Technote 1165

Introducing the LaserWriter 8 Driver version 8.6.5

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T his Technote outlines some of the new features and changes that Apple has made in the LaserWriter 8 version 8.6.5 driver and Desktop Printer Utility 1.2 (both released as part of Mac OS 8.6). It describes expanded technology and user interface support and what these mean to the developer community. LaserWriter 8.6.5 is only supported on Mac OS 8.6 running on PowerPC machines.

USB Support

With the release of Mac OS 8.6, LaserWriter 8.6.5 and Desktop Printer Utility 1.2 now support USB PostScript printers. Desktop Printer Utility has been modified to enable the creation of desktop printers that support the USB communications protocol. A default USB communications hose has been integrated into `PrintingLib` to enable printing to USB Postscript printers. `USBPrintClass` driver version 1.2 is required.
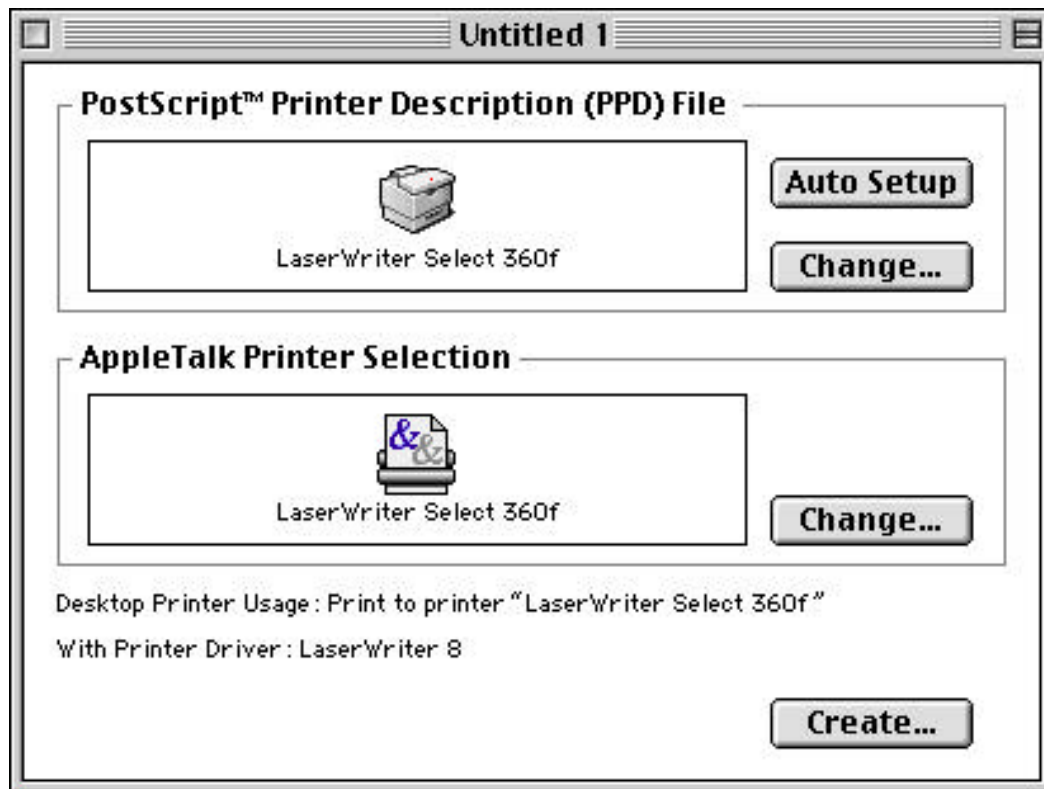
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Desktop Printer Utility 1.2

Auto Setup

The most frequent enhancement request for Desktop Printer Utility has been for the addition of the Auto Setup functionality. With the 1.2 release, Desktop Printer Utility adds this feature for AppleTalk, IrDA, and USB printers.

Figure 1: Auto Setup for AppleTalk printer

DTPU Hose Support

The current release of Desktop Printer Utility has been modified so that third parties can now add to the list of PostScript desktop printers created without manually modifying resources in the utility. DTPU 1.2, as shipped with Mac OS 8.6, supports a "Hose User Interface" for printer plug-ins resident in the Printing Plug-ins folder (in the Extensions folder). Please see Technote 11xx "Writing Plug-ins for Desktop Printer Utility 1.2 and above" (Coming soon!) for a complete description of this new interface and how you can take advantage of it.

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PrintingLib 8.6.5 Enhancements

Printing Plugins Autorouting

PrintingLib 8.6.5 now registers the `'bird'` type with the system so that dropping a file of type `'bird'` autoroutes the file into the Printing Plug-ins folder in the Extensions folder.

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Enhanced Font Support

Data Fork Fonts

Mac OS 8.5 added support to the Font Manager and the Finder for data fork fonts support which earlier versions of LaserWriter 8 did not include (see Technote 1159, "Data Fork Font Support in Mac OS 8.5"). LaserWriter 8.6.5 now supports printing data fork fonts.

Protected 'sfnt' Fonts

Some TrueType fonts contain a special "OS/2" table indicating that they are "protected." Such fonts indicate that they are to be specially marked so that post-processing software can protect the font in an appropriate fashion. To support a font containing an "OS/2" table properly, LaserWriter 8.6.5 now emits special data into a Type 42 PostScript font generated from such a font. See Technote 1146, "LaserWriter 8 and Fonts" for complete information on the LaserWriter 8.6.5 implementation.

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Print Panel User Interface Changes

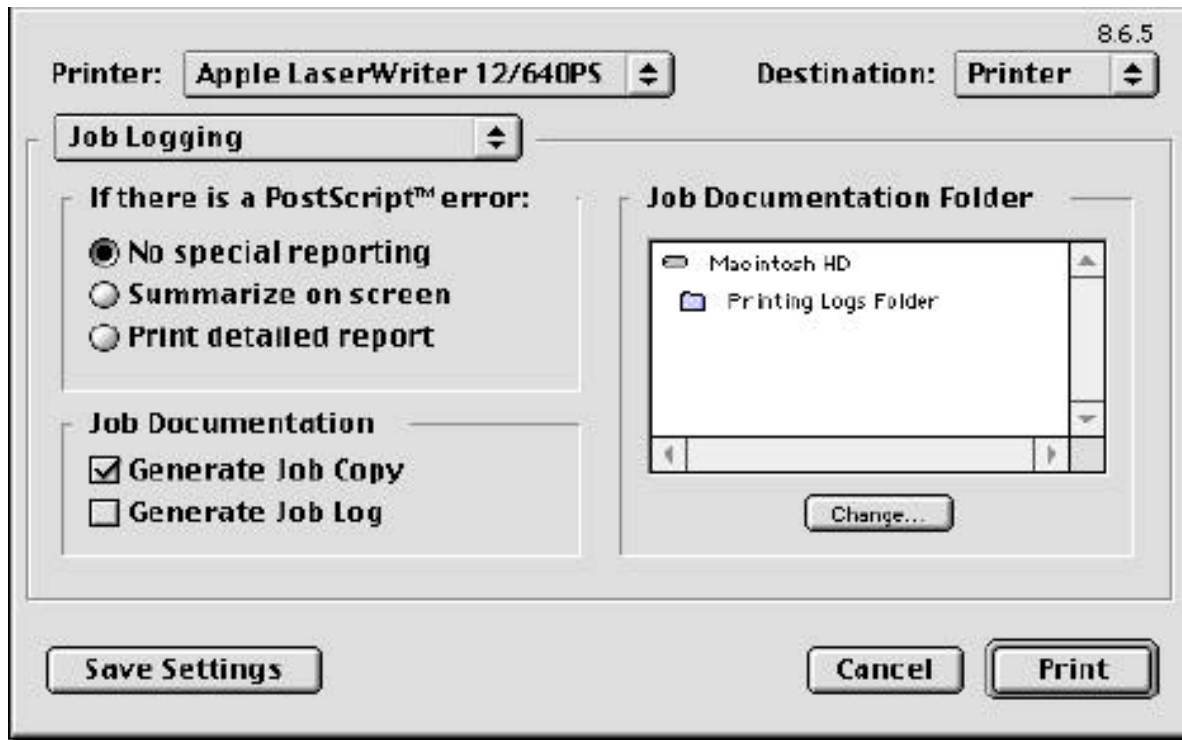This print dialog of LaserWriter 8.6.5 has added several new panels for the publishing industry:

Job Log Panel

LaserWriter 8.6.5 provides an interface that allows the creation of a job log containing a description of a job's settings, as well as a summary of the fonts used in the job. A job copy (a copy of the PostScript generated) can also be saved by the user. Both the job copy and job log features are useful to publishing professionals who wish to solve various prepress printing issues.

Note:
The job copy feature creates copies for all printer transactions, including Finder operations like setting up a job in the Chooser, doing an auto setup from the Printing menu, and so on. A job copy is only always generated if the user has saved defaults requesting this functionality.
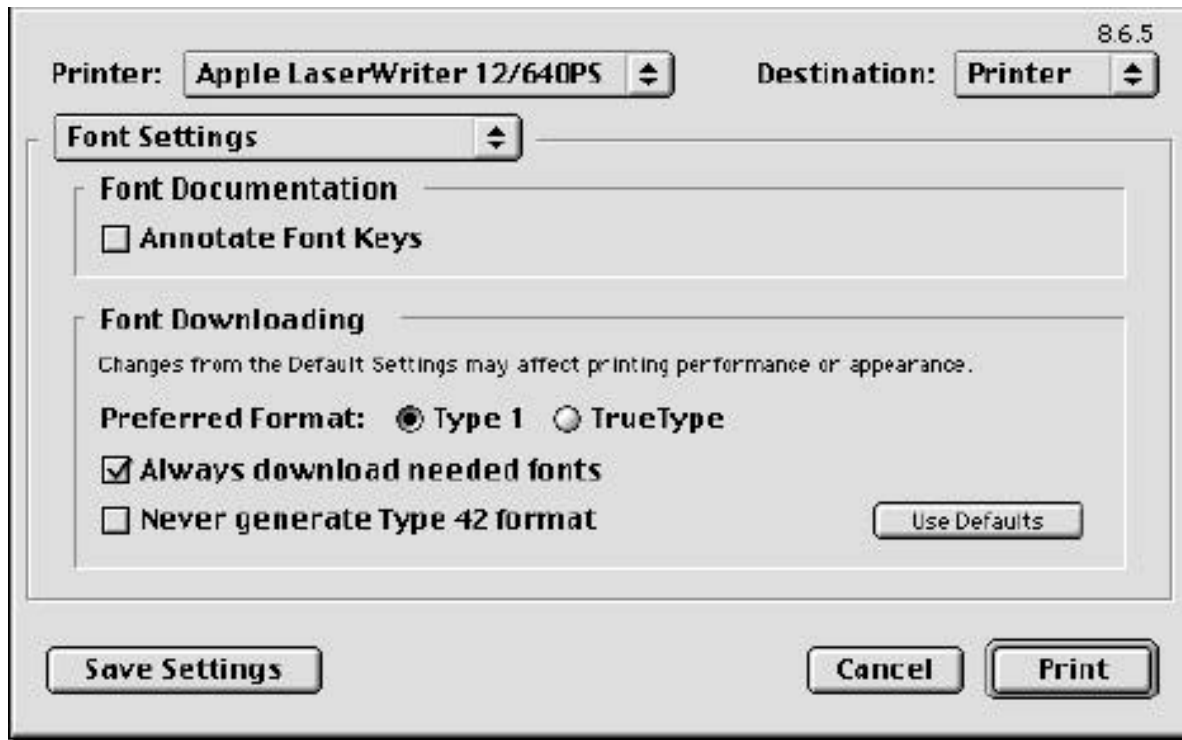
Figure 2: The Job Log Panel

Please see Technote 1166, "LaserWriter 8.6.5 Job Log Format" for complete details on what is contained in the job log.

Font Settings Panel

A font settings panel has also been added to LaserWriter 8.6.5's print dialog. This panel is intended for users who wish to customize the manner in which LaserWriter 8 handles fonts.

Figure 3: The Font Settings Panel

8.6.5

Printer: Apple LaserWriter 12/640PS ⬍   **Destination:** Printer ⬍

Font Settings ⬍

Font Documentation

☐ Annotate Font Keys

Font Downloading

Changes from the Default Settings may affect printing performance or appearance.

Preferred Format: ⦿ Type 1   ○ TrueType

☑ Always download needed fonts

☐ Never generate Type 42 format   [Use Defaults]

[Save Settings]   [Cancel] [Print]

The font panel provides the following controls:

A) Font Documentation

1. "Annotate Font Keys" check box:
    When generating font keys, LaserWriter 8.6.5 generates a comment that has the QuickDraw name
    of the font this key represents, the point size, and the style. The ability to translate font keys to real
    font names is useful for troubleshooting font problems in PostScript files. The default setting is
    false.

Note:
The QuickDraw name is the name of the font used for the original drawing. If font substitution is used,
say Geneva substituted with Helvetica, the font key is marked with Geneva, the original QuickDraw font
name.

B) Font Downloading

1. Preferred Format:
    Radio buttons that specify the preferred font format (TrueType or Type 1) when downloading
    fonts. The default selection is Type 1 since that is what the driver has historically done.

The options work as follows:

> a) Type 1: if LaserWriter 8 must download the font and there is a Type
> 1 disk file for the specified font available, then the driver uses it
> regardless of the existence of a TrueType or Open Font Architecture
> (OFA) supported font.
>
> b) TrueType: Initially ignore any 'LWFN' fonts on disk. If there is
> another format available (TrueType or other OFA-supported format)
> and LaserWriter 8 needs to download the font, the driver uses the other
> available format.

Note:
This feature does not impact the driver's usage of printer fonts, i.e., it only causes the driver to favor Type 1 or TrueType format when a font must be downloaded.

2. "Always download needed fonts" check box:
   This check box causes the driver to ignore printer fonts and always download needed fonts. The default setting for this check box is off, i.e., to use printer fonts if available. This check box setting does not affect save to disk jobs since the "Save As File" panel has explicit font inclusion support when saving output files.
3. "Never generate Type 42 format" check box:
   This forces the driver to generate Type 1 output when downloading TrueType or OFA-supported fonts. The driver treats the printer as if it does not have a TrueType rasterizer and could not support a downloaded one. The default is to use Type 42 if the printer supports it.

Secure Printing

With the release of LaserWriter 8.6.1, Apple introduced secure printing for printing to the AppleShare IP 6.1 (or later) Print Server. The implementation allows for secure printing to be configured to require both a user name and password, or simply a password to set up and spool jobs for printing. As part of this implementation, a new Security panel was added to the Print panel.

Note:
The Security panel will only show up if you have setup a printer that uses a secure print queue.
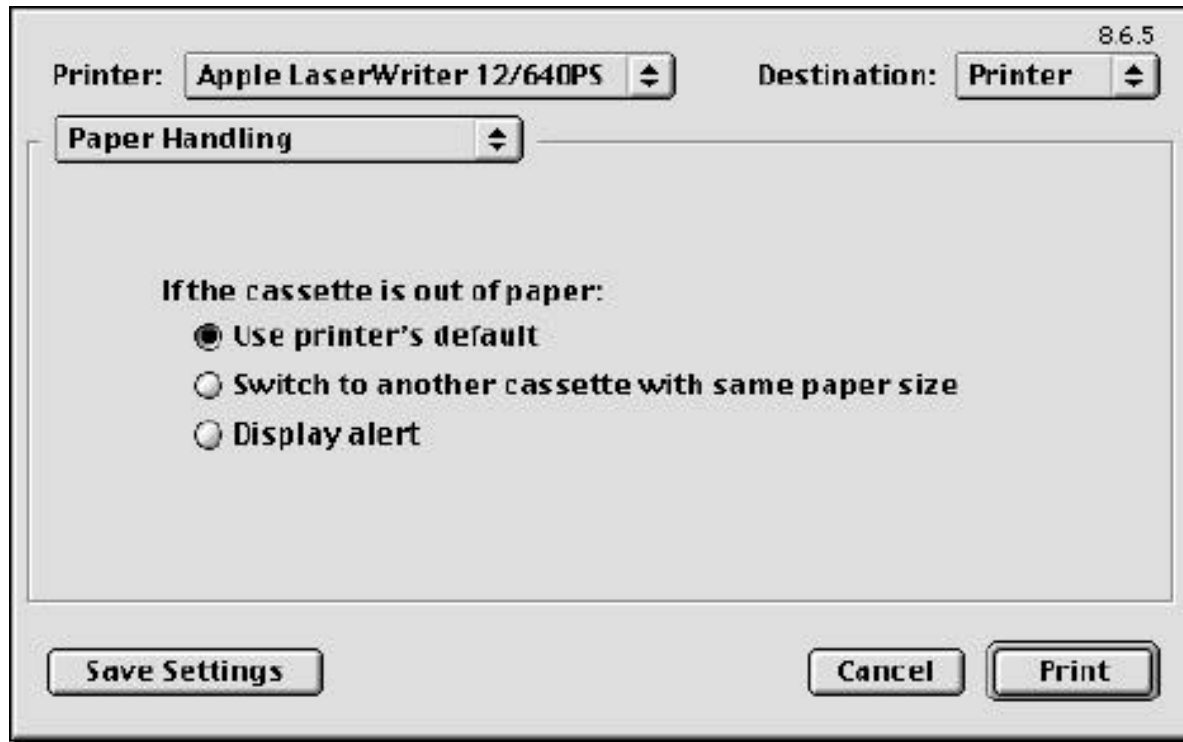
Figure 4: The Security Panel

Error Handling Panel

The Error Handling panel has been moved to the Job Log Panel. See the "Job Log Panel" section for more information.

Paper Handling Panel

A font panel has been added to LaserWriter 8.6.5's print dialog. This panel customizes what the print job does when the primary paper source runs out of paper. These settings were moved out of the Error Handling panel.

Figure 5: The Paper Handling Panel

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Summary

As you can see, the 8.6.5 release of the LaserWriter 8 driver has added several new features for both users and developers. We hope you enjoy using it!

Further References

- [Apple's Technote web site](#)
- [Technote 1146: LaserWriter 8 and Fonts](#)
- [Technote 1159: Data Fork Font Support in Mac OS 8.5](#)
- Technote 11xx: Writing Plug-ins for Desktop Printer Utility 1.2 and above (Coming soon!)
- [Technote 1166: LaserWriter 8.6.5 Job Log Format](#)

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Downloadables

 Acrobat version of this Note (K).

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