

# Starting/Connecting to a VNC Session

## Opening a new VNC session

We will be using special FAS Linux servers (`icegov1.unix.fas.harvard.edu` through `icegov4.unix.fas.harvard.edu`) that have been configured for the Government Department for use in methods courses.<sup>1</sup> These servers are connected to the regular FAS computing system, so that you have access to the e-mail and filespace that you would normally use by logging into `fas.harvard.edu`. You can use any SSH program to connect to the servers, we suggest that you connect via VNC (Virtual Network Computing).

## Connecting on a Windows machine

There is a special script that you can use to connect to the servers using VNC, which automates most of the process:

1. If you are at an HMDC lab computer, double-click on the folder called `HMDC_VNC`, which should be on the desktop.
2. If you are using a different Windows computer, set a web browser to `http://www.hmdc.harvard.edu/HMDC_VNC.EXE` and download and install the script.
3. Double-click on the icon that says “Double\_Click\_ME” and follow the instructions. Ignore any warning messages from anti-spyware programs.
4. While the script is creating your VNC session, it will ask you for the server name (`icegov1` through `icegov4`), then your username, and finally your password. This is your FAS username and password (the same ones as your email). It will then tell you what your session number is; try to remember this number.
5. A window will open entitled “`plink.exe`”; you can minimize this window, but don’t close it while you are using your VNC session or the link to the servers will be broken.

Once this is done, you are ready to go! Open a terminal window by clicking on “Applications” in the upper left-hand corner and moving the mouse over “System Tools>>Terminal”.

## Connecting on a Mac

The process for connecting on a Mac is slightly more complicated.

1. Find and open the Mac Terminal. The simplest way is to type in “terminal” in spotlight at the upper right corner. It is also located under “Utilities” in the Finder window.
2. At the terminal prompt, type in

```
ssh <username>@<servername>.unix.fas.harvard.edu
```

`<username>` is your FAS username (same as your FAS email).  
`<servername>` is either `icegov1`, `icegov2`, `icegov3`, or `icegov4`.

For example,

```
ssh plam@icegov3.unix.fas.harvard.edu
```

Press Enter.

3. The computer should respond with something like this:

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<sup>1</sup>Compiled from material written by Patrick Lam, Mike Kellermann, Olivia Lau, Ryan T. Moore, Dan Hopkins, Ian Yohai, and probably a bunch of other people.

The authenticity of host 'icegov3.unix.fas.harvard.edu (140.247.34.56)' can't be established.  
RSA key fingerprint is 4b:c4:2e:fb:5f:ac:71:45:77:ee:fa:a8:14:8c:81:03.  
Are you sure you want to continue connecting (yes/no)?

Type yes and hit Enter.

4. It will then prompt you for your password. Type in your FAS password and hit Enter. Then hit Enter again.
5. You should see a prompt similar to the following:

```
icegov3:plam [~]>
```

Type in `vncserver_once`.

6. It will then give you a **session number**. Remember this number! Logout by typing `logout` and then hit Enter.
7. At the terminal prompt, type in the following:

```
ssh -L 59xx:localhost:59xx <username>@<servername>.unix.fas.harvard.edu
```

where `<username>` and `<servername>` are the same as before and `xx` represents your two-digit **session number**. If your session number is one digit, then add a 0 before it.

For example,

```
ssh -L 5906:localhost:5906 plam@icegov3.unix.fas.harvard.edu
```

Then hit Enter.

8. When prompted, enter your FAS password and press Enter. Hit Enter again. Leave the Terminal open.
9. Download, install, and open **Chicken of the VNC** from <http://sourceforge.net/projects/cotvnc/>.
  - On the left side, click on **New Server**.
  - In the **Host** field, make sure it says `localhost`.
  - In the **Display** field, type in your session number (no leading 0 needed).
  - In the **Password** field, type in your FAS password.

Click Connect.

Once this is done, you are ready to go!

## Transferring files from VNC to your desktop

**Windows:** The HMDC connection script comes with WinSCP when you connect or you can use a program like SecureFX.

**Mac:** Download Fugu <http://rsug.itd.umich.edu/software/fugu/>.

- Connect to: `<servername>.unix.fas.harvard.edu`
- Enter FAS username and click Connect.
- Enter FAS password when prompted.

## What to do when you are done

You have two options for disconnecting from the VNC server:

**Suspend** the Session: If you are still working on something or running something computational, you will want to suspend the VNC session. The programs will stay open and running even though you've exited the VNC server.

- To suspend a VNC session, simply click the X on the VNC viewer window, similar to how you would exit a program. The VNC window will close, but everything on the server will be left untouched for when you reconnect.

**Terminate** the Session: If you are completely finished with everything, you will want to terminate the VNC session so that you are not wasting resources on the server. All running programs will be ended and anything that is not saved will be lost.

- To terminate a VNC session, type

```
vncserver -kill :<session number>
```

in the VNC terminal. You can also type it in in the PuTTY window (for Windows) or the Mac terminal (for Mac). For example,

```
vncserver -kill :6
```

Note the space between `-kill` and `:6`. If you forgot your session number, type in `vncfinger`.

## Reconnecting to an existing (suspended) session

Reconnecting to your suspended VNC session is easy.

### Windows

If you are using the same computer from which you created the session, look in the "HMDC\_VNC" folder. There should be an icon with the name of the server followed by your username. For example:

```
icegov3.unix.fas.harvard.edu-plam
```

will connect to my VNC session on icegov3. Double-click on the icon and enter your password when asked. If you are working from a different computer, you will have to double-click the "Double\_Click\_ME" icon again to connect. Enter the name of the server on which your existing session is located, followed by your username and password. The script should be smart enough to figure out whether you have an existing VNC session on that server.

### Mac

On Mac, begin with step 7 from above. If you forgot your session number, start from the beginning and type in `vncfinger` for step 5.

## Troubleshooting

**How do I print?** It is possible to print directly from your VNC session, but it is likely to print in the basement of the Science Center. The easiest way to print in CGIS is to move files from your home directory to your local computer.

**Why is the screen only partially filled?** When you launch a VNC session for the first time, it records the screen resolution. It will remain at this resolution even if you connect to the same session from a different computer. Unfortunately, you will need to 1) return to a computer with the same resolution as the original, 2) kill your VNC session and start over, or 3) deal with it.

**Why do I have multiple VNC sessions?** There are two ways that you can have multiple VNC sessions. If you have sessions on multiple servers, then you have been connecting to the servers incorrectly. Each time that you connect to a server, the script will create a new session if it can't find one already active. It doesn't know that you meant to type "icegov2" but accidentally typed "icegov3". If you have multiple sessions on a single server, then you have probably created them manually by typing "vncserver" at the prompt. In either case, you need to pick one session and kill all of the others, lest all of your sessions be killed for you.