ACCESS – UGS 1430
Introduction to Student Software at Utah
Notes for Monday June 14, 2004

There's a lot of software available at Utah, running on systems which include PC, Mac, Unix, Linux. Here in the Multimedia Center you'll find PC's and Mac's, and you'll be able to function fine on either platform, even if it's not your first choice. For example, I pretend to be comfortable on PC's during ACCESS, but it's not what I'm used to. And Macs can pretend to be PC's if that's what you want. Since most of you are already used to PC systems, we are certain to be able to help each other out if anyone gets 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This particular file is a Microsoft Word document which I originally made on my imac at home, FTPed (File Transfer Protocol) to my math account using my ISP, updated here in Marriott, and then reposted on my web page.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 from http://www.math.utah.edu/~korevaar/ACCESS2004, 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 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 follow the link from the top of the Student Computing Lab homepage, http://www.scl.utah.edu/   which will send you to http://webmail.utah.edu. If you don't have an email account yet or want to set up mail forwarding to an account you already use, try following links from the sites https://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.

Saving and Printing Files

Probably the easiest way to **save files** from one lab visit to the next is on HD floppy disks, CD's or some other storage media. If you want floppies or CD's I have some to give away. If you prefer to use DVD's or Zips, you can buy these at the bookstore across the patio from where we entered Marriott, or at a desk down the hall from our lab. The icons for storage devices like floppies live in the desktop folder called "My Computer". If you want to burn onto a CD use the Roxio utility, which you can find in the "program" list of the "Start" menu. It's not quite as easy to burn onto a CD as to save onto a floppy, but you get a lot more storage. Make sure you've actually saved what you want to your CD or floppy disc before logging off – log off by pressing the big black, white and red button on the desktop. Don't turn off the machines.

If you are working in a group, you can trade disks and floppies, email files to each other as attachments, or copy and paste material directly text and numerical data into email messages. 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 secure file transfer protocol program, such as the ones you can find in the "Internet Tools" directory. I believeyour 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.) The ways in which you can save pictures are always changing, but by experimenting you should succeed. (Currently, Explorer popped up a little icon when I passed over the picture and pressed the right mouse button and one of the options was to save the picture. Several years ago I had to work a little harder.) Of course, it would be wrong to steal the picture without saying where I got it, so I must tell you that this is as fuzzy copy of beautiful artwork of Anna Bliss, who has decorated our Math building LCB with art which ties to science and mathematics. You could google her to find out more.
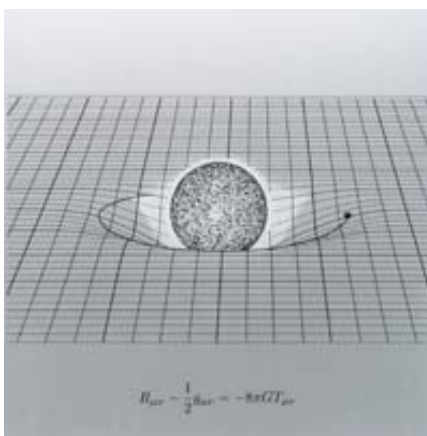
Einstein's Equations
By Anna Bliss

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.

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

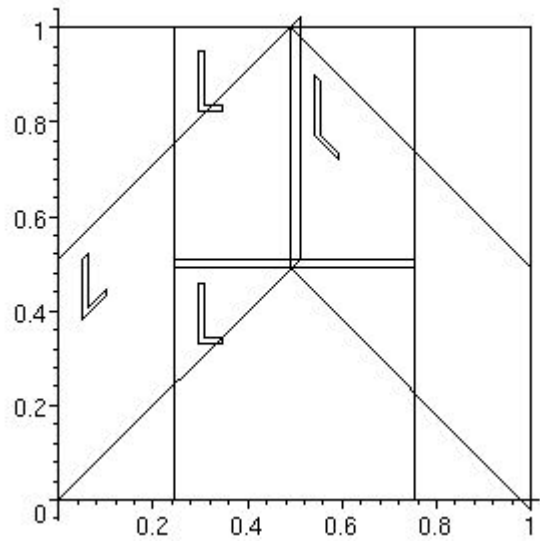| X	0	1	2	3	4	5	6
0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6
2	0	2	4	6	1	3	5
3	0	3	6	2	5	1	4
4	0	4	1	5	2	6	3
5	0	5	3	1	6	4	2
6	0	6	5	4	3	2	1

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/ACCESS2004/MapleExpls.mws, which has examples of the kinds of mathematics this software can do. (The file looks like gibberish, but if you save it and open from Maple all will become clear.) 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, July 5-9.
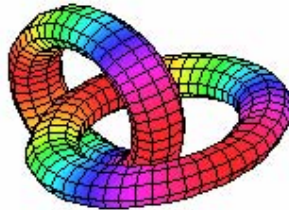
$$\sum_{n=1}^{\infty} \frac{1}{n^2} = \frac{\pi^2}{6}$$

fractal template

Travis' Mountain