

Using XLiveCD XWindows Emulator on stats server

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Purpose

XWindows is a point-and-click user interface to the unix operating system. The SAS System requires such an interface for interactive use. Some other unix applications, such as SPSS, and emacs, will take advantage of such an interface, but do not require it.

XLiveCD, developed at Indiana University, is software that enables a PC to connect to unix using this interface.

Preparation

Before attempting to use XWindows, make sure your unix account is set up to process X commands.

Using SecureCRT, log on to your stat server account. Make a backup copy of your .login file:

```
cp .login .login.back
```

Using pico, or your preferred text editor, edit your .login file. Find the line that starts with **set path = (...)**. Check whether the path includes **/usr/openwin/bin**. If it doesn't, add **/usr/openwin/bin** to this line, inside the parentheses, separated by a blank from whatever is already there. The final command might look something like this (but will have many more items on the path):

```
set path=($HOME/bin /usr/ucb /bin /usr/bin /usr/local/bin /usr/openwin/bin .)
```

If the command is long, pico may want to split it into two lines. Do NOT permit this to happen.

Note the period just before the right parenthesis. Do not accidentally delete this. Save the modified .login file, and log off.

Installation

Download XLiveCD from <http://xlivecd.indiana.edu/>. Double-click on the downloaded .exe file to create a CD. You can run XLiveCD directly from the CD, or install it on your hard-drive, but you must create the CD first.

To install on your hard drive, insert the CD. It will automatically start and ask you whether to run from the CD or install on the hard disk. If it does not start automatically, use My Computer to browse to the CD, and double-click the file run.bat. Select **Install X on hard drive**.

When it asks whether to put shortcut on the Desktop or Start Menu, select **Desktop**. The Start Menu option does not appear to work. You can manually create a shortcut to C:\cygwin\X.bat on the Start Menu.

Starting an XWindows connection

Start XLiveCD

If you've installed XLiveCD on your hard drive, double-click the X-server icon on your Desktop.

If you're working from the CD, insert the XLiveCD. If it does not start automatically, use My Computer to browse to the CD, and double-click the file run.bat. Select **Run X from CD now**.

A window labeled "X Server" opens. After a lot of mysterious messages scroll by, another window will appear, labeled "bash". (Do not confuse this with a "bash shell" icon that may also be on your Desktop.)

Connect to stats server

The bash window's prompt is \$ if XLiveCD is installed on the hard drive, or Desktop> if it's running from the CD. For simplicity, we will refer to it as Desktop> .

At the bash window' prompt, type:

```
ssh username@stats.oit.umass.edu
```

where username is your username on stats server.

You may get a warning that "authenticity of host cannot be established". Confirm that you wish to continue. Enter your password at the prompt. When you are successfully logged on, you will get the prompt:

```
stats%
```

At the stats% prompt, type:

```
xterm &
```

A third window should now appear on your screen. It will have "xterm" as the label in the upper left corner. (Starting a separate "xterm" window is not strictly necessary, but it is useful in establishing that the X interface is working correctly.)

You now have two simultaneous windows on stats server – **xterm** to run, say, a sas session, and **bash** if you need to do something while xterm is busy. In particular, the bash window is useful in the event that you wish to kill the job running in the xterm window (or vice versa).

Using your XWindows connection

Not all unix applications support the X interface. Those that do not will look and work the same way as they do with SecureCRT. Those that do will have menus and mouse functionality.

Using SAS

To start SAS, type `sas`.

Using SPSS

To start SPSS with XWindows functionality, use the `+x` option: `spss +x`

Copy & Paste

You can use your mouse to copy/paste text. To copy text, select it with the mouse. Move the cursor to the place where you wish to paste the text, and click the right and left mouse buttons *simultaneously* (middle button if you have a three-button mouse).

Closing your XWindows connection:

To close your xterm window, simply click the "x" in the upper right corner of the window. If you still have the "bash" window open, type **logout** at the stats% prompt. If you leave either the "xterm" window or the "bash" window running, anyone who has access to your PC will have access to your stats account as well.

You can safely leave the "bash" window minimized as long as you've logged off. It should be back at the Desktop> (or \$) prompt.

To close all XLiveCD windows, close the "bash" window by clicking the "x" in the upper right corner. To close the "X server" window, right-click the X in the system tray (lower right corner of your monitor), and select Exit.