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# **EE434**

# **ASIC & Digital Systems**

How to setup work environment

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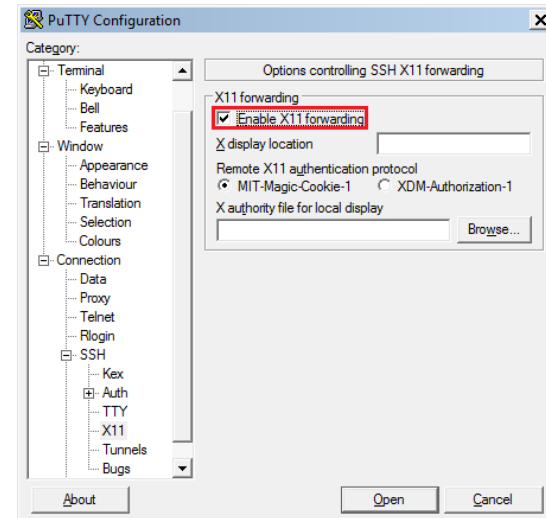
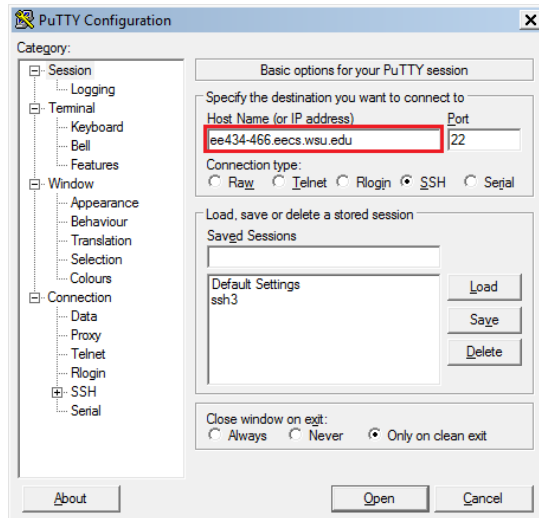
# How to Connect to EECS Servers (Linux)

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- If you are connecting from Linux, you can open a terminal and type the following command:
  - `> ssh -X username@ee434-466.eecs.wsu.edu`
  - “username” is your EECS account name.
- You should be able to use GUI. Try the following.
  - `> bash`
  - `> source /net/ictools/sh/synopsys.sh`
  - `> /net/ictools/synopsys12/F-2011.09_custExplorer/bin/wv`
  - If you see a WaveView window, you are ready to use GUI.
  - If you see error messages, contact me.

# How to Connect to EECS Servers (Windows)

- You need an SSH client software such as
  - PuTTY, SecureCRT, XShell, etc.
  - I use PuTTY.
- No matter which software you use, there should be an option related to X11 forwarding. For example, PuTTY has the following menu:



# How to Connect to EECS Servers (Windows)

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- Turn the X11 forwarding.
- You can save the session using the “Saved Session”.
- Windows users also need an X Window client such as
  - Xming
- Download, install, and run it. It won't show anything.
- Connect to ee434-466.eecs.wsu.edu.
- Run the following to check whether your X Window works well.
  - > bash
  - > source /net/ictools/sh/synopsys.sh
  - > /net/ictools/synopsys12/F-2011.09\_custExplorer/bin/wv
  - If you see a WaveView window, you are ready to use GUI.

# How to Connect to EECS Servers (Mac)

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- Mac has a built-in SSH client “terminal” or OpenSSH.
- You can also use NoMachine.
  - Run NoMachine and make a new session. Remember that you should use not “NX” but “SSH” for the protocol.
- Connect to ee434-466.eecs.wsu.edu.
- It may ask what environment you want to use. You can choose GNOME or KDE.
- Run the following to check whether your X Window works well.
  - `> bash`
  - `> source /net/ictools/sh/synopsys.sh`
  - `> /net/ictools/synopsys12/F-2011.09_custExplorer/bin/wv`
  - If you see a WaveView window, you are ready to use GUI.

# Setup Your Shell

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- After you log in, type the following command:
  - `> echo $SHELL`
- If it is bash (e.g., `/bin/bash` or `/bin/usr/bash`), you are ok. You can skip this page.
- If it is not bash, you should run bash as follows:
  - `> bash`
- Note that you should run bash whenever you connect to an EECS server.

# Linux How-To

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- Create a directory (It's like the folder in Windows).
  - `mkdir directory_name`
- Go to the directory.
  - `cd directory_name`
- Delete a directory.
  - `rmdir directory_name`
- Delete a directory and the whole files in it.
  - `rm -rf directory_name`
- Delete a file
  - `rm file_name`
- Download a file
  - `wget address_file_name`

# Linux How-To

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- For example, create the following directories to create a good hierarchy.
  - > mkdir ee434
  - > cd ee434
  - > mkdir hw01
  - > cd hw01 // now you are under your\_home/ee434/hw01
  - > wget ...
- For HW2, you can create another directory and work in it.
  - > cd ~ // go to your home directory
  - > cd ee434 // now you are under your\_home/ee434
  - > mkdir hw02
  - > cd hw02



# Linux How-To

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- Text editor
  - To edit a text file, you can use a text-based editor or a GUI-based editor.
    - Text-based editor: vi
    - GUI-based editor: gedit
  - Run the editor to edit a file named “b.txt”.
    - > vi b.txt
    - > gedit b.txt
  - If you are not familiar with vi, you can just use a GUI-based editor.

# Troubleshooting

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- If you see the following errors when you run “source ###.sh”
  - Variable name must contain alphanumeric characters.
  - LM\_LICENSE\_FILE: Undefined variable.
  - Then, check your shell (> echo \$SHELL) and make sure you are using bash.