Desktop "mainframe" offers networking and graphics

The DN300 from Apollo Computer, Inc., is a 32-bit desktop computer system that comes with 500K bytes of main memory (expandable to 1.5M bytes).

Standard features of the DN300 include a 17-inch, high-resolution, bit-mapped graphics display that supports multiple windows; a low-profile detachable keyboard; an interface to the company's 12-megabit-per-second Domain local area network; and Aegis, Apollo's network-wide virtual memory operating system.

Compatible software includes Fortran 77, Pascal, and C programming languages, as well as Aix, a software environment based on Unix System III. Hardware options include diskette and/or 34M-byte Winchester hard disk drives and a touchpad cursor control.

The DN300's CPU is based on a 32-bit VLSI processor that can support up to 15 concurrent user processes. A per-process virtual address space of 16M bytes results from an integral memory management unit that dynamically maps 24-bit virtual addresses into a 22-bit physical memory address space. Memory management hardware maintains protection and usage statistics for each 1024-byte page of data.

The graphics display is a landscape-oriented, 17-inch, black-and-white monitor with 1024 x 800-pixel resolution, using bit-mapped raster-scan technology. A dedicated 128-kilobyte dual-port device memory performs interlaced refresh at 80 cycles per second and features a block-transfer rate of 12 megabits per second.

The Domain network interface features a 12-megabit-per-second baseband data rate that uses self-synchronizing, hardware "bit stuffing" techniques, a ring topology, and token-passing arbitration. The network interface can transmit to another specific node or can broadcast a message to all nodes on a Domain network.

Two separate RS-232-C ports provide independent, software-selectable transmission rates from 50 through 19.2 kilobits per second with X-ON/X-OFF transmission control capability. DN300 nodes also feature software support for personal peripherals such as graphic tablets and laser quality pointers.

In quantity, the DN300 sells for $10,000.

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Interface allows computers to send images to Xerox 6500s

Lasergraphics' Universal Interface is an image rasterizer interface to the Xerox 6500 color graphics printer that allows any graphics-capable computer to output high-resolution, full-color, hard-copy plain paper prints directly from graphic-image files.

The unit contains a high-speed microcomputer, which takes in high-level display list image data and converts it to a fully rasterized image. Because the interface generates its own raster image from the display list image file, the full resolution of the Xerox 6500 can be utilized. And, since no color graphics terminal is needed to send the image to the printer, many graphics workstations can be supported by just one CGP.

In order for the Universal Interface to communicate with its host computer, a translator driver must be appended to the main graphics software package residing in the host. These drivers, called Lasergraphics Language drivers, allow the interface to understand what the image looks like. Communicating through an RS-232C line, the Universal Interface listens for the Lasergraphics Language commands from the host. As these are received, the interface scan-converts the image to the proper configuration for the Xerox 6500 and then sends the image to it.

LL drivers are now available for SAS/Graph, Tell-a-Graf, and Mirage graphics software systems. SAS/Graph users will receive their LL drivers in their SAS 82 upgrade. The Tell-a-Graf LL driver is available from InterChart in New York City. The Mirage LL driver is available on Data Business Vision's Graphics Decision Support System running on Superset and Convergent Technologies computer systems as well as on the BPC.

The Universal Interface has six standard type fonts in sizes from 6 to 30 points. Image rotation, image overlay, and zoom are also standard features.

Lasergraphics offers the complete Lasergraphics Universal Interface and Xerox 6500 for $57,000.

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