Installing the Cygwin UNIX Emulator on Windows 7

Where to do Some Basic Background Reading...
Start here for all things Cygwin:  [http://cygwin.com/install.html](http://cygwin.com/install.html)

Note that these instructions include the installation steps we use on the SM1094 (Computational Physics) lab and SM1011 lab computers – and we do make changes to the default setup. ("Your mileage may vary ....")

Before You Begin ...

1. Uninstall any existing/prior version(s) of Cygwin before you start (see the references below).
2. Install the Bonjour Print Service (instructions below).
3. Set up your installation for a time when you have
   a. A wired connection to the Internet; you probably don’t want to this via wireless; and
   b. A big chunk of time to let the installation complete – as in, overnight (it really takes a long time unless you pare down the number of packages installed).
4. Check your Power Options in Windows’ Control Panel before you get into the meat of the installation – because it takes so long, you do not want the OS turning off your hard drive in the middle of this installation. The same goes for temporarily cancelling any hibernation and sleep options.

Have a Prior Version of Cygwin Installed...?
Uninstall guidance can be found here: [http://cygwin.com/faq/faq.setup.html#faq.setup.uninstall](http://cygwin.com/faq/faq.setup.html#faq.setup.uninstall)

Installing the Bonjour Print Service

Prior to installing Cygwin, you will need to install the Bonjour Print Service.

To obtain the installer, visit [http://support.apple.com/kb/DL999](http://support.apple.com/kb/DL999) and download.
Once the installer has downloaded, run it.

Follow the usual dialog boxes...

... and accept the license agreement...

...more background info on Bonjour PSS if you’re interested....
.... and decide whether you want a desktop shortcut or not (UPCF does not install a shortcut on lab pc’s).

Updates – we do recommend that you check this box; updates are important.

Click “Yes” at the Windows UAC dialog to allow the installer to make changes....

... and the installation will proceed...

... and indicate when it’s finished (click “Finish” to close the installer)
Moving On to Actually Installing Cygwin …

From the install page, click on the link for setup.exe…in IE9, the download manager will chew for a few seconds, then kick up a warning that the setup.exe can’t be verified – this is ok, and you can select “Run”.

When you are asked by Windows User Access Control whether you want to allow the installer to proceed, select “Yes”.

The Cygwin Setup wizard will start.

Click on the “Next” button at the first screen.
Select the first radio button, “Install from Internet...” – then click the “Next” button (this is why you want a wired connection).

Keep c:\cygwin as your Root Directory.

There’s no reason to not install for “All Users”, so make sure this radio button is selected.

**VERY IMPORTANT:** change the location of the Local Package Directory from the default – otherwise, the installer will try to install to your profile (whether roaming/network or local). Name your package directory whatever you like – just place it at root level (C:).
Click “Yes” to have the new package directory created...

The installer will ask you how you want to connect to the Internet – make sure the “Direct Connection” radio button is selected.

At the next dialog box, you will need to indicate a download site – this list changes from time to time, but we’ve had the best results when using http sites (not ftp), and from .edu’s. In this example, we are using the public Linux mirror at Virginia Tech.

Click “Next” and the setup will proceed.
Here’s where Cygwin’s installer provides its own warning about the significant difference in this release, compared to prior versions.

Assuming you have a clean configuration on which to install Cygwin, you can click “OK” to close the message.

The next screen displays the packages available.

NOTE – by default, Cygwin does not install all available packages. UPCF does a full installation on SM1094/1011 computers because we have the hard drive space in which to do that, but you may need to be more selective.

See the spinning arrows next to the “All” entry?
Click on that spinning arrow – you will immediately get the following, additional message:

This is the installer’s warning about the requirement for Bonjour Print Services comes up… but as long as you installed BPS first, you can click “OK” and proceed.

A second message box will appear, about the Bonjour service… click “OK” on this message as well.

Note that now your selection on the packages list has changed to “Install” – if you are choosing to install all packages, all of the items to the right of package labels should indicate “Install”:

If you do need to limit how much of Cygwin you install, this is the place to remove packages, by clicking on the “spinning arrow” next to any to be removed.
This dialog box is important to note, because the installer automatically determines any dependency issues in your package selection. Since we elected to install everything in the previous screen, it’s highly recommended to keep the box checked to “Select required packages” – that way, the installer deals with dependencies and any obsolete packages it finds.

Now the installer proceeds ... and this the point at which you can leave it running overnight...

**Recommendation:** – check your Power Options in Windows’ Control Panel before you walk away ... you do not want the OS turning off your hard drive in the middle of this installation! We recommend that you also turn off hibernation and sleep, at least until the installation is complete.

After installation is finished, you have a few more options... for the SM1094/1011 labs, we don’t add desktop icons, but having the Cygwin groups appear in the Start Menu is useful.

Click “Finish” to complete the installation.
Here are the items you should see listed in the **Cygwin** group, if you did a full-package installation.

Here are the items you should see listed in the **Cygwin-X** group, if you did a full-package installation.