FastX Setup Guide

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FastX

FastX is a remote desktop solution that can connect you to the Brown CS department computers and give you a graphical display as if you were actually sitting in front of the department machines. In addition to being more intuitive to use, one benefit of using FastX over graphical forwarding via ssh is, as its name implies, speed. Graphical applications like sublime and eclipse are *much* more responsive, and should be useable even hundreds of miles away.

Installation Instructions

The majority of this guide is OS agnostic, and the intention was to provide OS-specific instructions as appropriate.

0.5) Pre-requesites:

Set up SSH remote access on your computer using the instructions here:

https://cs.brown.edu/about/system/connecting/ssh/

0.75) Windows users only:

1. You'll need to install Pageant from the same site where you downloaded PuTTY, http://www.chiark.greenend.org.uk/~sgtatham/putty/download. html.

2. Locate the csfs.ppk file you generated during ssh setup, likely located in a folder named "puttykeys"

3. Run the "pageant.exe" file you just downloaded - it'll put an icon of a hat-wearing computer in your System tray, like so:
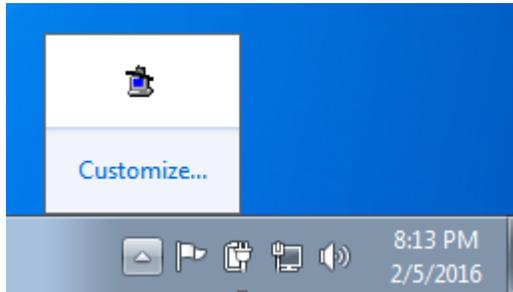
4. Right click on that icon, and select "View Keys" from this menu. The main window should appear empty now
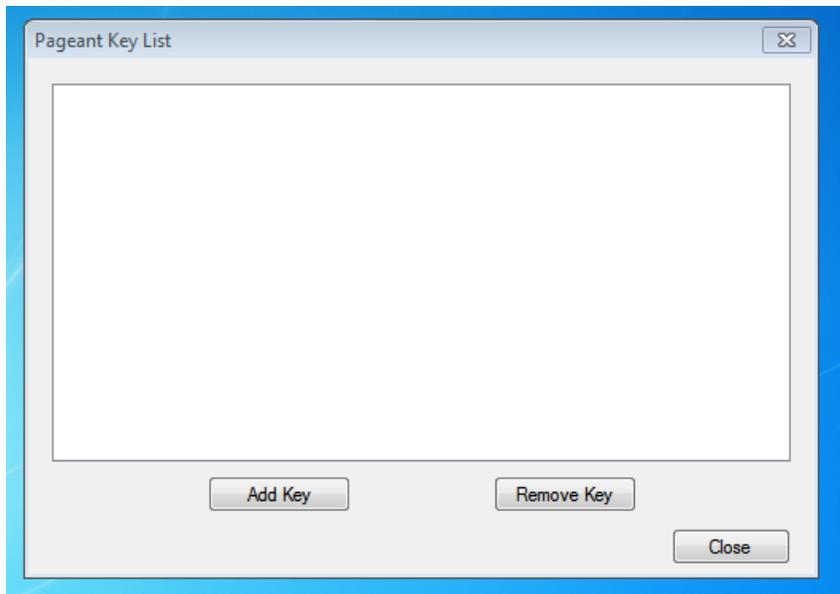
5. Press the "Add Key" button, select your csfs.ppk file from the file dialog, and press "Open"

6. By default, pageant's list of keys will be cleared every time your are logged out of your computer's account. To automatically populate the key list every time you log in, take the following steps:

   1. Open the "Starup folder"

      - **Windows 7 Users**:
        1. Click the Start menu
        2. Click "All Programs"
        3. right click on the "Startup" folder and choose "Open"
      - **Windows 8+ Users**:
        1. Press down the Windows key + "R" simultaneously

      2. Enter "shell:Startup" without quotes

      3. Press OK

2. Right-click inside the folder and select "New", then "Shortcut"

3. Browse to wherever your "pageant.exe" file lives, and select it

4. Name the shortcut whatever you want

5. Right-click the newly created shortcut and select "Properties"

6. Fill it out as follows
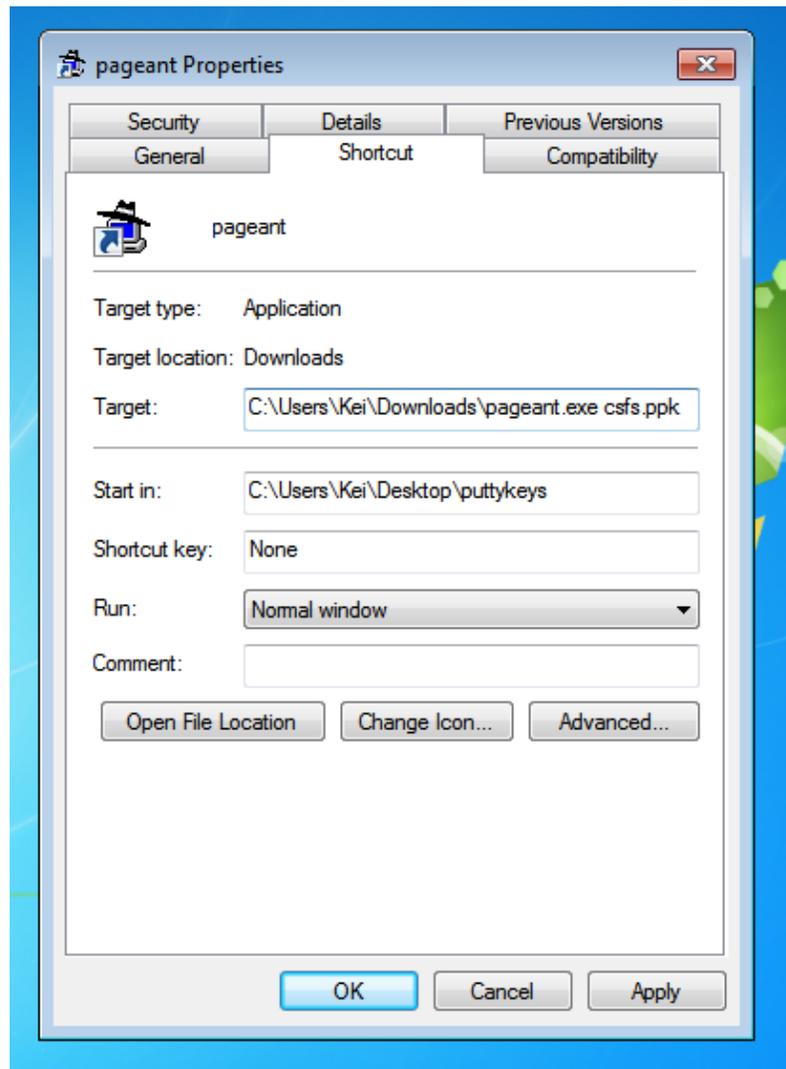
So that the "Target" field is filled with

"C:\Path\to\pageant.exe csfs.ppk" and the "Start in" field contains the path to the directory where your putty keys are stored.

7. Click Apply, and OK to close the window

7. If you choose not to take the shortcut creating steps above, you'll need to launch pageant and add the csfs.ppk key to the keylist manually every time you log into your computer.

1) Download and install FastX

Download and install the FastX desktop client from https://www.brown.edu/information-technology/software/catalog/fastx - CIS has a license for all of Brown, so the download links should appear after logging in.

32-bit linux users:

The "Get FastX for Linux" link will download a 64-bit binary. Contact problem@cs.brown.edu for a copy of the 32-bit binary

OSX users:

Drag the "FastX" icon into your /Applications directory to make it easier to find and run later.

2) Setup FastX

Run FastX. Click the plus sign at the top right to add a new connection configuration. You'll be presented with two options, "ssh" and "gateway". Select ssh.

Fill out the form with the following information:

Name = <whatever you want>

Host = fastx-cluster.cs.brown.edu

Port = 22

User = <yourCSLogin>

sci = <leave blank>

Click "Save" after entering the above information.

You might be presented with a warning that "This host is not recognized by the system. Are you sure you want to continue?" Click Continue.

This should create a new entry in the list. Double click on that - it should try to connect and may prompt you for your passphrase as if you were doing old-fashioned ssh. This should open a new window, the FastX server:
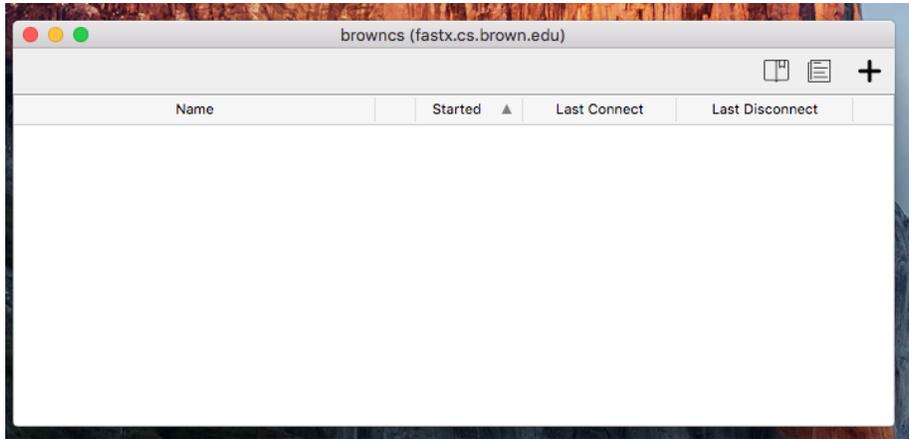
3) Run FastX

You can start a new session by double clicking the plus sign and selecting "KDE", "XFCE", or "XTerm".
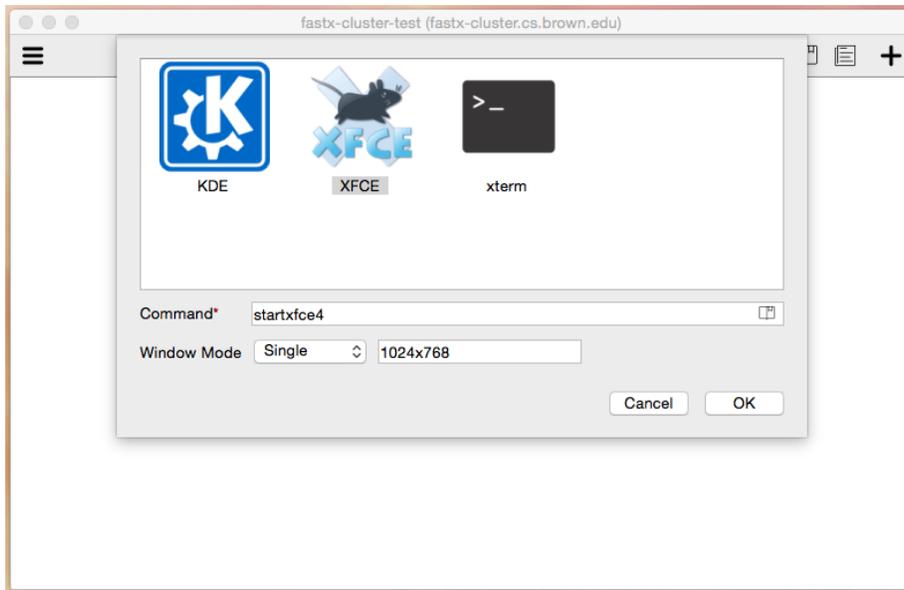
If you don't know what these are or have a preference between desktop environments, pick "XFCE". Make sure Window mode is "Single", then click "OK"

This should start a session on one of the virtual desktop machines in the FastX cluster, and open a window that looks like a normal desktop session. You might have to resize the window a bit.

Common Problems & Their Solutions

- *Windows specific*: You may be faced with the error "There was a problem with the connection. plink quit with error code 1" while launching fastX. This is an indication that either pageant isn't running, or that the csfs.ppk file is not in pageant's keylist. If it isn't, add it according to the instructions above, quit and re-open fastX.
- If you're suddenly unable to connect, try ssh-ing into a department machine and running `fastx-reset`. This command will kill all processes you own on the FastX server(s), remove all associated socket files, and remove your ~/.fastx_server/ directory.

Known Issues

- Some people have had their ~/.fastx_server/ directory grow large enough to exceed their disk usage quota. This is also under investigation. Running

`fastx-reset` will alleviate the problem, at the expense of your current sessions.

- Gnome doesn't work. Newer versions of Gnome rely on some black magic called "hardware acceleration" which isn't available over graphical forwarding. There appears to be no way around this. Xfce and KDE work fine.
- FastX is NOT open-source software - might be an issue for some
- If you find any more issues, please email problem@cs.brown.edu