
A Brief Introduction to the Geography Computer Network

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 Remote Sensing.

The Geography Computer System

The computers that you will be using in this lab run the Microsoft Windows 10 operating system.

There are two things of special note. The first is that all computers are networked. The second is that our lab is setup with servers. One server is known as GEOGUGRAD and is for undergraduates another is GEOGGRAD and is for graduate students. These are the locations where your home directory is located (which we often call your P:\ 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 ENVI 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 will be created for you. Everyone should try to login and if you encounter any problems let your TA know. You will be provided information on what your LoginID and initial password will be.

Your Home Directory

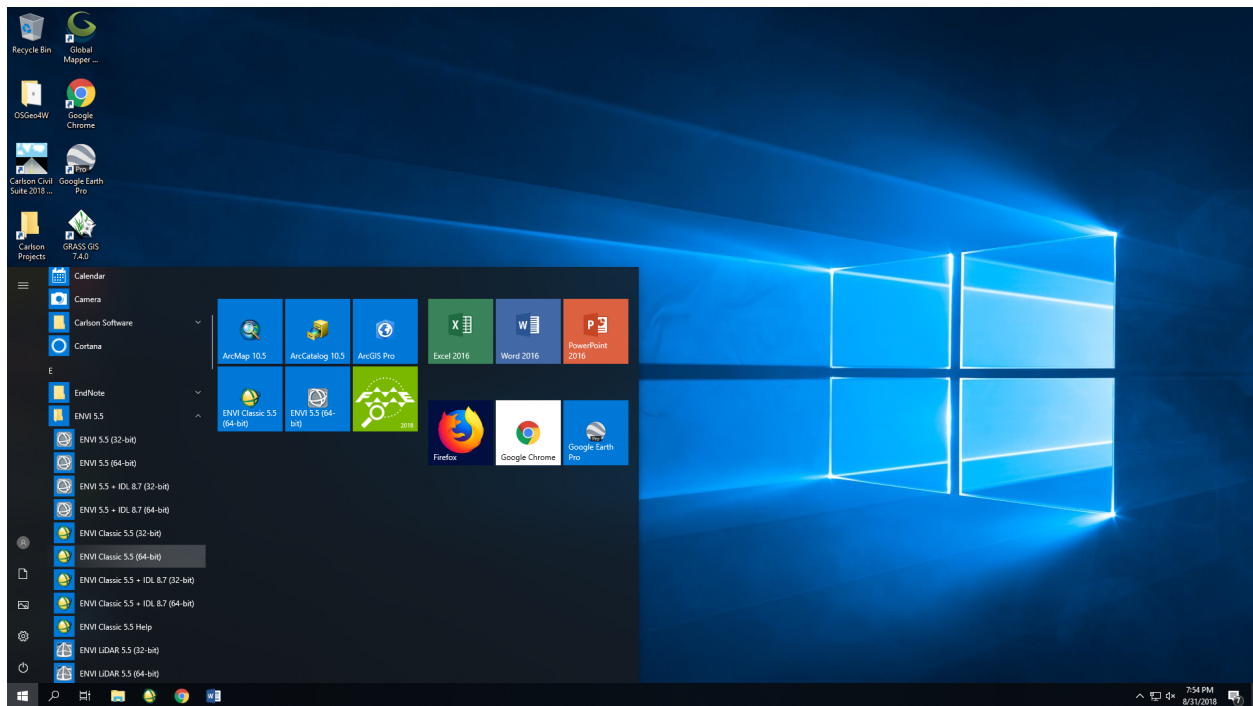
Every student has a home directory (also known as a folder). The home directory is physically located on **GEOGUGRAD** or **GEOGGRAD** computer. However, to make things easy it will appear on every computer you login to as **P:**. The P: drive points to your home directory so everyone's P: will be different. 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 10 Desktop

After you have logged in you should familiarize yourself with the Windows 10 desktop. There is a blue Windows logo with a **START** button on the bottom left. 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 ENVI is shown below:



Right-clicking while the cursor is over **START button** will bring up a set of options. Selecting File Explorer will start **File 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.

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

1. How to log in and out of the Windows 10 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

File Naming Conventions

It is a good skill to learn to recognize what file types (usually distinguished by the .XXX extension) are associated with what program(s). Note that some common file extensions, such as *.img*, may be used by more than one program.

File Type Extensions

Some Common Files Types	
Text Files	*.txt
Comma Delimited files	*.csv
Microsoft Word Files	*.doc or .docx
Microsoft Excel Files	*.xls or .xlsx
Microsoft Powerpoint	*.ppt or .pptx
Hypertext Markup Language	*.htm (or *.html)
Adobe Portable Document Format	*.pdf
Some Common Image and GIS Formats	
TIFF/GeoTIFF Image Files	*.tif
JPEG Image Files	*.jpg
Bitmap	*.bmp
GIF	*.gif
ENVI image file	*.img
ENVI header file	*.hdr
ENVI vector file	*.evf
Band Interleaved by Line (Also used for Arcview image files)	*.bil
Band Interleaved by Pixel	*.bip
Band Sequential	*.bsq
dBase Database Files	*.dbf
ARC Shape Files	*.shp
ARC Project Files	*.apr
<i>And the list goes on and on and on...</i>	

By default Windows File Explorer typically hides the extensions of known files and instead relies on changing icons to let you know what programs these file types are affiliated with. It is possible to change the view properties to make the extension shown as part of the filename. This is done by going under **File Explorer** → **View** → **File Name Extension** (check box):

