## **ClipPrint Notes**

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#### Installation

Use Apple's Font/DA Mover to install ClipPrint as you would any Macintosh™ desk accessory. Be sure you have a printer driver resource file (ImageWriter, LaserWriter, etc...) on the disk or you will not be able to print.

### Abstract

The ClipPrint desk accessory is very straightforward. When you open it, it looks at the Clipboard for data of the types known as 'TEXT' and 'PICT'. If either is present, ClipPrint resets the printer, then outputs the Clipboard's contents to the printer. You can cancel printing by pressing command-period (# .). If you do so, printing is aborted and the current page is ejected.

ClipPrint works with any printer that uses a standard (kosher) printing resource file. It uses whatever printer is currently selected with the Chooser desk accessory. The Imagewriter and LaserWriter are know to be compatible. I would be interested in knowing if there are any printers that don't work.

Because of technical limitations imposed on a desk accessory, text printing is limited (arbitrarily) to 32,000 characters and picture printing is limited to the area of the picture that would fit in the Mac's screen. If this is a limitation...too bad! What do you want from a desk accessory?

I wrote this desk accessory for two reasons. First, I wanted to prove to myself that I **could** (long live the Hacker ethic!). Secondly, I have always wanted this kind of utility. The ability to dump data to a printer is missing from the Macintosh "operating system". For most users it is not a problem. However, us programmers and techies are always doing this stuff. Ergo, here it is.

# **Potential problems**

If *ClipPrint* beeps when you select it from the Apple menu, it means one of two things. Either there is not enough memory to make the necessary copy of the ClipBoard (unlikely in all but the most anemic Macintosh), or the data stored in the Clipboard is not of type 'TEXT' or 'PICT'. The following explanations can help to alleviate these errors, as well as errors while printing is going on.

### **Poorly-behaved applications**

Without launching off into a monologue lambasting software developers for their irresponsibility, let me just describe the way an application should share its Clipboard with a desk accessory.

Most applications maintain their own "private" clipboard for performance reasons. When they are alerted about a "visitor", they (in theory) write their private clipboard into the Mac's public Clipboard. This alert should be obvious. For instance, as soon as the user makes a selection from the Apple menu, the private clipboard should be publicized.

Unfortunately, most applications wait to see if a window opens up first (Microsoft products are the worst offenders). My humble *ClipPrint* is already finished working by the time the application sees the next "event".

The short story is that, even though you just copied a picture or some text to the clipboard, *ClipPrint* may not be able to find it. **Harrumph**!

The fix: simply open up another desk accessory first (the Alarm Clock works nicely) then PASTE into it. That will work with 99% of all applications.

### Printer does not respond properly

Chooser

Make sure that the currently-selected printer (using the Chooser desk accessory) is on line and turned on.

#### Print spooling

ClipPrint does not work with LaserSpeed™, the LaserWriter print spooler from Think Technologies. I have verified that LaserSpeed does not respond to printing done at the low level that ClipPrint uses. I can't decide if that is a feature or a bug, so I have left it as is.

The fix: Click the "Stop Spooling" button in LaserSpeed. This bypasses the spooler, and ClipPrint works fine.

### **Technical Stuff**

No great mystery here. ClipPrint uses the Macintosh's low-level Print Manager calls for "text streaming" and "bitmap streaming" as documented in Inside Macintosh pages II-162 to II-165.

ClipPrint was prototyped in Lightspeed Pascal and finished in Macintosh Programmers Workshop (MPW) Pascal. The fully-commented source code is available by sending a valid personal check or money order for \$7.50 made payable to me. A double-sided diskette with additional goodies is included (within the United States). For overseas orders, please send \$12.50.

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Thanks,

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