

TERMINAL EMULATOR PTERM-99
Reviewed by John Bonito

This program is a revised and updated version of several previously reviewed earlier versions.

PTERM-99 version 3.1 MUST be run from port 1 of the RS232 card and does not support the printer option even though it is listed on the parameter screen. PTERM-99 with the printer option MUST be run from port 2 of the RS232 card with the serial printer connected to port 1.

System requirements to run the program are a 99/4A console, a disk drive, an RS 232 card, 32K memory expansion, and either the EXTENDED BASIC module or the EDITOR/ASSEMBLER module. If you have a LOAD program on the disk PTERM will automatically boot to the parameter screen otherwise using the EXTENDED BASIC module type CALL INIT :: CALL LOAD("DSK1.L") :: CALL LINK("PTERM") and press ENTER. Using the EDITOR/ASSEMBLER module choose option 3-LOAD AND RUN, type the filename DSK1.L and press ENTER. After the program has been loaded into memory the screen will prompt for a printer file (enter a carriage return for PIO or RS232.BA=9600.DA=8 default depending on your program or change the parameter to suit your type of printer) and press ENTER. If the PTERM program does not support the printer option the prompt will not be displayed. The screen will now display: BAUD 1-300 2-1200 at the upper part of the screen. The lower portion of the screen lists the control functions available. The cursor re-appears and prompts for input. Press ENTER for the default settings of 300 baud, RS232/1 (RS232/2 if the printer is connected to RS232/1), 1 stop bit, and 7 data bits. If other parameters are required enter them from the keyboard when prompted. If a selection error is made continue entering values. When in the terminal mode press CTRL 7 and re-enter the correct values. The screen will clear and a "--" will appear in the lower left of the screen. You are now in the terminal mode ready to communicate with a remote system.

The following functions are available:

CTRL 1 - PRINTER ON/OFF applies only to PTERM-99 with the printer option. With the printer turned on, pressing CTRL 1 while in the terminal mode will have the data scrolling onto the screen also sent to the printer. Pressing CTRL 1 again will turn the printer off but the scrolling on the screen will continue. Since the computer sends data to the printer at a much faster rate than the printer can process the proper number of nulls must be set or some printed data will be lost.

CTRL 2 - LOAD THE U/L BUFFER while in the terminal mode press CTRL 2 and enter filename of the file to be transmitted. The program will read only DIS/VAR 80 files. After the file has loaded press CTRL 3 to transmit a single 256 byte line each time the key combination is pressed or press CTRL 4 to transmit the complete file. The download buffer uses this memory and data received will begin to overwrite the file after receiving about 4 screenfuls of data. It is important to transmit the data as soon as the drive stops. The download buffer pointer is reset after the file is transmitted clearing all data from RAM. If CTRL 2 is entered by error while in the terminal mode press ENTER twice without entering a file name and you

will be returned to the previous display. When not on line these functions can be used to review files. Press FCTN E to turn on the local echo feature then press CTRL 2 and enter the filename at the prompt. Press CTRL 3 to review the file one line at a time. If CTRL 4 is pressed instead of CTRL 3 the text will scroll rapidly.

CTRL 3 - SEND LINE sends one line of the upload file each time the key combination is pressed whether on line transmitting data to a remote computer one line at a time or off line displaying the file one line at a time to the screen with FCTN E for reviewing. In this mode CTRL 4 can be pressed to scroll the data non-stop but you cannot return to transmitting or displaying one line at a time without re-entering the file. Pressing CTRL 2 at any time returns to the filename prompt.

CTRL 4 - SEND ALL transmits the complete file non-stop using X-OFF, X-ON, and CAN protocols. If displayed to the screen with FCTN E, the scrolling of data is too fast to be read with this function.

CTRL 5 - CLEAR/RESET DOWNLOAD BUFFER clears all data from RAM. The RAM buffer traps all incoming characters up to 24K. The buffer is circular so that only the last 20K is held. The screen will turn RED when the buffer is within 1K of being full.

CTRL 6 - DUMP THE DOWNLOAD BUFFER You will be prompted for a filename to save the contents of RAM to a disk by entering a device and filename or to a printer by entering the proper device name. Data received from sign on or from the last time CTRL 5 was pressed to clear the RAM buffer will be saved to disk or printer. Each time additional data is saved to disk a new filename MUST be used. Press ENTER after the drive or printer stops to return to the terminal mode if you are still on line. If the host system recognizes CTRL 5, when CTRL 6 is pressed, transmission will be halted while saving data and resumes when ENTER is pressed after the drive stops. A full buffer will occupy about 110 sectors of disk space but once the RED screen is displayed, which is within 1K of being filled, you should consider saving the data. When the RED screen changes back to the normal background color, at that point, all data previously stored in RAM is automatically cleared and only data from that point on will be saved. Since saving this data to disk or printer is time consuming, during short sessions on line, it might be best to sign off and then save the data. Whether on or off line, when this function is accessed and the data is saved, the file is automatically closed and RAM is cleared. From sign on, or from the last time data was saved to disk, it will take a minimum of fifteen minutes of continuous transmission from the host to fill the RAM buffer and uses about 105 sectors on the disk. Depending on the type of data it could take fifteen or more minutes to reach the RED screen. It takes about fifty to sixty seconds to save the full buffer to disk. On the TI WRITER, this will display approximately 650 lines of 80 characters per line or 900-1200 lines of 40 characters per line.

CTRL 7 - RESTART PROGRAM returns the display to the initial parameter choice screen for changes, will abort all special functions, and is also a warm start function while in the terminal mode. Make necessary changes or press ENTER for the default values to return to the terminal mode. If you were receiving data when you pressed CTRL 7 press ENTER again for the scrolling

to continue.

CTRL 0 - QUIT returns computer to Master title screen.

FCTN E - TOGGLES THE LOCAL ECHO ON/OFF whether off line or in the terminal mode. Echo must be ON to display text while off line. If left on in the terminal mode double characters will be displayed as they are input from the keyboard.

FCTN 7 - SCREEN COLORS can be changed to suit your personal choice of background and foreground colors. These colors can also be changed while in the terminal mode by pressing CTRL 7 at any time; make the necessary changes and return back on line.

After you have signed off the remote system save the contents of memory to disk immediately with CTRL 6. When the drive has stopped shut off power to the modem, since the keyboard will lock up, enabling you to press CTRL 0 and return to the title screen or just turn off the console power.

By saving the complete file to disk after signing off line and access charges can be minimized. The file can then be loaded into TI-WRITER or any other DISPLAY VARIABLE 80 word processing program to review and/or print selective data. Also, the hassle as to when the printer is to be toggled on/off is eliminated.