Setting Up Physics & Astronomy Department Printers

In order to print to one of the various HP network printers and Ricoh copiers in the Department of Physics & Astronomy, that printer needs to be installed upon your device. Below are the instructions for setting up these printers.

1. **Determine which printers you need to install**

Please refer to the following chart to determine which printer[s] you would like to install. It is highly recommended **not** to install all printers, but rather the ones that are closest to your location.

Location	Model	Windows PostScript Queue	LPD PostScript Queue URI	Color?	3rd Paper Tray?	Finishing Unit?
100L Allen	HP Color LaserJet M651	\\print.phyast.pitt.edu\clj100-ps	lpd://print.phyast.pitt.edu/clj100-ps	Yes	No	No
100L Allen Rear Corner	Ricoh Aficio MP 4002	\\print.phyast.pitt.edu\ricoh100A-ps	lpd://print.phyast.pitt.edu/ricoh100A-ps	No	Yes (LCT)	SR3090
100L Allen Near Door	Ricoh Aficio MP 4002	\\print.phyast.pitt.edu\ricoh100B-ps	lpd://print.phyast.pitt.edu/ricoh100B-ps	No	Yes (LCT)	SR3090
104 Allen	HP LaserJet M601	\\print.phyast.pitt.edu\lj104-ps	lpd://print.phyast.pitt.edu/lj104-ps	No	No	No
200 Allen	HP LaserJet P3015	\\print.phyast.pitt.edu\lj200-ps	lpd://print.phyast.pitt.edu/lj200-ps	No	Yes	No
200 Allen	HP Color LaserJet M651	\\print.phyast.pitt.edu\clj200-ps	lpd://print.phyast.pitt.edu/clj200-ps	Yes	No	No
300 Allen	HP LaserJet P3015	\\print.phyast.pitt.edu\lj300-ps	lpd://print.phyast.pitt.edu/lj300-ps	No	No	No
300 Allen	HP Color LaserJet 4700	\\print.phyast.pitt.edu\clj300-ps	lpd://print.phyast.pitt.edu/clj300-ps	Yes	No	No
302 Allen	HP LaserJet P3015	\\print.phyast.pitt.edu\lj302-ps	lpd://print.phyast.pitt.edu/lj302-ps	No	Yes	No
411 Allen	HP LaserJet P3015	\\print.phyast.pitt.edu\lj411-ps	lpd://print.phyast.pitt.edu/lj411-ps	No	No	No
420 Allen	HP Color LaserJet CP4525	\\print.phyast.pitt.edu\clj420-ps	lpd://print.phyast.pitt.edu/clj420-ps	Yes	No	No
420 Allen	Ricoh Aficio MP 3352	\\print.phyast.pitt.edu\ricoh420-ps	lpd://print.phyast.pitt.edu/ricoh420-ps	No	No	No
500 Allen	HP LaserJet P3015	\\print.phyast.pitt.edu\lj500-ps	lpd://print.phyast.pitt.edu/lj500-ps	No	No	No
524 Allen	HP LaserJet M601	\\print.phyast.pitt.edu\lj524-ps	lpd://print.phyast.pitt.edu/lj524-ps	No	No	No
113B OEH	HP LaserJet M604	\\print.phyast.pitt.edu\lj113b-ps	lpd://print.phyast.pitt.edu/lj113b-ps	No	No	No
219 OEH	HP LaserJet M604	\\print.phyast.pitt.edu\lj219-ps	lpd://print.phyast.pitt.edu/lj219-ps	No	No	No
210 Thaw	HP LaserJet P2015	\\print.phyast.pitt.edu\thaw210-ps	lpd://print.phyast.pitt.edu/thaw210-ps	No	No	No

Other groups may have their own network printers that are not installed on the Department's print server. Refer to their own instructions for setting up those printers.

Also note that all of the above queues assume that you are installing the PostScript driver for each printer. While this generally works 99% of the time, there are certain instances where it is necessary to use the PCL6 driver (e.g. there are problems printing a large PDF document with figures, your computer may not have a suitable PostScript driver available, etc.) Each queue above (except 210 Thaw) has a corresponding PCL6 queue. To use this queue instead, change the ending of the queue name from "ps" to "pcl6".

Some of the above printers (104 Allen, 302 Allen, 411 Allen, 500 Allen, 210 Thaw) also have PCL5e queues. While these are not recommended for most devices due to lower quality, some older devices may need to use these. To use these queues instead, change the ending of the queue name from "ps" to "pcl5".

2. **Installing the printers on your Windows computer**

If your computer runs Windows, you may install one or more of the above Windows queues on your computer. You will need to use your University of Pittsburgh username and password to perform this installation. If you do not have a username and password, please e-mail phyast-itsupport@pitt.edu to schedule an alternate installation. You must also be on the Pitt network in order to perform this installation and use the printers.

Windows XP, Vista and 7 users:
Click on your Start Menu. You may have either the Search Box at the bottom, or the option "Run..." at the bottom. In either place, enter the entire Windows queue that is listed in the section above for the printer that you want to install. At this point, you may see a username & password prompt appear. Enter `PITT\yourusername` in the username box, and then type your Pitt password in the next box. You will likely want to check the box marked "Remember my credentials".

Windows 8.1 and 10 users:
Right-click on your Start Menu and hit "Run..." Enter the entire Windows queue that is listed in the section above for the printer that you want to install. At this point, you may see a username & password prompt appear. Enter `PITT\yourusername` in the username box, and then type your Pitt password in the next box. You will likely want to check the box marked "Remember my credentials".

If successful, it will begin to automatically install the driver on your computer. It may prompt you for your permission to do so at some point. After installation, the printer will appear in your "Devices and Printers" list in the Control Panel, and also in your Printers list whenever you print from a program. They will either appear as the Windows queue name or by their long name, which states what room the printer is in and what model printer it is.

Repeat the above process for each printer you wish to install.

PLEASE NOTE: Because printing to the Windows queues requires your Pitt username and password, if you change your Pitt password, then printing may stop working for you. Whenever you change your Pitt password, go to Control Panel's "Credentials Manager", and look for `print.phyast.pitt.edu`. Click on it, then hit its "Edit" link. This will allow you to update your password. Note that if you are on a computer that is attached to the PITT Active Directory, you will not need this step except in unusual circumstances.

3. **Installing the printers on your Macintosh computer**

If your computer runs Mac OS X, you will need to install the printers as LPD printers. This does not require a Pitt username and password. You also do not need to be on the Pitt network to perform the installation, but you do need to be on the network in order to print.

You will need to install Apple's HP and/or Ricoh driver packages prior to performing these installations. You can obtain this either via the App Store, or by downloading them from these links:
HP: https://support.apple.com/kb/DL907 (Note that the link is for version 3.1 of the HP drivers; this may change over time.)
Ricoh: https://support.apple.com/kb/DL1867 (Note that the link is for version 3.0 of the Ricoh drivers; this may change over time.)

Open System Preferences, and "Printers and Scanners" ("Printers and Faxes" on older versions of OS X). Click the "+" at the bottom left. In the next box that appears, click "IP" at the top, then fill out the following boxes:
      Address: `print.phyast.pitt.edu`
      Protocol: Line Printer Daemon – LPD
      Queue: Enter just the end of the LPD queue stated in Section 1 above; e.g. `clj100-ps, lj500-ps,` etc.
      Name: Enter a name descriptive of the printer or location; e.g. "clj100", "100L Allen Color Printer", etc.
      Location: Enter the location of the printer as stated in the previous section.
      Use: Click on the drop-down box, and select "Select Software...". Begin typing the model name as stated in Section 1 in the Search box until you see the correct model. Select that model and hit "OK". (Note: If you are installing an HP LaserJet P3015, use "HP LaserJet P3010 Series".) Hit "Add" when complete.

Note that it may be necessary to manually configure the options for each printer – it will ask you if it cannot do so manually after you've hit "Add". If so, continue to configure the printer manually by checking off the boxes below:
      "Duplex Unit" (all printers)
      "Tray 3" (only for lj200 and lj302)
      "Tray 3 (LCT)" (only for ricoh100A and ricoh100B)
      "Finisher: SR3090" (only for ricoh100A and ricoh100B)

The printer will then appear in your Printers list. Repeat the process for each printer you wish to install.

4. **Installing the printers on your Linux computer**

Most Linux distributions use the CUPS printing system and Foomatic print driver system. However, many Linux distributions also have different configuration programs for setting up printers. Most of these are relatively similar, albeit with a few look-and-feel modifications. Installation of the printers on Linux does not require a Pitt username and password. You also do not need to be on the Pitt network to perform the installation, but you do need to be on the network in order to print.

Use the LPD URIs listed in the previous section for each printer you wish to install. Alternately, it may ask for a server and queue separately; use `print.phyast.pitt.edu` as the server, and the queue name at the end of the URI for the printer you wish to install; e.g. `clj100-ps`, `lj524-ps`, etc. It should then ask for which driver you wish to use; select "HP", then try searching on the appropriate model above. (Note: If you are installing an HP LaserJet P3015, you may find it as "HP LaserJet P3010 Series".)

It is possible that your distribution may not have your model printer available. If this is the case, you may wish to use the generic Foomatic/PostScript driver; however, this may not give the best quality, nor is it guaranteed to print reliably in color to the color printers. An alternate method would be to use the PCL6 driver and queue; most distributions will have a generic "HP Color LaserJet PCL 6/PCL XL CUPS" or "HP LaserJet PCL 6/PCL XL CUPS" driver. Use the appropriately named queue as described in Section 1 above. If you do not have any of these drivers, or if you want to install Ricoh drivers, please e-mail phyast-itsupport@pitt.edu to schedule an alternate installation.

The installer may ask you for installable options for each printer. Please use these options:
    "Duplex Unit" should be "Installed" (all printers)
    "Duplex Mode" should be "Long Edge" or "NoTumble" (all printers)
    "Paper Size" should be "Letter" or "US Letter" (all printers)
    "Tray 3" should be "Installed" (only for lj200 and lj302)
    "Tray 3 (LCT)" should be "Installed" (only for ricoh100A and ricoh100B)
    "Finisher" should be set to "SR3090" (only for ricoh100A and ricoh100B)

Repeat the above process for each printer you wish to install.

For advanced users, it is also possible to install printers using your web browser to access CUPS' internal web server at http://localhost:631. This is recommended only if your graphical printer installer fails. You can also download and install the PPD drivers for the Ricoh copiers from http://www.openprinting.org/printers.

5. **Installing the printers on your Android device**

LPD service for the various printers can be obtained by installing the app "Let's Print Droid" from the Google Play Store (other app stores may have this as well).

Once installed, open the app. To add a printer, click on the "+" at the top. When it asks whether you want to "Scan network or manually add?", select "Manual Config". In the page that appears next, enter the following options:

Printer name: Enter a name descriptive of the printer or location; e.g. "clj100", "100L Allen Color Printer", etc.

Protocol: "LPR – Line Printer Remote".

IP Address/Computer Name: `print.phyast.pitt.edu`

Port Number: `515`

Queue/Share/Dir Name: enter the queue name at the end of the URI for the printer you wish to install, as listed above in Section 1; e.g. `clj100-ps`, `lj411-pcl5`, `ricoh100A-pcl6`, etc.

Page Description Language: select the option that reflects which queue you selected above: if you selected `-ps`, select "PS – Postscript"; if you selected `-pcl6`, select "PCL-XL HP PCL 6 colour, b/w"; if you selected `-pcl5`, select "PCL – HP-PCL5 Black/White".

PLEASE NOTE: Do not use any other page description languages, and make sure that the one you choose matches the queue that you selected!

Repeat the above process for each printer you wish to install. You may also print a test page after each installation, but please make sure that you pick up the test page after printing!

You can print using Let's Print Droid by two ways:
1. For certain document and picture types, you can open the Let's Print Droid app and look around in its file manager for the document or picture you want to print. Select it, then it will bring up a list of your installed printers. Select the printer that you wish to print to.
2. In an app that has a "Share" button, you may be able to share it to the Let's Print Droid app. If it allows you to do so, it will bring up a list of your installed printers. Select the printer that you wish to print to.

6. **If all else fails…**

Most of the printers in the department have a USB port on their front or side. It is possible to plug in a USB drive and print certain documents from that drive. The Ricoh copiers in 100L Allen also have an SD card slot as well.

The printers will only print to a drive that is FAT formatted. If your drive is formatted to be NTFS (Windows-only), HFS (Macintosh-only), or ext2/3/4 (Linux-only), they will not be read by the printer.

1. Printing from a USB drive to an HP printer
      The HP printers will generally only print PDF or Postscript (.ps) documents.
      When you plug in a drive to an HP printer, it will bring up a small directory menu on its screen. Use the arrow keys to navigate to the folder and file that you want to print. Use the OK key to select the file. Then, use the up, down, and OK keys to specify how many copies you want. **DO NOT REMOVE THE DRIVE WHILE IT IS PRINTING, OR IT MAY DAMAGE YOUR DRIVE!**

2. Printing from a USB drive or SD Card to a Ricoh copier in 100L Allen
      PLEASE NOTE: There is no USB port nor SD Card slot available on the copier in 420 Allen.
      The Ricoh copiers will print PDF documents, as well as JPG and TIFF picture files.
      After you plug in a drive or insert an SD card into a Ricoh copier, click on the Home button and select "Printer". Touch "Print from Memory Storage Device". Use the arrow keys on the touchscreen to navigate to the folder and file that you want to print, and then touch the file you want to print. You may begin printing by touching the "Start Printing" button, or you may set additional features (e.g. stapling, duplex, multiple pages-up, resolution, paper size, tray selection, etc.) by touching the "Advanced Features" button. **DO NOT REMOVE THE DRIVE WHILE IT IS PRINTING, OR IT MAY DAMAGE YOUR DRIVE!**

Remove the device after the printing has completed, or re-navigate to an additional file on the key as above.