	<ol style="list-style-type: none"> 1. Type / (slash) 2. Type a company code 3. Press ENTER 	/DOWL ENTER
For quotes on mutual funds:	<ol style="list-style-type: none"> 1. Type + (plus) 2. Type a company code 3. Press ENTER 	+DRSPX ENTER
For quotes on U.S. Treasury bonds and notes:	<ol style="list-style-type: none"> 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:

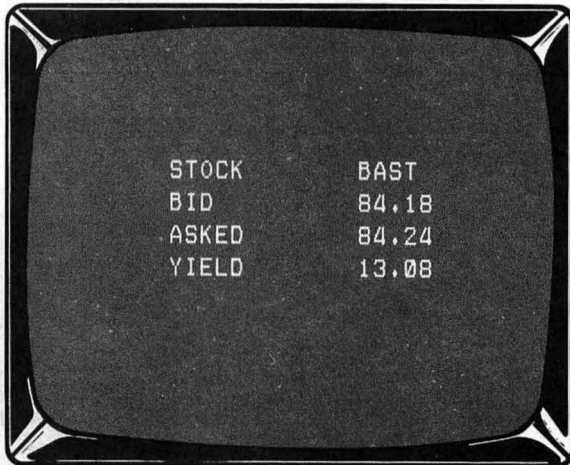
STOCK	DOWL
BID/CLOSE	66
ASKED/OPEN	
HIGH	
LOW	
LAST	
VOLUME (100'S)	0205

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

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:

How To Get News

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 01 (for page 1 of headlines).
5. Press **ENTER**.

For example:

.TAN 01 ENTER	(Tandy Corporation headlines)
.TAN ENTER	(Tandy Corporation latest story)
.NAB 01 ENTER	(Nabisco headlines)
.G/EXE 01 ENTER	(Executive branch of government headlines)
.H/ ENTER	(Current day "hot" news)
.I/PET 01 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 01/06. This means "The first page (01) of a total of six pages (06)." After you've entered the category, you can skip pages when searching headlines.

How To Get Market Quotes

Getting Quotes

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.

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	9½% 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.

Prices Included In The Quote Service

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 $99\frac{16}{32}$.) Government bonds are traded in thirty-seconds.

How To Get Detailed Financial Statistics

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.

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.

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. 9 $\frac{5}{8}$ % 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

U.S. Treasury Bonds and Notes			
Rate	Name	Current Quotes	Symbol
8 $\frac{7}{8}$ %	June 1983 Notes	#	BAQR
4%	February 1988-93	#	BFCA

Appendix B / Notes on Using TELENET

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 `G0942` and press **ENTER**. For instance: `C G0942 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.

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
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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 / JUN
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

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
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

Industries (Cont.)

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 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		Relative Price Index	Gain Index	Betas		This Week			Liquidity Ratio	On Balance Index
Current	5-Year Avg.	Common Equity	Rev. Per Share			Up	Down	Shares	Dollars	% Shrs. Outstanding		
-	-	-	%	%	%	-	-	(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.

Relative Price Index — Calculated on the following formula:

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.

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:

$$\text{Index} = (200) \frac{(S_{-1}) (P_{-1}) (V_{-1})}{(S_{-0}) (P_{-0}) (V_{-2})}$$

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

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

Ratios						Shareholdings						
Pro-fit Margin	Return on		Rev-ue to Assets	Debt to Eq-uity	Int-erest Cov-erage	Curr-ent Ratio	Mar-ket Value	Latest Shares Out-standing	Held by Banks-Funds	Insider Net Trading	Short-Int-erest Ratio	Fiscal Year Ends
	Com-mon Equity	Total Assets										
%	%	%	%	%	-	-	\$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.

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.

The most recent monthly period for insider transactions is October 13, 1980 to November 10, 1980.

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.

Short interest for the current issue is for the period November 14, 1980, through December 15, 1980.

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.

Appendix E / Using *Wall Street Week*

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:

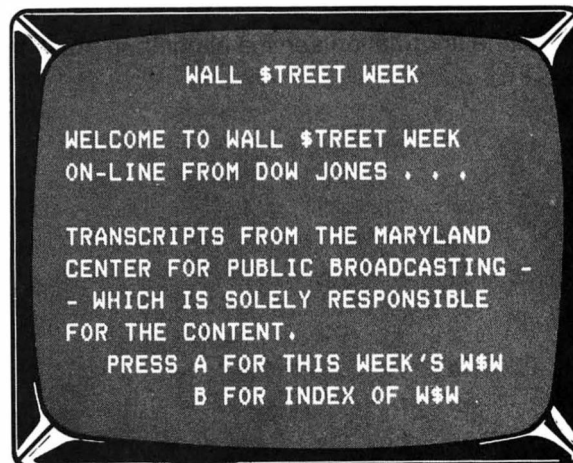
1. First start up Dow Jones Information Services as described earlier in this manual.

2. When Dow Jones asks you to ENTER QUERY, type:

" **ENTER**

3. Your screen will then display:

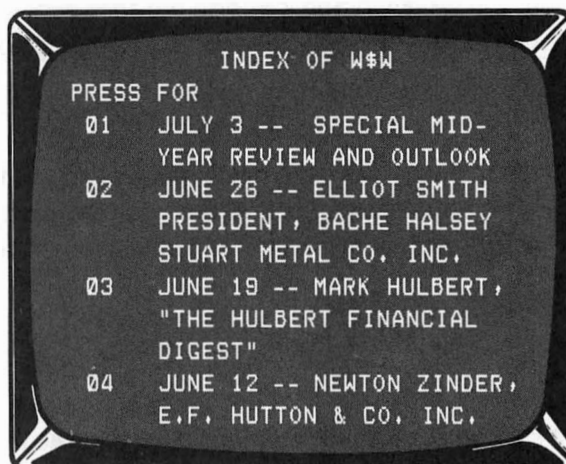
Your screen
should look
like this:



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:

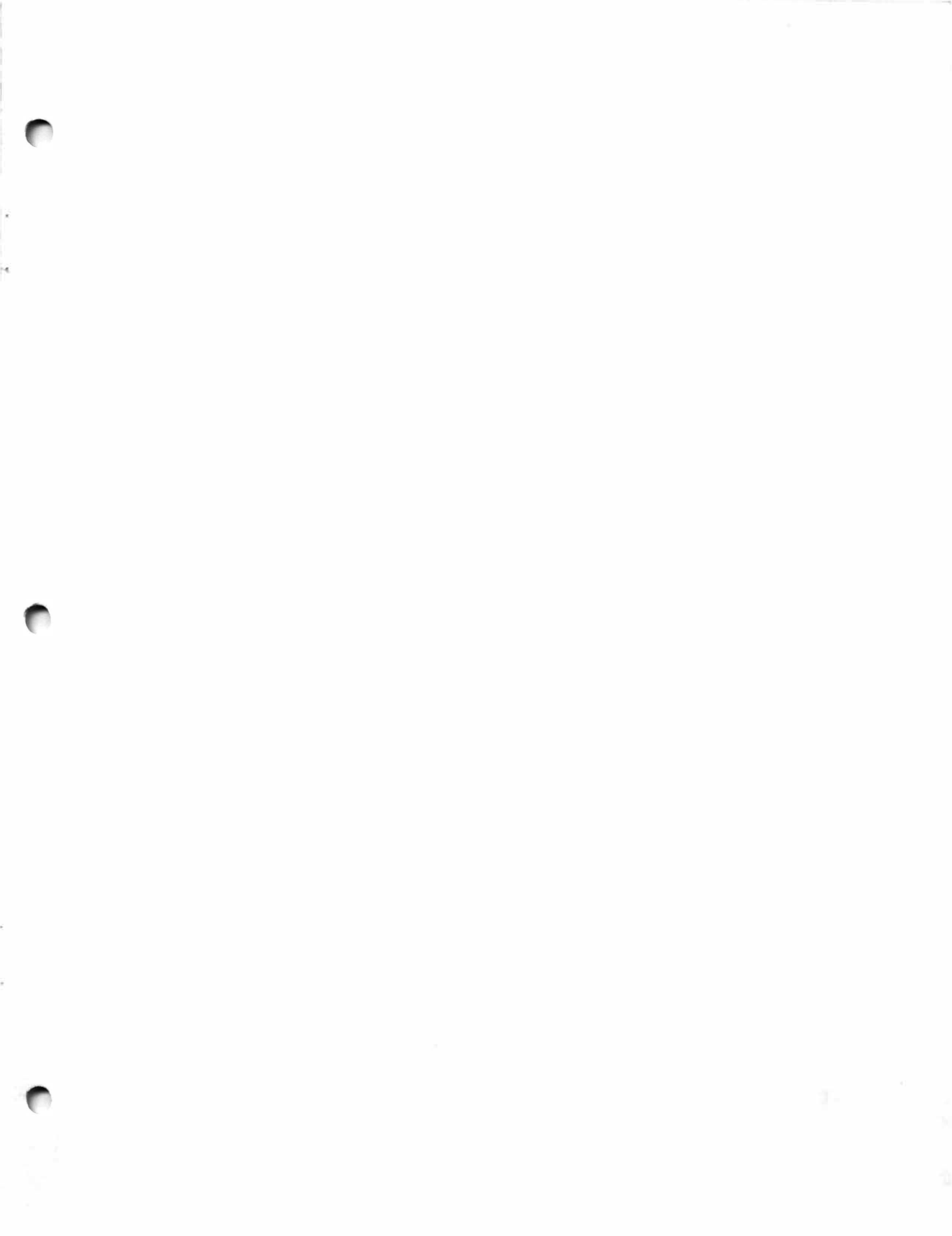


If you wanted to examine the June 19th transcript, for example, just type 03 **ENTER**; for the July 3rd transcript, type 01 **ENTER** etc.

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**.

Notes:



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MOUNT DRUITT, N.S.W. 2770**

BELGIUM

**PARC INDUSTRIEL DE NANINNE
5140 NANINNE**

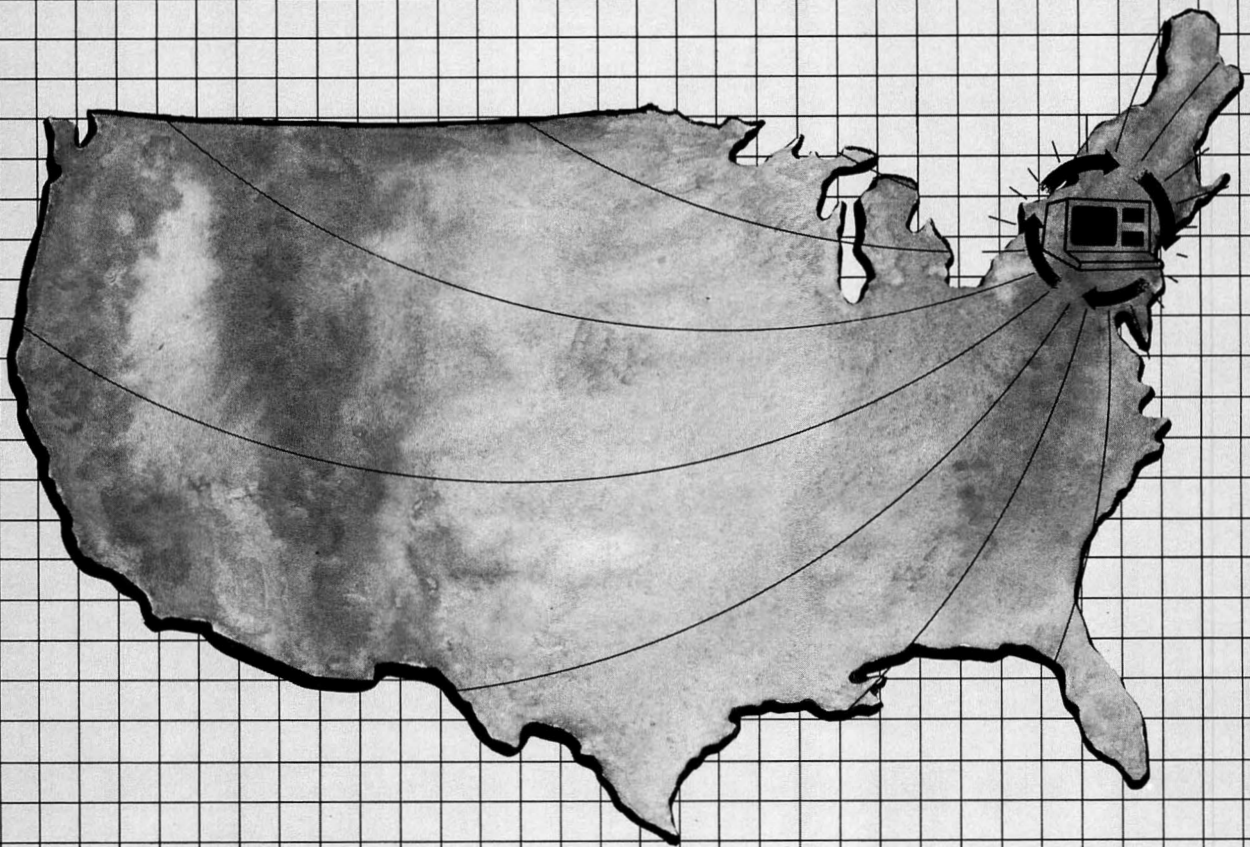
U. K.

**BILSTON ROAD WEDNESBURY
WEST MIDLANDS WS10 7JN**

Printed in U.S.A.

CompuServe[™]

Information Service
User's Guide



Radio Shack[®]

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DISCLAIMER

CompuServe does not guarantee the accuracy, sufficiency or suitability of the software delivered herewith. Customer shall inspect and test such software and other materials to its satisfaction before using them with important data.

There are no warranties, expressed or implied, including those of merchantability and fitness for a particular purpose, concerning the software and other materials delivered herewith.

Welcome to a World of Information

Welcome to CompuServe's Information Service where you can keep abreast of the world around you with:

- News, weather and sports from major newspapers and international news services.
- Financial information with updates and historical information on stocks, bonds and mutual funds.
- Entertainment — theater, book, movie and restaurant reviews plus opera, symphony, ballet, dance, museums, galleries and more.
- Electronic Mail service where you can create, edit, send and receive messages from any other CompuServe user — nationwide.
- Home Information — a variety of government publications plus articles from home magazines.
- Personal Computing services including software exchange, line printer art gallery, challenging games, programming languages, word processing, business and educational programs and much, much more.

This user's guide provides information about using the many features of the CompuServe Information Service.

hours — 6PM to 5AM local time weekdays. All day Saturday, Sunday and all holidays recognized by CompuServe. Service after midnight Eastern Time may be restricted at times for system maintenance. Prime time access (5AM to 6PM) is available for an additional fee.

telephone hookup — To access the CompuServe Information Service, you must connect your personal computer or terminal to a telephone. There are many ways to do this depending upon the equipment you own. For more information on the needs of your particular system, see the manual for your personal computer or your personal computer dealer.

getting help — The Feedback service provides an opportunity for you to report any problems you might be having and to order documentation. Refer to page 23 for additional information about using Feedback.

special authorization — Access to certain information may require special authorization and validation. A message to this effect is displayed where appropriate.

documentation — User documentation is available for CompuServe Information Service customers. Once you have registered as a customer you can order documentation through Feedback (see page 23).

Logging On and Off the System

After your computer terminal is connected to a modem (and, if you are using a microcomputer, you are running a terminal emulator program), you are ready to connect to the CompuServe Information Service.

1. Dial the CompuServe Information Service access number for your area. If a local CompuServe number is not available, you can access the Information Service through the TYMNET communications network (refer to Appendix B). Ask your personal computer dealer for the access number and whether or not the number is a supplemental number.
2. When you hear a continuous, high-pitched tone, properly position the telephone handset in the acoustic coupler or depress the data button on your modem. If you do not hear the tone, hang up and redial. If you see the message:

PLEASE TYPE YOUR TERMINAL IDENTIFIER

refer to Appendix B — TYMNET Access, for further instructions.

3. To log onto the CompuServe Information Service, you need your User ID number and your secret password. With this information, follow the procedures illustrated in this example (user entries are underlined in all examples):

Enter a Control C. Usually this is accomplished by holding down the Control key while the C key is also pressed. Terminal keyboards vary; for further information see the instructions for the terminal software you are using or your personal computer dealer.

The CompuServe Information Service responds with USER ID:. You enter your personal user I.D. number and press the ENTER key (carriage return key on some keyboards). If there is no ENTER key or carriage return on your terminal, consult the manual for your personal computer or your personal computer dealer. Unless you are told otherwise, all lines are terminated with ENTER (a carriage return) which feeds the information you have just typed into the computer.

You are prompted for your secret password. Enter your password and press ENTER. For security purposes, your password is a nonprinting entry (in full duplex).

```

      (C)

User ID: 70000,11

Password: _____
```

With your first free hour of use, each time you log on you are given the opportunity to become a permanent CompuServe Information Service customer.

Note that you must complete and return the application enclosed in your packet as well as provide CompuServe with the pertinent information for setting up an account.

Congratulations! You are now part of the exciting world of information provided by CompuServe. The CompuServe Information Service (CIS) is continually growing and expanding and we urge you to log in regularly for news of the latest offerings.

Key <ENTER> to continue:

Don't be afraid of pressing the wrong key. If you make a mistake, you are given a chance to try again.

CompuServe's Customer Service staff is ready to answer any questions not addressed by the CIS User Guide.

Key <ENTER> to continue:

Your purchase of the CompuServe Information Service user's pack includes one free hour of use. To continue to use the service, you must open an account with CompuServe. Please read and understand the terms and conditions that apply to using this service. They are on the application included in your pack.

Key <ENTER> to continue:

To open an account you must both :

1. Provide CompuServe with your name, address and other information (you do this on the service by choosing to open an account).
2. Complete and return the application enclosed in your pack.

Key <ENTER> to continue:

If you select item 1, you are prompted for your name, address, and other necessary information. If you sign up, the next time you log on you will proceed directly to the top Videotex menu (see below).

With a successful log-on, the CompuServe Information Service responds with a brief message followed by a list of possible items from which a selection should be made. This is referred to as a menu of items. At various times, a menu is displayed followed by an exclamation point (!). At the ! prompt, you may select an item by number or enter a command to move to another portion of the Videotex area or into the Personal Computing area. Note that the menus may change from time to time as more selection items are added.

The menu shown here is referred to as the Top menu. From the Top menu you can go into the Videotex area, the Electronic Communications area, or the Personal Computing area. Each of these areas is discussed on the following pages.

BYE or OFF logs you off the CompuServe Information Service.

You are told how long you have been connected to the system. Since you are billed for all connect time, it is prudent to log off when your terminal is not in use. For your protection, your terminal is automatically logged off if no output is generated or entries made for 15 minutes.

4

Your account with CompuServe may be paid through your VISA or Master Card or, for a monthly handling fee (\$3.00), you may be billed directly by CompuServe. Do you wish to:

- 1 Open an account
- 2 Exit to the menu of services

Key 1 to sign up, 2 for menu: 2

CompuServe Information Service

16:23 EST Monday 23-Mar-81

WHAT'S NEW:

Income Tax Preparation
March Movie Reviews
Dallas, TX User Notice
Computerthon Results
Tandy Newsletter

For details, see What's New.
Enter: Go NEW-1 at the prompt
(!) in DISPLAY.

Key ENTER to continue:

CompuServe Page CIS-1

CompuServe Information Service

- 1 Newspapers
- 2 Finance
- 3 Entertainment
- 4 Communications
- 5 CompuServe User Information
- 6 Special Services
- 7 Home Information

9 MicroNET Personal Computing

Enter your selection number,
or H for more information.

!OFF

Off at 16:25 EST 23-Mar-81

Connect time = 0:02

Helpful Features

error correction — Errors in a line can be corrected by backspacing to the error and retyping to the end of the line. The backspace key may be marked BKSP or ←.

For keyboards without a backspace key, use Control H. (See the Control Characters section below.)

On some terminals backspacing is shown by actual character deletion. On others, slashes delineate the deleted character or characters.

control characters — Control characters are entered by holding down the control key while pressing the character key. Some microcomputer keyboards do not have a control key. Consult the manual for your personal computer terminal software for the alternate key to use. Control characters are indicated in this manual as an up-arrow (↑) followed by the character, e.g., Ⓢ. The control characters which are most often used are:

Ⓢ interrupts display or a program's execution so that you can enter another menu selection or command.

Ⓤ deletes the line currently being typed.

Ⓥ redisplay the partial line you are typing.

Ⓜ backspaces, deleting the character that was there.

ⓐ suspends the output at the end of the current line.

Ⓟ suspends the output immediately.

Ⓠ resumes output after ⓐ or Ⓟ.

Ⓡ turns off output which is in process. A second Ⓡ turns output in process back on.

operator messages — Occasionally the computer operator may send you a message to enable you to log off before the system is taken down. It is important, especially if you are using files, that you log off promptly. Such messages are most likely to occur after midnight when the computer may be taken off line for preventative maintenance. Operator messages are preceded by ;;OPR.

network messages — If there is a problem with the system you may receive one of the following network messages:

- ? NTWCCN - Cannot Connect
- ? NTWLCP - Lost Connect Path
- ? NTWSPR - System problem, please try again later

If you receive one of these messages, hang up your telephone and try again later.

The following message means that the path which your terminal is using to connect to the Information Service computers has been disrupted.

% NTWCPR - Communications Problem, PLEASE wait.

The network is trying to reconnect your terminal to the computer. If the USER ID: message appears, you can proceed to log on. If USER ID: does not appear, hang up your telephone and try again later.

rates — The current cost of running the Information Service can be displayed by selecting the CompuServe User Information item from the Top menu and then selecting the appropriate rates item on a subsequent menu. Note that some special items like MicroQuote, Energy, etc., have an additional charge associated with them.

current charges — You can list your current charges by selecting the CompuServe User Information item on the Top menu and then selecting the appropriate item on a subsequent menu.

Videotex

With the Videotex portion of the CompuServe Information Service you can locate a specific item of interest and display the information. You access the Videotex area using a program called DISPLAY. A menu of the available items appears at various times to assist you in locating a specific item. You select one menu item and the information pertaining to that menu item is displayed at your terminal. You may need to step through more than one menu to arrive at the exact information for which you are searching. Note that certain menu selections may take you out of the Videotex area and run a program. When the program is finished, you are usually returned to the Videotex area.

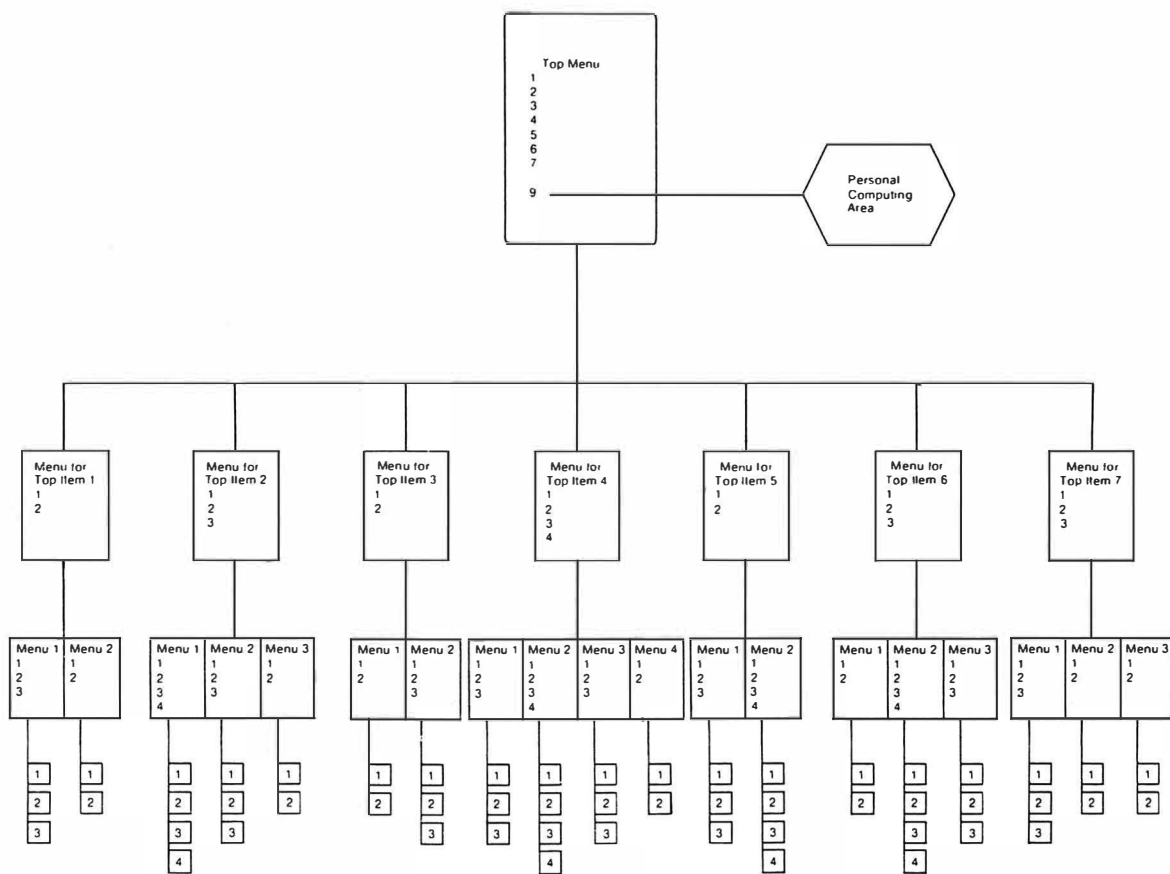


Diagram 1
Menu Structure

The Videotex area is made up of thousands of pages of information (16 lines/page). At the end of each page, an instruction appears followed by an exclamation point (!). For example:

You select the menu item that you would like to explore.

Often a second menu is displayed after your initial menu selection.

You again select the menu item that you would like to explore.

CompuServe Page CIS-1

CompuServe Information Service

- 1 Newspapers
- 2 Finance
- 3 Entertainment
- 4 Communications
- 5 CompuServe User Information
- 6 Special Services
- 7 Home Information

9 MicroNET Personal Computing

Enter your selection number,
or H for more information.

15

CompuServe Page CIS-4

CompuServe User Information

- 1 What's New
- 2 Using the database
- 3 Sending feedback to CompuServe
- 4 Changing terminal type or
service type (CIS or MicroNET)
- 5 Current rates
- 6 CompuServe Subject Index
- 7 CIS Command Summary
- 8 CompuServe ViewPoint

Input a number or key
<ENTER> for more choices

11

Each page of information is displayed 16 lines long and 32 characters wide.

After each 16 line page, you are given the opportunity to continue, until all pages have been displayed for that topic.

You can enter a DISPLAY command rather than continuing. The T command returns to the Top menu.

CompuServe

Page NEW-1

WHAT'S NEW:

Important TYMNET notice
Minneapolis User Notice
Disk Refresher Schedule
Energy Management System
Philadelphia and Houston
Tandy Newsletter
Better Homes and Gardens
Ask Aunt Nettie
For details, see What's New.
Enter: Go NEW-1 at the prompt
(!) in DISPLAY.

Key <ENTER> for next page

!T

CompuServe

Page CIS-1

CompuServe Information Service

- 1 Newspapers
- 2 Finance
- 3 Entertainment
- 4 Communications
- 5 CompuServe User Information
- 6 Special Services
- 7 Home Information

9 MicroNET Personal Computing

Enter your selection number,
or H for more information.

!

The ! prompts you for some type of response. In the previous example, you can enter a digit indicating one of the menu selections or a command like M to return to the previous menu (see commands below). When you are displaying an article, you would normally key ENTER (a carriage return) to proceed to the next page.

DISPLAY commands — Any one of the following DISPLAY commands can be entered at an ! prompt to move to a specific page in the database:

T — Returns to the Top menu.

M — Returns to the previous menu which points to the current page.

F — Moves forward one page in the current series of pages.

B — Moves back one page in the current series of pages.

H — Displays a helpful message.

R — Resends the current page.

S or **S n** — (SCROLL) Displays pages continuously (i.e., there is no pause at the end of each page). A menu item number (n) can be specified at a menu selection. This starts scrolling with menu item n.

N — Selects the next menu item in the most recently used menu list without returning to the previous menu.

P — Selects the previous menu item in the most recently used menu list.

G xxx-n — Moves directly to page xxx-n where xxx is one of the Information Provider (IP) codes. Note that additional codes are added as new Information Providers are added to the database. To display the most current list select the CompuServe User Information item on the Top menu and proceed to the Subject Index. Some standard IP codes are:

CIS — Information maintained by CompuServe

IND — CompuServe User Index

NEW — What's New Newsletter which includes news about the most current CompuServe Information Service offerings

If you have established an IP code by issuing a G xxx-n command, you can simply enter G n to select another page from the same Information Provider.

EXI — Exits the Videotex area and enters the Personal Computing area. To return to the Videotex area type:

R DISPLAY

LOG — Terminates the current session and initiates another logon sequence.

OFF or **BYE** — Terminates the current session.

Note that if you have made a menu selection which runs a program rather than Videotex (e.g., EMAIL), the DISPLAY commands are not always available. To return to the Videotex area, follow the instructions that are provided in the programs.

You can proceed directly to a specific page with the G command. G CIS-33 moves directly to page CIS-33 and displays that page.

Menu item 4, Motor Racing Reports, is selected.

CompuServe Page CIS-1

CompuServe Information Service

- 1 Newspapers
- 2 Finance
- 3 Entertainment
- 4 Communications
- 5 CompuServe User Information
- 6 Special Services
- 7 Home Information

9 MicroNET Personal Computing

Enter your selection number,
or H for more information.

1G CIS-33

CompuServe Page CIS-33

SPECIAL SERVICES

- 1 Services for Aircraft Pilots
- 2 Tandy Newsletter
- 3 Atari Newsletter
- 4 Motor Racing Reports
- 5 H & H Sports

Last menu page. Key digit
or M for previous menu.

14

The first page of Motor Racing Reports is displayed.

The M command returns to the previous menu.

You can select a menu item and initiate scrolling at the same time with the S command. S 1 selects menu item 1 and begins scrolling the output.

Note that with scrolling there is no pause at the end of each page of text.

CompuServe Page RIS-15

```
*****
MOTOR RACING REPORTS
*****
Information and commentary on
automobile, motorcycle, boat,
and airplane racing, supplied by
Racing Information Systems, Los
Angeles, California, in
cooperation with the staff of
SPORTS CAR magazine.
```

Key <ENTER> for next page

!M

CompuServe Page CIS-33

SPECIAL SERVICES

```
1 Services for Aircraft Pilots
2 Tandy Newsletter
3 Atari Newsletter
4 Motor Racing Reports
5 H & H Sports
```

Last menu page. Key digit
or M for previous menu.

!S 1

CompuServe Page ASI-1

```
ASI MONITOR
Vital air safety information
by the Aviation Safety Institute
of Worthington, Ohio.
A WHOLLY INDEPENDENT THIRD-PARTY
IN AVIATION -- SINCE 1973.
CALL ASI TO REPORT AVIATION
HAZARDS: 614-885-4242 IN OHIO,
OUTSIDE OHIO: 800-848-7386.
John B. Galipault, President.
```

CompuServe Page AFO-24

```
*****
OCEAN SEPARATION ALONG AR-1
A DOMESTIC OVERWATER ROUTE
*****
BY: John B. Galipault
-----
```

INTRODUCTION

During the past five years,

When scrolling, you can enter a Control-C to stop the output and return to prompt mode.

The T command returns to the Top menu.

the Aviation Safety Institute (ASI) has received and documented a large number of incidents that suggest the need for more affirmative application of air traffic control procedures for overwater routes that have two domestic landfalls.

ASI held accurately documented reports of military fighters egressing from warning areas onto ocean routes without clearance or even notification of intended operations. Coordination, then and now between ATC and military controlling agencies such as Air Traffic Control (ATC), has been astonishingly poor. Status of warning and restricted area operations would be incorrect or largely unknown. Fighters would be using live ordnance when the areas were shown to be "cold" or listed as "hot" with military activity when, in fact, there were no operations. (C)

Key <ENTER> for next page

!T

CompuServe

Page CIS-1

CompuServe Information Service

- 1 Newspapers
- 2 Finance
- 3 Entertainment
- 4 Communications
- 5 CompuServe User Information
- 6 Special Services
- 7 Home Information

9 MicroNET Personal Computing

Enter your selection number,
or H for more information.

!

Two of the Videotex area's Top menu items deserve special mention:

- CompuServe User Information
- Special Services

Some of the items which are available in these two areas are described here.

CompuServe User Information

The CompuServe User Information Top menu item contains information which is of interest to all customers.

What's New — presents the new features available from the CompuServe Information Service.

Using the database — briefly describes how to access database items and move from place to place in the Videotex area.

Sending feedback to CompuServe — briefly describes how to use the Feedback service.

Changing terminal type or service type — shows you how to specify a different type of terminal or entry point at logon.

Current rates — displays the current rates for using the CompuServe Information Service.

CompuServe Subject Index — displays the current page number for most items in the database, by subject. You can use the G command to move to a specific page. It is recommended that you display the subject index from time to time to see what is available and where it can be found.

CIS Command Summary — displays a brief description of the commands which can be used in the Videotex area.

CompuServe ViewPoint — responds to the more common Feedback questions and briefly presents the CompuServe Information Service's short- and long-range plans.

To Change Your Password — provides you with the information necessary to change your access password.

Summary of Your Month-to-Date Charges — provides you with information about your charges for services used.

CIS Telephone Access Numbers — searches the most up-to-date list of telephone access numbers for the state or area code you select. Pending and recent changes are also available.

Special Services

The Special Services Top menu item contains categories of special interest such as newsletters, aviation information, football information, etc.

Electronic Communication

The CompuServe Information Service provides many methods for electronically sending messages to other CompuServe users nationwide:

CB — Citizens' Band radio simulator where you can interact directly with one or more persons.

EMAIL — person-to-person message delivery system where you can privately communicate with other users of the CompuServe Information Service.

BULLET — National Bulletin Board system where you can post messages for all.

FEEDBK — Feedback service where you can send comments, suggestions or questions to the CompuServe Information Service staff.

CB

CB is CompuServe's unique simulation of the 11 meter Citizens' Band radio. CompuServe puts the whole country "on channel." You are equipped with a multiple channel transceiver and a scanning monitor.

To access the Citizens' Band radio simulator, select the Entertainment item from the Top menu and make the appropriate selection from the subsequent menu. There is also a CB instructions page where you can find complete instructions on using CB.

EMAIL

EMAIL is CompuServe's person-to-person message delivery system. You can read your mail, send mail, receive information on undelivered mail, or file your mail for future reference.

To access EMAIL, you select the Communications item from the Top menu and make the appropriate selection on the subsequent menu. Menu item 0 displays the instructions for using EMAIL. To return to the Videotex area, enter T for the top menu or enter **Ⓢ**. Also, you can enter OFF to log off the system.

Reading mail — To read your mail, select the Read Mail item from the EMAIL menu. If you have messages waiting, a menu is displayed indicating the message number, the sender's name, and the subject. You enter the message number, and the message is displayed. At the end of the message, you are given the opportunity to delete the message if you want.

Sending mail — To send mail, choose the Send Mail item from the EMAIL menu. You are stepped through the sending process by a series of questions. When creating your message, you can use the available EMAIL text editor to correct or add to your message if necessary. When the message is delivered it is automatically formatted to 32 characters per line and 12 lines per page. To force a new line to be started when the message is being formatted, begin the line with a tab or space when you enter it. (See the EMAIL Example.) Your message is delivered within 4 to 24 hours.

Undelivered mail — To check whether or not there is some mail which could not be delivered either to you or from you, select the Undelivered Mail Information item from the EMAIL menu. A maximum of 10 messages can be waiting in your read area at any one time. If you have undelivered mail waiting, you must delete a message from your read area before another message can be delivered.

Filing mail — You can place any message currently in your read area into a permanent file in your Personal Computing area by selecting the Filing item from the EMAIL menu. You are asked to provide the message number and a file name. The message is deleted from your read area when it is successfully stored. Disk storage is limited to 128,000 characters unless additional storage is requested. Note that any file in your Personal Computing area that is not accessed for 30 days is deleted.

To access the Electronic Communications Area, select item 4 from the Top menu.

```
CompuServe                Page CIS-1
CompuServe Information Service
1 Newspapers
2 Finance
3 Entertainment
4 Communications
5 CompuServe User Information
6 Special Services
7 Home Information

9 MicroNET Personal Computing

Enter your selection number,
or H for more information.

14
```

From the Electronic Communications area you can select either EMAIL or BULLET.

If you select EMAIL, item 1, a brief description is displayed. If you need further instructions, enter H at the ! prompt.

To send a message, enter menu item 2.

CompuServe Page CIS-22

Electronic Mail

- 1 Electronic Mail (EMAIL)
(user-to-user messages)
- 2 National Bulletin Board
(public messages)

Last menu page. Key digit
or M for previous menu.

11

CompuServe Page CIS-26

Welcome to EMAIL, the user-to-user message system from CompuServe. EMAIL allows you to communicate with other users of the information service. Instructions and options are included on each page. You are prompted for all required information. If you are not sure of what to do, key H (for Help) and receive further instructions.

Key <ENTER> for next page

! ENTER

CompuServe Page EM-2

ELECTRONIC MAIL

- 1 Read Mail
- 2 Send Mail
- 3 Undelivered Mail Information
- 4 File Mail

0 EMAIL User Information

Last menu page. Key digit
or M for previous menu.

12

You can type in a new message directly or you can use a file which is stored in your Personal Computing area as the message.

If you choose to type in the message by selecting item 1, EMAIL prompts for each line of the message. When you have completed your message, depress the ENTER key on a line by itself.

You are then given the opportunity to review your message, modify the message, or send it as is.

If you select item 1, Review with Mini-Editor, EMAIL displays each line of the message and then gives you the opportunity to modify any of the lines (in this case, line 1).

CompuServe Page EM-80

SENDING MAIL

- 1 Type in a new message
- 2 Use MicroNET disk file for input

Last menu page. Key digit or M for previous menu.

11

CompuServe Page EM-50

Enter Message; Enter Blank line to end:

- 1: This message shows how to send
- 2: an EMAIL message on the CompuServe
- 3: Information Service.
- 4: ENTER

CompuServe Page EM-53

Options:

- 1 Review with Mini-Editor
- 2 Modify
- 3 Send

Enter digit for option OR M for menu, or H for help

11

CompuServe Page EM-52

- 1: This message shows how to send
- 2: an EMAIL message on the CompuServe
- 3: Information Service.

Last Page, Key M for previous menu OR Line number to modify

11

This example shows how to replace an entire line of your message. You are prompted for the replacement line. The entire message is displayed again with the modification.

You can continue to modify lines, or move back to the previous menu from which you can send your message.

EMAIL prompts you for the information necessary to properly send the message.

```
CompuServe                Page EM-55

Old Text:
  1: This message shows how to send
  2: an EMAIL message on the CompuServe
Mini-Editor Options:

0 Return to Review (no changes)
1 Insert new line BEFORE line 1
2 Insert new line AFTER line 1
3 Delete line 1
4 Replace line 1
```

```
14

New Text:
1: This is an example of sending
```

```
CompuServe                Page EM-52

  1: This is an example of sending
  2: an EMAIL message on the CompuServe
  3: Information Service.
```

```
Last Page, Key M for
previous menu OR Line number
to modify
```

```
!M
```

```
CompuServe                Page EM-53

Options:

1 Review with Mini-Editor
2 Modify
3 Send
```

```
Enter digit for option OR
M for menu, or H for help
```

```
13
```

```
CompuServe                Page EM-51

Enter ID number or M for
previous menu
```

```
Send to User ID: 70000,11
```

```
From Whom?
(12 characters)   :Buddy
```

```
Subject? (17 characters)
                  :Example
```

You are then given the opportunity to check the mailing information.

If the information is correct, it is sent. If you indicate that the mailing information is not correct, you can change the incorrect information before sending the message.

The T command returns to the Top menu.

CompuServe Page EM-62

Mailing Information:

To: 70000,11
From: Buddy
Subject: Example

Is this information correct?
(YES or NO)

YES

CompuServe Page EM-61

Message being written

Message Entered and
Awaiting Delivery

Key <ENTER> to continue

T

CompuServe Page CIS-1

CompuServe Information Service

1 Newspapers
2 Finance
3 Entertainment
4 Communications
5 CompuServe User Information
6 Special Services
7 Home Information

9 MicroNET Personal Computing

Enter your selection number,
or H for more information.

1

To retrieve a message which has been sent to you, select item 1 from the EMAIL menu.

You select which message you want to read.

Note that the messages are reformatted, automatically, to 32 characters per line.

You can delete the message or leave it in your delivery area.

CompuServe Page EM-2

ELECTRONIC MAIL

- 1 Read Mail
- 2 Send Mail
- 3 Undelivered Mail Information
- 4 File Mail

Ø EMAIL User Information

Last menu page. Key digit
or M for previous menu.

11

CompuServe Page EM-1Ø

(From/Subject)

- 1 Joe/What's up?
- 2 Buddy/Example

Last menu page. Key digit
or M for previous menu.

12

CompuServe Page EM-19

7ØØØØ,11 - 23-Mar-81 - 16:35
This is an example of sending an
EMAIL message on the CompuServe
Information Service.

Last Page. Do you want to
delete this message (Y/N)

!YES

CompuServe Page EM-1Ø

(From/Subject)

- 1 Joe/What's up?

Last menu page. Key digit
or M for previous menu.

!

BULLET

The CompuServe Information Service National Bulletin Board is an information exchange medium. Any user can post a message on the Bulletin Board for all to read.

To access the Bulletin Board area, select the Communications item from the Top menu and make the appropriate selection on the subsequent menu. After you are in the Bulletin Board area the prompt changes from ! to *. At that point you can scan the current messages, post a message, read the messages, etc. To display the commands which are available in BULLET, type HELP at the *.

A text editor, Filge, is available in BULLET which you can use to create a message and correct or change that message.

FEEDBK

The Feedback area provides the opportunity for you to make suggestions to CompuServe, report any problems you might be having and order documentation. There is no charge for using this service; a credit is given for the time you use Feedback. It is recommended that you use FEEDBK to communicate with CompuServe.

To access the Feedback area, select the CompuServe User Information item from the Top menu and make the appropriate selection on the subsequent menu.

When you enter FEEDBK, a menu is displayed. You can choose to order documentation or describe a problem. You are prompted for the necessary information. Your message is stored for the CompuServe Information Service staff.

If you are unable to log on and thus cannot use FEEDBK, you can call CompuServe's toll free number for assistance (800)848-8990. In Ohio call (614)457-8650.

Personal Computing

The Personal Computing area of the CompuServe Information Service provides a variety of computer services, including:

- creating your own program or text file
- software exchange (R SOFTEX)
- line printer art gallery (R ARTGAL)
- challenging games
- programming languages
- word processing
- business and educational programs
- special interest groups (R SIGS)
- NEWS — Enter NEWS for a description of the most recent developments
- INDEX — Enter R INDEX for a complete list of the Personal Computing programs

You can move back and forth easily between the Videotex area and the Personal Computing area. To access the Personal Computing area, type EXI at a menu ! prompt. In the Personal Computing area, you are not directed by a menu; you must be familiar with the Personal Computing commands. It is suggested that you order the Personal Computing (MicroNET) User's Guide, CS-432, for details. (Use Feedback to order documentation.)

In the Personal Computing area, the prompt changes to OK. To access various programs in the Personal Computing area enter:

R program

For general help, enter HELP. For help with a particular command, enter HELP command. To return to the Videotex area, type R DISPLAY at the OK prompt.

Appendix A — Technical Notes

Your personal computer/terminal must be properly connected to the communications equipment (modems, telephones, etc.) and operating properly. Note the following required settings:

RS-232-C Settings		
Baud	300	300
Parity	Even	None
Stop Bits*	1	1
Word Lengths	7	8
*2 Stop bits at 110 baud only.		

Modem Settings
Originate Mode
Full Duplex

Appendix B — TYMNET Access

If a local CompuServe telephone access number is not available, you can access the CompuServe Information Service through TYMNET at a small additional charge.

1. Turn your terminal on and set switches for remote access.
2. Dial the nearest TYMNET access number and wait for the high pitched tone.
3. Couple the terminal to the telephone line.
 - a. For acoustic couplers, place the handset firmly in the coupler.
 - b. For datasets (Bell 103 or 113 type), depress the DATA button.
4. The following message will be sent to your terminal at 30 cps (this will appear garbled at other speeds):

PLEASE TYPE YOUR TERMINAL IDENTIFIER

5. Type your terminal identifying character (usually A). (Some host computers may publish special instructions for terminal identifiers.)
6. TYMNET will then send the message:

PLEASE LOG IN

Respond by typing the CompuServe user name which is CIS02 for non-prime time (CPS01 for prime time) followed by ENTER (a carriage return). For half duplex operations in ASCII, precede the user name with a Ⓜ .

7. At this point you will receive the familiar CompuServe "USER ID" prompt. You then have made your connection to the CompuServe Network and can proceed as outlined on page 2.

Appendix C — Glossary of Terms

This Glossary defines some of the more frequently used terms associated with the CompuServe Information Service.

carriage return (ENTER) — is the specific key on the keyboard which enters the current line into the computer.

CIS — CompuServe Information Service.

CRT — (Cathode Ray Tube) is a television-like terminal.

database — is a collection of information which is, in this case, stored on the computer.

default — is the action which takes place unless you specify an action to be taken. For example, in the Videotex area information is displayed 16 lines per page unless the S command is entered to scroll the text. The default is 16 lines per page.

disk storage — refers to the storing or saving of data in the Personal Computing area (or in the MicroQuote area) on a device called Disk. The data can then be retrieved for use at any time. Each customer is allocated 128,000 characters of disk space at no extra charge. Additional storage can be requested through FEEDBK for an extra charge.

DISPLAY — is the program which accesses the Videotex area. In the Videotex area, you can select information from one or more menus to be displayed at your terminal.

download — is the process of transferring a file of data from the CompuServe disk storage area to your own local computer system.

EMAIL — is the program which runs the Electronic Mail area.

ENTER (carriage return) — is the specific key on the keyboard which enters the current line into the computer.

Executive — is a terminal emulator program specifically designed for use with the CompuServe Information Service. Several versions of the Executive are available, each with its own set of capabilities, for use with different equipment. For more information on a specific Executive, run the INDEX program in the Personal Computing area (R INDEX).

FEEDBK — is the program which enables you to provide feedback, ask questions, and order documentation from the CompuServe Information Service staff.

file — is a collection of data, uniquely identified by a 1-6 character name and optionally a 1-3 character extension (e.g., TEST.DAT).

Filge — is CompuServe's file generator and editor which is used for creating and modifying files and for Bullet.

hardcopy — is a printout or a copy from a terminal which uses paper.

host computer — is the CompuServe computer to which you are connected.

initial page — is the first page of information which is accessed at logon.

job — is a user's individual session while logged onto the CompuServe computer.

logoff — is the sequence of events which disconnects you from the CompuServe computer.

logon — is the sequence of events which connects you with the CompuServe computer.

menu — refers to the item choices from which you may select in the Videotex area.

MicroNET — is a name for the Personal Computing area.

MicroQuote — is a database of historical information on stocks, bonds, options, mutual funds, and certain other special market indicators (e.g., AMEX Average). Daily information is available from 1974 through the previous trading day. MicroQuote does not contain information on any commodities except gold. There are extra charges involved with MicroQuote. For a list of current charges and a demonstration of the MicroQuote features, select the Financial item from the Top menu.

network — is the system communications link and equipment that enables you to connect to CompuServe's computers in Columbus, Ohio. CompuServe operates its own network in most major cities in the United States. Access from other cities is available through a supplementary network (TYMNET) at a small additional charge.

node — is a specialized communications computer which allows many terminals to communicate through the same line to CompuServe's large computer complex in Columbus, Ohio.

OK — is the prompt which is used in the Personal Computing area to indicate readiness to accept a command.

page — is any one of the 16-line displays which appear on your terminal.

program — is a set of machine instructions which a computer uses to perform a particular function. References to particular programs used on the CompuServe Information Service are made by program name, such as EMAIL, FEEDBK, DISPLAY. When a program is requested, the computer loads and executes (runs) the specified set of instructions (program).

prompt — is the message which is displayed when the computer is waiting for input, e.g., ! in Videotex or OK in the Personal Computing area.

SIGS — is the program which accesses the Special Interest Groups area. This area contains information pertaining to the many special user interest groups which have been set up across the country. To access this program enter R SIGS from the Personal Computing area.

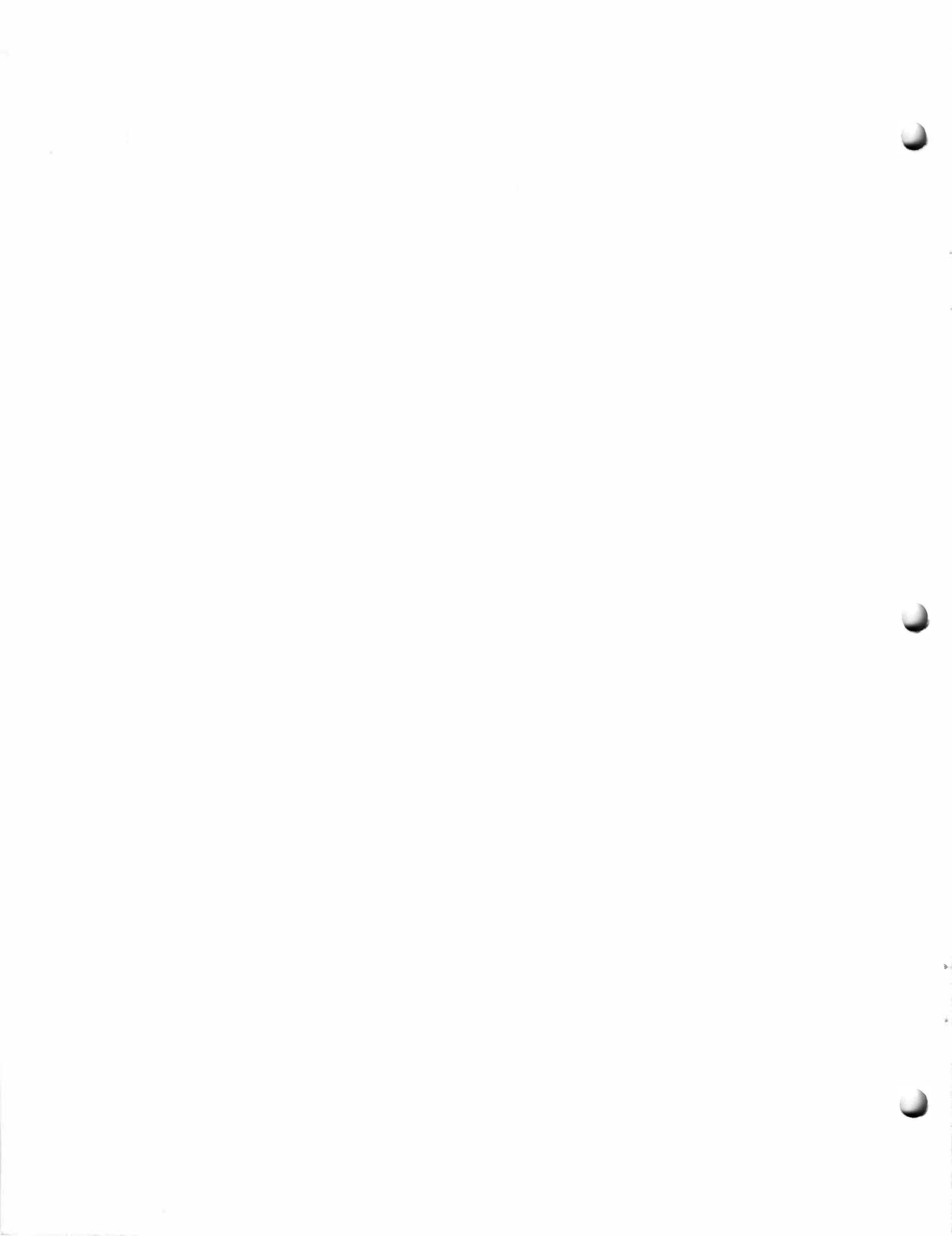
SOFTEx — is the name for the Software Exchange program which allows a user who is equipped with the proper version of the Executive to purchase programs that currently are available. These programs can be downloaded to your local computer system upon purchase.

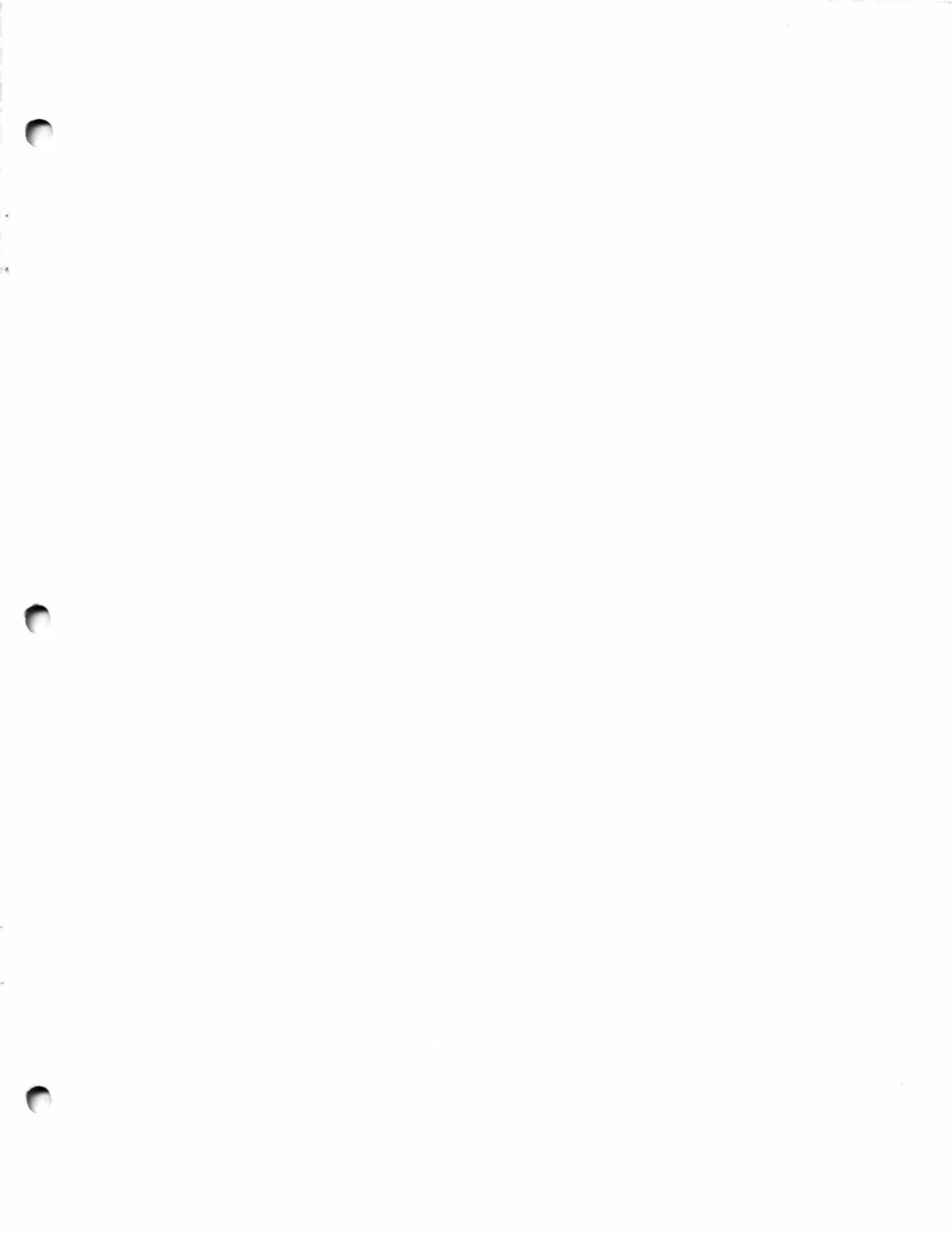
terminal — is a keyboard and printing or display mechanism used to enter data into a computer and to display output from a computer. A microcomputer which is running terminal emulation software is considered to be a terminal.

upload — is the process of transferring a file from your local computer system to your CompuServe disk storage area.

Videotex — is an easy to use interactive system for accessing remote databases. On CompuServe, the Videotex format is in pages of text.

VIDTEX™ — is a terminal emulator program which is specifically designed for use with the CompuServe Information Service and which is in CompuServe Information Service Videotex format. VIDTEX™ software is sold through Radio Shack stores and computer centers.





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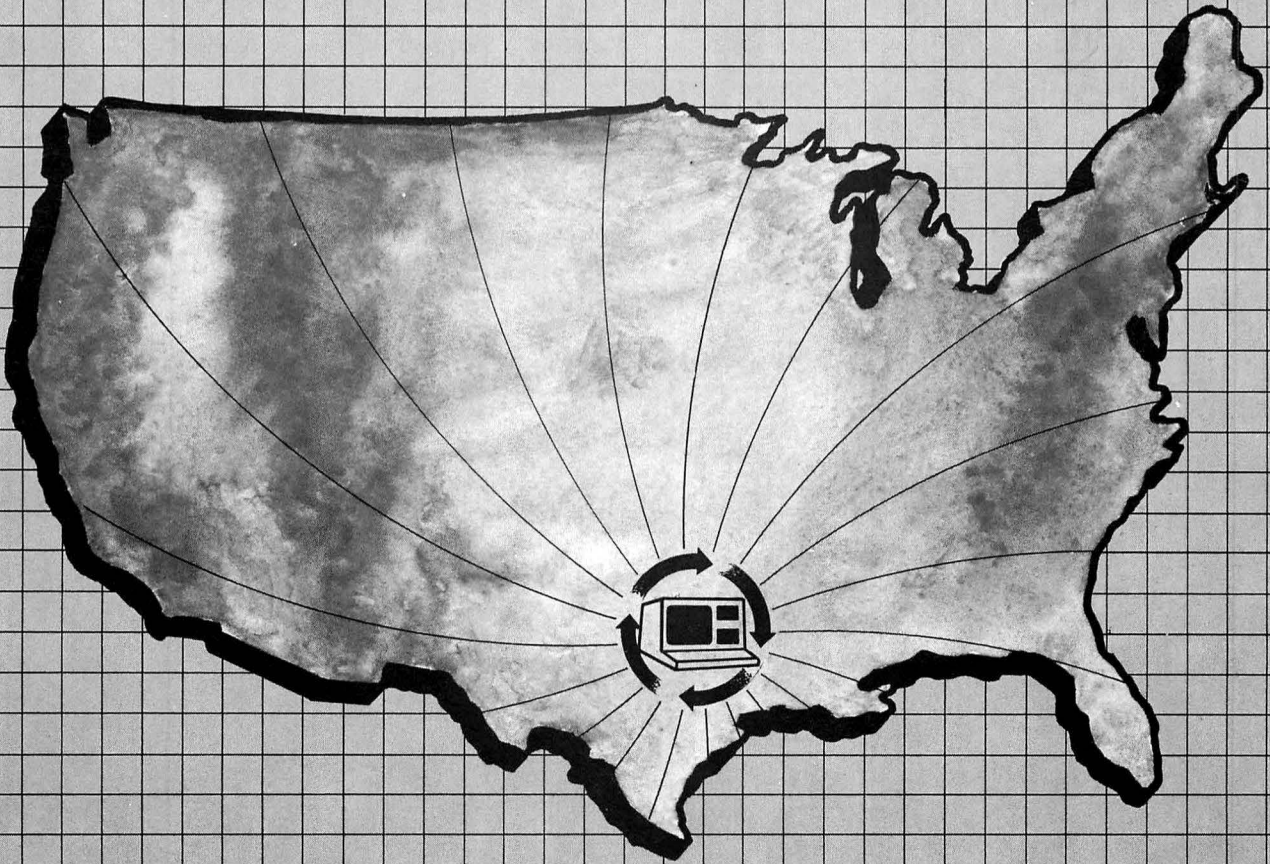
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TRS-80[®] VIDEOTEX

User's Guide

TRS-80[®] Color Computer



Radio Shack[®]

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Introduction

The TRS-80® VIDEOTEX program is called VIDTEX. It is a machine-language program supplied on a Program Pak™.

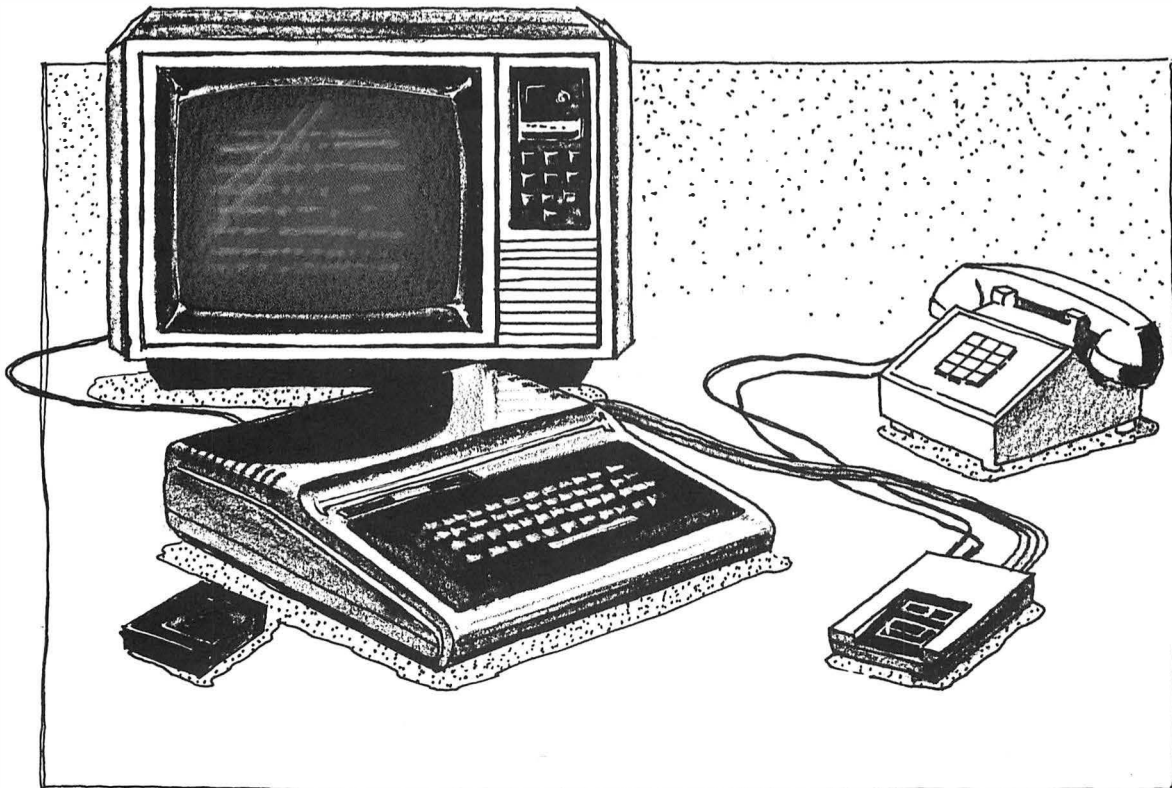
VIDTEX is a smart-terminal program which enables your TRS-80® Color Computer to communicate with any computer information service (i.e., the *host* system) which has telephone answering capabilities as well as the same communications protocol as VIDTEX.

Your information service user's guide will tell you how to get on and use a particular network.

This manual, however, explains the Color Computer VIDTEX software only and should be used in conjunction with an information service user's guide.

To use the VIDTEX package, you'll need a:

- Telephone
- TRS-80® Color Computer (and a Color TV. We suggest Radio Shack's 26-3010).
- Modem or Acoustic Coupler, which allows your Computer to communicate with other computers over the telephone. Radio Shack provides several of these; for example, the Telephone Interface II (Radio Shack Catalog Number 26-1171) and the Modem I (26-1172).



Starting-Up

To load the VIDTEX program, follow these steps:

1. Be sure your Color Computer is turned OFF.
2. Insert the VIDEOTEX Program Pak™.
3. Turn the Color Computer ON.
4. When program heading appears, you have two options:
 - You can begin communicating with the host system immediately.

To do so, press **BREAK** and dial the host system's telephone number; then set the modem.

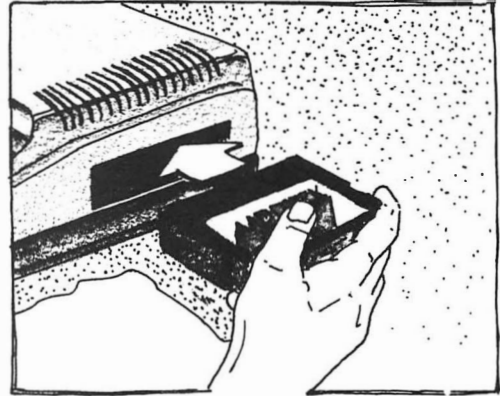
To set the modem (if you're using a Modem I) be sure your modem is powered-up and properly connected before you load VIDTEX. (See your modem's owner's manual for details.) When you hear the high-pitched tone over your telephone headset, set the MODE switch to ORIG and hang-up the phone.

You should then press **BREAK** and proceed as described in the host system's user's guide.

To set the Acoustic Coupler (if you're using a Telephone Interface II) be sure the telephone interface is powered-up and properly connected before you load VIDTEX. (See your interface's owner's manual for details.) Set the MODE switch to O and the DUPLEX switch to F. When you hear the high-pitched tone over your telephone, place the headset in the interface cradle. You should then press **BREAK** and proceed as described in your host system's user's guide.

- You can enter the ADVANCE STORAGE MODE (if the host system you're communicating with allows it). In this mode, you can type information into the Computer's memory before you establish a telephone connection and begin communicating with the host network. Then, when you establish a telephone connection with the host system, the information will be sent very quickly to the host network.

To use this feature, press any key (other than **BREAK**) once the program heading appears. You can then begin typing information into the Computer. When you're ready to begin communicating with the host network, press **BREAK** and proceed as described above.









Using VIDTEX

While running VIDTEX, whatever you type will be sent to the host system. Whatever information you receive from the host computer will usually (but not always) be displayed on your screen.

Using the Color Computer Keyboard While In VIDTEX

In general, you can use the keyboard as usual. However, under VIDTEX some keys perform certain operations. Others send special characters not normally available on the keyboard. When communicating with the host system, you'll find that the most commonly used keys are **ENTER** and **BREAK**. The following table summarizes the special keyboard capabilities your TRS-80® has when VIDTEX is running.

Function Keys and Other Special Characters		
Hex Code	Key Combination	Typical VIDTEX Function/Character
None		Control Key (on-line) Downscroll (off-line)
5E		"↑" Character (on-line) Up scroll (off-line)
08		Backspaces cursor or erases character
09		Horizontal tab
03	BREAK	Control-C
1B	CLEAR	Escape
5B	SHIFT 	"["
5D	SHIFT 	"]"

Special Characters Received

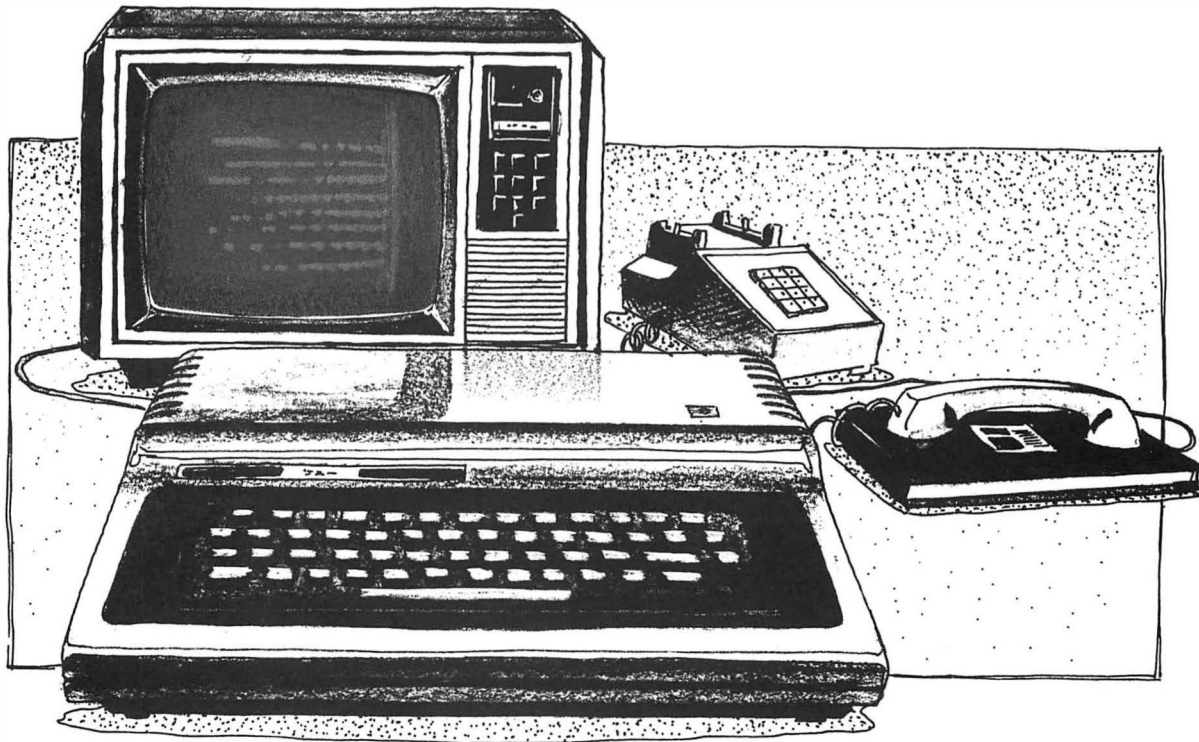
Most characters received by your TRS-80® are simply displayed on the screen. Certain characters, however, have special functions. They allow the host system to perform specific operations on your Computer (such as clearing the screen, moving the cursor, and printing messages at specified screen locations). Note that these codes are generated by the host computer and will not function "locally". The following table will describe these received characters.

Special Functions/Character Received		
Name	Effect on Your TRS-80®	Hex Code
ESC A	Move up one line	1B 6A
ESC B	Move down one line	1B 42
ESC C	Move right one space	1B 43
ESC D	Move left one space	1B 44
ESC H	Home cursor	1B 48
ESC K	Clear to end of line	1B 4B
ESC J	Clear to end of page	1B 6A
ESC j	Clear page	1B 6A
ESC Y	Position cursor to specified <i>line, column</i> *	1B 59

***Note:** ESC Y lets the host computer move the cursor to any position on the screen. ESC Y followed by a two-byte sequence indicating the desired line and column. The first byte is the column value in binary plus hex 20; the second byte is the line value in binary plus hex 20. For example, 1B 59 28 40 (28 = 8 + 20; 40 = 20 + 20) would position the cursor at line 8, column 32 (hex 8, hex 20).

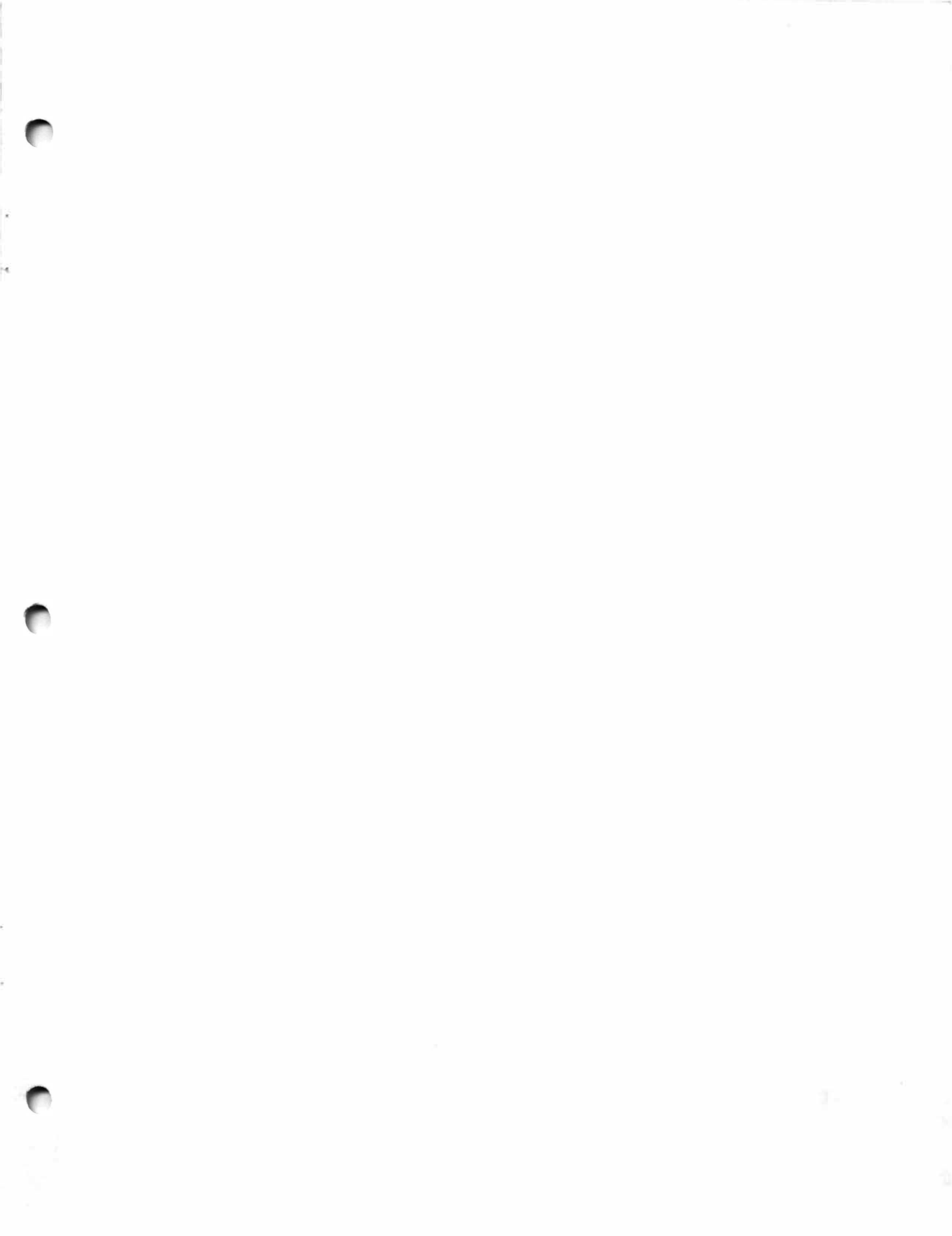
Hints and Tips

- The 16K TRS-80® Color Computer stores up to the last 31 pages in the text buffer; the 4K system, up to the last seven pages.
- A Control-C is generated by pressing **BREAK**.
- You may be inadvertently disconnected from the network if you have a "call-waiting" service and there is an incoming call signal.
- If an extension phone is picked up, you may receive data errors (normally, you will not be disconnected).
- When connected to the network, your TRS-80® Color Computer will not respond to "normal" commands and languages.
- To issue a command, you must return to OK by pressing **BREAK**. Doing so will not disconnect you from the information service. You may resume communications with the host system by restarting VIDTEX.
- Always log-off (BYE, OFF, or DISC are typical log-off commands) before hanging-up. This prevents your being charged for unused connect time.



Notes:

Notes:



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Radio Shack

TRS-80

MICRO
COMPUTER
SYSTEM

TRS-80 Videotex/CompuServe Information Service

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Cat. No.
26-2222