

# Esprit Systems Display Terminals

## MANAGEMENT SUMMARY

**UPDATE:** Since our last update to this report, Esprit Systems, Inc. has sold 49 percent of its stock to Advanced Datum Information (ADI), its principal supplier in Taiwan. Esprit has narrowed its number of commercially available display terminals to 5 models. Specifications on these models as well as current pricing information is included in this report.

Esprit Systems, Inc., headquartered in Melville, New York, is a leading independent supplier of video display terminals. The company sells its standard terminal models, many of which emulate a variety of best-selling terminals, and computer systems to large OEMs, VARs, systems integrators, and end users worldwide.

In January 1983, Esprit Systems was incorporated when it reached an agreement with Hazeltine Corporation to sell its computer terminal equipment product line to a group of its management employees. The new company began marketing the Hazeltine display terminal product line which traditionally has been one of the leaders in the general-purpose ASCII terminal market. In March 1986, Esprit sold 3.7 million shares of the company's Common Stock, resulting in a 49 percent ownership, to Esprit's principal product supplier in Taiwan, Advanced Datum Information Corporation (ADI). ➤



*Esprit Systems' ESP 6515 is a Digital VT220-compatible terminal and is fully compatible with VT100 application software. With a single keystroke, either of the two menu-selectable setups may be recalled, allowing a single user concurrent communication with independent remote and local host computers.*

Esprit Systems produces a family of general-purpose ASCII and ANSI display terminals. The products include a color model, a Digital Equipment Corporation-compatible model, and three additional multifunction terminals that emulate ADDS, TeleVideo, Wyse, and Lear Siegler products.

**MODELS:** ESP 6110+, ESP 6310, ESP III Color, ESP 6515, OPUS 2.

**DISPLAY:** The ESP III Color features a 13-inch (diagonal) display. The ESP 6110+, ESP 6310, ESP 6515, and the OPUS 2 contain 14-inch (diagonal) displays. The ESP III Color has eight-color display capability; the ESP 6110+, ESP 6310, and ESP 6515 all display character is green or amber phosphor; the OPUS 2 offers green, amber, or white phosphor. All models feature tilt/swivel capability.

**KEYBOARD:** All models are equipped with detached keyboards that feature sculptured keys and a low-profile design. Keyboards on the OPUS 2, ESP 6110+, and ESP 6310 are height-adjustable. All models include a numeric keypad, except the ESP 6110+, and user-programmable function keys.

**COMPETITION:** TeleVideo Systems, Applied Digital Data Systems (ADDS), Visual Technology, Wyse Technology, Liberty Electronics, Qume, and several others.

**PRICE:** Prices for the ESP line and OPUS displays range from \$395 to \$995.

## CHARACTERISTICS

**VENDOR:** Esprit Systems, Inc., 100 Marcus Drive, Melville, NY 11725. Telephone (516) 293-5600.

**DATE OF ANNOUNCEMENT:** Esprit III Color—May 1983; ESP 6310—January 1984; ESP 6110+—July 1984; ESP 6515—July 1985; OPUS 2—July 1986.

**DATE OF FIRST DELIVERY:** Esprit III Color—July 1983; ESP 6310—January 1984; 6110+—August 1984; ESP 6515—February 1985; OPUS 2—August 1986.

**NUMBER DELIVERED TO DATE:** Information not available.

**SERVICED BY:** Esprit Systems and TRW.

## MODELS

- Esprit III Color—a low-priced, general-purpose color display.
- ESP 6110+—a terminal that features emulation of the ADDS Viewpoint and Regent 25, Lear Siegler ADM 3A, Hazeltine 1500, and Esprit II. ➤

## Esprit Systems Display Terminals

➤ Esprit's product line currently consists of five models. The low-end model, the ESP 6110+, is a smart terminal with a variety of emulations (ADDS Viewpoint, Regent 25, Lear Siegler ADM 3A, Hazeltine 1500, Esprit II), and full editing features. The ESP 6110+ includes Esprit's modular terminal design, with a 14-inch tilt/swivel display, a small footprint, and detached, low-profile keyboard. But the most impressive feature of the ESP 6110+ is its price—\$395. The ESP Series also includes an ANSI X3.64-compliant model, the ESP 6515, and a fully featured smart terminal, the ESP 6310. The ESP 6310 includes all of the features of the 6110+, plus additional emulations (TeleVideo 910 Plus and 925), 11 (22 shifted) programmable nonvolatile function keys, and programmable attributes (hidden or unhidden, field or character).

Esprit's most recent addition to its product lineup is the OPUS 2. This mid-range ASCII terminal provides advanced design and system enhancements. Priced at \$549, OPUS 2 is a low-profile, small footprint terminal with a 14-inch, flat-screen display that combines "touch-tilt" with a "lazy Susan" like swivel mechanism. This design provides easy angling with the touch of a finger.

The Esprit III Color is Esprit Systems' only color terminal. The unit features eight displayable colors, and still carries a lower price tag (\$995) than the color units offered by ADDS and Wyse.

### COMPETITIVE POSITION

A three-year period of losses in the Industrial Products group of Hazeltine's Computer Terminal Equipment division prompted Hazeltine to sell its terminal line to an employee management group headed by John A. Sasso, former vice president of Computer Terminal Equipment (who was then joined by Anthony F. Palladino as CEO). The feeling expressed by Mr. Sasso was that Hazeltine was geared more toward the government market and high technology development; in today's terminal market, a company must be able to respond more quickly to changing conditions than Hazeltine could. Esprit Systems was founded with this in mind.

As we mentioned previously in this report, Esprit Systems has been an aggressive competitor in the display terminal market since its formation. New display models and the company's recent acquisition by ADI have reflected the new spirit of the company. The ADI stock purchase established a closer working relationship between Esprit and ADI, and addressed two major problems that affected operations of the company—product shortages and credit availability. With competition in the display terminal market growing more severe, Esprit Systems would seem to be well positioned to maintain a growing presence in the display terminal market.

### ADVANTAGES AND RESTRICTIONS

Esprit Systems has the advantage of inheriting from Hazeltine an established and successful product line with a large customer base. It has been quick to respond to changes in ➤

- • ESP 6310—a fully featured terminal with the following emulations: ADDS Viewpoint and Regent 25, TeleVideo 910 Plus and 925, Lear Siegler ADM 3A, Hazeltine 1500, and Esprit II. The ESP 6310 can be upgraded to the ESP 9310 multifunction workstation.
- ESP 6515—a low-priced Digital VT220 emulator; also operates with DECsystem-10/DECsystem-20 accounting/database package, and the Digital PDP-11 RSTA data inquiry application.
- OPUS 2—a high-styled, fully featured terminal that emulates the Wyse 50, TeleVideo 925/910, ADDS Viewpoint, and ESP 6110+ Hazeltine mode.

### TRANSMISSION SPECIFICATIONS

Transmission is asynchronous on all models, in half- or full-duplex, at speeds from 50 to 19,200 bits per second for the ESP 6110+, ESP 6310, and ESP III Color, and speeds up to 38.4K bps on the ESP 6515 and OPUS 2. Transmission is in full-duplex only on the ESP 6515. All models offer operator-selectable X-on/X-off protocol. Odd, even, mark, or space parity can be selected, with no parity being offered on the ESP III Color, ESP 6310, ESP 6515, and OPUS 2. An RS-232-C main interface is standard; a 20 ma current loop and RS-422 interfaces are optional for all models. A bidirectional RS-232-C auxiliary interface is standard on the ESP 6310, ESP 6515, and OPUS 2.

### DEVICE CONTROL

Cursor controls move the cursor up, down, left, right, and home; direct absolute addressing and incremental cursor addressing are standard. The cursor appears as a block or underline, steady or blinking. No cursor is selectable on ESP 6310, ESP 6515, and OPUS 2. Tab and line feed functions are also provided. Smooth scrolling is available on the ESP 6310, ESP 6515, and OPUS 2.

Operating parameters are selected via a menu. Editing functions include insert/delete line, insert/delete character, erase field, erase to end-of-line, erase to end-of-screen, erase foreground, and erase all. Format control allows the following fields to be designated: protected, unprotected, background, and foreground. Video attributes include blink, blank, dual (high/low) intensity, underline, and reverse video. Double-width character line or double-width/-height character line is programmable on the ESP 6515.

### COMPONENTS

**CRT DISPLAY UNITS:** A 14-inch (diagonally measured) display screen is standard on all models except the Esprit III Color, which contains a 13-inch (diagonal) screen. A display format of 24 lines by 80 characters, for a total display capacity of 1,920 characters, plus a 25th status line is standard on all models. The OPUS 2 offers two status lines. Characters on the ESP 6110+, ESP 6310, and ESP 6515 are displayed in green phosphor. Optional amber, green, or white phosphor displays are offered on the OPUS 2. The Esprit III Color provides eight displayable colors: red, white, blue, green, yellow, magenta, cyan, and black. The 128-character ASCII set is displayable, and line drawing graphics are available on the color unit. Line drawing graphics are also available on the OPUS 2. Characters for all models are formed using a 7-by-11 dot matrix in a 9-by-12 window; a 9-by-13 window is used on the OPUS 2.

**KEYBOARDS:** All models include a detached, low-profile, typewriter-style keyboard with sculptured keys. It conforms to the European DIN standard for ergonomics, and connects to the display via a coiled cord. All models feature a 14-key ➤

## Esprit Systems Display Terminals

▷ the marketplace by introducing new products and continues to bring quality terminals to the market.

Esprit's ESP 6110+, with a price tag of \$395, goes head-to-head with other low-end offerings such as the Freedom 110 from Liberty Electronics (\$545) and the Viewpoint+ from ADDS (\$595). The Esprit III Color, at \$995, is also the lowest priced color terminal currently available from the major vendors.

Esprit recently launched a comprehensive, three-pronged support and service program aimed at distributors and end users. Under "Esprit to the Rescue," Esprit is offering to send a free replacement unit within 24 hours for any competitive terminal that fails, for a 30-day evaluation at no cost or obligation. The "Esprit Express" program, designed specifically for users of the ESP 6515 and OPUS 2 terminals, offers 24-hour replacement of these units at an annual fee of \$39 per unit as a cost-effective alternative to on-site service. The Express service plan includes all charges for parts, labor, and shipping. Part three of the program, "The Esprit 30-month Guarantee," is packaged with each ESP 6515 and OPUS 2 terminal. Besides the standard warranty, Esprit guarantees that if the terminal fails more than once in 30 months, it will replace the unit free.

### USER REACTION

During May of this year, Datapro, in conjunction with *Data Communications* magazine, conducted a survey of display terminal, voice/data workstation, and cluster controller users. The 1986 Terminal Users Survey was the result. (See Report C25-101-901) (Responses covering older Hazeltine terminals, including the 1400 and 1500 families, will not be counted for the purposes of this report.) These users reported on an installed base of 646 terminals. Each user was asked to rate his/her terminals in seven specific categories. Their ratings are summarized in the following table.

	Excellent	Good	Fair	Poor	WA*
Overall performance	2	8	4	0	2.9
Ease of operation	4	7	3	0	3.1
Display clarity	3	10	0	0	3.1
Keyboard feel & usability	1	8	4	1	2.6
Ergonomics	1	5	3	5	2.8
Hardware reliability	5	5	3	1	3.0
Maintenance service/technical support	2	6	2	2	2.5

\*Weighted Average on a scale of 4.0 for Excellent.

When asked whether or not they would recommend the Esprit display terminals to other users, seven replied that they would and five responded negatively. The remaining two were undecided. □

▶ numeric/function keypad. The Esprit III Color contains 22 user-definable function keys; the ESP 6110+ contains 4 programmable function keys (shiftable to 8); the ESP 6310 contains 11 programmable nonvolatile function keys (shiftable to 22); the ESP 6515 contains 18 programmable nonvolatile function keys; and the OPUS 2 contains 16 programmable function keys. Keyboard lock/unlock is standard.

### PRICING

The Esprit Systems displays are available for purchase only, with quantity discounts available. Maintenance service is available through Esprit Systems, as well as through TRW. The following are end-user single quantity prices.

### EQUIPMENT PRICES

	Purchase Price (\$)
Esprit III C	995
ESP 6110+	395
ESP 6310	695
ESP 6515	629
OPUS 2	549 ■



# Esprit Systems Display Terminals



*Esprit Systems' ESP 9310 is a multifunction workstation that is compatible with the IBM Personal Computer. Based on an 8088 microprocessor, the ESP 9310 contains 256K bytes of RAM and can operate in both PC and terminal modes. In terminal mode, the ESP 9310 has all of the features of the ESP 6310 display; in fact, the ESP 6310 can be field upgraded to an ESP 9310 workstation.*

## MANAGEMENT SUMMARY

In February 1983, Hazeltine Corporation reached an agreement to sell its computer terminal equipment product line to a group of its management employees. A new company, Esprit Systems, was formed to market the Hazeltine display terminal product line, a line which traditionally has been one of the leaders in the general-purpose ASCII terminal market. Since the formation of Esprit Systems, the company has aggressively introduced several new products, including a new generation of displays (the ESP 6000 Series) that features a multifunction workstation. Esprit Systems has also been active on the acquisition front, reaching an agreement to purchase small computer manufacturer DBS International (since renamed Esprit Computer Products).

Esprit's newest line, as we previously mentioned, is the ESP 6000 Series. The low-end model, the ESP 6110+, is a smart terminal with a variety of emulations (ADDS Viewpoint/Regent 25, Lear Siegler ADM 3A, Hazeltine 1500, Esprit II), and full editing features. The ESP 6110+ includes Esprit's new modular terminal design, with a 14-inch tilt/swivel display, small footprint size, and detached, low-profile keyboard. But the most impressive feature of the ESP 6110+ is its price—\$495. The ESP Series also includes an ANSI X3.64-compliant model, the ESP 6115, and a fully featured smart terminal, the ESP 6310. The ESP 6310 includes all of the features of the 6110+, plus additional emulations (TeleVideo 910 Plus and 925), 11 (22 shifted) programmable nonvolatile function keys, and programmable attributes (hidden or un-hidden, field or character). The ESP 6310 can be field upgraded to the ESP 9310 ▶

Esprit Systems produces a family of low-priced, general-purpose ASCII display terminals. The company currently offers three series: the Esprit, Executive, and ESP. These families contain a variety of products, including a color model, DEC-compatible models, a graphics model, and a multifunction workstation.

**MODELS:** Esprit Series: Esprit, Esprit II, Esprit III, and Esprit III Color; ESP Series: ESP 6110+, ESP 6115, ESP 6310, and ESP 9310; Executive Series: Executive 10/25, Executive 10/102, and Executive 10/102G.

**DISPLAY:** The Esprit, Esprit II, and Esprit III feature a 12-inch (diagonal) display. The Esprit III Color is equipped with a 13-inch display. The Executive 10/25, Executive 10/102, Executive 10/102G, and all ESP 6000 Series models contain a 14-inch screen. The Esprit Series displays are tilt-able; the Executive and ESP Series displays have tilt/swivel capability. Green phosphor characters are standard on all models except the Esprit III Color, which has eight-color display capability, and the ESP 6000 Series, which offers an optional amber display.

**KEYBOARD:** The Esprit is equipped with an attached keyboard; all other models are detached. The ESP and Executive Series keyboards feature a low-profile design. All models include a numeric pad; most models include some function keys.

**COMPETITION:** TeleVideo Systems, Applied Digital Data Systems (ADDS), Lear Siegler, Visual Technology, Wyse Technology, Liberty Electronics, Qume, and several others.

**PRICE:** Prices for the Esprit Systems displays range from \$495 to \$995. The ESP 9310 multifunction workstation is priced at \$1,995.

## CHARACTERISTICS

**VENDOR:** Esprit Systems, Inc., Hazeltine Terminals Division, 100 Marcus Drive, Melville, NY 11725. Telephone (516) 293-5600.

**DATE OF ANNOUNCEMENT:** Esprit—May 1981; Esprit II—June 1982; Esprit III—September 1982; Esprit III Color—May 1983; Executive 10/25 and Executive 10/102—October 1983; ESP 6310—November 1983; ESP 9310—June 1984; ESP 6110—July 1984; ESP 6115—November 1984.

**DATE OF FIRST DELIVERY:** Esprit—June 1981; Esprit II—August 1982; Esprit III—October 1982; Esprit III Color—July 1983; Executive 10/25, Executive 10/102, and ESP 6310—December 1983; ESP 9310—July 1984; ESP 6110—August 1984; ESP 6115—February 1985. ▶

## Esprit Systems Display Terminals

➤ multifunction workstation. The ESP 9310 is compatible with the IBM Personal Computer, is based on an 8088 microprocessor, and includes 256K bytes of RAM, dual 5¼-inch diskette drives, three user-available expansion slots, and an 8087 co-processor socket.

The older Executive Series has also been bolstered with some recent additions. The Executive 10/25 is a high-performance smart terminal with a 14-inch screen and 80/132-column display capability. The Executive 10/102 is a DEC VT102/VT131 replacement with ANSI X3.64 standard compatibility. The Executive 10/102G is a graphics version of the Executive 10/102; Tektronix and Native Mode graphics capabilities are available on the Executive 10/102, as well as DEC-compatible operation.

The Esprit Series is Esprit's older low-end terminal family. The original Esprit was Hazeltine's answer when the terminal price war broke out in 1981. Since then, the family has been expanded to include the Esprit II and Esprit III, each of which boasts more features than the original, as well as an improved terminal enclosure design. The Esprit III Color is Esprit System's only color terminal. The unit features eight displayable colors, and still carries a lower price tag (\$995) than the color units offered by ADDS and Wyse.

### COMPETITIVE POSITION

Hazeltine, with its Computer Terminal Equipment division, had been a traditional leader in the general-purpose ASCII terminal market, competing head-to-head with Applied Digital Data Systems (ADDS), Lear Siegler, and TeleVideo, among others. However, a three-year period of losses in its Industrial Products group (of which Computer Terminal Equipment was a part) prompted Hazeltine to sell its terminal line to an employee management group headed by John A. Sasso, former Vice President of Computer Terminal Equipment (who was then joined by Anthony F. Palladino as C.E.O.). The feeling expressed by Mr. Sasso was that Hazeltine was geared more toward the government market and high technology development; in today's terminal market, a company must be able to respond more quickly to changing conditions than Hazeltine was able to. Esprit Systems was founded with this in mind.

As we mentioned previously in this report, Esprit Systems has been an aggressive competitor in the display terminal market since its formation. New display models, new products such as the ESP 9310, and the company's recent acquisition have reflected the new spirit of the company. With competition in the display terminal market growing more severe, Esprit Systems would seem to be well positioned to maintain its already significant market share.

### ADVANTAGES AND RESTRICTIONS

Esprit Systems has the advantage of inheriting from Hazeltine an established and successful product line with a large customer base. Its response to the changing marketplace has been quick; it introduced three new products at the 1983 National Computer Conference, just three months

➤ **NUMBER DELIVERED TO DATE:** Information not available.

**SERVICED BY:** Esprit Systems and TRW.

### MODELS

Esprit Systems now provides three distinct series of display terminals: the Executive, Esprit, and ESP.

The Esprit Series consists of the following four models:

- **Esprit**—the original member of the family. The Esprit operates in conversational and block modes, and contains some basic editing and highlighting features.
- **Esprit II**—contains all of the features of the Esprit, plus a tiltable display and detached keyboard.
- **Esprit III**—contains the ergonomic features of the Esprit II, plus full editing features and enhanced highlighting.
- **Esprit III Color**—a low-priced general-purpose color display.

The Executive Series consists of the following three models:

- **Executive 10/25**—contains full editing and enhanced highlighting features, plus a tilt/swivel display, 80/132-column display capability, and a detached, low-profile keyboard.
- **Executive 10/102**—a DEC VT102 and VT131-compatible terminal that also conforms to the ANSI X3.64 standard.
- **Executive 10/102G**—a graphics version of the Executive 10/102.

The new ESP 6000 Series consists of three display terminal models, plus a multifunction workstation that is actually an upgrade to one of the terminals; they are:

- **ESP 6110+**—a smart terminal that features emulation of the ADDS Viewpoint and Regent 25, Lear Siegler ADM 3A, Hazeltine 1500, and Esprit II.
- **ESP 6115**—an ANSI X3.64-compatible terminal for DEC VT52 applications and many DEC VT100 and VT200 family applications.
- **ESP 6310**—a fully featured smart terminal with the following emulations: ADDS Viewpoint and Regent 25, TeleVideo 910 Plus and 925, Lear Siegler ADM 3A, Hazeltine 1500, and Esprit II. The ESP 6310 can be upgraded to the ESP 9310 multifunction workstation.
- **ESP 9310**—a multifunction workstation that provides an ESP 6310 workstation with IBM Personal Computer-compatible capabilities. The ESP 9310 operates in dual modes: Terminal Mode and PC Mode.

### TRANSMISSION SPECIFICATIONS

Transmission is asynchronous, in half- or full-duplex, at speeds from 110 to 19,200 bits per second for all members of the Executive Series except for the Executive 10/102 (75 to 19,200 bps). All models of the Esprit and ESP Series transmit at speeds from 50 to 19,200 bits per second. X-on/X-off protocol is operator selectable. Odd, even, mark, or space parity can be selected. An RS-232-C main interface is standard (two general-purpose RS-232-C interfaces are standard on the ESP 9310); a 20 ma current loop interface is optional for all models, and an RS-422 interface is optional for the ESP Series models. A bidirectional RS-232-C auxil-

## Esprit Systems Display Terminals

after the formation of Esprit Systems. More new products have rapidly followed.

Esprit Systems is a price leader at the low end of the market. Its ESP 6110+, with a price tag of \$495, goes head-to-head with other low-end offerings such as the Freedom 110 from Liberty Electronics (\$545), Ampex 210 (\$549), KT-7 from Kimtron (\$595), Qume QVT 102 (\$595), the Viewpoint+ from ADDS (\$595), and the Challenger 530 from Soroc (\$595). A key feature of the ESP 6110+ at that price is its 14-inch display screen. Of the others mentioned, only Qume has a 14-inch screen (Liberty's Freedom 110 is available with a 14-inch screen at \$595). The Esprit III Color, at \$995, is also the lowest priced color terminal currently available from the major vendors.

Esprit's entrance into the IBM PC-compatible arena, with the ESP 9310, is a risk. Competition in the PC-compatible market has driven many smaller companies out of business. TeleVideo, the leader of the independent display terminal vendors, has suffered some recent financial setbacks, which in a large part have been attributed to its PC-compatible business. Esprit offers the ESP 9310 chiefly as an upgrade to its terminal line, however; it has not chosen to enter the microcomputer market with a full line of products, as did TeleVideo. It will be interesting to watch Esprit Systems' strategy in this area develop, particularly since its acquisition of DBS International, maker of the multiuser DBS 16 microcomputer system.

### USER REACTION

During November and December 1984, Datapro, in conjunction with *Data Communications* magazine, conducted a mail survey of display terminal, voice/data workstation, and cluster controller users. The 1985 Terminal Users Survey was the result. Responding to this survey were a total of 10 Esprit Systems terminal users. These users responded on three Esprit Systems models: Esprit (4 users), Esprit II (4 users), and ESP 6310 (2 users). (Responses covering older Hazeltine terminals, including the 1400 and 1500 families, will not be counted for the purposes of this report.) These users reported on an installed base of approximately 447 terminals, including 214 Esprit IIs, 185 ESP 6310s, and 48 Esprits. Each user was asked to rate their terminals in seven specific categories. Their ratings are summarized in the following table.

	Excellent	Good	Fair	Poor	WA*
Overall performance	6	4	0	0	3.6
Ease of operation	5	5	0	0	3.5
Display clarity	5	4	1	0	3.4
Keyboard feel & usability	5	4	1	0	3.4
Ergonomics	1	4	3	1	2.6
Hardware reliability	4	6	0	0	3.4
Maintenance service/ technical support	4	3	2	1	2.6

\*Weighted Average on a scale of 4.0 for Excellent.

When asked whether or not they would recommend the Esprit display terminals to other users, eight replied that they would, while only one responded negatively. The ►

► iary interface is standard on all Esprit and Executive Series models; an auxiliary port is optional for the ESP Series models.

### DEVICE CONTROL

All models feature four operating modes: Interactive (character), Block, Monitor, and Local. In the Interactive mode, data is transmitted on a character-by-character basis as it is keyed. A partial or complete line or page can be transmitted in Block mode. In Monitor mode, all 128 ASCII codes, as well as control codes, are displayed. Local mode is the off-line mode of operation.

Cursor controls move the cursor up, down, left, right, and home; direct absolute addressing and incremental cursor addressing are standard. The cursor appears as a steady or blinking block or underline. Tab and line feed functions are also provided. Smooth scrolling is available on all Executive Series models, Esprit III and Esprit III Color, and the ESP 6310.

Operating parameters are selected via a menu setup (except Esprit and Esprit II, which use DIP switches). Editing functions include: insert/delete line, insert/delete character (all models except Esprit), erase field, erase to end-of-line, erase to end-of-screen, erase foreground, and erase all. Format control allows the following fields to be designated: protected, unprotected, background, and foreground. Video attributes include blink, blank (all models except Esprit and Esprit II) dual (high/low) intensity, underline, and reverse video. Double width character line or double width/height character line is programmable on the Executive 10/25, Executive 10/102, and Executive 10/102G.

The Executive 10/102G is a graphics version of the Executive 10/102. The Executive 10/102G can operate in any of three modes: Tektronix 4010/4014 Mode, Native Mode Graphics, and Terminal Mode. Tektronix 4010/4014 Mode features include: alpha mode (ASCII and APL characters and symbols), four character-screen formats/four character sizes, variable line types, plot modes (point and incremental within 4K-by-4K addressable plot area), write thru, 4096-by-3210 or 1024-by-780 mapped to 655-by-288 pixel resolution, and graphics gain factor. Native Mode Graphics provides the following features: 65K-by-65K addressable area; relocatable origin, graphics gain factor, graphics primitives (box drawing, arcs, circles, vectors), area fill, 2620-by-1152 mapped to 655-by-288 pixel resolution, and self-test. Terminal Mode provides all of the features of the Executive 10/102.

The ESP 9310 is a multifunction workstation that provides two modes of operation: Terminal Mode and PC Mode. In Terminal Mode, the ESP 9310 provides all of the features of the ESP 6310 (the ESP 6310 is field-upgradable to the ESP 9310); in PC Mode, the ESP 9310 provides IBM Personal Computer software, hardware, keyboard, and video display compatibility. The ESP 9310 is based on an 8088 microprocessor, and contains 256K bytes of RAM, expandable to 640K bytes. Dual integral double-sided, double-density 5¼-inch diskette drives are included, with the IBM PC 360K format. Five PC Bus expansion slots are included, with three available to users. EPROM memory is available.

### COMPONENTS

ESPRIT SERIES CRT DISPLAY UNIT: A 12-inch (diagonally measured), display screen is standard on all models except the Esprit III Color, which contains a 13-inch (diagonal) screen. A display format of 24 lines by 80 characters, for a total display capacity of 1,920 characters, is standard on all models; a 25th programmable status line is standard on the Esprit III and Esprit III Color. Except for the Esprit ►

## Esprit Systems Display Terminals

tenth user did not answer the question. The users were also asked which of the following factors *most* influenced their decision to purchase the Esprit Systems terminals: features/functionality, vendor recognition/loyalty, price, or other factors. Eighty percent (80) of the users cited price as the determining factor in their purchase decision. □

**III Color**, characters are displayed in green (P146 phosphor for reduced flicker), and formed using a 7-by-11 (Esprit Series) dot matrix. The Esprit III Color provides eight displayable colors: red, white, blue, green, yellow, magenta, cyan, and black. The 128-character ASCII set is displayable; line drawing graphics is available on the Esprit III and Esprit III Color. Except for the Esprit, all members of the Esprit Series feature a tiltable display.

**EXECUTIVE SERIES CRT DISPLAY UNIT:** The Executive 10/25, Executive 10/102, and Executive 10/102G feature a 14-inch (diagonal) display screen. All models feature tilt/swivel capability. The Executive 10/25, Executive 10/102, and Executive 10/102G have a display format of 24 lines by 80 or 132 characters. All models provide a 25th status line. Characters are displayed in green (P31 phosphor), and formed via a 7-by-10 dot matrix. A 5-by-9 dot matrix is used by the Executive 10/25, Executive 10/102, and Executive 10/102G when in 132-column mode. All models provide a 128-character ASCII set plus line drawing graphics. Full graphics are available on the Executive 10/102G.

The following national character code sets are available for the Executive 10/25, Executive 10/102, and Executive 10/102G: USA, French, German, Swedish/Finnish, United Kingdom, Norwegian, Danish, and Spanish.

**ESP 6000 SERIES CRT DISPLAY UNIT:** All models feature a 14-inch (diagonal) display screen with tilt/swivel capability. A 24-line by 80-character display format is also standard, with a 25th status line available. Characters are displayed in green (P31 phosphor); amber phosphor characters are optionally available for all ESP Series models. Characters are formed using a 7-by-11 dot matrix in a 9-by-12 window. The 128-character ASCII set is displayable; line drawing graphics are available on all models except the ESP 6110.

**ESPRIT SERIES KEYBOARD:** All members of the Esprit Series include a typewriter-style keyboard. All models feature a 14-key numeric keypad. The Esprit III and Esprit III Color contain 22 user-definable function keys. Keyboard

lock/unlock is standard. The Esprit contains an integrated keyboard; all other models contain a detached keyboard which is connected to the display via a coiled cord.

**EXECUTIVE SERIES KEYBOARD:** All Executive Series keyboards feature a standard typewriter-style layout. The Executive 10/25 keyboard contains a 17-key numeric pad cluster, edit keys, control keys, and 16 programmable function keys (shiftable to 32). The Executive 10/102 and Executive 10/102G keyboards contain 83 keys, including a 14-key numeric pad, four function keys, and edit keys. All models feature typamatic keys and audible keyclick. All keyboards are detached (connected to the monitor via a coiled cord), have sculptured keys, and feature a low-profile design that conforms to the European DIN standard for ergonomics.

**ESP SERIES KEYBOARDS:** All models feature a typewriter-style key layout, with a 14-key numeric/function keypad. The ESP 6110+ features edit keys. The ESP 6115 provides 16 programmable nonvolatile function keys and preassigned function/control keys. The ESP 6310 contains 11 programmable nonvolatile function keys (shiftable to 22), edit keys, and control keys. All models feature typamatic keys. All keyboards are detached (connected to the monitor via a coiled cord), have sculptured keys, and feature a low-profile design that conforms to the European DIN standard for ergonomics.

### PRICING

The Esprit Systems displays are available for purchase only, with quantity discounts available. Maintenance service is available through Esprit Systems, as well as through TRW. The following are end-user single quantity prices.

Models	Purchase Price (\$)
Esprit	595
Esprit II	645
Esprit III	895
Esprit III Color	995
ESP 6110+	495
ESP 6115	560
ESP 6310	695
ESP 9310	1,995
Executive 10/25	1,045
Executive 10/102	795
Executive 10/102G	1,195 ■

# Esprit Systems Display Terminals



*Esprit System's Executive 10 is a buffered editing terminal. The unit features a 12-inch tilt/swivel display, and a detached typewriter-style keyboard. The Executive 10 was formerly marketed under the Hazeltine name.*

## MANAGEMENT SUMMARY

In February 1983, Hazeltine Corporation reached an agreement to sell its computer terminal equipment product line to a group of its management employees. A new company, Esprit Systems, was formed to market the Hazeltine display terminal product line, a line which traditionally has been one of the leaders in the general-purpose ASCII terminal market. The new company wasted no time in introducing new products, unveiling three new offerings at the 1983 National Computer Conference in Anaheim, California. The new terminals included the Esprit III Color, a low-priced color display.

The Esprit Systems terminal line currently consists of seven models in two different series. The low-end Esprit line consists of the Esprit, Esprit II, Esprit III, and the Esprit III Color. The Executive 10 line consists of the Executive 10, and two new models, the Executive 10/51 and Executive 10/78.

The original Esprit was introduced in 1981 as Hazeltine's entry in the sub-\$700 terminal price war. The Esprit is a low-end model which can operate in both conversational and block modes. The Esprit II, unveiled a year later, contains all of the operating features of the Esprit, while offering an ergonomic enclosure which includes a tiltable display and detached keyboard. The Esprit III includes that ergonomic design, and adds enhanced editing and highlighting features. The Esprit III Color gives Esprit the lowest priced general purpose color terminal now on the market (\$995 to \$1,295 for ADDS' Viewpoint Color, in single quantities). All Esprit series models, except the Esprit III Color, contain a 12-inch display (the color terminal contains a 13-inch display). Display capacity on all models is 1920 characters, arranged in 24 lines of 80 characters each.

A family of low-priced, general purpose ASCII display terminals. Many of the terminals covered in this report were formerly marketed under the Hazeltine Corporation name.

Esprit Systems currently provides two product lines: the Esprit Series and the Executive 10 Series. The low-end Esprit Series consists of four models, ranging from the basic Esprit to the new Esprit III Color. The Executive 10 Series consists of three models, including two new models which feature IBM compatibility when used with an external protocol converter. All models include a 12-inch display (except the 13-inch Esprit III Color) with a 1920-character screen capacity. Except for the basic Esprit model, all terminals in the product line include a detached keyboard, and a tiltable display. The Executive 10 displays also contain a swivel display.

Prices for the Esprit Series range from \$595 to \$995. The Executive 10 Series terminals range in price from \$1,095 to \$1,195. Volume discounts are available.

## CHARACTERISTICS

**VENDOR:** Esprit Systems, Inc., Hazeltine Terminals Division, 500 Commack Road, Commack, NY 11725. Telephone (516) 462-5100.

**DATE OF ANNOUNCEMENT:** Esprit—May 1981; Esprit II and Executive 10—June 1982; Esprit III—September 1982; Esprit III Color, Executive 10/51, and Executive 10/78—May 1983.

**DATE OF FIRST DELIVERY:** Esprit—June 1981; Esprit II and Executive 10—August 1982; Esprit III—October 1982; Executive 10/51 and Executive 10/78—July 1983 (projected).

**NUMBER DELIVERED TO DATE:** Information not available.

**SERVICED BY:** Esprit Systems and TRW.

## MODELS

The Esprit Series consists of the following four models:

- Esprit—the original member of the family. The Esprit operates in conversational and block modes, and contains some basic editing and highlighting features.
- Esprit II—contains all of the features of the Esprit, plus a tiltable display and detached keyboard.

## Esprit Systems Display Terminals

➤ The Executive 10 models are successors to Hazeltine's earlier Executive 80 series. The Executive 10 was introduced in 1982 as a lower-priced, ergonomically designed version of the Executive 80 models. The Executive 10 contains a full range of editing features, conversational and block mode transmission, and a tilt/swivel display plus detached keyboard. The new models, the Executive 10/51 and Executive 10/78, are IBM emulators designed to operate in conjunction with an external protocol converter. The Executive 10/51 is an IBM replacement, while the Executive 10/78 replaces the IBM 3278 display. All three Executive series models provide a 1920-character display capacity.

### COMPETITIVE POSITION

Hazeltine, with its Computer Terminal Equipment division, has been a leader in the general-purpose ASCII terminal market, competing head-to-head with Applied Digital Data Systems (ADDS), Lear Siegler, and TeleVideo, among others. However, a three-year period of losses in its Industrial Products group (of which Computer Terminal Equipment was a part) prompted Hazeltine to sell its terminal line to an employee management group headed by John A. Sasso, former Vice-President of Computer Terminal Equipment. The feeling expressed by Mr. Sasso was that Hazeltine was geared more toward the government market and high technology development; in today's terminal market, a company must be able to respond more quickly to changing conditions than Hazeltine was able to. Esprit Systems was founded with this in mind.

### ADVANTAGES AND RESTRICTIONS

Esprit Systems has the advantage of inheriting an established and successful product line with a large customer base. (The company has announced that it will honor all of Hazeltine's prior commitments). Its response to the changing marketplace has been quick, with the introduction of three new products at NCC in May. More new products from Esprit Systems can be expected as a result of the company's "entrepreneurial spirit".

In the 1982 edition of Datapro's Terminal Users Survey, an insufficient number of responses were received on Esprit and Executive models to provide a sufficient sample of user satisfaction. Therefore, no User Reaction appears in this report. □

- • **Esprit III**—contains the ergonomic features of the Esprit II, plus full editing features and enhanced highlighting.
- **Esprit III Color**—a low-priced general-purpose color display

The Executive 10 Series consists of the following three models:

- **Executive 10**—contains full editing and enhanced highlighting features, plus a tilt/swivel display and detached keyboard.

- **Executive 10/51**—an ASCII terminal which can emulate an IBM 5251 (for communication with an IBM System/34 or /38) when used with an external protocol converter.
- **Executive 10/78**—an ASCII terminal which can emulate an IBM 3278 Model 2 when used with an external protocol converter.

### TRANSMISSION SPECIFICATIONS

Transmission is asynchronous, in half- or full-duplex, at speeds of 110, 300, 600, 1200, 2400, 3600, 4800, or 9600 bits per second on the Esprit, and at speeds of 50, 75, 110, 135, 150, 300, 600, 1200, 1800, 2400, 3600, 4800, 7200, 9600, or 19,200 bps on all other models. Odd, even, mark, or space parity can be selected. An RS-232-C or 20mA current loop interface is provided, as well as a bidirectional RS-232-C auxiliary interface.

### DEVICE CONTROL

All models feature four operating modes: Interactive (character), Block, Monitor, and Local. In the Interactive mode, data is transmitted on a character-by-character basis as it is keyed. A partial or complete line or page can be transmitted in Block mode. In Monitor mode, all 128 ASCII codes, as well as control codes, are displayed. Local mode is the off-line mode of operation.

Cursor controls move the cursor up, down, left, right, and home; direct absolute addressing and incremental cursor addressing are standard. The cursor appears as a steady or blinking block or underline. Tab and line feed functions are also provided.

Editing functions include: insert/delete line, insert/delete character (all models except Esprit), erase field, erase to end-of-line, erase to end-of-screen, erase foreground, and erase all. Format control allows the following fields to be designated: protected, unprotected, background, and foreground. Video attributes include blink, blank (all models except Esprit and Esprit II) dual intensity, underline, and reverse video.

### COMPONENTS

**CRT DISPLAY UNIT:** A 12-inch (diagonally measured), non-reflective display screen is standard on all models except the Esprit III Color, which contains a 13-inch screen. A display format of 24 lines by 80 characters, for a total display capacity of 1920 characters, is standard on all models. Except for the Esprit III Color, characters are displayed in green (P146 phosphor for reduced flicker), and formed using a 7-by-11 (Esprit Series) or 7-by-10 (Executive 10 Series) dot matrix. The Esprit III Color provides eight displayable colors: red, white, blue, green, yellow, magenta, cyan, and black. The 128-character ASCII set is displayable; line drawing graphics is available on the Esprit III and Esprit III Color. Except for the Esprit, all members of the Esprit Series feature a tilt/swivel display. The Executive 10 Series models all feature a tilt/swivel display.

**KEYBOARD:** All members of the Esprit Series include a typewriter-style keyboard. The Executive 10 also contains a typewriter-style keyboard. The Executive 10/51 features a keyboard with an IBM 5251—like layout. Similarly, the Executive 10/78 features a keyboard with an IBM 3278—like layout. All models feature a numeric keypad. The Esprit III and Esprit III Color contain 22 user-definable function keys. The Executive 10 contains 8 function keys. Keyboard lock/unlock is standard. The Esprit contains an integrated keyboard; all other models contain a detached keyboard which is connected to the display via a coiled cord. ➤

## Esprit Systems Display Terminals

### ► PRICING

The Esprit Systems displays are available for purchase only, with quantity discounts available. The following are end-user single quantity prices.

	<u>Purchase</u>
Esprit	\$595
Esprit II	645
Esprit III	895
Esprit III Color	995
Executive 10	1,195
Executive 10/51	1,095
Executive 10/78	1,150 ■

