

Redbrick

DCU's Networking Society

Before We Begin

Ensure your computer is in Windows 7

- If in OpenSUSE reboot and select **Windows 7**

Log into OpenSUSE

- Computing students use your normal login info
- Non-computing students
 - Username: caguest
 - Password: caguest2013

Please open **PuTTY** and SSH into your Redbrick account before we begin.

LOADING

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Developing on Redbrick

Today we will be covering:

- How to connect to other Redbrick servers
- Writing code on Redbrick
- What compilers and interpreters you can use
- How to transfer files via WinSCP



Connecting to Other Servers

- Redbrick has a number of servers which are running for different purposes
- A lot of people use the primary login server - Azazel
- Pygmalion is our development server
 - Running Ubuntu 13.04 (STR)
 - Compilers and interpreters are installed by the admin team



That's nice, but how do we connect?

- SSH into Redbrick as normal
- When logged in, SSH using the server name (in this case - Pygmalion)

ssh pygmalion

- Because we are already connected to Redbrick we don't need "*<server>.redbrick.dcu.ie*"
- Notice that "*username@azazel*" has changed to "*username@pygmalion*"



Writing Code

So we are now on Pygmalion, so let's do something!

There are a number of command line text editors on Redbrick, but the most simple to use for beginners is Nano.

So let's write a Java program.

nano Hello.java

```
class Hello {  
    public static void main(String[] args) {  
        System.out.println("Hello World!");  
    }  
}
```



Compilers and Interpreters

Right, so we are getting somewhere - we have a program but we have to compile and run it.

First, compiling. This is basically ensuring the program can run (no errors) and to prepare the computer to run it.

We have created a Java program, so we must use the Java compiler to ensure it will run.



Using *javac* and *java*

The Java compiler is *javac*, and it's not too hard to use. How we're going to use it is just using *javac* and the name of the file.

javac Hello.java

Running the file is even easier, assuming you didn't get any errors, using the *java* command as follows:

java Hello

Which should give you an output of:

Hello World!



Other Compilers/Interpreters

There are a number of interpreters and compilers on Pygmalion for many languages, including the following:

- C++
- Ruby
- Python
- Python3
- C
- Java



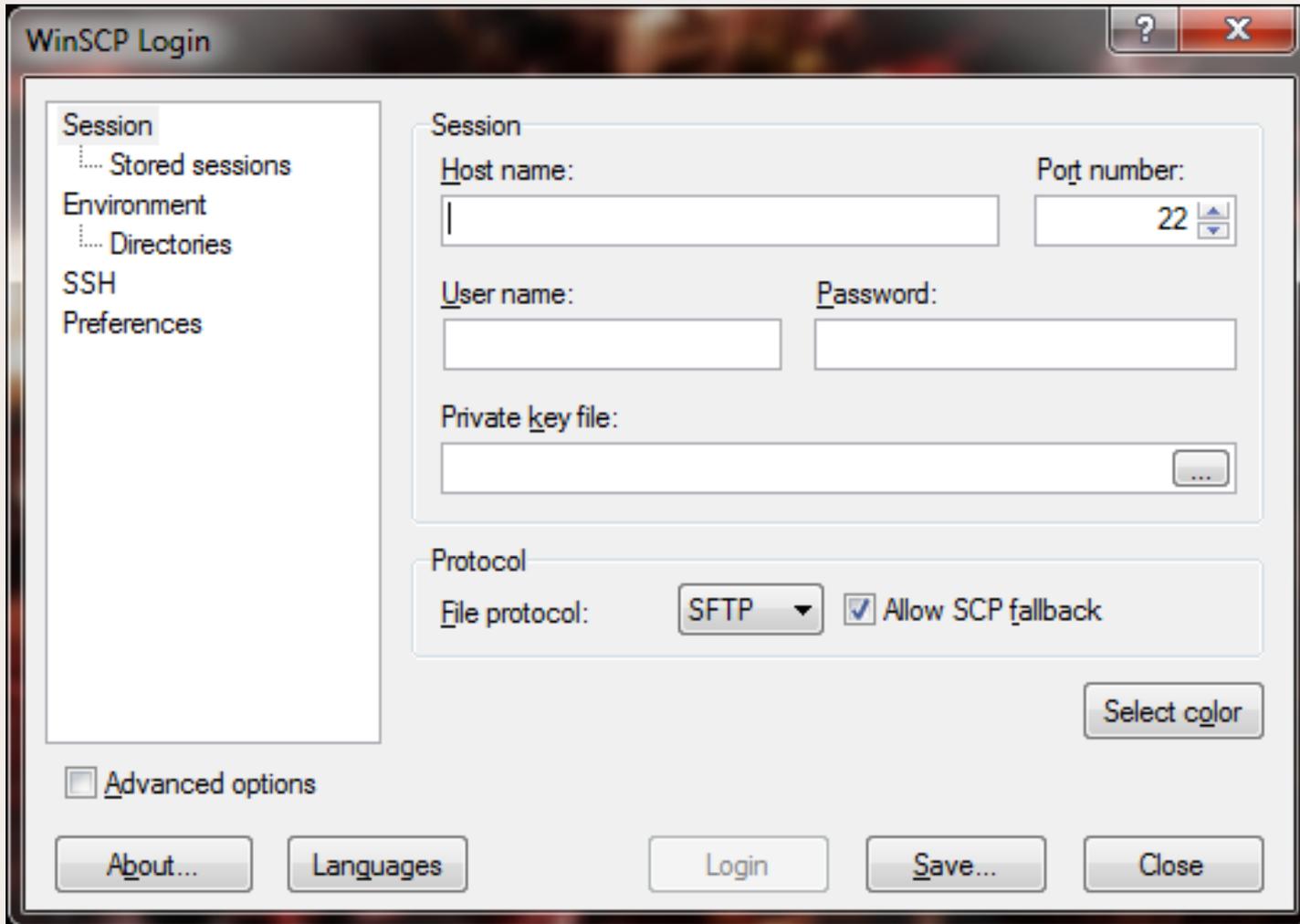
Transferring Files via WinSCP

WinSCP is an open-source Windows program for transferring files between your computer and a remote one - like a server.

To start WinSCP, go to your Start menu and type WinSCP into the search box.



You should get something like this:



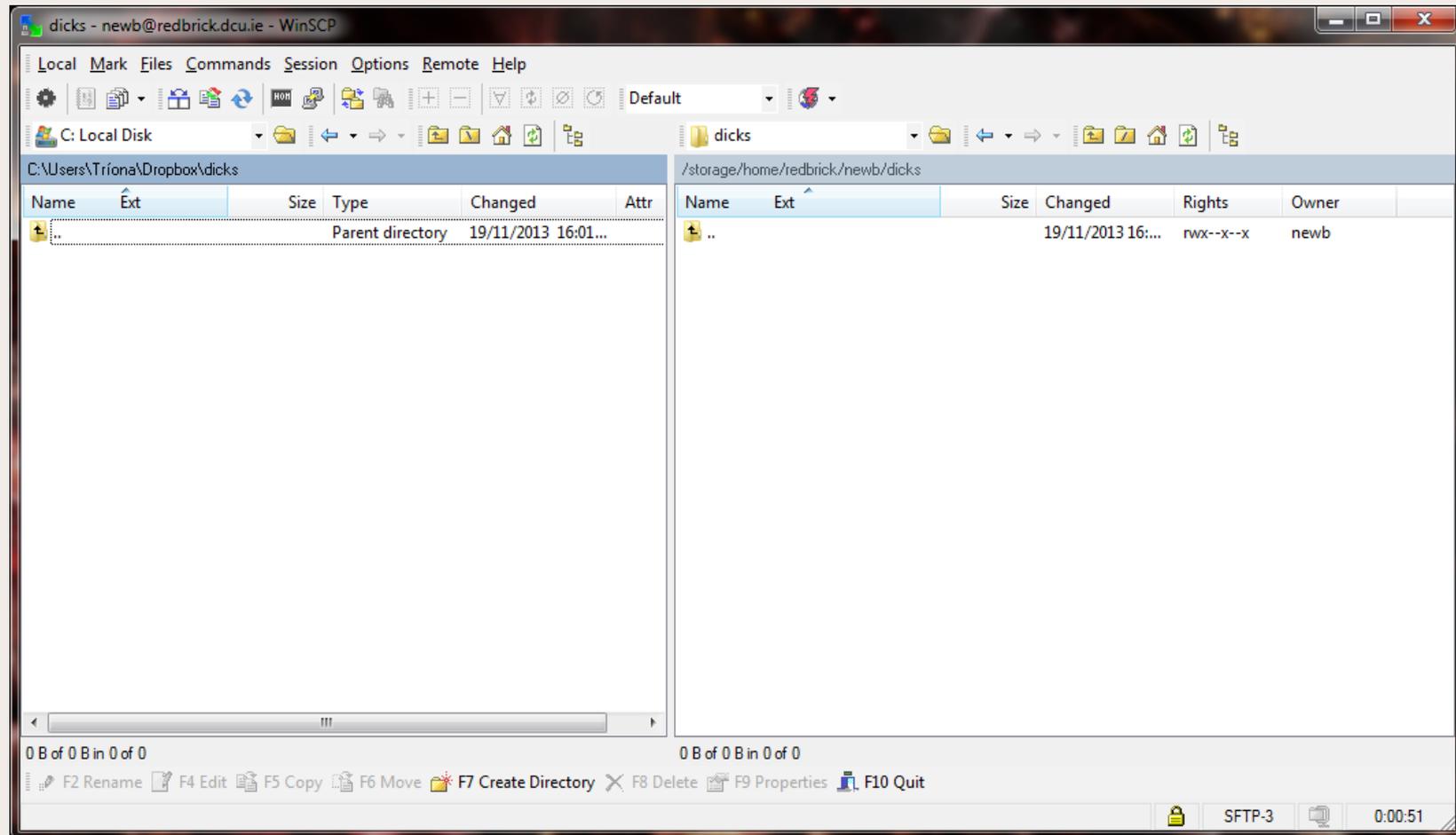
The image shows a screenshot of the WinSCP Login dialog box. The window title is "WinSCP Login". On the left, there is a sidebar with a tree view containing "Session", "Environment", "SSH", and "Preferences". Under "Session", there are sub-items "Stored sessions" and "Directories". The main area of the dialog is divided into several sections:

- Session:** Contains fields for "Host name:" (an empty text box), "Port number:" (a spinner box set to "22"), "User name:" (an empty text box), "Password:" (an empty text box), and "Private key file:" (an empty text box with a browse button "...").
- Protocol:** Contains a "File protocol:" dropdown menu set to "SFTP" and a checked checkbox for "Allow SCP fallback".
- Advanced options:** A checkbox labeled "Advanced options" which is currently unchecked.
- Buttons:** At the bottom, there are buttons for "About...", "Languages", "Login", "Save...", and "Close". A "Select color" button is also present on the right side.

Hostname: redbrick.dcu.ie



Your username and password will log you in, and show you local files on the left, and your account files on the right - from here it is very simple to use!



Questions?

