

# Connecting to a Network Printer<sup>1</sup>

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web/documents/adding-a-printer.tex.

SHARED NETWORK PRINTERS are found throughout the Bigelow Physics Building. These printers are high quality, high reliability, high availability, high capacity color laser printers. Having few of these printers spread throughout the building rather than having more numerous individual office printers saves resources and money. We are a public institution with a responsibility to use public funds prudently. It also simplifies the maintenance and acquisition of consumable supplies for the printers.

This note answers a frequently asked question of how to connect a personal computer with these shared public printers.

## Printers

hostname	room	model
pine.physics.unlv.edu	BPB-209	HP Color Laserjet CP4025
peach.physics.unlv.edu	BPB-237	HP Color Laserjet CP4025
sakura.physics.unlv.edu	BPB-126	HP Color Laserjet CP4025

Table 1: Publicly accessible network printers in Bigelow Physics Building.

## Windows 7 and Greater

The process for connecting to our shared printers is similar for Windows XP through Windows 10. I'll use Windows 7 as the model system. Follow the steps and you should be able to connect to and print from our shared printers.

1. From the start button open "Devices and Printers". Alternatively you can open "Control Panel" followed by "Hardware and Sound" followed by "Devices and Printers"
2. From the title bar select "Add a printer"
3. Perhaps surprisingly, choose to "Add a local printer" from the two choices.
4. Create a new port of type "Standard TCP/IP Port".
5. Enter a fully qualified Hostname of the printer. Table 1 lists the commonly available printers in the building. E.g. pine.physics.unlv.edu.

Firstly, guests using the wireless networks in Bigelow Physics Building (BPB) do *NOT* have network access to most of our network, including the shared printers. So you *must* be connected to a wired office or lab network (preferred) or the "UNLV-Physics" wifi network.

The "network, wireless, and Bluetooth" selection uses a different Microsoft style connection that we do not use on our printers.

6. Allow the system to “Query the printer and automatically select the driver to use”.
7. If the system succeeds in connecting to the printer continue. If it indicates that it cannot figure out the connection type, select “Hewlett Packard Jet Direct Socket”.
8. On the “Choose your printer from the list.” dialog box our printer models may not be listed. In that case, ask the dialog box to use “Windows Update”. After a few minutes you should be able to find any of our public printer models. Select “HP” followed by the correct model. E.g. HP Color Laserjet CP4020.
9. I always choose a short name and location combination for the “Printer name”. E.g. Pine (BPB-209).
10. I do usually ask the system to print a test page when finishing the installation.

## *MacOS*

The process to connect to a printer from Apple’s MacOS is similar but smoother than for Microsoft Windows. This did not use to be the case but now is.

1. Run the “System Preferences” application that should be on your application dock or from within /Applications directory.
2. Select “Printers & Scanners”.
3. If necessary unlock the lock using an administrator login and password.
4. Click the plus sign.
5. Select IP.
6. In the “Address” field enter the fully qualified domain name of the printer you want to access. E.g. pine.physics.unlv.edu.
7. “HP Jetdirect - Socket” is the correct protocol to use.
8. Leave the queue blank.
9. Name is the pretty name of your choice. E.g. Pine.
10. Location is a convenience to add if you like. E.g. BPB-209.
11. Then click the “Add” button and you should be finished.

## *Linux*

There exist hundreds of Linux distributions and dozens of user interface configurations that may talk to the most common printing service on Linux called CUPS. In fact CUPS is used on MacOS as well. In any event, I'll sketch out the process that might allow you to connect to our network printers.

1. Open your printer configuration program. Again, this varies by system.
2. Choose an TCP/IP connection. E.g. for a printer `pine.physics.unlv.edu`. Use a protocol something like: `socket//pine.physics.unlv.edu:9100`.
3. Hopefully you get connected and then are able to choose a driver. Make the appropriate choice, e.g. HP Color Laserjet CP4025.
4. Finish by following the dialogs very much similar to the other operating systems. You may be asked to authenticate yourself to a root or lpr administrator account to complete the configuration.

You may be able to connect to the CUPS server via a web browser to configure new printers. To do that you would access: `http://localhost:631/`. This will bring you to the CUPS management interface. You will need to authenticate yourself to actually make changes.