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TRS-80™ VIDEOTEX
User's Guide
TRS-80 Model I and Model III

Radio Shack®

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Introduction

The TRS-80 VIDEOTEX program is called VIDTEX. It is a machine-language program supplied on a cassette tape.

VIDTEX is a smart-terminal program which enables your TRS-80 Model I or Model III 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 Model I/III 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 Model I (with at least 16K RAM, Level II BASIC) or a TRS-80 Model III
- RS-232-C Interface and connecting cable
- Modem, 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).
- Cassette recorder. Radio Shack also provides several of these; we suggest the CTR-80A (26-1206).

Starting-Up

If you have a Printer and wish to use it, turn it on *now,* before starting VIDTEX.

Model I Users: Before loading VIDTEX, be sure the TERM/COMM Switch on the RS-232-C Interface Board is set to TERM. For specific instructions, see your TRS-80 RS-232-C Interface instruction manual.

Model III Users: When the `Cass?` prompt is displayed, press (L) for low (500 baud).

Loading VIDTEX (Cassette Systems)

To load the VIDTEX program from tape, follow these steps:

1. Power-up your Computer as described in the **Operation** section of your TRS-80 owner's manual.

   Note: To load VIDTEX from tape, you must be in Model I Level II or Model III BASIC, not Disk BASIC. To get into Model I Level II or Model III BASIC, after you power-up, press the RESET button and the (BREAK) key at the same time.

2. Insert the VIDEOTEX tape into the Recorder. (Be sure the tape is completely rewound and the Recorder remains in the STOP position.)

3. When BASIC displays the READY prompt, type `SYSTEM` and press (ENTER).

4. When the `*?` prompt is displayed, type `VIDTEX` (ENTER).

   Two asterisks (*) should appear in the upper-right of the display. If the tape is loading correctly, one should be blinking. If one does not blink, try using a different volume setting on the Recorder.

5. The `*?` prompt will reappear when the VIDTEX program is properly loaded. You can then either run VIDTEX or (if you have a disk-based system) save it on disk.

6. To run VIDTEX, type `/`(ENTER).

7. When the program heading appears, you should dial the host system's telephone number and 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 ORG 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 modem if you're using a Telephone Interface II, be sure your 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 interface cradle.

   You should then press (BREAK) and proceed as described in your host system's user's guide.

To Save VIDTEX To Disk . . . (Disk Systems Only)

If you have a disk-based system, you'll want to make a disk copy of VIDTEX.

Model I users should follow these steps:

1. When the TRSDOS prompt DOS READY appears, type `TAPEDISK` and press (ENTER).

2. When the ? prompt appears, insert the tape copy of VIDTEX into the recorder and press the recorder's PLAY button. Then type `C` (ENTER).

   An asterisk (*) should appear in the upper-right of the display. If the tape is loading properly, it should blink. If it doesn't blink, try using a different volume setting on the recorder.

3. The ? prompt will reappear when the VIDTEX program is loaded. To save it on disk, type:

```
F VIDTEX/CMD:0 7000 779A 7000 (ENTER)
```

4. When the ? prompt reappears, the program will be written to the disk under the name of VIDTEX/CMD.

5. To return to TRSDOS READY, type `E` (ENTER).

6. To run VIDTEX, type `VIDTEX` (ENTER). When the program heading appears, dial the host system's telephone number and set the modem as described earlier.

(For further details on running TAPEDISK/CMD, refer to your TRSDOS reference manual.)

Model III users should follow this procedure:

1. When the prompt TRSDOS READY appears, type `TAPE (S=T,D=D)` and press (ENTER).

2. TRSDOS will then prompt you with `Cass?`. Press (L) (for low baud).

3. A file called VIDTEX/CMD will then be created on disk.

4. To run your disk copy of VIDTEX, just type `VIDTEX` (ENTER) when TRSDOS READY appears.

5. When the program heading appears, you should dial the host system's telephone number. When you hear the high-pitched tone coming over the telephone, set the modem as described earlier.

Loading VIDTEX (Disk Systems)

If you've already saved VIDTEX to disk and want to load it back into memory, go to TRSDOS READY (or DOS READY) and type `VIDTEX` (ENTER)

When the program heading appears, dial the host system's telephone number. When you hear the high-pitched tone coming over the telephone, set the modem as described earlier.

Using VIDTEX

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

Using the Model I/III Keyboard While in VIDTEX

In general, you can use the keyboard as usual. However, under VIDTEX some keys perform certain operations (such as turning the Printer on or off). 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
5E	(↑)	"↑" Character
08	(←)	Backspaces cursor or erases character
09	(→)	Horizontal tab
03	(BREAK)	Control-C
5B	(↔) (8)	Left bracket
5C	(↔) (/)	Slash (/)
5D	(↔) (9)	Right bracket
5F	(↔) (−)	Deletes previous character
	(↔) (X)	Return to TRSDOS READY
	(↔) (R)	Turn printer ON
	(↔) (T)	Turn printer OFF
	(SHIFT) (0)	Uppercase on/off switch

Note: If any key is held down for two seconds, it will automatically repeat.

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. **Note:** The difference between upper- and lowercase characters is very important.

Special Functions/Characters Received

Name	Effect on Your TRS-80	Hex Code
ESC m	Enter wide character mode (32 characters/line)	1B 6D
ESC 1	Enter normal character mode (64 characters/line)	1B 49
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 right 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_ _	Positions cursor to specified *line, column**	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).

Future Versions

VIDTEX contains a machine-language object file loader which will allow future versions of VIDTEX to be downloaded (error-free) from the host computer. For instance, the host computer will examine your version of VIDTEX. If it is not the most recent version of the program, a new version will be transmitted to your Computer and automatically saved to your disk.

Hints and Tips

- 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 will not respond to "normal" commands and language.

- To issue a command, you must return to TRSDOS READY by pressing (←) (X). Doing so will not disconnect you from the information service. You may resume communications with the host system by restarting VIDTEX; just type `VIDTEX` (ENTER).

- Always log-off (BYE, OFF, or DISC are typical log-off commands) before hanging-up. This prevents your being charged for unused hook-up time.

Notes:

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NOTE: Good data processing procedure dictates that the user test the program, run and test sample sets of data, and run the system in parallel with the system previously in use for a period of time adequate to insure that results of operation of the computer or program are satisfactory.

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