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LaserWriter 16/600 PS & Sun Solaris Through TCP/IP (10/96)

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TOPIC -----

This article provides information on configuring the Apple LaserWriter 16/600 PS printer for printing from a Solaris workstation.

DISCUSSION -----

Overview of Solaris Printing

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Solaris 2.3, 2.4 and 2.5* printing uses the lp command available with UNIX System 5. Solaris includes two utilities that add BSD features to the lp printing system.

- `lpssystem` - register remote systems with the print service.
This utility supports System V network printing and provides compatibility with BSD network printing (`lpd`).
- `lpr` - send job to the printer.
This utility is actually a version of `lp` that supports `lpr` flags, for backwards compatibility to SunOS 4.x.

*Note: If you are using Solaris 2.5, you may notice some slight variations in the directions provided in this article.

The following instructions are provided for Solaris (SunOS 5.x) system administrators. SunOS 4.x (sometimes called Solaris 1.x) are in the LaserWriter 16/600 PS manual. SunOS 4.x is a version of BSD UNIX and uses `lpr` for printing.

Before configuring the Solaris system, the LaserWriter 16/600 PS needs to be installed on the Ethernet network and assigned an IP address. See your LaserWriter 16/600 PS User's Guide for detailed instructions.

Apple Computer supports printing only from Solaris 2.x over Ethernet using TCP/IP and `lp` to the LaserWriter 16/600 PS printer. Alternative forms of printing with other protocols, such as PAP in AppleTalk, or physical connections such as direct parallel connections are possible, but not supported by Apple Computer.

Steps for Solaris

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Step 1

Login as root

Step 2

Run admintool

Step 3

Select "print manager"

Step 4

From the "Edit" Menu select "Add Printer"

Step 5

Select "Add access to remote printer"

Step 6

Set the "Printer Name"

The printer name is the name of the printer queue referred to in the lp command. For example, if you create a printer queue called "lw16ps", you would print using the following command:

```
lp -d lw16ps <filename>
```

Step 7

Set the "Printer Server"

Use the hostname or IP address of the printer. The hostname should be entered in the /etc/hosts file, NIS database or DNS.

Step 8

Verify or change "Print Server OS" to "BSD"

Click "add" when done. The new printer appears in the Print manager window.

Step 9

Change the file contents to PostScript.

Select "edit" -> "modify" -> "name of printer"

Change the file contents to PostScript and click apply. The default is any

Click apply to save changes.

Setting the "file contents to PostScript" allows all files to print to the LaserWriter correctly. Without making this change, text jobs sent to the printer using lp and lpr will not print.

Printer Configuration

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Both the LaserWriter 16/600 PS and Solaris printing software has automatic page description language recognition. A single printer queue that accepts both text and PostScript is the simplest configuration for users and administrators. If Solaris is configured with the steps above, the interpreter for TCP/IP (as shown on the startup page) can be set for either PostScript or Autoselect.

If the printer will be receiving PCL jobs via TCP/IP, the TCP/IP interpreter should be set for Autoselect.

Printing from Specific Applications

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Printtool: Openwindows tool for printing files

Printtool creates PostScript jobs and will work normally. Users can type in path names or use drag and drop icons from the file manager to the icon well. The default format will product 2-UP landscape output that has been "prettied" in the mp utility.

MAE: The virtual Macintosh

MAE produces PostScript using lprwriter. Set lprwriter to "lp -d <printer queue name>" If AppleTalk is supported on the Ethernet network, MAE users can use a LaserWriter driver and print using AppleTalk as well. MAE users printing over TCP/IP will find that lprwriter works with Fax cards, however, Apple Computer has not tested this combination, and it is not supported. MAE users using a Fax card equipped printer should print with AppleTalk.

lp - send requests to an LP print service

lp is the standard line command used for printing files in System V UNIX. For example:

```
lp -d lw16ps <filename>
```

lpr - send job to the printer

Although Solaris is System V, an lpr utility is provided. The lpr command is a front end to lp and is not a normal version of lpr. However the differences should not affect the use of the LaserWriter 16/600 PS printer. Example print command:

lpr -P lw16ps <filename>

For more information on configuring printing in Solaris, you should consult the Solaris documentation that came with your workstation. For more information on UNIX printing in general, you should consult a UNIX system administration book like the "UNIX System Administration Handbook" by Evi Nemeth, Garth Snyder, Scott Sebastian, Trent R. Hein.

Article Change History:

- 01 Oct 1996 - Added note about Solaris 2.5 variation.
- 24 Jan 1996 - Complete rewrite.
- 22 Mar 1995 - Made minor corrections.

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