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## LaserWriters: Differences in HP Emulation (8/93)

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TOPIC -----

- 1) Is there a list of PCL 4+ (Printer Control Language) commands supported by the LaserWriter IIg?
- 2) I would like to find out the differences between HP LaserJet emulation (PCL 4+) on Apple's LaserWriter printers, and the HP LaserJet IIP printer.

DISCUSSION -----

- 1) With regard to the list of PCL 4+ commands supported by the LaserWriter IIg, we don't believe that such a list is available. However, as stated in Chapter 3 of the LaserWriter Reference (Addison-Wesley #ISBN 0-201-19258-6),

"With a few exceptions, the LaserJet+ emulator supports the entire set of escape sequences for both the LaserJet and the LaserJet+. This set includes the positioning commands, font-selection commands, and bit-mapped graphics with no limitation on areas covered by bit maps, as well as the rules, macros, overlays, and downloadable fonts."

- 2) The LaserWriter Reference has a total of about 11 pages that provide specifics on the HP LaserJet+ emulator (PCL 4+).

Appendix D in the LaserWriter IIf and IIg Owner's Guide provides some in-depth information on HP LaserJet+ emulation. The most important section are below:

The LaserJet IIP emulator contained in the LaserWriter allows you to print just about anything you can print on the LaserJet IIP, with these differences:

- The LaserJet IIP omits characters that overlap the left margin of the paper, but the emulator prints the portion of the character that does not extend into the margin.
- The LaserJet IIP allows you to insert commands to halt printing so that you can insert paper or envelopes manually. The emulator

interprets those commands as form feeds.

- Applications that produce justified text with the LaserJet IIP versions of Helvetica (Helv) and Times Roman (Tms Rmn) fonts may generate slightly ragged output on the emulator.
- While the LaserJet IIP prints characters in the closest available point size and pitch for each font, the emulator scales the font to the specified size.
- The line printer font, which is 16.67-pitch Courier, appears with a height of 7.2 points when printed with the emulator, rather than 8.5 points as printed by the LaserJet IIP.
- The Control-C and Control-T key combinations, which you can normally use to interrupt printing or query the status of the LaserJet IIP, cannot be used with the emulator.
- The emulator does not print nine characters from the LaserJet IIP Roman-8 symbol set. These characters are shown in the following table.

Decimal codes: 176, 179, 227, 228, 240, 241, 247, 248, and 254.

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