NOTE: This Technical Note has been retired. Please see the Technical Notes page for current documentation.

Technical Note PR05
LaserWriter ROMs Bugs

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These are LaserWriter bugs that your users may encounter when printing from **any** Macintosh application. These are for your information; you cannot code around them. The bugs described here occur in the 1.0 and 2.0 LaserWriter ROMs.

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Introduction

To determine which ROMs their LaserWriter contains, users can look at the test page that the LaserWriter prints at start-up time. In addition to other information (detailed in the LaserWriter user's manual), the ROM version is shown at the bottom of the line graph. The original LaserWriter contained version 1.0 ROMs. The currently shipping LaserWriter and those upgraded to the LaserWriter Plus contain version 2.0 ROMs.

These are some of the problems we know of:

1. If the level of paper in the paper tray is getting low, and the user prints a document that will cause the tray to become empty, a PostScript error may occur. This problem exists in both the 1.0 and 2.0 LaserWriter ROMs and will **not** be fixed in the next ROM version.
2. If a user prints more than 15 copies of a document, a timeout condition may occur causing the print job to abort. With LaserShare, this problem can occur with as few as 9 copies. This problem is a result of the LaserWriter turning AppleTalk off while it is printing. It doesn't send out any packets to tell the world it's still alive while it is printing, so the connection times out after about 2 minutes. This problem exists in both the 1.0 and 2.0 LaserWriter ROMs and will **not** be fixed in the next ROM version.
3. When printing a document that contains more than 10 patterns, users may receive intermittent PostScript errors. This usually occurs when trying to print a lot of patterns, **and** a bitmap image on the same page. The code for imaging patterns allocates almost all of the available RAM for itself, so when the bitmap imaging code tries to allocate space, and there isn't enough (and it doesn't know how to reclaim memory from the previous operation), a `limitcheck` error occurs. This problem exists in 2.0 LaserWriter ROMs. It will be improved but **not** fixed in the next ROM version.
4. If a user chooses US Letter or B5 paper and has a different sized tray in the printer, and prints using manual feed, the LaserWriter will print assuming that the paper being fed manually is the same size as that in the tray. For example, if they have a US letter tray in the LaserWriter and print a document formatted for B5 letter using manual feed, the image will not be centered on the page. The printer assumes that the manually fed paper is also US letter size and prints the image positioned accordingly, despite the driver's instructions. This is a bug in the `Note` operator in PostScript, which the driver uses for specifying the US letter and B5 letter paper sizes. The workaround is to tell the user to put an B5 tray in the printer when printing B5 manually. This problem exists in the 1.0 and 2.0 ROMs and will **not** be fixed in the next ROM version.

By the way, an interesting, but annoying, occurrence of this bug happens when manually printing Legal sized documents with the 4.0 LaserWriter driver. When the Larger Print Area option in the style dialog is deselected (which is the default) the driver uses the `Note` operator to specify the page size. When the user prints the document using manual feed, and has a US letter tray in the printer, the image is shifted up on the page cutting off the top of the image. If you tell the user to turn on the Larger Print Area option in the style dialog, the driver specifies the page size using `Legal` instead of `Note` and the image is printed properly.

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References

The Printing Manager

PostScript Language Reference Manual , Adobe Systems

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