

Introduction to the Geography Computer Network Dr. Andrew Klein

Introduction

In the beginning of the lab, the Teaching Assistants will guide you through learning how to login to the Geography Department's computer network, navigate our directory structure and make sure that you have the appropriate printers installed on your account. After this week your TAs have been instructed to assume that you understand the basics of the Geography Computer Network and they will be moving on with instruction in GISsci. **THERE IS SIMPLY NO WAY YOU CAN LEARN GIS WITHOUT UNDERSTANDING THE BASICS OF THE COMPUTER SYSTEM YOU ARE WORKING ON.**

The Geography Computer System

The computers that you will be using in this lab run the Microsoft Windows XP operating system. There are two things of special note. The first is that all computers are networked together. Second, the lab is setup with a server. Our server is known as GEOGSTUDENT and it is where in your home directory (which we often call your H:\ drive) you are to save all your work. **DO NOT SAVE YOUR WORK ON OTHER MACHINES OR IN OTHER DIRECTORIES AS YOUR WORK MAY DISAPPEAR!** All the computers have the ArcGIS desktop installed so it does not matter which machine you use.

Login to the Geography Computer Network

In order to use the GIS computers you must provide a valid **LoginID** and **Password**. The same login will work on all the machines. Your LoginID and password have already been created for everyone in the class and will be provided to you. Everyone should try to login and if you encounter any problems let your TA know.

Your Home Directory

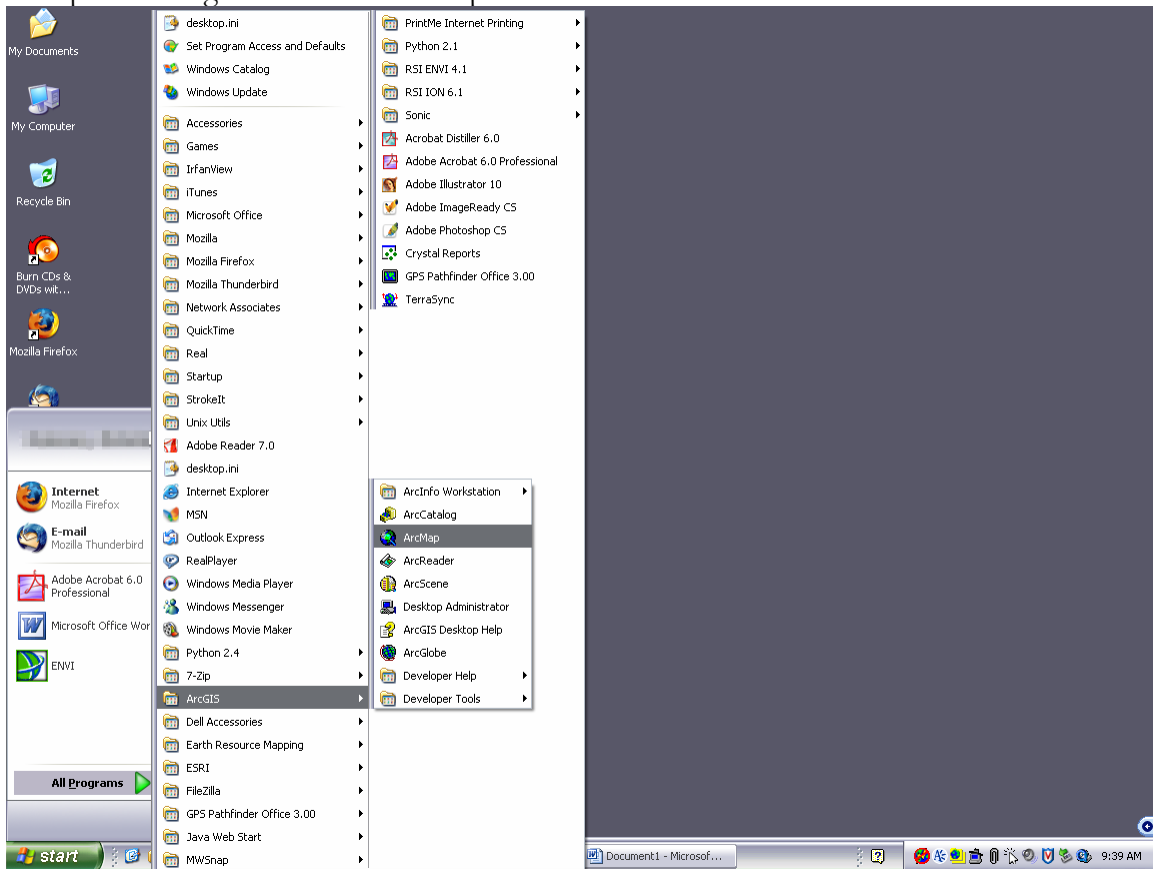
Every student has a home directory (also known as a folder). The home directory is physically located on **GEOGSTUDENT** computer. However, to make things easy it will appear on every computer you login to as **H:**. The H: drive points to your home directory so everyone's H: will be different. This is done to assure user privacy.

You should navigate to the correct location and determine if your folder exists. If your folder does not exist then please inform your TA.

The Windows XP Desktop

After you have logged in you should familiarize yourself with the Windows XP desktop. There is gray bar with a **START** button on the bottom. Placing the cursor over the button (using the mouse) and clicking the left mouse button should bring up a set of options. In the Geography computer network, most of the commonly used programs can be accessed under the Apps Menu.

An example showing how to start ArcMap is shown below.

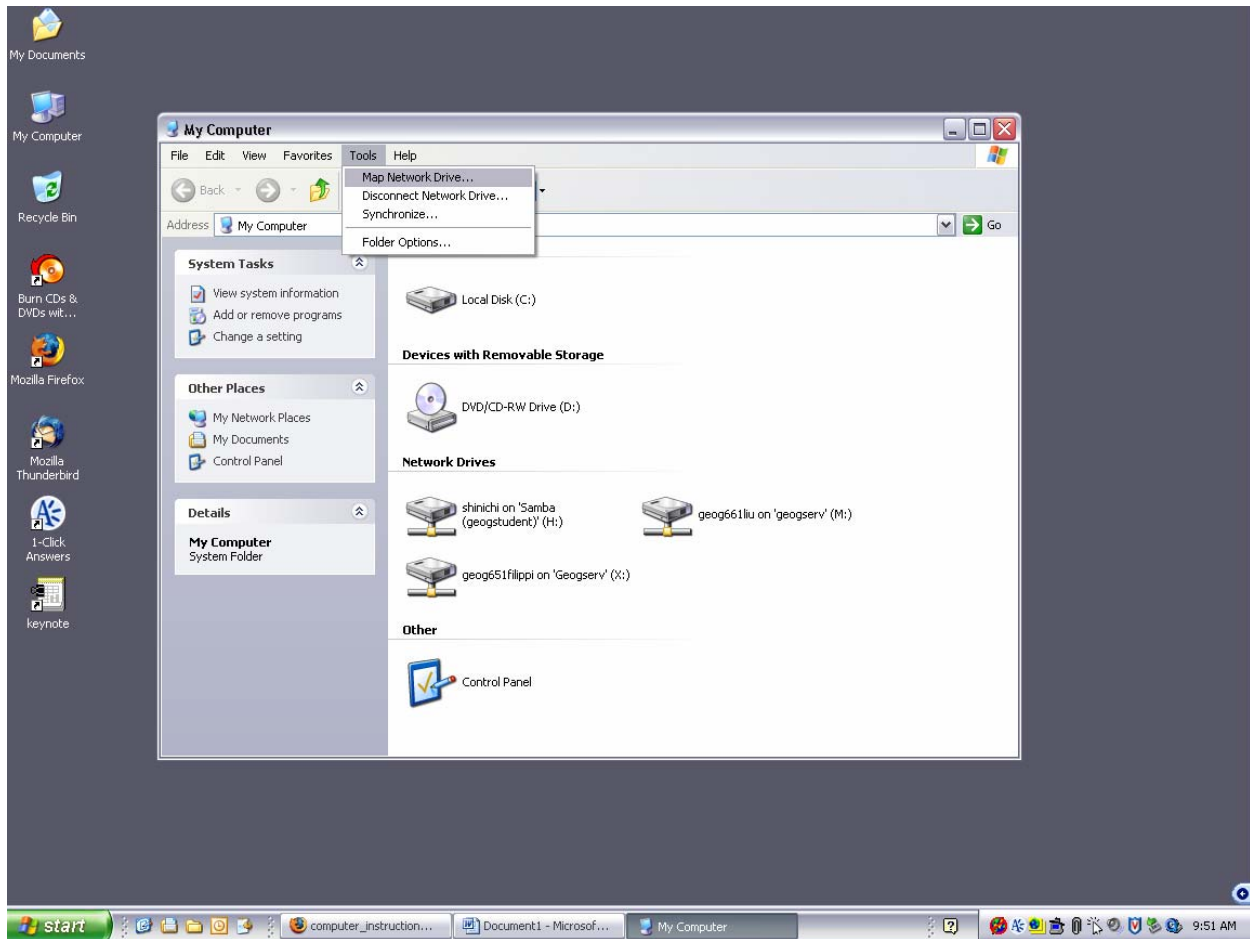


Right-clicking while the cursor is over **My Computer** will bring up a set of options. Selecting **Explore** will start **Windows Explorer**. This program will allow you to easily see how the network is set up and allow you to move between machines and folders on machines. You can also navigate around the systems by using the icons in the upper left corner. By the time you leave you should be very comfortable with the computer system so in the future you can locate the files and folders you need.

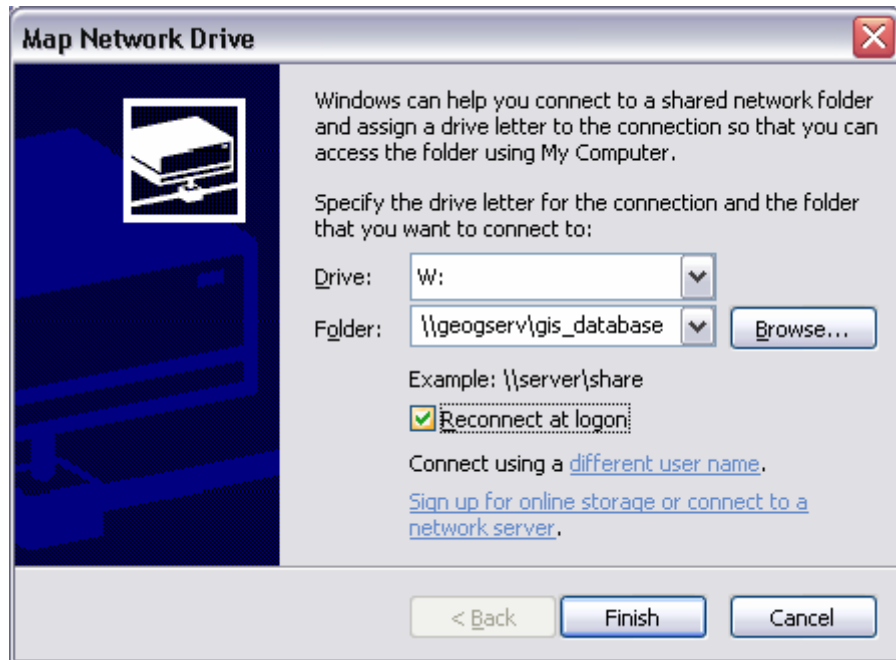
GIS Database and Lab Exercise Directories

The laboratory exercises in this class will make use of GIS databases that have compiled for your use. One primary database that we will use in the course has been kindly provided by the City of College Station. In order to gain access to these GIS databases along with the Geog390 lab exercise materials, you need to map two network drives. As is illustrated below, this is actually quite easy.

First, open up **My Computer** by double clicking on its icon, then under **Tools** select **Map Network Drive...** as is shown in the figure below

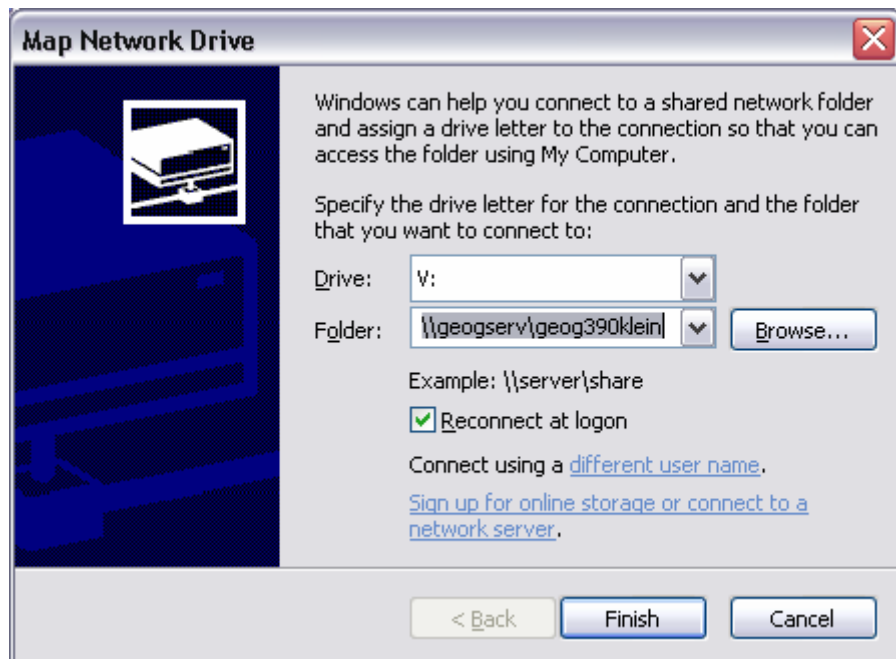


There are several ways to connect to a specific network drive, but since we already know which drive (the **gis_database** folder on the computer called **GEOGSERV**) we want to connect to, the easiest way is to simply select a drive letter designation (W:) and specify the folder we want to connect to. You must also make sure this drive is reconnected each time you log into the network by checking the appropriate box. To map the network drive, simply fill in the required fields as shown below.



A few seconds after you click on **Finish**, the **Gis_Database** folder should now be visible on your computer as **W:**

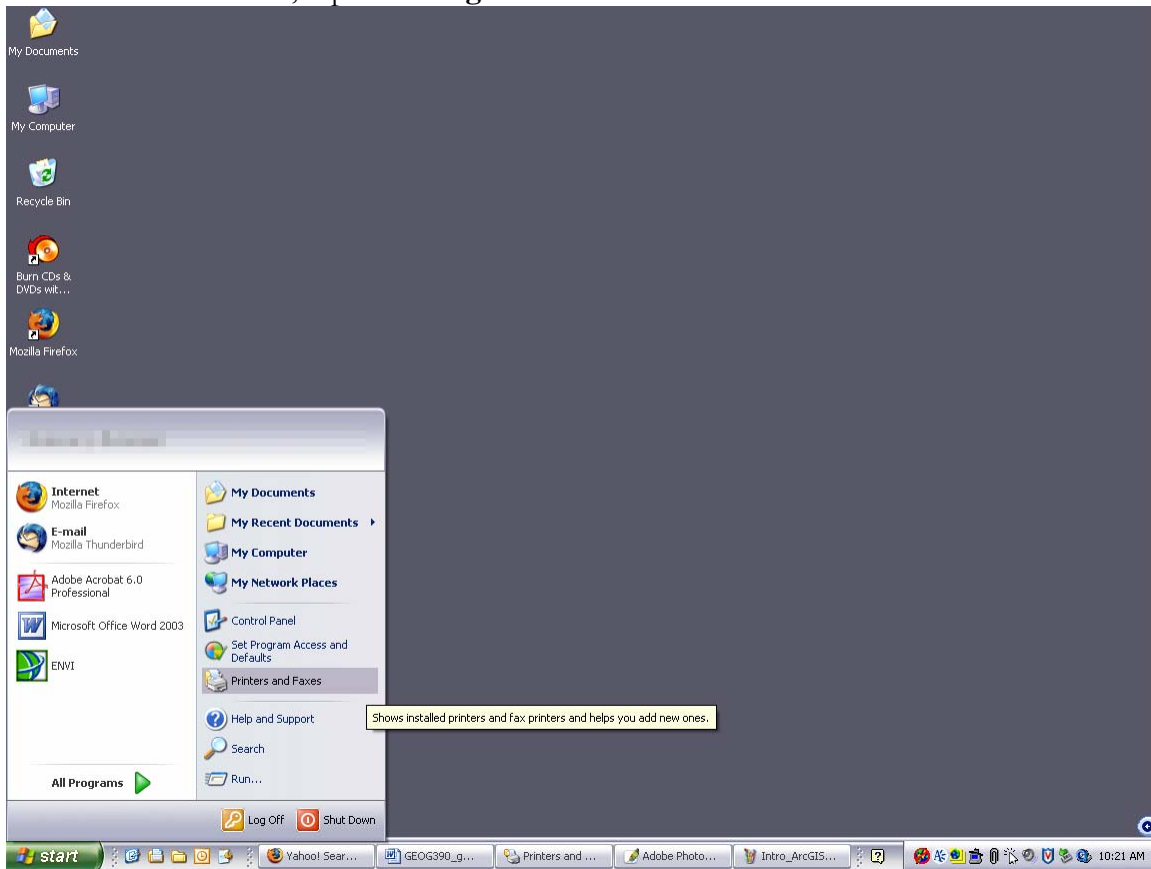
Now we need to repeat this process gain access to the lab instructions and other information for the class. Next, you need to map the **\\geogserv\geog390** folder as **V:** as is illustrated below.



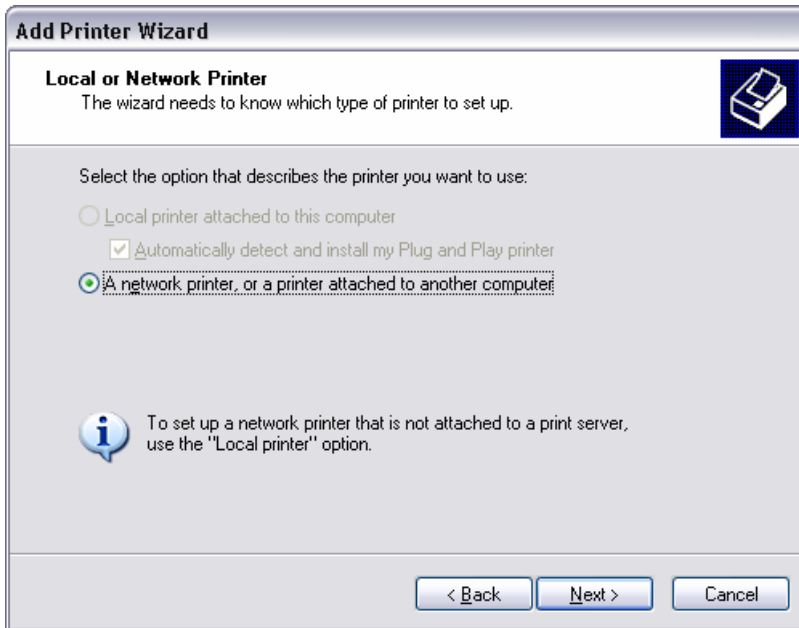
Please note. In order to assure as smooth of operation of ArcGIS as possible, you need to use the W: and V: letter designations!

Printers

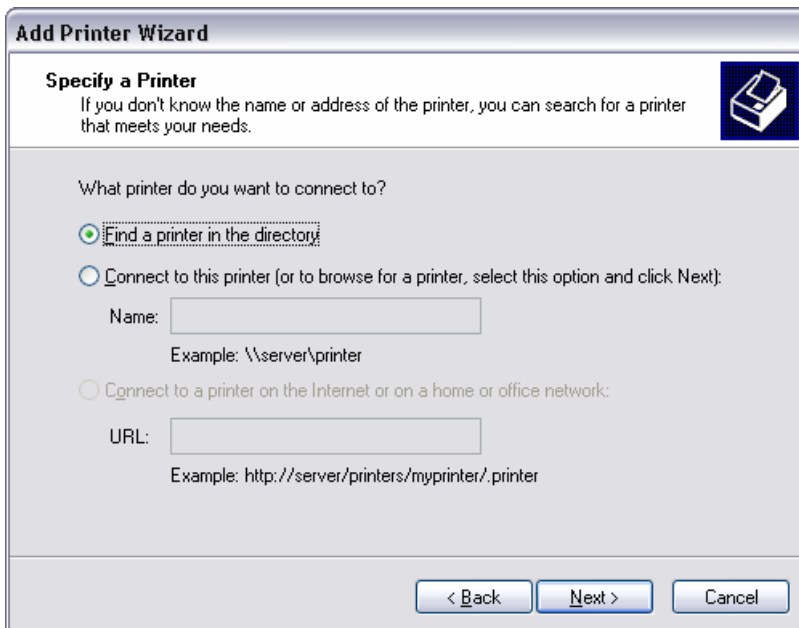
If you do not already have printers set up, you now need to add the appropriate printers. To do this Go under the **Start Menu**, Open **Setting** and Select **Printers** as is illustrated below



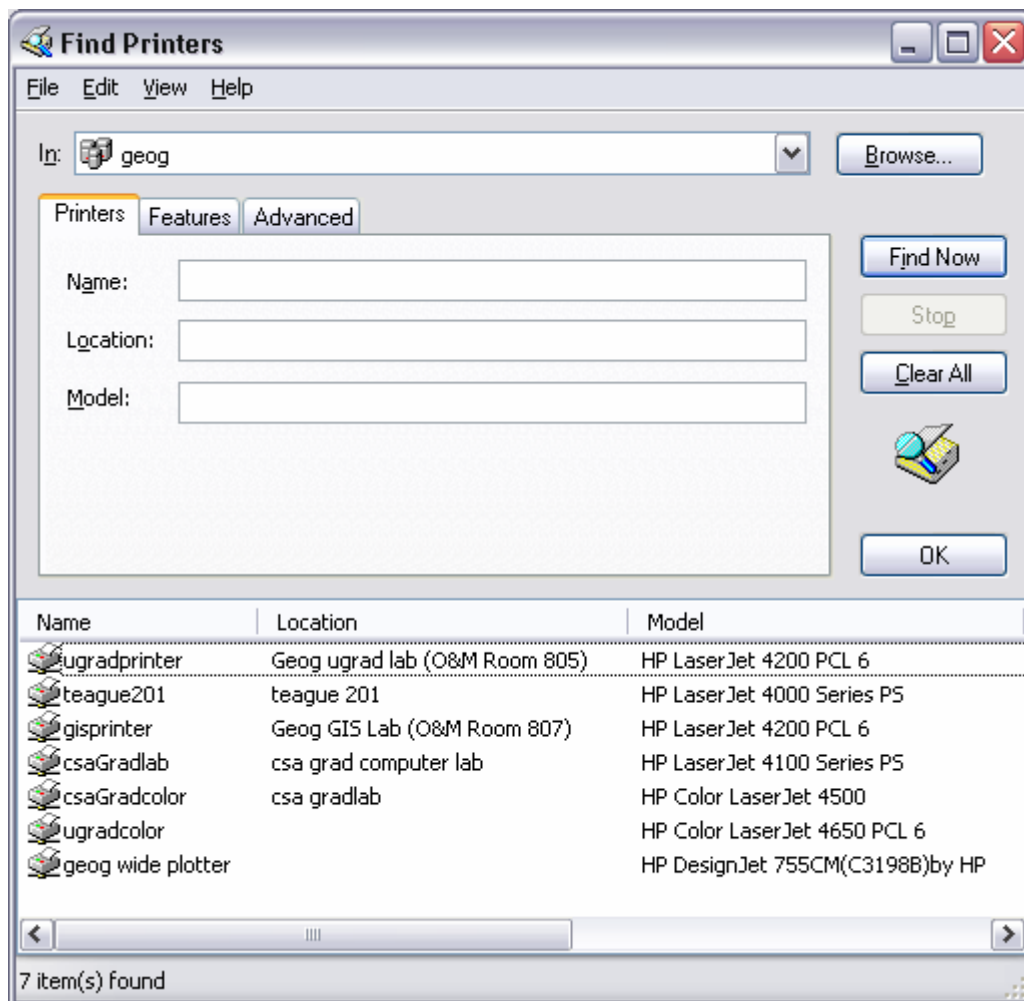
This will open the printer folder which will show you all printers that are available (the checkmark beside one printer indicates which printer is current selected as the default printer). The example below shows the printers that are available for your use. If you need to add a printer, simply double click on the **Add Printer** icon. This will start a Wizard which will guide you through adding a printer as shown below...



The easiest way is to select the radio button as shown below and press the next button.



Press the Find Now button to show the list of available printers and select the appropriate one. You will have to repeat the process to add additional printers



What you should know about the Geography computer network by the time you finish

1. How to log in and out of the Windows XP network (remember your Login ID and Password)
2. The relationship between files and folders
3. How to start applications using the **Start** button
4. How to maneuver around the network using both the Window's Explorer and the Screen icons
 - a. you should be able to locate your folder where all your work should be saved
 - b. you should be able to locate the folders where the labs are stored
5. How to print a document

File Naming Conventions

A few notes concerning file naming conventions. In the old days of Microsoft DOS, there was what was known as the **8.3** naming convention. The first 8 characters were the **filename**, and the last 3 characters were the **extension**, often a standard abbreviation describing the file type. While NT

allows many more characters than original 8.3, some ArcGIS functionality requires the 8.3 convention so you should stick to the 8.3 naming convention to minimize problems.

File Type	Extension
Text Files	*.txt
Comma Delimited files	*.csv
Microsoft Word Files	*.doc
Microsoft Excel Files	*.xls
Tiff Image Files	*.tif
JPEG Image Files	*.jpg
DBASE Database Files	*.dbf
ARCVIEW Shape Files	*.shp
ARCVIEW Project Files	*.apr

And the list goes on and on and on...

The extensions are for a purpose as they often indicated what type of file it is so it will behoove you to begin to recognize the various extensions and use them in naming your files.