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LaserPrep And PostScript: Solution To Interpreter Problem

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There is a problem with Apple LaserPrep that surfaces on later versions of PostScript interpreters (version 5.0 and newer). The symptoms are generally that no error messages are generated and that no output is produced.

The newer versions of the LaserPrep implements a number of smoothing functions that are present in some versions of Postscript interpreters. The LaserPrep header checks for the existence of these functions in the interpreter. If it finds that such funtions exist, it disposes of the code for these functions (the code is the hexadecimal at the end of the file).

Unfortunately, when hooked up serially, the LaserPrep disposes of code until it reaches a Control-D, which ends up being the end-of-job marker at the end of the users PostScript file. Hence, the body of the job gets thrown away along with the rest of the header.

On a laser printer where these functions don't exist, the code is used, and the LaserPrep should function correctly.

A quick way of determining whether the Macintosh PS file needs this version of the LaserPrep file is to check the first line, which should read:

```
!PS-Adobe-2.0
```

Other versions have different headers and use different LaserPrep file version numbers.

The solution to this LaserPrep problem is two-fold.

- (1) If you are not using the code (that is, if you have something like a QMS printer), then you can delete the code entirely. This has the advantage of making the LaserPrep file smaller and thus quicker. The disadvantage is that if you add devices that don't have the built-in functions, you will have to either use two different version of the LaserPrep file, or revert

to the second method.

- (2) The second method consists of a very small change in the LaserPrep code so that the laser printer will always use the smoothing code. This may not be very efficient, but it guarantees that the code should work for most Postscript devices.

The solutions that follow concern Apple LaserPrep file version 68, generated by LaserWriter driver version 5.2. Which modification you use depends on which solution you prefer.

Solution #1:

Delete everything from the line shown below, to the end of the header file. This line is the last line of text immediately preceding the first section of hexadecimal code (if you are using MacWrite to view the PostScript file, it's about 12 pages in). The end of the header file can be located by finding the line that says "%EndProcSet". Do not delete the "%EndProcSet" line. It must remain to indicate the end of the header.

```
currentfile ok userdict/stretch known not and{eexec}{flushfile}ifelse
```

Solution #2:

Change the line located just above the first set of hexadecimal codes from:

```
currentfile ok userdict/stretch known not and{eexec}{flushfile}ifelse
                                to
currentfile ok userdict/stretch known not and pop
true{eexec}{flushfile}ifelse
```

Locate a second line of text after the long series of zeros, which follows the first section of hexadecimal codes, and immediately before another section of hexadecimal code.

Change the line located just above the second set of hexadecimal codes from:

```
currentfile ok userdict/smooth4 known not and{eexec}{flushfile}ifelse
                                to
currentfile ok userdict/smooth4 known not and pop
true{eexec}{flushfile}ifelse
```

LaserWriter Driver 5.1 will generate header files with a version number of 65. Earlier driver versions will have smaller numbers. This information should remain good as long as the second line of the actual PostScript file reads %! PS-Adobe-2.0., as described above. If this version number changes, the location of the lines to be changed may also differ, and there may be other lines that need to be changed as well.

If UNIX, or A/UX, is used to look at these Command-K generated PostScript files, the facility exists to number the lines of the file. The two lines that need to be changed are 487 and 534.

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