Mathematics 308—Fall 1996

Working with `ghostscript` etc.

These notes will give you practical advice on running your PostScript programs.

1. In the Mathematics Laboratory

After you log on, you will probably have a **terminal window** open, and a few icons around the screen. What you want to do in order to get good pictures from **`ghostscript`** without too much fuss is get two more windows open: (1) one running an editor, and (2) the other running a version of **`ghostscript`**.

The editor we suggest on our system is **nedit**. One of the two icons at the lower left of your screen when you first log in will be a **`nedit`** icon, and you can click on it twice to get the editor open for you. This editor is more or less straightforward to use with a mouse. Ask if you have questions. If you lose this window, you can start up **`nedit`** by typing once in a terminal window

```
alias nedit '~maxwell/bin/solaris/nedit'
```

and then typing **`nedit &`** when you want a new editor window.

At this stage, the most convenient way to see your pictures is to run **`ghostview`**, which is a convenient interface for **`ghostscript`**. You can get a **`ghostview`** window running by typing **`ghostview &`** in a terminal window. Once you have a **`ghostview`** window running, you input your file by using the left mouse button on **`File`** button, mousing **`Open`**, then (after a few seconds) selecting the file you want to open and mousing **`Okay`**. Of course you must save the changes to your file before **`ghostview`** will read them. After you have loaded your file once, you can just **`Reopen`** it from the **`File`** button. If you have closed down **`ghostview`** to an icon, it will re-open the file automatically. To get the next page in **`ghostview`** mouse the **`Page`** button, then mouse **`Next`**.

You can get help in the lab about PostScript and other things at our local web help site

```
hhtp://gamba.math.ubc.ca/localdoc/
```

The PostScript documentation there is very thorough.

2. On a PC

You can download a version of **`ghostview`** from the net, by looking at the **`ghostscript`** home page at one of the two

```
hhtp://old-www.cs/wisc.edu/~ghost/ghostscript
hhtp://old-www.cs/wisc.edu/~ghost/ghostscript/obtains.html
```

The MS version is called **`gsview`**, and requires an installation of 3 disks. This is more or less spelled out on the web site, but the contents of the three disks' worth of stuff you need are:

```
disk #1:
   gsview.zip
   README.TXT
   LICENCE
   FILE_ID.DIZ
   setup.exe
   wizunz32.dll

disk #2:
   gs401ini.zip
   gs401w32.zip

disk #3:
```

gs401fn1.zip

The first batch comes from the site in **gsview20.zip**. I can also give you an abbreviated form of **ghostscript** for Windows on one disk, or the better more complete version on three disks. To get the set of three, give me three disks with your name and the course name on them, numbered 1–3. The complete version includes **gsview** as well as a lot of fonts and extra utilities which very well might prove useful later on. The complete version takes up to about 5 Megabytes of disk space. To install it, you put in disk #1 in drive **a**, type **a:\setup** (or run **a:\setup** from Windows), and follow directions, inserting in order disks #2 and #3 when requested to put in a disk. After this, if you have responded correctly to a query during installation, you can view a file with a **.ps** extension just by clicking (double-clicking?) on it in the Microsoft Explorer window. Incidentally, if you have trouble with running **gs** or **gsview** at home and want my advice, the best thing to do is bring in a copy of your PostScript progarm on a floopy disk. One common problem is that your files must be saved from your editor in the plainest possible form, which is to say as ascii text.

3. Putting it all together

I suggest that you put all your pictures together only after you have each of them working perfectly. After that, assemble them all into one file by including them all in one file. In order to make your pages fit together, **each page must do a gsave at the very beginning,** *before you set up your scaling and translating*, **and a grestore at the end, just before a showpage**. This will guarantee that the transformations on each page won't build up. I.e.

$$72 \times 72 = \text{invisible} .$$

You want to make each page independent of the others.

After you have handed in your assignment, do not dispose of the separate files. **Save both them and the complete file in case you want to change things and resubmit something** (or in case an assignment gets lost or expedited by mistake to the far colonies on the home planets). **Do not destroy any assignment files until long after the end of the course.** Make a directory, say **hw1**, to hold the first assignment files to get them out of the way for the rest of the term. You this with **mkdir hw1**. If the files are **hw1.ps** and **hw1a.ps** you then type **mv hw1.ps hw1a.ps hw1**. Or save them on a floppy disk if necessary.

After you have assembled your assignment, run **gs** (not **ghostview**) on it, paging through it with carriage returns after each **showpage** to see that all is OK.

You can assemble your files from within an editor by **file/include ...** or by a command

```
cat a.ps b.ps c.ps >!  hw1.ps
```

if **a.ps** etc. are the separate files.

4. Transportation

Sooner or later you should be able to get your stuff from the Department system by **ftp** to the Department server at **gamba.math.ubc.ca**. But not quite yet. You should be able to take stuff home from the lab by running **ftp** from the clunker in the corner (last of its breed) to **gamba**. But also not quite yet. When it does work, bring the file or files to the clunker by **ftp** then save it to a $3.5''$ floppy in drive **B:**. Do not open the door to drive **A:**, beyond which lurks the tiger.

You can submit an assignment by mailing it to me. If **hw1.ps** is your assignment, you can do

```
mail cass < hw1.ps
```

Be sure your name is near the top of the assignment, and at the end. Remember—the first characters in your file must be **%!**. After that your name and any general comments you'd like to make.

If you can't mail it, put it on a disk which is labelled with your name, the course name, and the assignment number. It should contain exactly one file. You can resubmit, but when you do that the earlier version will be deleted, so make a resubmission of the whole package.