

# HOW TO Use Linux, Text-Edit, and More

Using the Linux/UNIX operating system (to work in your eng101 directory):

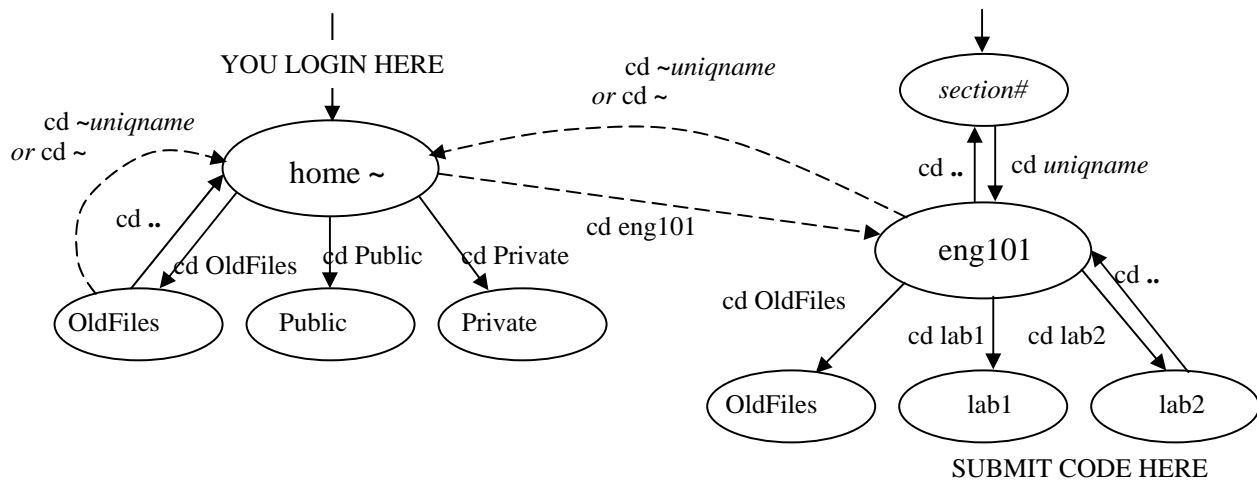


Figure 1. Diagram of the Linux/UNIX directory structure. The ovals represent directories and the arrows show where the cd commands take you. The dashed arrows represent links. Ovals underneath other ovals represent subdirectories whereas the ovals overhead represent parent directories.

1. Start a terminal window by right-clicking on the desktop then select **New Terminal**. You will see a prompt, which is the name of your computer, like this:  
**ruby%**
2. To display the path of your working directory (or where you are), at the prompt type:  
**ruby% pwd**  
Your home directory path should be:  
`/afs/engin.umich.edu/u/firstletter/second/username`  
This is where you keep your personal (non-Eng101) files, up to 200Mb worth.
3. To change your working directory, type:  
**ruby% cd Public**
4. In this case we've changed to the Public directory. Again, type:  
**ruby% pwd**  
You should see something that looks like:  
`/afs/engin.umich.edu/u/firstletter/second/username/Public`  
Anything in this directory can be accessed by anyone else.
5. To make a web-accessible subdirectory (sometimes called a folder), type:  
**ruby% mkdir html**  
Note that Linux/UNIX is case-sensitive. The name html is different than HTML. The html directory in your Public directory can be accessed by anyone via the WWW.
6. To list the contents of your working directory, Public, type:  
**ruby% ls**  
You should see your html subdirectory now created.
7. To change to your html subdirectory, type:  
**ruby% cd html**
8. To change back to your Public parent directory, type:  
**ruby% cd ..**  
'..' refers to the folder which contains the current folder, up one level

## Some useful Linux/UNIX commands:

<b>pwd</b>	prints path of <u>w</u> orking <u>d</u> irectory	<b>cp</b> <i>from to</i>	<u>c</u> opies a file
<b>ls</b>	<u>l</u> ists directory contents	<b>mv</b> <i>from to</i>	<u>m</u> oves a file
<b>ls -l</b>	<u>l</u> ists <u>l</u> ong detailed directory contents	<b>rm</b> <i>name</i>	<u>r</u> emoves a file
<b>cd</b> <i>name</i>	<u>c</u> hanges <u>d</u> irectory (into subdirectory)	<b>mkdir</b> <i>name</i>	<u>m</u> akes a <u>d</u> irectory
<b>cd ..</b>	<u>c</u> hanges to parent <u>d</u> irectory	<b>rmdir</b> <i>name</i>	<u>r</u> emoves a <u>d</u> irectory
<b>cd ~</b>	<u>c</u> hanges to your home <u>d</u> irectory	<i>command --help</i>	shows options <u>h</u> elp

## Using Matlab

1. Start up matlab:  
**ruby% matlab**
2. Type the following in the matlab command window:  
x = 0 : 0.2 : 10  
y = sin(x)  
plot(x,y)
3. Once you have that working, type the following:  
diary mywork.txt  
x = 0 : 0.2 : 10  
y = sin(x)  
plot(x,y)  
diary off  
ls

You should notice that a new file called mywork.txt was created

## Using the enscript, lpq, and lprm print commands (to print your text files and codes):

To print a text file, typically change to the directory that your file is in, then type:

```
ruby% enscript options -Pprintername path/filename
```

```
ex: ruby% enscript -Pb507pierpont mywork.txt (simplest usage) or
```

```
ex: ruby% enscript -2Gr -Pb507pierpont mywork.txt
```

(with 2-column, fancy header, landscape formatting)

Printer names can be found on or near the physical printer in any CAEN lab like:

**b505pierpont, b507pierpont, and b521pierpont.**

You may also use the non-formatting standard **lpr** print command instead.

```
ex: ruby% lpr -Pb507pierpont mywork.txt
```

To check the print queue, type:

```
ruby% lpq -Pprintername
```

```
ex: ruby% lpq -Pb507pierpont
```

To remove your own print job from the print queue, type:

```
ruby% lprm -Pprintername jobnumber
```

```
ex: ruby% lprm -Pb507pierpont 30
```

## Using the NEdit graphical text editor (to write text files and C++ source codes):

1. To change back to your home folder, just type:  
**ruby% cd**  
This always goes to your personal home folder
2. You also have a class directory. To get to this type:  
**ruby% cd eng101**  
The professors and GSIs can read anything in this folder. Work on class programs should be done here so they can help you! This is not in your home folder – use pwd to check that out. The eng101 folder in your home directory is really a 'link' to this space.
3. Go back to your html directory  
**ruby% cd ~/Public/html**  
~ is a shortcut meaning your home directory. So 'cd ~' is the same thing as just 'cd'
4. Start up the NEdit text editor.  
**ruby% nedit index.html &**  
The & (ampersand) allows NEdit to run in the background, detached from the terminal. Other graphical text editors you may try are **kwrite**, and **gedit**.
5. Use the menu with the mouse to open, edit, and save your text.

```
<html>
<head><title>My Site</title></head>
<body>
<h1>My Name</h1>
<a href="resume.html">My resume</a>
</body></html>
```

6. Make sure you save your file as index.html. Now open up a browser, and point to **http://www-personal.engin.umich.edu/~uniquname**

## Some useful HTML/XHTML in addition to the basic <html>, <head>, <title>, <body>:

<b>&lt;b&gt;text&lt;/b&gt;</b>	<u>bold</u>	<b>&lt;i&gt;text&lt;/i&gt;</b>	<u>italics</u>
<b>&lt;u&gt;text&lt;/u&gt;</b>	<u>underline</u>	<b>&lt;p&gt;text&lt;/p&gt;</b>	<u>paragraph</u>
<b>&lt;br&gt;</b> (option: <b>&lt;br /&gt;</b> )	<u>line break</u>	<b>&lt;h1&gt;text&lt;/h1&gt;</b>	<u>header size 1</u>
<b>&lt;ul&gt;</b> <b>&lt;/ul&gt;</b>	<u>unordered list</u>	<b>&lt;h6&gt;text&lt;/h6&gt;</b>	<u>header size 6</u>
<b>&lt;ol&gt;</b> <b>&lt;/ol&gt;</b>	<u>ordered list</u>	<b>&amp;amp;</b>	<u>ampersand symbol &amp;</u>
<b>&lt;li&gt;text&lt;/li&gt;</b>	<u>list element</u>	<b>&amp;lt;</b>	<u>less than symbol &lt;</u>
<b>&lt;a name="label"&gt;</b> <b>&lt;/a&gt;</b>			<u>anchor name/label</u>
<b>&lt;a href="#label"&gt;text&lt;/a&gt;</b>			<u>anchor link to label</u>
<b>&lt;a href="page.htm"&gt;text&lt;/a&gt;</b>			<u>anchor to local page</u>
<b>&lt;a href="http://www.somewhere.com"&gt;text&lt;/a&gt;</b>			<u>anchor to www</u>
<b>&lt;a href="mailto:email@address"&gt;text&lt;/a&gt;</b>			<u>anchor to email</u>
<b>&lt;img src="link.jpg" alt="text"&gt;</b> <b>&lt;/img&gt;</b>			<u>image</u>
<b>&lt;body bgcolor="#00FFFF" text="#000000"&gt;</b>			<u>body tag with color</u>

Note, some HTML element end tags are optional (</p> and </img>, </a> after name anchor). XHTML is a variation of HTML, and XHTML requires all element tags be closed with an end tag, or a trailing backslash. Therefore a line break in XHTML can be written as <br />.