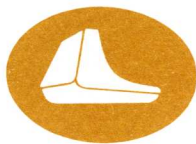# Executerm I

Remote Data Terminal for the Time Sharing Computer User

The Executerm I has been designed and engineered for rapid interactive communication with a remote computer. Designed to replace the slow, noisy, mechanical units previously used, the Executerm I provides completely flexible communications as versatile as the computer.

Courier
Terminal Systems, Inc.
2202 E. UNIVERSITY DR. / PHOENIX, ARIZONA 85034

PHYSICAL FEATURES:

1. **Non-Destructive Cursor.** The cursor may be moved back and forth over existing characters on the screen without changing the content or format on the screen.

2. **Parity Check.** Even parity is checked on incoming characters and generated on outgoing characters. If a character is received with incorrect parity, a special symbol is displayed in its place on the screen.

3. **Horizontal Tabulation.** Four fixed TAB stops are pre-wired into the logic for columns 8, 16, 24, and 32. When a horizontal TAB character is detected the cursor will index to the next fixed TAB position and stop. The next character received will be displayed in that location. Sequential horizontal TAB characters will cause the cursor to move to each successive TAB location.

4. **Page Roll.** The Executerm can be placed into the Page Roll Mode by depressing a control located on the operator's panel. When this mode is selected, new lines are inserted at the bottom of the screen after moving the entire page upward by one line. The action will take place automatically if either the internal data buffer is filled, or if a sixteenth line is started.

When page roll is not selected, incoming data is lost after the buffer is filled or 15 lines have been displayed. The computer can cause data to be overwritten starting at the top of the screen or can cause the current page to be erased and a new page to be started by sending the appropriate control codes from the computer.

5. **Conversation Mode.** When the conversation mode is selected by the operator, a character is transmitted to the computer and screen immediately after depressing a key on the keyboard. Buffering of characters in the terminal is only for display regeneration.

6. **Edit Mode.** When the edit mode is selected by the operator, characters are displayed on the screen as they are entered via the keyboard or the computer.

No characters are transmitted to the computer until the "SEND" key is depressed. This mode allows visual inspection and modification of the data prior to transmission.

When the "SEND" key is depressed, the data, starting with the first line of the page and terminating with the cursor location, is transmitted as a message to the computer.

7. **Word Blinking.** A special control character when placed before a group of characters will cause that group of characters to blink two times a second. This control character may be input through the keyboard or sent to the terminal via the communication line.

8. **Repeat Function.** When any key on the keyboard is depressed, a single character is generated. If the key is held down for a period exceeding two seconds, a string of characters is generated at a rate of four per second. Thus, rapid cursor motion, space insertion, etc., is achieved.

9. **Automatic Line Advance.** If a carriage return is not sent before the 40th character of any given line is displayed, the Executerm will automatically perform the carriage return function.

CURSOR CONTROLS

1. **Backspace.** The cursor is moved left one character position. The REPEAT function can be used for multiple character slewing. The cursor "ends around" by moving from the first character position of present line to the last character position of the previous line. Characters on the screen remain unchanged.

2. **Forward Space.** The cursor is moved right one character position. The REPEAT function can be used for multiple character slewing. The cursor "ends around" by moving from the last character position of the present line to the first character position of the next line. Characters on the screen remain unchanged.

3. Start of Page. Cursor is moved to the first character position of the first line of the display. Characters on the screen remain unchanged.

EDITING FUNCTIONS

1. Character Delete. The character at the present cursor position is deleted and the following characters on that line move left one character position to fill in the void created by the deleted character.

2. Character Insert. A space character is inserted to left of the character indicated by the present cursor position, and the following characters on that line move right one character position to accommodate the inserted space.

3. Character Replace. The character at the present cursor position is replaced by the inputted character. The cursor is moved right one character position.

4. Clear Page. The entire display and buffer are cleared and the cursor is moved to the first character position of the first line of the display.

5. Clear to End of Page. The display and buffer are cleared starting to the right of the cursor position. The cursor position remains unaltered.

OPTIONAL FEATURES

1. Split Screen Operation. A *split screen mode* may be selected by the operator if this option is installed. In this mode the computer (or the operator) may write a format on the left side of the viewing screen. The operator may enter variable data immediately to the right of each format data line. A carriage return will index the entry cursor to the right of the format statement of the next line down.

When in the EDIT mode, the variable data may be visually verified, corrected if in error, and then transmitted to the computer by pressing the ENTER key. Only the variable data (right hand fields) is sent to the computer.

2. Lower Case Graphics. The 26 lower case alphabetics and an additional five symbols can be displayed on the screen when this option is installed. The SHIFT key on the keyboard is used to differentiate between upper and lower case alphabetics and symbols in a manner similar to a standard typewriter. For transmission between the computer and the terminal, the alphabetic case is selected via the transmission of the proper USASCII code.

3. Hard Copy Printer — Multiple Copies.

INTERFACE SPECIFICATIONS

Speeds 110*, 150, 300, 600, 1200 bits/second

All codes are 7 bit USASCII plus even parity and include 1 asynchronous start bit and 1 stop bit (*except the 110 bits/sec. which contains two stop bits). The desired speed is selected at installation time.

ELECTRICAL INTERFACE OPTIONS

1. Data Set interface for Western Electric Co. 103 series or equivalent per EIA-RS 232B specification.

2. Acoustical Coupler — compatible with Western Electric 103A, E or G data Sets — (terminal must originate call).

3. Modem — Compatible with Western Electric 103A, E or G data sets. (Terminal must originate call.) Will connect by wire to Bell System Data Access Arrangement data coupling unit.

4. Modem — Compatible with Western Electric 103F (or equivalent) private line data set. Will operate in originate mode and connect directly to the transmission circuits (2 or 4 wire).

5. Data Set interface for Western Electric 202 C/D series data sets (or equivalent) per EIA-RS232B specification.

6. Modem — Compatible with Western Electric Co. 202 C/D (or equivalent) data sets. Will connect via wire to either the Bell System Data Access Arrangement data coupling unit or directly to either a two or four wire transmission circuit (private line operation).

FUNCTIONAL CHARACTERISTICS —

Viewing Area — 6.4" Horiz. X 4.8" Vert. Approx.

Screen Capacity — 600 Characters

Presentation Format — 15 Lines X 40 Characters

Displayable Characters — *256 Std. — 512 Optional

Character Size — 0.11" wide X 0.14" high

Refresh Rate — 66 pages/second

Scan Method — Modified Raster

Character Generation — (7 X 8 Dot Matrix)

Character Set — 26 Alpha, 10 Numeric, 26 Standard
Symbols, 1 Special Symbol (parity
error), and Space

Memory — MOS (semiconductor)

Code — 8 bit USASCII

Keyboards — Teletypewriter — Standard Model
Data Entry — (similar to IBM Keypunch)
— Optional

*Free form format allows for efficient utilization of
buffer storage. Format control characters stored in
the buffer by the operator can cause displayable
characters to be located as desired in the 600 dis-
playable positions on the screen.

Physical Characteristics

Width   17"

Height   14"

Depth   22"

Weight   50 lbs.

Temperature Range 40F to 100F

Power Requirements

Voltage — 100 to 130 (nominal 117)

Frequency — 60 CPS* Single Phase

Power — Watts 150

Cord — 3 Wire/grounding plug

*50 CPS Export Models Available

LINE DISCIPLINES OPTIONS

1. **Half Duplex Operation** — Available on all op-
tions.

2. **Full Duplex Operation** — Available on all West-
ern Electric 103 compatible devices. Available on
Western Electric 202 compatible options using four
wire private line circuits.
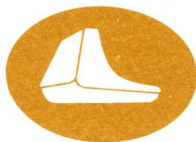
Courier
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RCA NATIONWIDE INSTALLATION AND SERVICE BY RCA SERVICE CO.

Courier
Terminal Systems, Inc.

vb

October 24, 1969

Hobbs Associates
P. O. Box 686
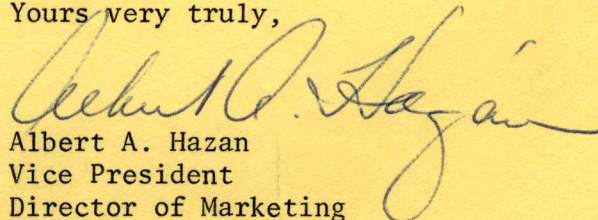Corona Del Mar, California 92625

Attention: Douglas J. Theis

Dear Mr. Theis:

We are in receipt of your letter of October 13, 1969, requesting information on the Executerm I CRT display. We would like to take this opportunity to thank you for your interest in our organization and our display.

We are enclosing a data sheet covering the general specifications of Executerm I which lists out many of the questions you asked in your letter. It is difficult at this time to specifically state what the forthcoming displays, which we are planning, would be like as far as operating specifications are concerned. However, we would be more than happy to arrange a meeting with you to discuss your requirements in detail to determine whether or not your applications fit within our product plans. At the present time, we are planning several products between now and mid 1972. I'm certain you can see that these plans can change as a function of time, and requirements that come up in areas such as your application could have a bearing on these plans.

At the present time, we are trying to obtain further information on the extended Roman Alphabet, and if you can help in this effort, it would certainly be appreciated. If we can be of any further service to you or answer any technical questions you may have regarding your application, please contact me.

Yours very truly,

Albert A. Hazan
Vice President
Director of Marketing

AAH/d
Encl.

Gentlemen:

May we take this opportunity to thank you for your interest in Executerm I and welcome you to The World of Courier Terminal Systems, "Where Data Meets The Eye".
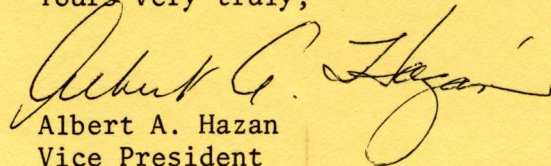
Executerm I is the first of a family of terminals and associated products to be announced shortly for various applications as well as fully integrated systems.

Courier Terminal Systems, Inc. is more than just a hardware oriented organization. We are a company which specializes in Data Communications and Data Communication Systems. Selling or leasing our terminals to you is only a portion of our service. Making it work on line with your computer is also our responsibility, and we welcome it. The installation and service for Courier Terminal Systems is provided by the RCA Service Company on a nationwide basis.

Executerm I has been styled, designed, and engineered for you.... the user. We feel it will complement any decor and perhaps add an air of "futurama" to your office.

Enclosed is our data sheet on Executerm I which provides more detailed information on its unique characteristics and features. It is our hope that you will express further interest in our terminal by requesting additional specific information, or perhaps giving us an opportunity to demonstrate Executerm I in your area. If so, please contact us.

Yours very truly,

Albert A. Hazan
Vice President

Enclosure