

# Submitting Computer Homework

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In order to make it easier for you to turn in your computer homework, and easier for the person grading them, I will outline a standard way to submit computer homework. Generally, you turn in two or three parts of the computer assignments:

1. program code
2. output or solution
3. plots

Program code consists of your actual program (or programs) that you typed in yourself, the output is what the computer program sends to the screen and the plots are graphs that your program generates and displays on the screen.

To submit your computer homework, use an IDE such as ChIDE or a text editor such as Notepad to open your programs and print them.

## 1 Download a C/C++ Interpreter

Download the C/C++ interpreter Ch Student Edition from <http://www.softintegration.com>.

## 2 Run Your Program

### 2.1 Run from ChIDE in Windows, Linux, and Mac OS X

Run your program based on the instruction available under ChIDE Help menu of ChIDE. ChIDE is distributed along with Ch 6.1 Professional or Student Edition. It is also available at <http://www.softintegration.com/docs/ch/chide/>

### 2.2 Run from Ch Command Shell

1. Launch a Ch command shell. In Windows and Mac OS X, just double click the icon of Ch on the desktop. In Linux, type 'ch' in a command shell.
2. Change the directory where your program is located.
3. Clear the screen by typing command  
`clear`
4. For program myhello.c, run it as follows:

```
~/EME5-01> myhello.c > output.txt
```

output.txt is the file which stores the output of your program.

5. Open Notepad or any other text editor to open the output.txt, then print it out.

## **3 Obtain a Screen Shot**

### **3.1 Method 1: Use GIMP to Obtain a Screen Shot**

Download GNU Image Manipulation Program (GIMP) from <http://www.gimp.org/windows/> for Windows and <http://www.gimp.org/macintosh/> for Mac OS X. It can be used to acquire an image from the screen using the following procedure.

1. Click menu `File`,
2. click menu `Create or Acquire`,
3. click menu `Screen Shot`,
4. click `Grab`. Then, move the cursor to a window to be acquired.
5. Save or print out the acquired window.

### **3.2 Method 2: Use Paint Program to Obtain a Screen Shot**

Make sure the Ch window with your program is on top and then take a picture of the screen using the print screen button.

1. Open Paint from the Start/Accessories menu.
2. Select paste from Edit menu.
3. Answer yes to the dialog box.
4. From the toolbox on the left side select the perforated box.
5. Highlight the Ch window with your run program by clicking and dragging from one corner to the other.
6. Select copy from the Edit menu.
7. Open a new Paint document by selecting new from the File menu.
8. Answer the question in the dialog box, you don't have to save.
9. Select paste form the Edit menu and answer yes to the dialog box.
10. Under the Image menu select Stretch/Skew the resize the image to fit of on a page.
11. Print out the picture.

## **4 Print a Plot**

### **4.1 Print a Plot in Windows**

One of the following methods can be used to print out a plot in Windows.

1. (a) Run a Ch program with plotting, click the upper left corner of the window with plotting.  
(b) Select print from option menus, configure and printing accordingly.
2. (a) Run a Ch program with plotting, click the upper left corner of the window with plotting.  
(b) Select save to clickboard.

- (c) Open Word, paste plot from clickboard to Word.
  - (d) print out Word doc with the plot.
3. Use GIMP or Paint to grab the image and print it out.
  4. Within your Ch program related to plotting, use plotting member function to generate a plot in postscript file, say **filename.ps** or PNG file, as shown below.

```
plot.outputType(PLOT_OUTPUTTYPE, "postscript eps", "filename.ps");
plot.outputType(PLOT_OUTPUTTYPE, "png", "filename.png");
```

Then, print out the plot in postscript file using acroread or program **GSview**. Or print out the plot in PNG file using a Web browser.

## 4.2 Print a Plot in Linux or Mac OS X

One of the following methods can be used to print out a plot in Linux or Mac.

1. Use GIMP to grab the image and print it out.
2. Within your Ch program related to plotting, use plotting member function to generate a plot in postscript file, say **filename.ps** or PNG file, as shown below.

```
plot.outputType(PLOT_OUTPUTTYPE, "postscript eps", "filename.ps");
plot.outputType(PLOT_OUTPUTTYPE, "png", "filename.png");
```

Then, print out the plot in postscript file using acroread or program **ghostview**. Or print out the plot in PNG file using a Web browser.

3. For Mac users, you can save the plot in a PDF file. Then print it out.
4. Use program xv to grab the plot off the screen, save it as a Postscript file, then print out the file. Follow the following procedure:
  - (a) type xv;
  - (b) move cursor to the xv window and click right button of the mouse;
  - (c) click "Grab" in xv control panel with right button of the mouse;
  - (d) Move the cursor to the upper left corner of the picture, hold down the mid button of the mouse and drag it to the lower right corner of the picture, then release the button.
  - (e) Click "Save" in the xv control panel and save the picture in postscript file.
  - (f) print out the saved file using command lpr.

## 5 Print Multiple Pages in a Single Sheet for a PDF File

The method to print multiple pages in a single sheet for a PDF file is printer dependent. Below are two different methods for two different printer setup. You may give it a try to see which one works for you.

### 5.1 Method One

In "File" menu  
 Click "Print"  
 Click "Properties"  
 Click "Finishing"  
 Then you can choose how many pages per sheet under "Pages per Sheet"

## 5.2 Method Two

File --> Print

Under the "Page Handling" section

choose "multiple pages per sheet" from the

"page scaling" drop down menu

Then you can choose how many pages per sheet, landscape or portrait, etc.