ECE 4680L/6680L Embedded Computing
Lab Handout

Room (overflow): Riggs 309 Door key: 327648#
Computers: ullab##.ces.clemson.edu (## is 01 to 20)
Computers are managed by CECAS UNIX Support Services http://cecas.clemson.edu/help/
Use Clemson University login/password

Shells: tcsh, bash
Text editors: gedit, nano, vi, emacs
Compiler: gcc
Debugger: gdb
Help: man pages, web

To run the virtual machine:
Type “windows” at shell prompt; password is “clemson2014”
Use Clemson University login/password

Within VM, 3 ways to save work:
(1) Save work on C:\ drive (non-persistent!) or U:\ drive (CCIT campus-wide storage)
(2) Use ssh-ftp to transfer files back and forth from C:\ or U:\ to unixlab01.ces.clemson.edu
(3) Mount your linux home directory into the Windows VM:
Right click on Computer and select "Map Network Drive"
For the folder, enter \\home.ces.clemson.edu\yourusername
Enter your Clemson credentials (CAMPUS\yourusername, Clemson password)

Within VM, Microsoft Visual Studio 2010
File -> New -> Project
Visual C++ -> Win32 console application -> give name and store on C:\ or U:\
Unclick “create directory”; click Next; click “empty project”; click “finish”
Solution explorer (right side of window), right click, Add->new item …
Visual C++ -> C++ source file (.cpp or .c extension)
Build solution
Debug -> start
Debugger built-in
Help files built-in

Powering off – kill the window, do not need to shut down

Compiling programs to use X library:
Required options: -lX11
For example: gcc -o myprog main.c -lX11 -g

Compiling programs to use Win32 library:
File->New … Win32 application (not console)

C code for hello world:

```
#include <stdio.h>
main()
{
char    text[80];
printf(“Hello world!\n”);
scanf(“%s”,text);
}
```