Pcounter for Windows
Configuration for Macintosh Computers

Overview

Pcounter for Windows can be configured to log, track, and control shared printer access for Macintosh print clients running OS9 and OSX 10.x. This document provides instructions to set up Pcounter for Windows to work with Macintosh computers.

Pcounter can be downloaded from http://www.pcounter.com/download.html. Pcounter can be installed on a test server or on a live server. Pcounter can be installed and configured without requiring a system reboot on the server.

PC vs. Macintosh printing

When monitoring print jobs submitted from a Windows client, Pcounter automatically tracks a username or client code associated with the job. It will do this whether or not you decide to display a popup notification to the user who submits the job. On Windows PCs, the popup prompt permits users to confirm or delete the job. The popup can display information about the job's page count, cost, and/or the user's existing account status.
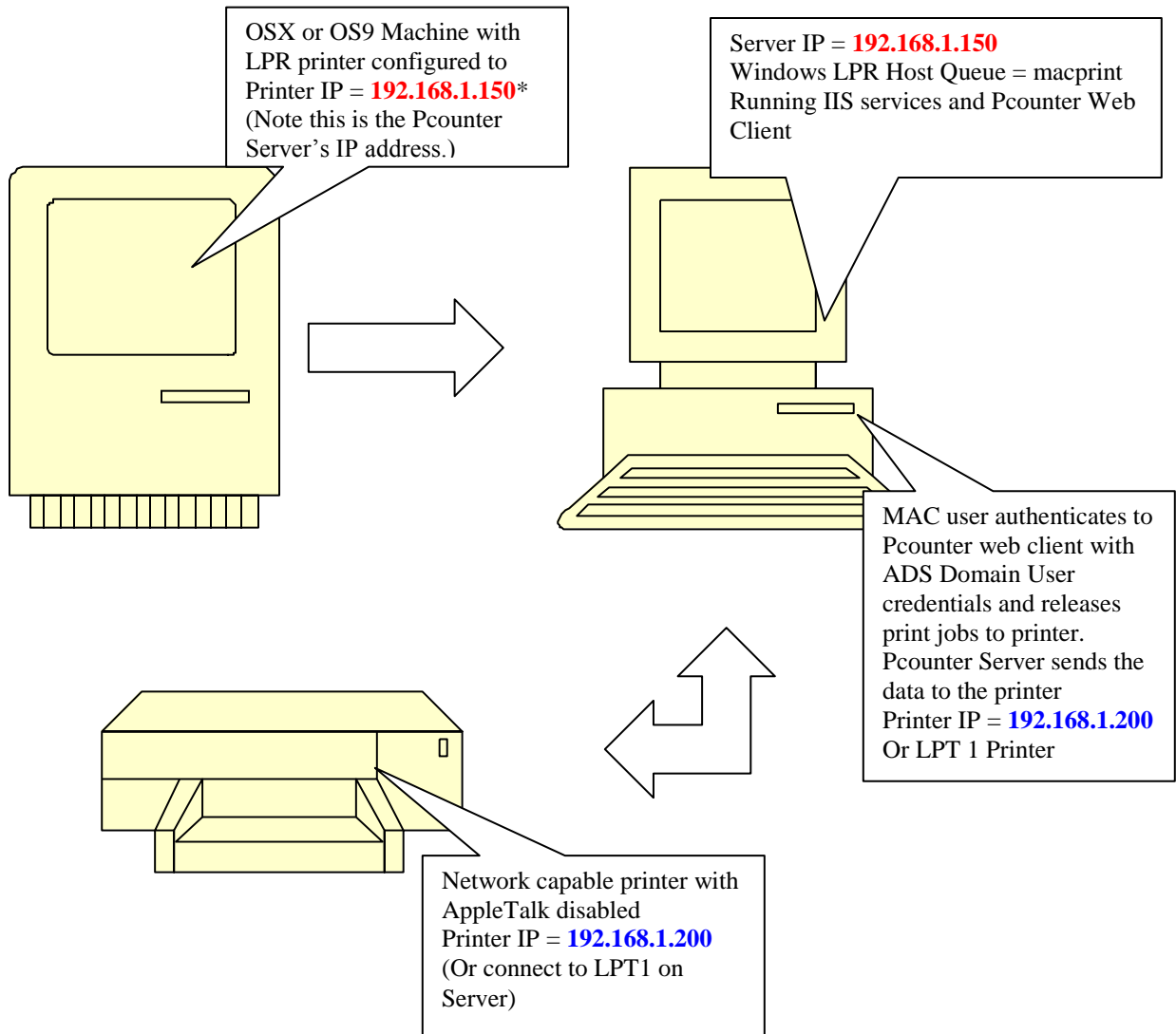
The Pcounter Popup feature is not currently supported with Macintosh operating systems. Due to differences in the way user logins are authenticated on the Macintosh, the initiator of a print job is not generally associated with the job in the print queue. This limitation can be overcome, in some cases, by configuring a customized user authentication process through LDAP or Microsoft Active Directory services.

For general use with Macintosh print clients, Pcounter solves the authentication problem by using a webpage hosted on your local web server. The Pcounter Web Client page is used to display user/job information and control print release. After a print job is submitted from a Macintosh client, the user logs into the Pcounter web page to release the job. This method requires more user input working from a Macintosh client than from Windows clients, but it also gives Macintosh users the ability to batch all their print jobs at once.

AppleTalk Issues

AppleTalk was one of the first printing protocols Apple used in its operating systems. To track print jobs from Macintosh computers with Pcounter, it is highly recommended that you disable AppleTalk protocols on your Printers. If AppleTalk protocols are not disabled on the printer, a Mac OS9 or OSX user can browse for the printer and print to it, directly. This would bypass any control of the printer enabled through Pcounter.

Overview (How it all works)

OSX or OS9 Machine with LPR printer configured to Printer IP = **192.168.1.150*** (Note this is the Pcounter Server's IP address.)

Server IP = **192.168.1.150** Windows LPR Host Queue = macprint Running IIS services and Pcounter Web Client

MAC user authenticates to Pcounter web client with ADS Domain User credentials and releases print jobs to printer. Pcounter Server sends the data to the printer Printer IP = **192.168.1.200** Or LPT 1 Printer

Network capable printer with AppleTalk disabled Printer IP = **192.168.1.200** (Or connect to LPT1 on Server)

Setting up Pcounter for Macintosh Print Clients

To set up Pcounter for logging and managing Macintosh print clients, follow these steps:

1. Install Pcounter on a Windows server to manage your printers
2. Configure Pcounter to support Macintosh print clients. (Enable Pcounter's LPD support for designated shared printers.)
3. Set up the Pcounter Web Client to work through a web server on your network. (Verify that the web server is active, install the webClient plugin, and configure the webClient options for browser-based print job release.
    (Instructions for configuring webClient.exe to run under Microsoft IIS are included in this document.)
4. Add Pcounter printers to your Macintosh print client(s).

1. Install Pcounter

Before beginning, make sure there is at least one printer set up on the Windows server that will be used for Macintosh printing. This printer can be a TCP/IP, LPR, or LPT Printer. Download the most current version of Pcounter from http://www.pcounter.com/download.htm. Extract the zip file and run the setup.exe file. For detailed instructions on Pcounter installation, refer to the Pcounter for Windows Setup Guide PDF, available at http://pcounter.com/support/Pcounter-Windows-Installation.pdf.

2. Configure Pcounter for Macintosh client support

Now that you have Pcounter set up, there are special settings that need to be configured for Macintosh printing. The Pcounter printer will have to be prepared for LPR printing, which is how the Mac will access it.

a) Open Pcontrol, select your server under Microsoft Windows Network, right-click and choose Pcounter→Configuration.
b) ****Go to the LPD Server Settings tab and checkmark "Enable LPD Server."****
c) Checkmark the printer that you want Pcounter to control for Macintosh LPR print jobs.
d) Highlight the check marked printer and set the LPR queue name. (This is the queue that Pcounter will monitor.) **While the printer is highlighted, checkmark the "Pause All Jobs option," as well.**
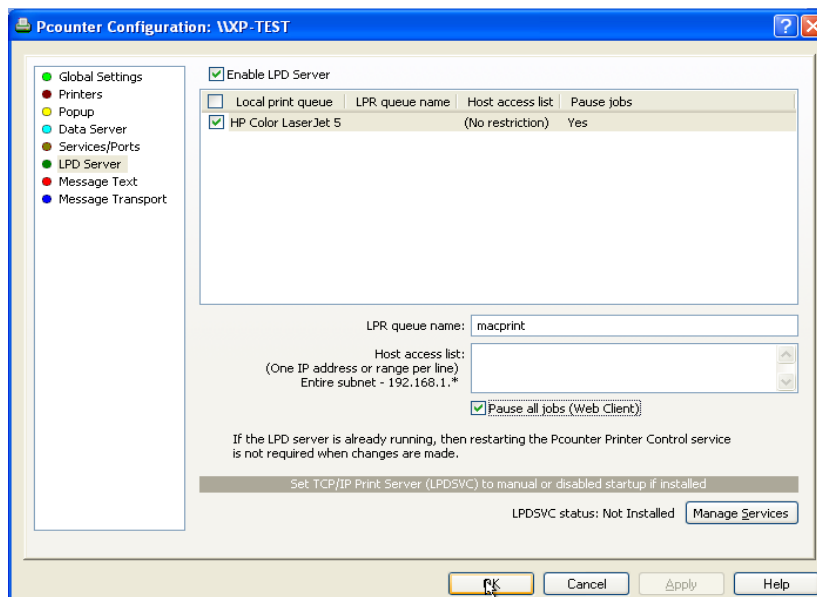
e)   Now Click OK. Pcounter should prompt you that it will restart the Printer Control Service. If this prompt does not appear, go to the Services/Ports tab and manually Stop and Start the Printer Control Service.

3. <u>Set up the Web Client under Internet Information Services (IIS)</u>

The Pcounter Web Client is an HTTP CGI application that can run on any Windows web server. It duplicates the functionality of PPopup in any web browser for any Operating System platform—including Macintosh, Linux, UNIX, and, of course, Windows. Pcounter Web Client has been tested on Microsoft Internet Information Server (IIS) versions 4-6, and on Apache 2.0.43. Other web servers should also work.

The purpose of Pcounter Web Client is to allow any user to authorize, authenticate, and/or apply client billing codes to print jobs without any need for additional client software. Users are shown all pending print jobs in the web browser, and the jobs can be authorized with a single button click.

To configure the Web Client to run under the Microsoft IIS web server, follow these steps:

a)   Verify that the Microsoft IIS web server is installed and running on the target computer.

b)   In Microsoft IIS, the default path to the web server's root directory is `C:\Inetpub\wwwroot`.

       If an executable directory does not already exist, create a new subdirectory under `wwwroot` (such as `cgi-bin`). (You will grant execute permissions for this directory in a subsequent step.)

c)   Copy the webClient.exe (located, by default, in the `C:\Program Files\Pcounter for NT\NT` folder) to the executable web server directory that you just created. (Under your web server's root directory).
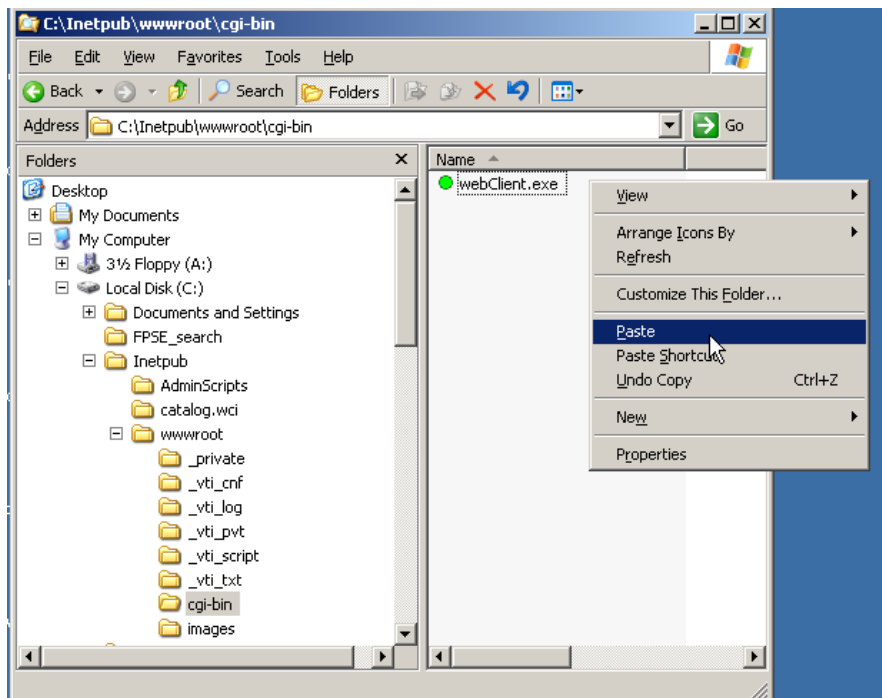
d)   Double-click the webClient.exe module to open it and set up the correct parameters for printer access and accounting.

e)   On the webClient configuration screen, under **Window type,** choose the type of client you want your users to see. If you are unsure of which type to use, see brief descriptions below. Once a Window type has been selected you can click on the Options tab to fine tune any advanced options. Most of the time the default values will give you the desired output.

- **Client Code List:** This will present the user with a List of Client Codes, pre-defined by the administrator for print job association.
- **Entry Form:** This will prompt the user for a simple entry code to associate to print jobs. The code is not saved from session to session.
- **Job Validation:** This is one of the most commonly used types. This will simply show the user a list of their jobs and allow them to select them and print them or select them and delete them.
- **Matter Number List:** This is similar to Client Code List but this allows a Pre-Defined Sub Code list for billing.
- **Embedded Login:** This type should only be used if you are using Anonymous access to the web client, and wish to authenticate via the Printer Popup user database that is set up inside Pcounter Administrator. (See the Pcounter for Windows documentation for details.
- **Job ID:** This is to be used in conjunction with Pcounter Station to create an arbitrary ID Name that can be used to identify print jobs on the Pcounter Station.
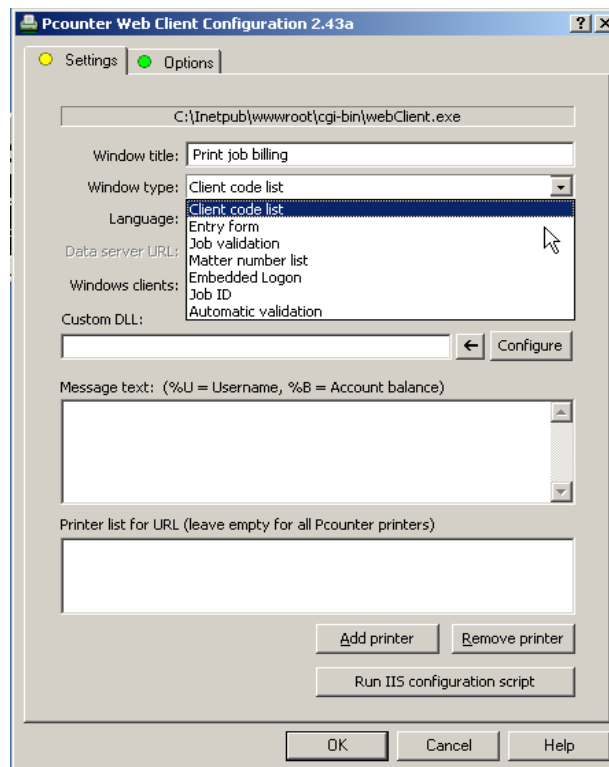
f)   Once you have selected the Window type and configured options, click OK to save the Web Client configuration.

g)   On the Settings Tab in the webClient window, click the **Run IIS configuration script** button near the bottom of the screen to automate IIS setup. A list of check marked configuration changes will appear.

     Click OK to apply those changes.

Using Web Client options

If you select Job Validation or Automatic validation as your Window type, there are no additional Web Client options that need to be configured. If you choose one of the other Window types, Web Client provides a set of default options. These can be modified by clicking on the green Options tab. (For more information about individual options for each Window type, click the "?" help option in the upper right corner of the Options window. Drag the question mark to the option and click again to open a Help screen.)

Getting to the Web Client

Now that the Web Client is configured, create bookmarks to the Web Client URL for the web browser(s) that will be used on each Macintosh print client. Generally, the URL will be the network IP address for the web server followed by the path to webClient.exe. (If you followed the example in this document, the link would be http://192.168.1.150/cgi-bin/webClient.exe.
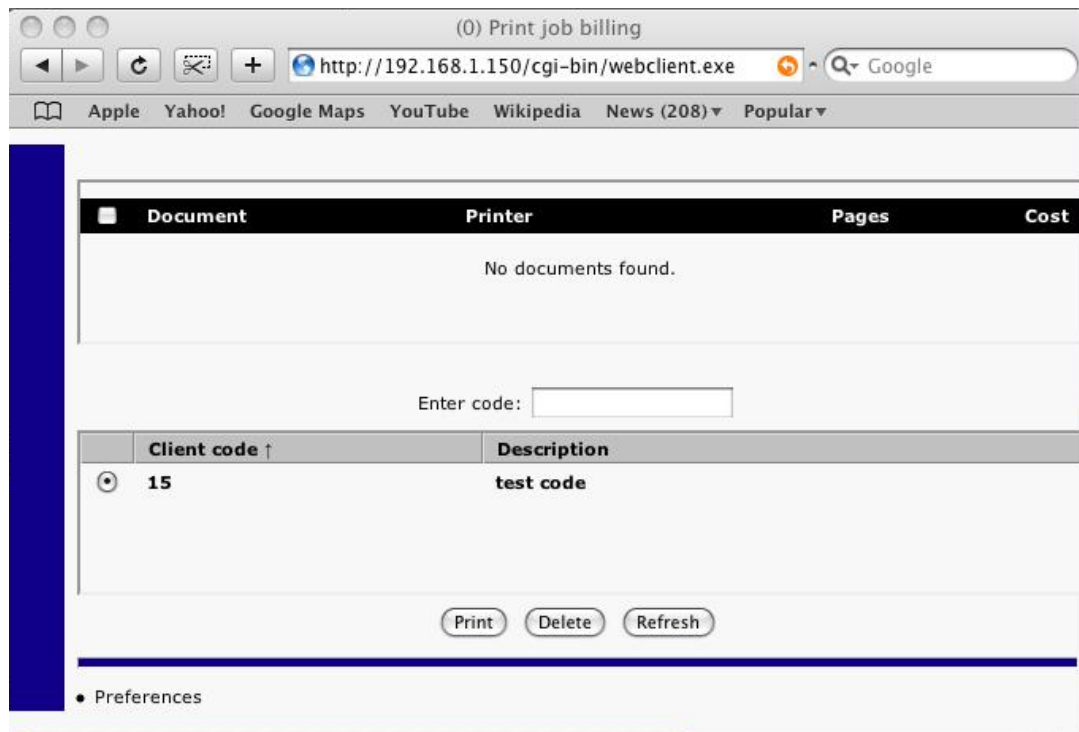
The IIS Management snap-in can also be used to verify the IP address of the website that serves the webClient.exe application to users.

4. Adding a Pcounter Printer to your Macintosh

MAC OS 9
For Mac OS9 LPR printing, setup instructions can currently be found at this link:
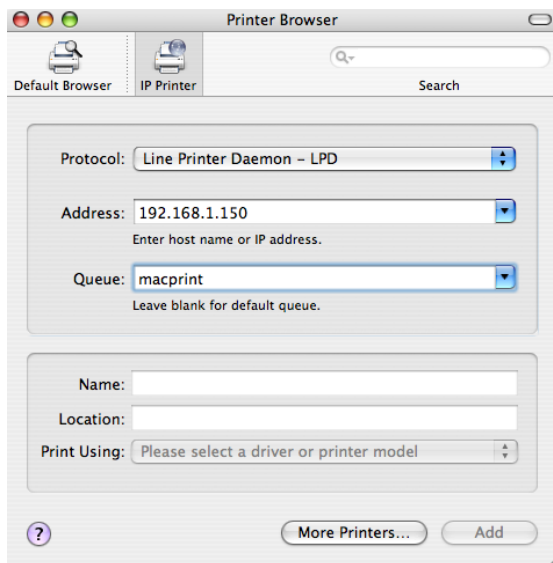http://www.rit.edu/its/services/desktop_support/mac/clprprintersetup.html

Mac OSX (10-10.3)

See the picture below for what the settings should look like on the Mac that prints to Pcounter. These settings are based on the diagram in the **Overview** Section of this manual.
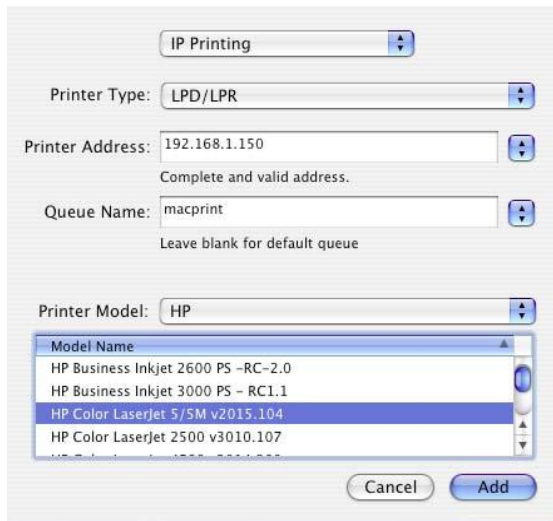

Mac OSX (10.4)

See the picture below for what the settings should look like on the Mac that prints to Pcounter. These settings are based on the diagram in the **Overview** Section of this manual.

Mac OSX (10.5)

See the picture below for what the settings should look like on the Mac that prints to Pcounter. These settings are based on the diagram in the **Overview** Section of this manual.
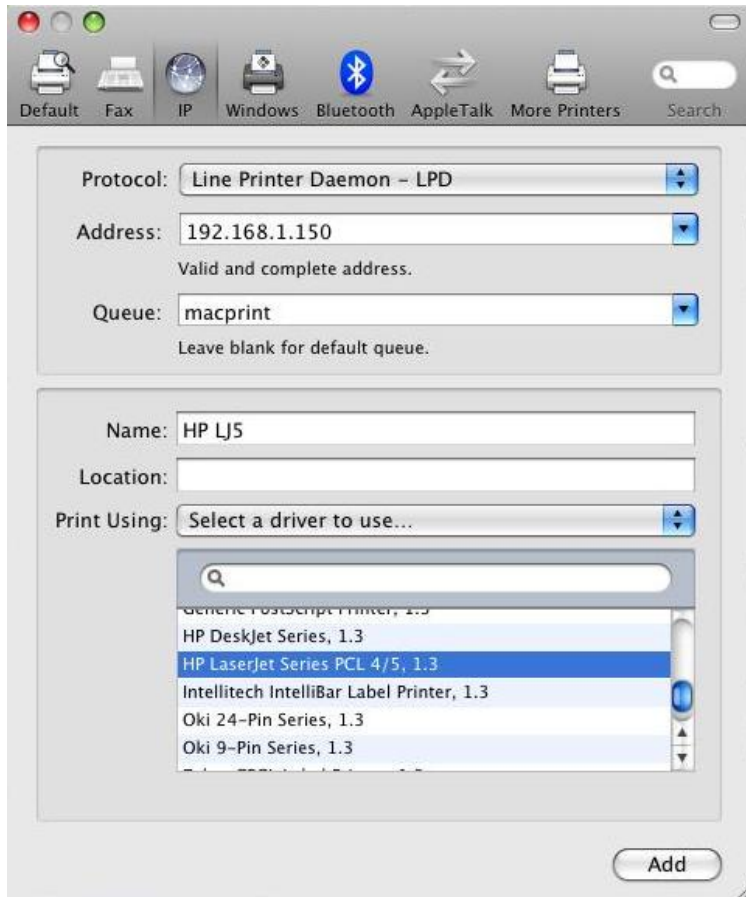
Congratulations! Pcounter is now configured to work with a Macintosh computer. Now all you have to do is print a document and log in to the webClient page hosted by IIS to release your jobs.