1 Splus on the CMU Campus

Splus is available on many public machines on campus, as well as the private machines held by departments such as Statistics.

All of the following public cluster machines have some version of Splus (for details, see `http://www.cmu.edu/computing/`):

- Sun Solaris 8 (UNIX on Sun's) . . . . Splus Ver 6
- Linux 7 (UNIX on Intel-based machines) . . . . Splus Ver 6
- Windows 2000 (Intel-based machines) . . . . Splus 2001

There is also a freeware version of Splus, called R, that is available for most platforms (see `http://lib.stat.cmu.edu/R/CRAN/`).

2 Which Machine Should I Use?

For most purposes, it doesn't matter which version of Splus you are using. However, it ***does*** matter what kind of machine you are using. There are two reasons for this:

1. If you use a Windows 2000 machine, Splus will store your data locally on the hard disk (usually in `c:\temp\`). So either you have to figure out how to make Splus store your stuff in your Andrew filespace, or you have to copy `c:\temp\` onto a Zip disk or something so you can carry it around with you. Both are awkward solutions.

2. If you use Andrew UNIX machines (Sun's or Linux boxes) Splus will store your data in your Andrew filespace. ***However***, Splus uses a different data storage format in each operating system, so data stored from Splus running under Linux cannot be run by Splus running under Solaris, and so forth. So Splus makes a different data storage directory in your Andrew workspace for each operating system, to avoid trashing your data.

   This is nice but it can be confusing (and upsetting!) to do many hours of Splus work under Solaris, and then log on under Linux later and discover that Splus has "forgotten" all your work. (It hasn't *really* forgotten; just run Splus under a Solaris logon to see it all again.)

For these reasons we adopt the following rule in this course:

In this course we expect you to do all your work in Splus under Solaris, the version of UNIX that runs on the public SUN workstations on campus.

If you prefer working under Linux we can probably still help you, but please don't switch back and forth between Linux and Solaris (you can get at a Linux box from Solaris by saying "ssh linux.andrew" in a terminal window on a SUN).

If you want to try to work with Splus2001 that is fine too, but then you are responsible for making sure your data are not erased when you log off the Windows 2000 machine.

3 I Would Use Splus on SUN's, But I Hate UNIX. Can't I do this from a Windows Box Where I Have All My Familar Tools?

The answer is ***yes!!!***. Here's how:

1. *Start the X-Win32 Display Server.* After you sign on to the Windows 2000 machine, navigate from the start menu as follows: Start > Programs > Communications > Xwin 31 5.1 > X-Win32, and run the program X-win32. Cancel out of the dialog box that appears.

2. *Start a Nifty Telnet Session.* Now navigate as follows: Start > Programs > Communications > Nifty Telnet, and run Nifty Telnet. In the "connect" dialog box that appears, select `sun4.andrew.cmu.edu`. This should log you on to Andrew in the Nifty Telnet window.

3. *Fix Nifty Telnet Backspace.* If hitting the backspace key isn't erasing letters in Nifty Telnet, do the following: From the "Telnet" pulldown menu in Nifty Telnet, select "Settings", and make sure "Backspace Sends Delete" is *unchecked*. [Alternatively you can change your UNIX settings in your `.login` or `.cshrc` files so that this isn't necessary].

4. *Tell Andrew to Display Graphics on Your Local Machine.* In the Nifty Telnet window, type `setenv DISPLAY machine:0.0`, where the word "machine" needs to be replaced with the name of the machine you are on (e.g. if you are logged on to folub in the WEH 520x cluster, you would type: `setenv DISPLAY folub.weh.andrew.cmu.edu:0.0`).

Now you can type "Splus -e" to run Splus in the telnet window, and graphs generated for the `motif()` Splus device will be shown on your local screen. And you can cut and paste between the Nifty Telnet window, MS-Word, or any other Windows application that you please.

To find out more about using Splus, you can

- Look at the tutorial files located at `http:www.stat.cmu.edu/~brian/401/S-Tutorial`. See especially *Intro*, `Graphics`, and `DataFrames`.

- Go to `http:www.stat.cmu.edu/~brian/401/splus.html` to learn more about Splus.