# **GIS Laptop Readiness Tutorial FA 2009**

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#### Introduction

GIS software represents one of the most exciting new tools being used in college courses. ArcGIS is very memory intensive. If you've had your laptop for a few years, and you haven't performed regular, routine maintenance on your computer, it may not be able to handle the memory and processing loads demanded by GIS software.

This tutorial will walk you through the steps you need to take to get your computer ready to download **GIS** software of any type.

If you have difficulties with any of these materials, or wish to ask questions about them, please contact Krista White, GIS Support Specialist in Environmental Studies and Sustainability. You may contact Krista by telephone at campus extension 3926, or by emailing her at kwhite2@drew.edu.

### **Installing the latest CNS Updates**

During the Spring 2009 semester, CNS pushed updates to all campus computers in response to the threat of the conficker/downadup virus.

Check your computer's desktop for the **Application Explorer** icon. Your icon should look like this:

If your icon does not look like the above picture, but looks like a yellow folder, you will need to take the following steps to update your **ZENworks** and **F-Prot** clients before resuming the rest of the necessary maintenance for this tutorial.

### **Upgrade ZENworks**

(Adapted from the Drew Community Forum post by Paul Coen)

#### How do I know if I have the ZENworks upgrade?

- 1. Plug your computer into a network jack with an Ethernet cable.
- 2. Turn off the wireless radio switch located on the front edge of your computer.
- 3. If your computer is on, log off of your computer and log back in using the "On Campus" network option.
- 4. Locate the **Application Explorer** icon on the Windows desktop.
- 5. When you open up the **Application Explorer**:
  - a. If you see an icon labeled **Install Software**, that confirms that you have the new version.
  - b. If you see an icon labeled **Drew**, you need to upgrade **ZENworks**.

#### If you *haven't* upgraded ZENworks yet:

- 1. You must be on-campus.
- 2. You must use a wired network connection.
- 3. Turn off the wireless radio switch located on the front edge of your computer.
- 4. If your computer is on, log off of your computer and log back in.
- 5. Make sure you've logged on using the **On Campus** network option. You need to access a network drive for the **ZENworks** installation.
- 6. Open the **Application Explorer** folder on your desktop.
- 7. Click on **Drew** and then **Install Software**.
- 8. Click on the **Student 10.2 ZENworks Agent**. <u>Do not shut down or reboot the computer until prompted to do so.</u>

### NOTE: If you do not see an Application Explorer folder on your desktop

- 1. Go to the Start menu  $\rightarrow$  All Programs  $\rightarrow$  Novell ZENworks  $\rightarrow$  ZENworks Application Window.
- 2. Click on **ZENworks Application Window** a dialog box should pop up that has a tree with **All** and **Install Software** on the left, and a list of **program icons** on the right.
- 3. If you do not see the **All Programs** or a list of program icons, take your computer to the **CNS Helpdesk** and explain this process to them. Your version of **ZENworks** likely needs to be fixed by them before you can proceed.

### **Upgrade F-Prot**

Once you've upgraded ZENworks, you still must upgrade F-Prot if you haven't already. How do I know if I have the latest version of F-Prot?

- 1. Go to **Start**  $\rightarrow$  **All Programs**
- 2. If you have an **F-Prot** or **Frisk Software** Program Group folder, rather than just an **F-Prot Antivirus for Windows** icon, you have the old version of **F-Prot**.
- 3. Confirm that you have the older version by clicking on the **F-Prot** icon in the **All Programs** menu.
  - a. If it's a white window with blue across the top, it's the new version.
  - b. If the **F-Prot** window has a grey window, it's the old one and you need an upgrade.

### How to Upgrade F-Prot if you have the old version

- 1. Close the **F-Prot** window if it's open.
- 2. Open the **Application Explorer** and click on **Install Software**
- 3. Double-click on **F-Prot for Windows**. You will need to restart your computer at the end of the installation.
- 4. Run a complete system scan with **F-Prot.**
- 5. Once you have restarted your computer and logged in, double-click on the **F-Prot** icon on your **Desktop**.
- 6. When the **F-Prot** dialog box appears, click on the **Virus Scanners** tab at the top of the window.
- 7. From the menu on the left-hand side, choose **Manual scan**.
- 8. Select **Scan My computer**. Any USB drives you have attached will be scanned as well. *Please do not select <u>Scan Network</u>*. *That will take hours*.

*More help and directions about F-Prot:* <a href="http://www.drew.edu/depts/its.aspx?id=65000">http://www.drew.edu/depts/its.aspx?id=65000</a>

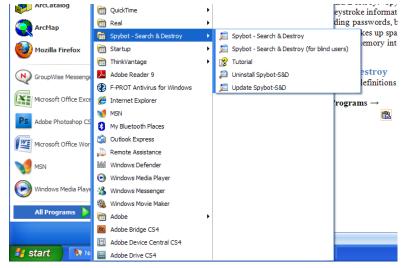


### **SpyBot Search and Destroy**

To make sure that you don't have any spyware on your computer, you will need to run the latest version of **SpyBot Search and Destroy**. Among other things, spyware is unnecessary software that takes up space on your hard drive. Removing it will improve your computer's performance for memory intensive programs like **Google Earth** and **ArcGIS**.

### **Update SpyBot Search and Destroy**

Updating **SpyBot** and its spyware definitions is a much simpler process than for **F-Prot**. If you have never used SpyBot, your first scan can take a couple of hours. You may run a scan in the background while you do other work on the computer.

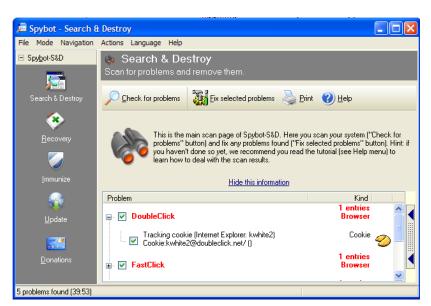


- 1. Go to **Start** → **All Programs** → **SpyBot Search and Destroy** (Folder) → **SpyBot Search and Destroy** (Program)
- 2. Click **OK** when the **Legal Stuff** dialog box pops up.
- 3. Two dialog boxes will appear after this. One is the **S&D Wizard**, which asks you if you want to create a **Registry back-up** of your computer.
  - a. Creating a Registry back-up is not necessary, but you can do it if you want.
     Creating a Registry back-up will take a bit more time. If you do want to create a Registry back-up, follow the instructions in the Wizard to do so.
  - **b.** If you do not want to create a Registry back-up, click the green **Next** button until the dialog box takes you to **Step 7**.
- 4. Click on **Start using the program**. After the **S&D Wizard** has completed the tasks you set for the **Registry back-up**, the **SpyBot Search and Destroy** dialog box will be the only box left. Choose **Search for Updates**.
  - **a.** If you have an older version of **SpyBot**, a number of updates will appear automatically with empty check boxes next to them. Check off each box and choose **Update**. This will install all updates and the latest version of SpyBot on your computer.
  - **b.** If you have the latest version of **SpyBot**, a **SpyBot S&D Updater** window will appear with a list of mirror sites. Choose a site with an American flag next to it, so that you get the fastest possible download.
- 5. Click Continue.
- 6. Two lists will appear.
  - **a.** Under **Important Files**, there should be a check mark in the boxes next to all of the listed items.

- **b.** If you want to download the items under **Other Files**, put a check mark in the box next to those items. They are not essential, and usually contain documentation on how to use **SpyBot S&D**.
- 7. Click **Download**. A black command prompt dialog box may appear briefly when **SpyBot** downloads updates. This is perfectly normal.
- 8. Once all of the files have been successfully downloaded, click **Exit**. This will shut **SpyBot** down.

### Remove Spyware with SpyBot

- 1. Go to **Start** → **All Programs** → **SpyBot Search and Destroy** (Folder) → **SpyBot Search and Destroy** (Program)
- 2. The **SpyBot S&D** dialog box will open. Click **Check for Problems**.
- 3. When the program has finished running, a list of problems will be displayed in the bottom half of the **SpyBot S&D** dialog box. Click on the plus sign next to each item to see a description of the problem.



- 4. Check the boxes next to the problems you want to fix. Click **Fix selected problems** to eliminate them.
- 5. If you are unsure of whether or not to eliminate a particular problem, call the **CNS Helpdesk** at **973 408 3205** to ask which items are actual problems and which might be computer programs you'll want to keep.

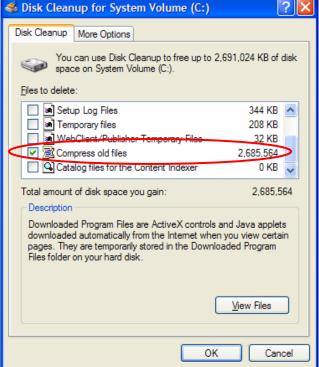
*More help and information about SpyBot - Search & Destroy* <a href="http://www.drew.edu/depts/its.aspx?id=65984">http://www.drew.edu/depts/its.aspx?id=65984</a>

### **Disk Cleanup**

**Disk Cleanup** is a utility installed on your computer that scans through your files and removes those that are unnecessary. This can free significant amounts of space on your hard drive. You must perform **Disk Cleanup** on both your **C: drive** and your **I: drive** to maximize your computer's performance.

### **Run Disk Cleanup**

- 1. Go to Start  $\rightarrow$  All Programs  $\rightarrow$  Accessories  $\rightarrow$  System Tools  $\rightarrow$  Disk Cleanup
- 2. The Select Drive dialog box will appear. Choose the **C: drive**. A calculation dialog box will appear with a green progress bar. It may take a while for the computer to calculate which files can be removed using **Disk Cleanup**, so be patient.



Select Drive

Select the drive you want to clean up.

Drives:

User Data (I:)

User Data (I:)

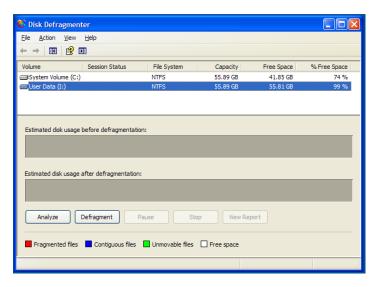
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**Temporary Internet Files** and **Compress Old Files** folders tend to accumulate a great deal of unused files. If there are large amounts of memory being used in either of these files, you will want to check those off by themselves and run **Disk Cleanup** for those files alone before cleaning up any other unused files on your computer.

- 4. Once you've checked off the folders in the list that you want to clean up, click **OK**, and then click **Yes**. Cleanup may take a while.
- 5. When it is finished, the **Disk Cleanup** box will disappear. Open it again to clean up more temporary files.
- 6. Folders that use relatively small amounts of memory can be checked off at the same time and cleaned up together after the larger folders have been cleaned up individually.
- 7. Repeat steps 1-6 for the **I: drive**. *More help and information about Disk Cleanup* http://www.drew.edu/depts/its.aspx?id=65006

### **Disk Defragmenter**

When you use and create files on your computer, it stores the information about the files in many small, individual packets. When a file gets saved, the many packets of the file are saved separately in whatever free space the computer finds available on your hard drive; they are not always stored right next to one another. **Defragmenting** your hard drive instructs the computer to put all of the individual packets for each file next to one another. This creates more free space on the hard



drive and helps the computer find your files more quickly and easily. You will need to defragment both your **C:** and **I: drives** to maximize your computer's performance.

### **Run Disk Defragmenter**

- 1. Go to Start  $\rightarrow$  All Programs  $\rightarrow$  Accessories  $\rightarrow$  System Tools  $\rightarrow$  Disk Defragmenter
- 2. In the **Disk Defragmenter** dialog box, click on the **C: drive** to highlight it in blue.
- 3. Click the **Analyze** button.
- 4. An **Analysis** dialog box will appear, recommending whether or not you should defragment your hard drive. Click **Close**.
- 5. In the **Disk Defragmenter** dialog box, click on the **Defragment** button. Defragmenting your hard drive can take a number of hours, depending upon how many programs and files you have on your computer. You may run defragmentation in the background while you do other work on the computer.
- 6. When defragmentation is complete, a dialog box will appear that says, "Defragmentation is Complete for: System Volume C:" Choose the **Close** button, or if you want to see the report, choose **View report**.
- 7. Repeat steps 1-6 for your **I: drive**.

*More help and information about Disk Defragmenter* http://www.drew.edu/depts/its.aspx?id=65008

## **Performing Routine Maintenance**

Once you've completed these maintenance tasks, your computer will be optimized for downloading and using **ArcGIS** software. To keep your computer running smoothly, Computing and Network Services recommends that you perform routine maintenance - **Virus/Spyware scans, Disk Cleanup and Disk Defragmentation** - at least once every month.