

# New Technical Notes

Macintosh



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Developer Support

## ImageWriter II Paper Motion

### Imaging

Revised by:

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Written by: Ginger Jernigan

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The purpose of this technical note is to answer the many questions asked about why the paper moves the way it does on the ImageWriter II.

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Many people have asked why the paper is rolled backward at the beginning of a Macintosh print job on the ImageWriter II. First, note that this only happens with pin-feed paper (i.e. not with hand-feed or the sheet-feeder) and only at the beginning of a job.

It is not a bug, and it is not malicious programming. It is simply that users are told in the manual to load pin-feed paper with the top edge at the pinch-rollers, making it easy to rip off the printed page(s) without wrecking the paper that is still in the printer or having to roll the paper up and down manually. At the end of every job, the software makes sure that the paper is left in this position, leaving the print-head roughly an inch from the edge. If something is to be printed higher than that, the paper has to be rolled backwards.

As you are probably aware, the “printable rectangle” (`rPage`) reported to the application by the print code begins 1/2 inch from the top edge, not one inch. The reason for that is that we want a document to print exactly the same way whether you are printing on the ImageWriter I or II. On the ImageWriter I, the paper starts with the print-head 1/2 inch from the top edge, so the top of `rPage` is at that position for both printers.

There is no way to eliminate the reverse-feed action, because the user would have to load the paper a different way AND the software would have to know that this was done.

Incidentally, in addition to the paper motion described above, there is also the “burp.” This is a 1/8-inch motion back and forth to take up the slop in the printer’s gear-train. It is needed on the old-model printer, and there is debate about whether or not it’s needed on ALL ImageWriter IIs, or only some, or none. The burp has been in and out of the ImageWriter II code in various releases; right now it’s in.