

ACCESS – UGS 1430

Introduction to Student Software at Utah

Notes for Monday June 16, 2003

There's a lot of software available at Utah, running on systems which include PC, Mac, and UNIX. I'm not the optimal person to show you software on PC's, since we use UNIX in the Math Department, and I use an Imac at home, but I'll try anyway. Luckily, Erika and you all are here to bail us out if I get stuck. Also luckily, most software is now created with versions for each platform so the underlying system becomes less important. (Except, Microsoft never makes anything for UNIX or linux.)

This particular file is a Microsoft Word document which I originally made on my Imac at home, FTPed (File Transfer Protocol) to my math account using my ISP, updated here in Marriott, and then reposted on my web page. This morning we will download the file, open it here in the lab, and play with it.

University Accounts

If you've successfully opened this document and you are currently in PC-Lab 1735, then you have already used your University Network I.D (UNID), and initial pin number to create a new password, and maybe a even an alias login name, probably on the computers by the help desk in Marriott. Hopefully you also got to create a University email account at the same time. To access your email, you can use the URL <http://webmail.utah.edu>. If you don't have an email account yet, try following links from the sites <http://nid.utah.edu/> or <https://gate.acs.utah.edu/>. If we can't figure out what to do we'll grab someone from the help desk. For future reference, the Marriott Library Multimedia Center home page (default home page in this lab, I think) is <http://www.mlmc.utah.edu/>. This is the same page as the Student Computing Labs, <http://www.scl.utah.edu/> home page contains many interesting and potentially helpful links.

Saving and Printing Files

Probably the easiest way to **save files** from one lab visit to the next is on HD floppy disks or on zip disks. (Some computers in Marriott also read/write on CD's and DVD's, but they all accept floppies and zips.) If you didn't already have a zip disk you could buy these items at the bookstore across from Marriott or at a desk down the hall from our lab. The icons for zips and floppies live in the desktop folder called "My Computer". The icon for the zip is "Removable Disk(D:)". The zips I gave you have already been formatted for the P.C. If this had not been the case you would have needed to highlight the zip icon, gone to "file" and chosen "format." If in the process of your work you have saved files to the computer you may want to drag these files to the recycling bin on the desktop **after** you've saved them to your zip, but before you log off

your machine, (although I think that when you log off they are automatically deleted in any case). Also, I was told that we should not shut down the machines.

If you are working in a group, you can trade zips, or email files to each other as attachments.

Another alternative for saving a limited number of files is to use some of the 10 mb of on-line space which you have been given as part of your University account. Use a file transfer protocol program (FTP), (such as LeechFTP on these computers). Your disk space resides at the I.P. address u.cc.utah.edu/~username, where “username” is your user name.

Printing in Marriott works as follows: You go to the main open lab, which we passed on the way into 1735 and where you got your accounts, and find the long **help desk**. At the far (right) end of it there is a “Cash to Chip” machine into which you put money and your I.D. card, in order to get credit. This credit can be used for printing, among other things. Along the help desk there is someone in charge of the printing queue. When you want to print a document you use the File/Print command, proceed to the printing queue person with your I.D. card, tell this person **how many pages to charge you for**, and the **I.D. number of your computer**, and then go to the printers near the room entrance in order to pick up your work.

Whenever you are stuck with a computer problem in Marriott, one of the friendly **help desk** people will try to help you.

Word Processing

In the old days a word processor did mostly the same things as a typewriter. (Have you whippersnappers even ever seen a working typewriter? You probably haven’t seen a slide rule either!) The symbols for controlling margins reflect this history. But notice at your upper menu bar(s) you now have zillions of other options. If you’re not familiar with them it wouldn’t be a bad idea to take some time at some point and just experiment. Actually, if you are curious about some of the options now, there will probably be a classmate who can tell you/us about it.

Nowadays you can also insert all sorts of objects into your final document, including photographs, figures, equations, spreadsheets, etc. Usually you place and size these objects pretty freely. We’ll illustrate some of these ideas in Microsoft Word, but WordPerfect has equivalent commands.

Pictures

You can find pictures on the Internet, save them using your browser, and then paste them into your document. Here’s a photo from the Math Department Home Page, located at <http://www.math.utah.edu/>. (Notice Microsoft let me enter the hyperlink, using the Insert menu choice.) My browser gave me the option of saving this picture, and then I pasted it in. The ways in which you can do this are always changing, but by experimenting you should succeed. (Currently, Explorer popped up a little icon when I passed over the picture and one of the options was to save the picture. Several years ago I had to work a little harder.) I got the photo credit when I clicked on the photo with one of my mouse buttons. Because, of course, it would be wrong to steal the picture without saying where I got it.



Photo Credit
Thunder Mountain
January 2000
Courtesy of
Steven Lewis Gardiner

By the way, Steven Gardiner is the husband of Angie Gardiner, <http://www.math.utah.edu/~gardiner>, who is a former ACCESS student as well as being the Math Department's Director of Undergraduate Studies. Angie will run an advising session for your Math courses next year, during our second Math week.

Equations and Tables

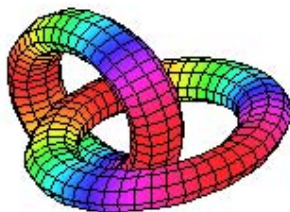
Let's try to make this equation. If you're using Microsoft Word go to Insert/Object and then find the equation editor. Currently it looks like "CorelEquation! 2.0 Equation" is installed, although in the past I have used "Microsoft Equation 3.0" in these labs. These editors seem similar: You have various template choices, and work from the outside in, and from left to right. You can make equations like the one I made below. Probably this is something you want to play with when no one is watching, but give it a try now. I also constructed a table illustrating the mod 7 multiplication, (what does that mean?) using the Table menu item.

$$\sum_{n=1}^{\infty} \frac{1}{n^2} = \frac{\pi^2}{6}$$

| X | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
|----------|----------|----------|----------|----------|----------|----------|----------|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 2 | 0 | 2 | 4 | 6 | 1 | 3 | 5 |
| 3 | 0 | 3 | 6 | 2 | 5 | 1 | 4 |
| 4 | 0 | 4 | 1 | 5 | 2 | 6 | 3 |
| 5 | 0 | 5 | 3 | 1 | 6 | 4 | 2 |
| 6 | 0 | 6 | 5 | 4 | 3 | 2 | 1 |

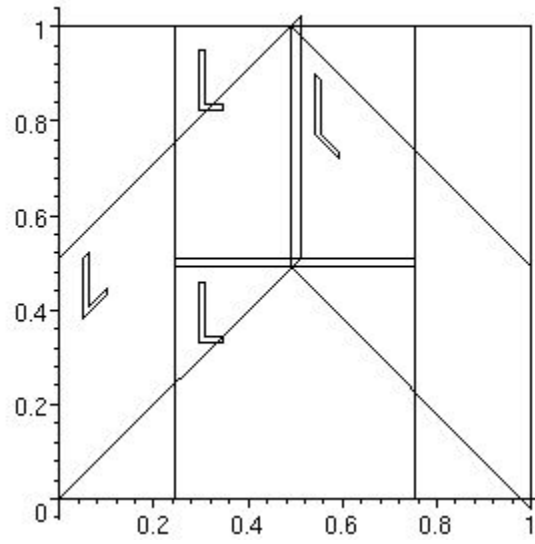
Mathematics

In our sophomore level courses, Math 2250, 2270-2280, we currently use the mathematics package called MAPLE. And we will be using it for cryptography this week. I've posted a Maple document on our home page, at the long URL <http://www.math.utah.edu/~korevaar/ACCESS2003/MapleExpls.mws>, which has examples of the kinds of mathematics this software can do. The picture below was the output from the second to last command in that document (#63), and I recreated the earlier summation formula from the last command (#64). The last two pictures represent a student fractal from several years ago, and you'll be creating objects like it during the second math week.



$$\sum_{n=1}^{\infty} \frac{1}{n^2} = \frac{\pi^2}{6}$$

fractal template



Travis' Mountain

