Using Ngspice on Eniac on a Windows Machine

Downloads and Setup

In order to use Ngspice on Eniac, you will need 3 pieces of software. A SSH terminal, a FTP client, and an X11 Display Server. You can use any software you like, but we will be using the following:


FileZilla Client: [https://filezilla-project.org/](https://filezilla-project.org/)

Xming X Server for Windows: [https://sourceforge.net/projects/xming/](https://sourceforge.net/projects/xming/)

To connect Putty to eniac servers, use the following settings:

- **Hostname:** eniac.seas.upenn.edu
- **Port:** 22
- **Connection type:** SSH
- **Login info when connected:** your pennkey and password

To enable Xming for Putty

- In the left hand window of the Putty client, go to Connection -> SSH -> X11
- Enable X11 forwarding
- X display location: localhost:0.0

Save the Putty settings you have for future use

To connect Filezilla to eniac servers, use the following settings:

- **Hostname:** eniac-l.seas.upenn.edu
- **Username:** your pennkey
- **Password:** your password
- **Port:** 22
**Workflow**

1. Use Electric on your local machine to create a SPICE Deck

2. Use Filezilla to move the SPICE Deck to the eniac servers. You may want to create a new homework folder for every assignment to hold your files

3. Navigate to the location of your SPICE Deck using Putty. The linux commands are
   - View current folder contents: `ls`
   - Move to folder: `cd "folder name"
   - Move to previous folder: `cd ..`

4. Run ngspice on your SPICE Deck