

Network Printing with Mac OS X Leopard

By Bruce W. Roeckel

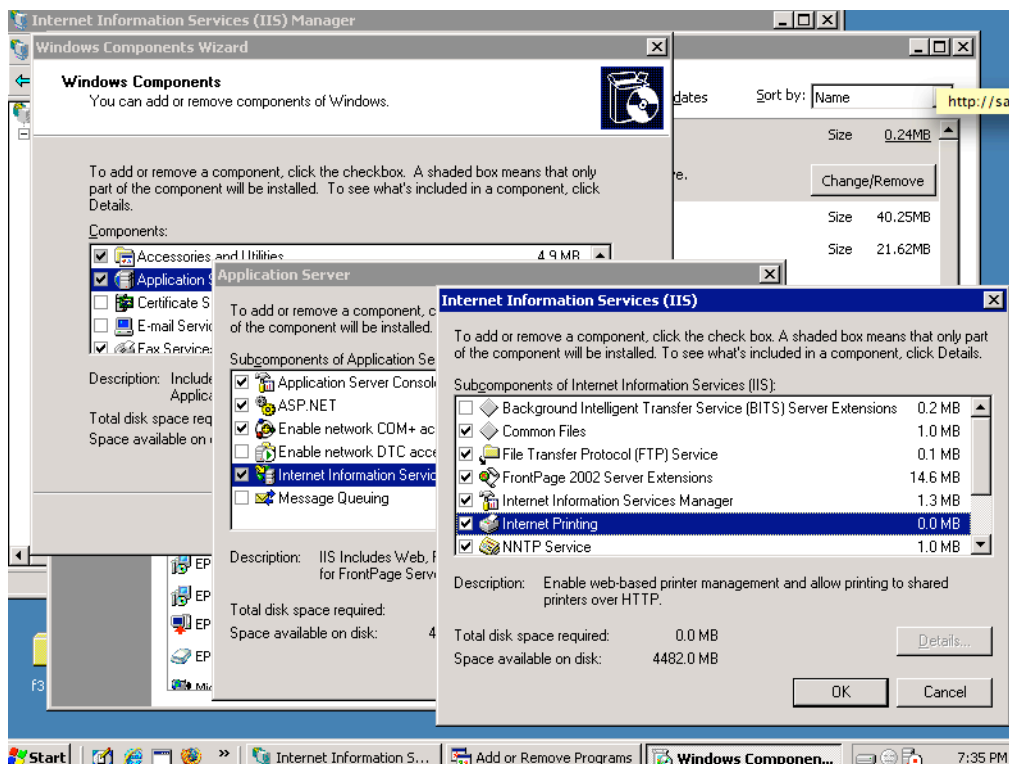
<http://www.immaculatetechnology.com>

For some unknown reason I lost all my network printer definitions after upgrading to Apple's latest operating system, Leopard (Mac OS X 10.5). I haven't figured out why, but I took some time to research some new printing mechanisms known as IP Printing (IPP) and Unix-style printing (LPD). Here's how I successfully set up both IPP and LPD printing from my Apple PowerBook G4 running Leopard to a Windows 2003 Server.

The first step is to install and activate both IPP and LPD on the Windows 2003 Server.

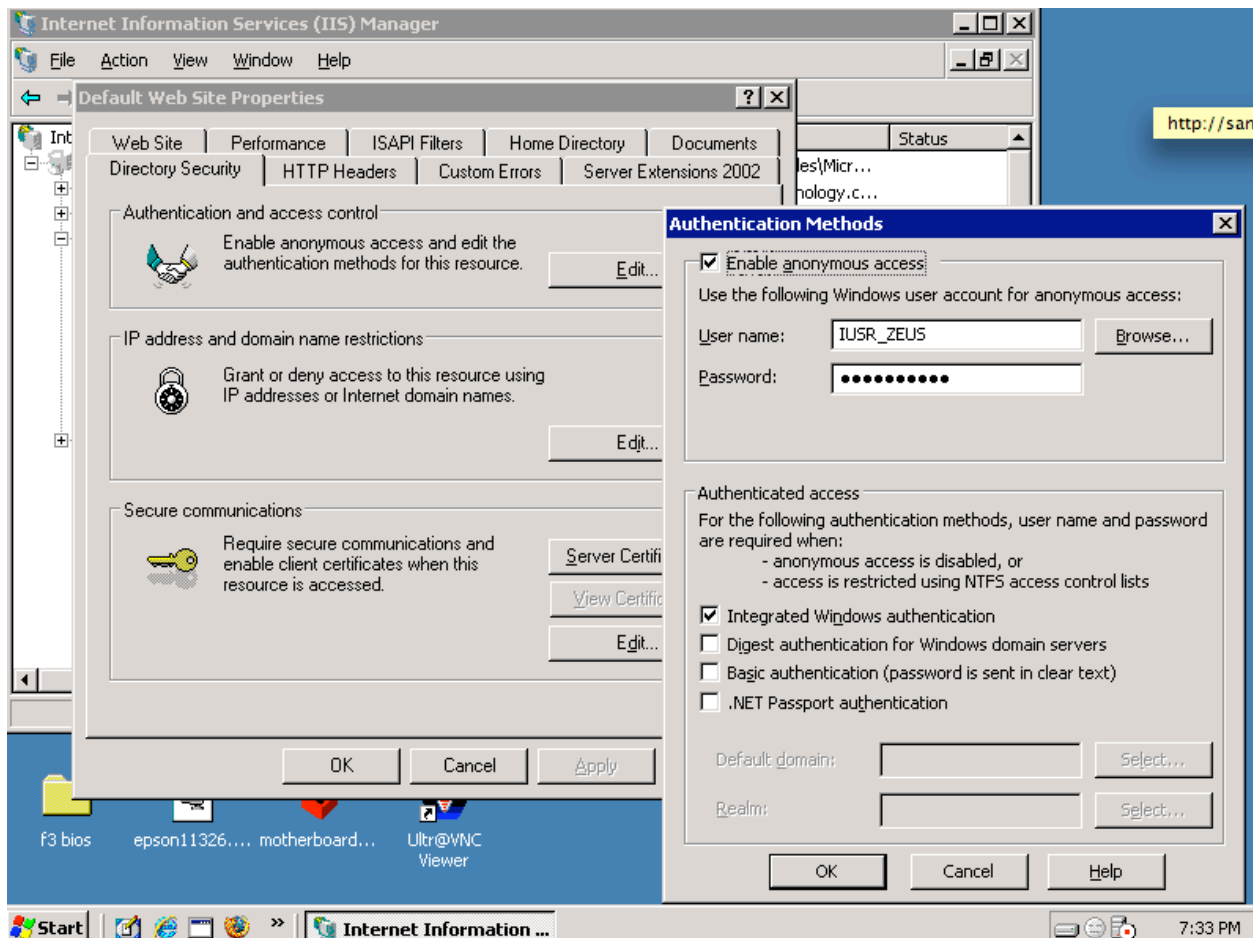
Activating IPP

IPP printing uses the HTTP protocol and therefore requires some configuration changes in IIS on the Windows 2003 Server. Begin by going to Start > Control Panel > Add/Remove Programs and select "Add/Remove Windows Components." Double-click on "Application Servers" then "Internet Information Service" to display optional services. Select the checkbox next to "Internet Printing" and let the wizard do its thing, adding this service to your Windows 2003 Server.



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You also need to allow access into the Web Server IPP function by anyone (Caution: may be a security risk you don't want to take). Go to Start > Administrative Tools > Internet Information Services (IIS) Manager and drill down to the Default Web Site / Printers. Right click on Printers and select properties. Now click on the Directory Security tab and edit "Authentication and access control." Enable anonymous access.



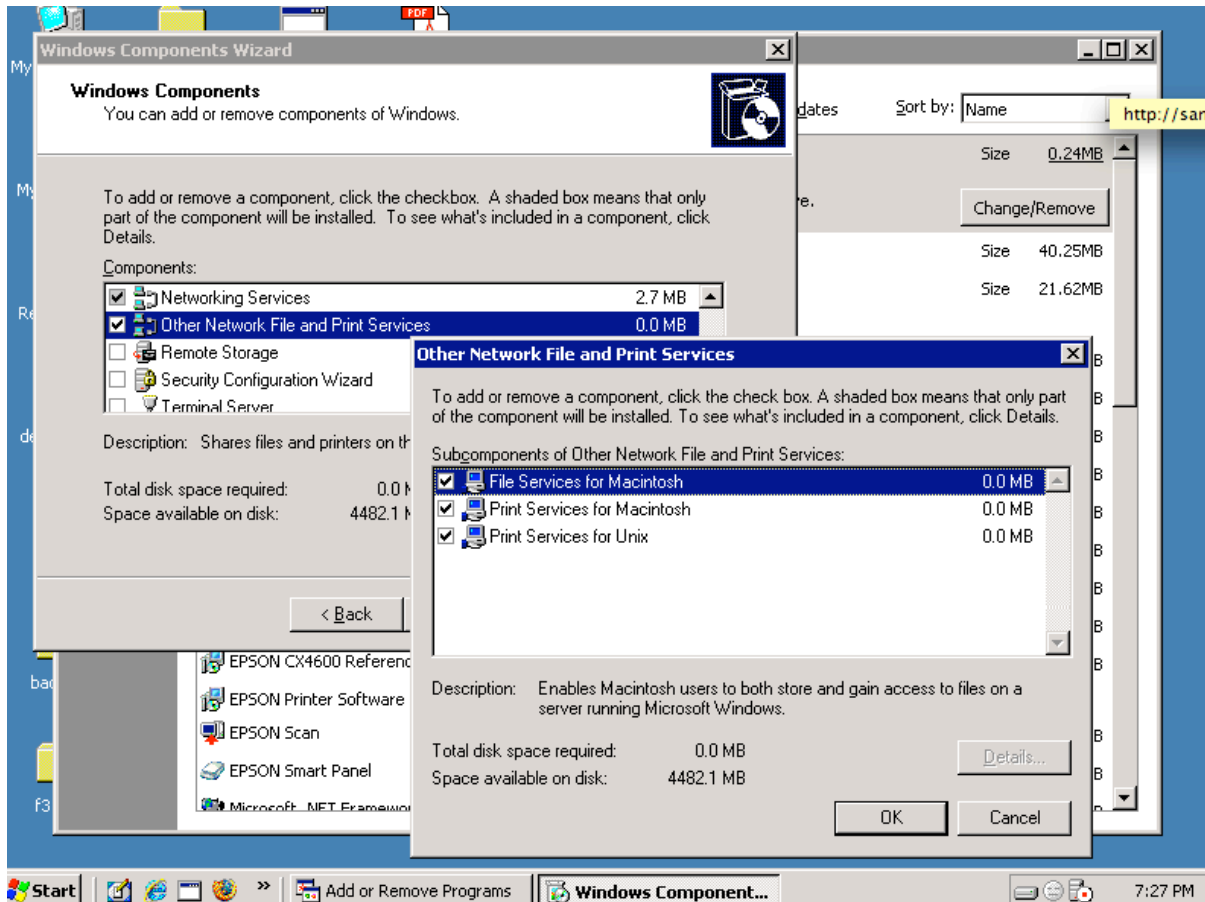
Now see if your printers are available via the IPP function by pointing your web browser to:

<http://<servername>/printers>

Activating LPD

LPD printing also requires the addition of special services on the Windows 2003 Server. As with IPP, go to Start > Control Panel > Add/Remove Programs and select “Add/Remove Windows Components.” Double-click on “Other Network File and Print Services” to display optional services to install. Select the checkbox next to “Print Services for Unix” and let the wizard do its thing, adding this service to your Windows 2003 Server.

(Note in the screen shot below -- this Server also has the Macintosh File & Print services checked. These will provide AppleTalk (e.g. AFP) support into the Windows 2003 Server).

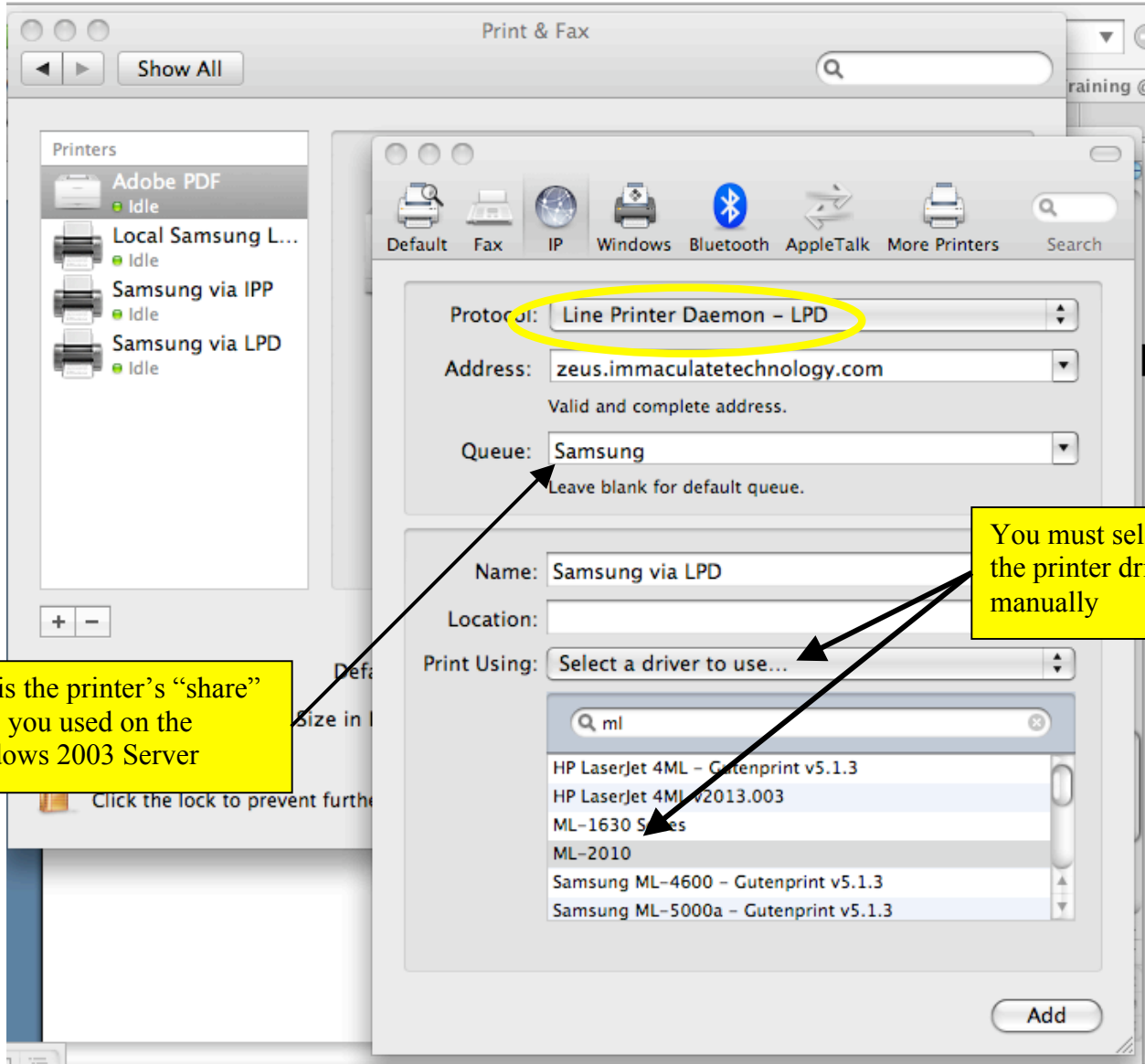


Now Lets Use these Services

Next, you simply define some new printers on your Mac using these different protocols. It's a pretty simple process after discovering the proper syntax for each type of printing mechanism.

LPD Printing

Open System Preferences, select "Print & Fax" and enter the parameters as follows:



IP Printing

The syntax for IP Printing is not very intuitive, however just follow the IETF standard and you'll be all set! Open System Preferences, select "Print & Fax" and enter the parameters as follows:

The screenshot shows the 'Print & Fax' window in macOS. On the left, a list of printers includes 'Samsung via IPP'. The main panel shows the configuration for the selected printer:

- Protocol: Internet Printing Protocol - IPP (circled in yellow)
- Address: zeus.immaculatetechnology.com:80 (with a yellow callout: "Guess What! Microsoft doesn't use the IPP standard port of 631. So you must specify port 80 😊")
- Queue: /printers/samsung/.printer (with a yellow callout: "This is the odd part – you need to enter the print queue EXACTLY as shown: /printers/<sharename>/.printer")
- Name: zeus.immaculatetechnology.com
- Print Using: Select a driver to use... (with a yellow callout: "You must select the printer driver manually")

A search for 'ml' in the driver list shows several options, including 'Samsung ML-4600 - Gutenprint v5.1.3'.

Other annotations include: "This is the printers 'share name you used on the..." pointing to the queue field.