How to Setup 300 Printers in Just Under 3 Minutes

(aka; Setting Printers in Mac OS 10.2 via Remote Desktop)

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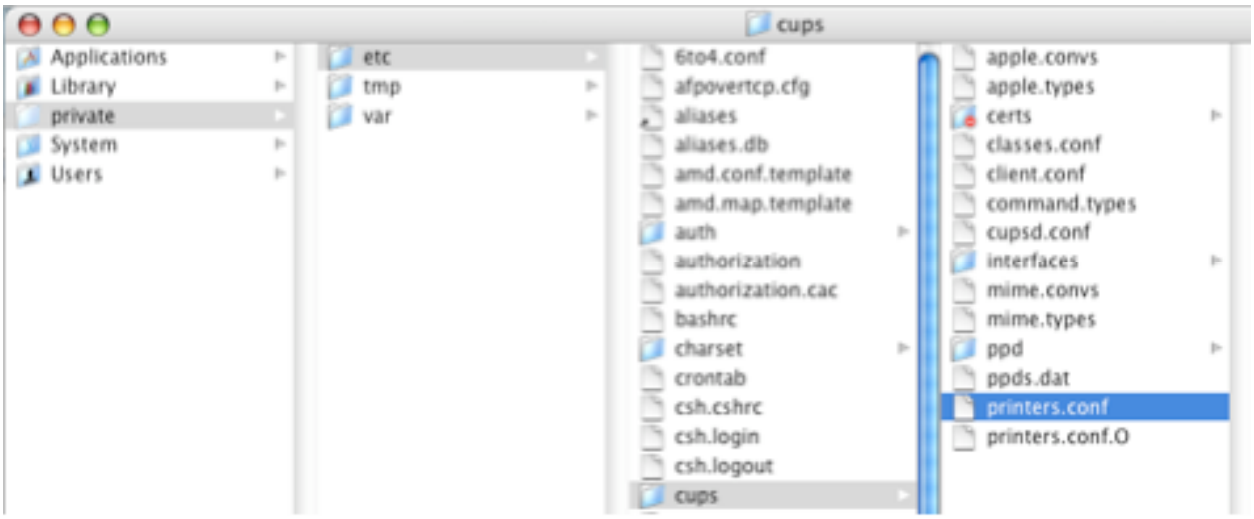
Remember the days of Desktop Printers in Mac OS 9? Remember the joy of setting printer settings via Network Assistant to an entire lab of Macs in less than a minute (a feature prominently missing from the update Network Assistant to Remote Desktop)? Remember the amazement of your CIO when you could update the Mac printer settings across your entire organization before he/she even got off the phone with you? Would you like to return to your glory days of your Mac OS 9 geekdom? Then read on enterprising geek…

Key to the process of deploying standardized printer settings in a networked environment is that printers setup in **Printer Center** under Mac OS 10.2+ are set via a Unix printing system called CUPS (Common Unix Printing System). CUPS settings are stored in the following file:

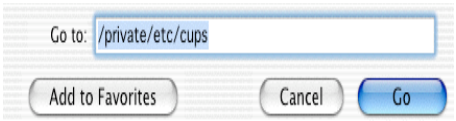
/private/etc/cups/printers.conf



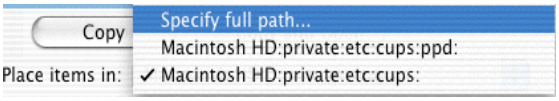
For owners of Apple Remote Desktop, a better method of setting printers in a lab environment exists that visiting each machine individually: setting all lab machines at once. You can accomplish large-scale printer setups in Mac OS 10.2 via the following 4 simple steps:

1. Set up a model machine using the Printer Center exactly the way you want your print settings to be on the target machines.

2. Use the ARD **Copy Items** command to copy the **/private/etc/cups/printers.conf** file to all target lab machines. *Note*: Because printers.conf is located in an invisible folder, you will have to use the **Go to:** field to navigate the Finder to the **/private/etc/cups** directory and then select printers.conf from the list that is shown.



   Note #2: Use the **Same relative location** or the **Specify full path** option to ensure that the file is copied to the correct directory on your target machines.

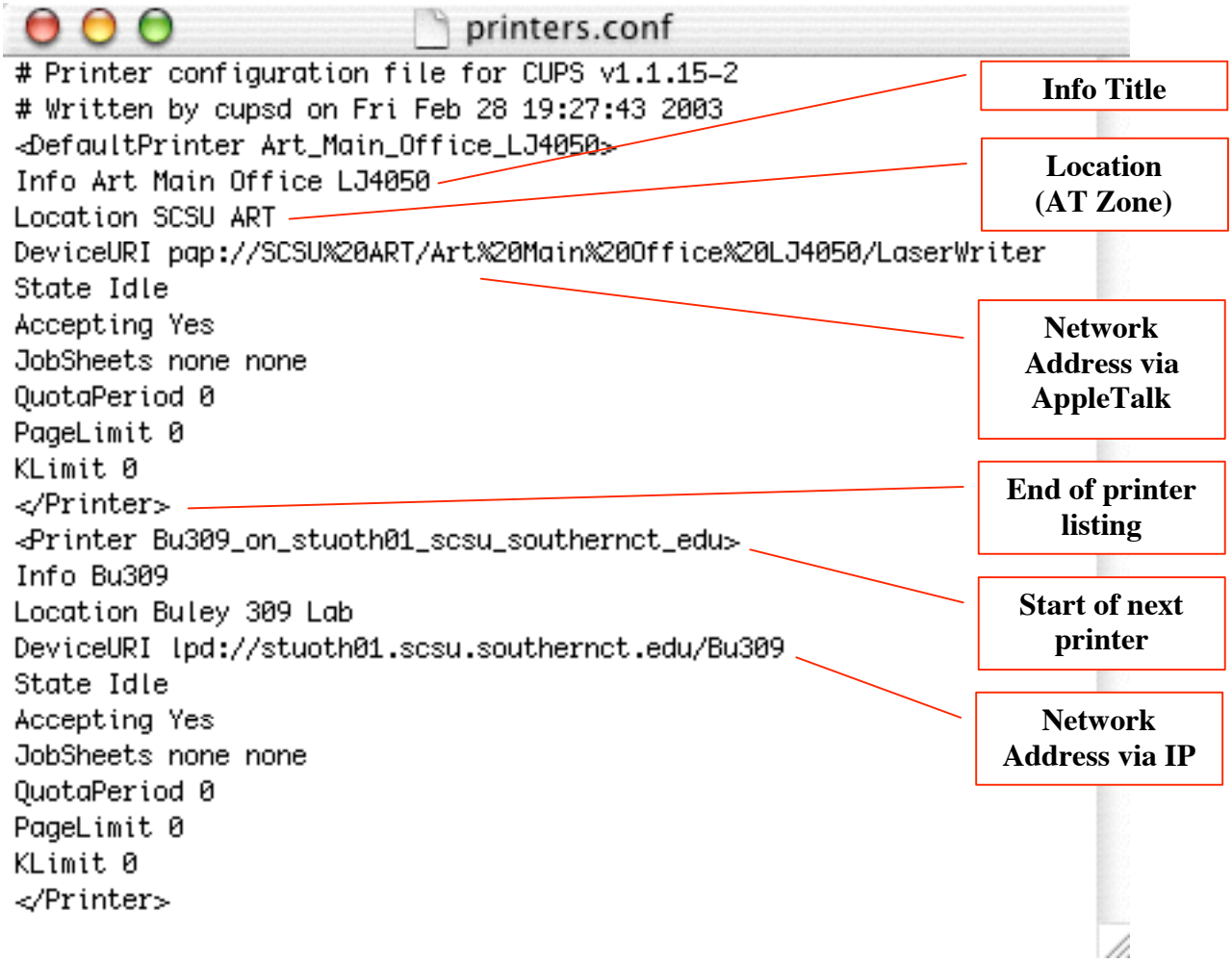


3. Once the printers.conf file is copied, you still need to copy the appropriate PPD (printer description files) for each printer you've setup in Printer Center or you will end up with both new printers *and* any existing printers already present as well. Copy your description files using the same ARD **Copy Items** command as above. CUPS stores PPD files for each printer you've setup in Printer Center in the **/private/etc/cups/ppd** directory.

4. At this point you have the correct files, but you need to restart the CUPS daemon process to allow it to pick up the new settings. Unless you're familiar with the Unix appropriate Unix command and feel like SSH'ing into each client, just use the ARD **Restart** command to reboot all clients at once. After reboot, you can then individually control a random sampling of machines to verify that the new printer settings are correct.

Dissecting Printers.conf

For the purpose of those sorry Mac admins with nothing better to do with their time than look at the contents of printer settings files (or perhaps for admins wishing to setup automatic SHELL/AppleScripts to change printer settings automatically), a typical printers.conf file is shown below with the basic attributes you would need to change to create/change printers. As you can see, since the file is a standard text file, setting up automatic printer configs via scripting should be pretty straightforward.



Alternative Printer Setting Options
Unix CLI Tools

Beyond simply copying printer settings from a master machine with the correct printer setup already, another method is to use existing command line tools to set printers and options. Due to the integration of AppleScript with the command line in Mac OS 10, you can also integrate the advanced configuration tools at the CLI with ARD by creating an AppleScript featuring the "Do Shell Script" function which you simply copy and open on each of your clients remotely.

Note: a full description of the "Do Shell Script" functionality of AppleScript can be found at the following Apple Developer Page:
http://developer.apple.com/technotes/tn2002/tn2065.html

The basic tool used to set printers at the command line is called **lpadmin.** To get a full idea of what lpadmin can do, open OS 10's Terminal application and enter: "**man lpadmin**" to view the full manual/instructions for this program (if you have not used lpadmin before, printing this manual out is *highly* recommended).

To get you started here is a simple SHELL script using lpadmin to setup an IP-based HP LaserJet printer controlled through a remote LPD print queue: