Hardware Review:

DYNAMITE IN A SMALL PACKAGE--

HEWLETT-PACKARD'S NEW LASERJET SERIES II

Many offices are eager to upgrade their typing capabilities beyond dot matrix printers. Laser printers have been an expensive answer, until now.

Only 18 inches (45.4 cm) wide, 19 inches (48.2 cm) long, 8.5 inches (22.8 cm) high, and weighing around 50 pounds (22.4 kg), Hewlett-Packard's new LaserJet Series II boasts "blacker blacks," quiker speed, and longer maintanance life than other LaserJet work-alikes. And its list price is as­tonishingly hundreds of dollars less than its predecessor, the Laser­Jet Plus.

The LaserJet Series II types a high-resolution dot matrix pattern with a one-piece, dispos­able, photosensitive "type drum" called the "electrophotographic cartridge," which con­tains enough ink to last for about 4,000 pages. Regular type density is 300 x 300 dots per inch, but the user can control density easily by adjusting the type density dial; the car­tridge lasts longer with lighter dencity. When a cartridge's toner is used up, the cartridge is disposed of and a new one put in place.

The front control panel of the Series II is de­signed for easy printer adjustment. It provides a status/error display line, through which the user can change the printer menu, including such features as num­ber of copies to type (1 to 99), manual feed, font source, or form length. The dis­play line also has keys for going on or off line, adjusting the con­figuration (such as bad rate or symbol set), form feeding paper, and typing out diag­nostic and type style tests.

Type Capabilties

After an inisial warm-up time of about 30 seconds, the Series II types about 8 pages of letter-size text per minute. Paper travels straight through the printer without a curve, which greatly decreases the possibility of the paper jamming or getting stuck (an option for collating paper sends the paper around one curve in order to stack it). The paper carriage width is 8.5 inches, so it cannot handle wider paper.

An automatic letter-size paper-feed tray has a capacity of 200 sheets, using standard photocopy-style paper; it can be replaced with a legal-size paper tray (8.5" x 14"). Number of lines per page can vary from 5 to l28. One nice feature is that the paper trays also include an adjustable slot for manually feeding sheets of paper into the printer, allowing the machine to type labels, envelopes, overhead transparencies, and thick paper in addition to regular paper.

LaserJet Series II accepts messages from "driver"-style programs (such as Windows and WordPerfect), embedded type commands (such as WordStar), or set-up string commands (as in Lotus/Symphony or dBase), as well as printer escape commands. Type displays as normal, light, bold, italic, horizontal, verticle, underline, sub/superscript, justified, centered, and as pitch (characters per inch) or points (for desktop publishing).

Type style Options

The printer provides a variety of options for choosing fonts (type styles), allowing up to 16 font styles on any single page.

Six internal fonts are automaticly built into the machine: Courier 10 pitch, Courier Bold, and Compressed Line Printer (for spreadsheets), in both "portrait" (top to bottom) and "landscape" (sideways) modes.

Greater variation is provided by the left and right insertion slots that hold "font cartridges." Hewlett-Packard currently provides 23 such cartridges to choose from, any two of which can be used simultaneously in addition to the internal fonts. A single cartridge contains multiple type styles that can be accessed. For example, cartridge B contains Helvetica bold (14.4 point size), Times Roman (10 point), Times Roman Bold (10 point), Times Roman Italic (10 point), Times Roman Light (8 point), Courier (10 pitch, landscape and portrait), and line printer; the J font contains math, the N font Gothic in different sizes. Each cartridge costs between $150 and $300.

Another option is down-loadable "soft" fonts, which can be permanently or temporarily loaded into the printer's memory. Soft fonts are actually font descriptions that can be copied into the printer from floppy disks. At this time Hewlett-Packard offers 10 different soft fonts on 5.25" floppies, most of which are also available in the 3.5-inch format. These fonts cost about $200 each.

Limitations

One potential drawback to the LaserJet Series II is that it has a memory of only 512K RAM (395K available to user). This means the user may find he or she can type only a partial page of high resolution graphics or complex text. Additionally, the soft fonts occupy the printer memory, so that users who have downloaded a multitude of soft fonts, may quickly reach the machine's limits.

Hewlett-Packard has attempted to solve the problem by offering memory expansion boards. The Series II user's manual strongly recommends those who need many soft fonts add at least the 1 megabyte expansion board. Also available are 2 and 4 megabyte boards.

A more serious limitation, particularly from a competitive viewpoint, is that the new LaserJet lacks a page description language (PDL), such as PostScript used by the Apple LaserWriter and other laser printers. This means the HP printer cannot do "font scaling," which is the ability to take the outlined description of a font style and manually make it larger or smaller, thicker or thinner, spatially manipulate it, or add graphic effects as desired without reliance on external soft fonts and font cartridges.

According to PC World (August, 1987, 232-33), there are indefinite plans to create an optional add-on PDL board for the LaserJet Series II, with preliminary estimates that it will cost an additional $2,500 or more.

Manufacturer

The LaserJet Series II sales for $2,495 with 512K RAM, 6 internal fonts, and type cartridge. Additional type cartriges retail for $119 list price. The add-on RAM expansion boards cost $495 for 1MB, $995 for 2MB, and $1,995 for 4MB. The printer is manufactured by:

Hewlett-Packard

25 Embarcadero Road

Palo Alto, CA 94303

Telephone: (800) 367-4772

This printer has been greated with a great deal of applause. It was PC Magazine's "Editors' Choice" for laser printers under $3,000 (April 28, 1987, and July 21, 1987), and its "overall value" was rated as "exsellent" by PC World (August, 1987).