

Virtual Immersion In Science Inquiry for Teachers-A
Technical Guide to Getting Started¹

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1. Introduction

This manual provides instructions for accomplishing several technical tasks you may (or may not, depending on what software you already have on your computer) need to perform in order to do the following:

- **Set up your computer for the VISIT online course and Collaboratory,**
- **Log on to the Collaboratory for the first time,**
- **Choose and install GIS software**
- **Download and store GIS lessons and data on your computer**
- **Do the GIS lessons and complete the assignments.**

2. Checking your computer and communications setup

To participate in the VISIT Collaboratory and online course, you will need either a MS Windows or Mac computer with a reliable Internet connection, a suitable Web browser, and GIS software. This manual provides information on all of these components.

Software Requirements:

Browser: For either machine platform, you can use either Netscape or Internet Explorer web browser. Netscape 6 and 4.78 both have problems working with WebCT, so check to see what version you have and upgrade if needed.

Adobe Acrobat Reader

WinZip (for PC) or Stuffit Expander (for Mac)

Hardware requirements For Macintosh users:

:

- PowerMacintosh, preferably G3 or better
- Minimum of 16 MB RAM, preferably 32 or more
- Minimum of 100 MB free hard drive space
- MacOS 7.1 or higher
- Color monitor
- CD-ROM drive
- Mouse
- You should have access to a printer to print out the lesson instructions.

Hardware requirements For Windows PC users:

- PC computer running Windows 95, Windows 98, Windows NT or Windows XP
- Minimum of 16 MB RAM, preferably 32 or more
- Minimum of 100 MB free hard drive space
- Color monitor

- CD-ROM drive
- Mouse
- You should have access to a printer to print out lesson instructions.

3. Logging on to the Collaboratory the first time

1. Please point your web browser to www.emich.edu/visit. You may want to make this your default home page in your web browser.
2. On the VISIT web page click on the ‘Collaboratory’ button on the lower left hand corner. It will be the second last button on the list.

This will lead you to ‘Go To WebCT’.

[NOTE: You can directly go to <http://webct.emich.edu>, and log on to My WebCT instead. However, Logging in from the VISIT webpage gives us a chance to browse through the VISIT web site for new announcements and other updates.]

3. Click on ‘Log on to My WebCT’.
username and password will be asked for. This is given in your VISIT registration package.
4. Enter your ID and password. Your “My WebCT” page will appear, with the webct “courses”.
5. Select the course “VISIT Workshops and Forums”. Click there to get in to the VISIT Collaboratory.

NOTE: When you enter webct, always go to the VISIT Workshops and Forums. There you can go to your class discussion Forum, the Main Forum, and other Forums, check your personal mail and the course Calendar, track your progress and grades, and link to all other places in VISIT, including lessons and assignments.

6. From the Home page of VISIT Workshops and Forums, go to “Forums”. A list of Forum Topics will appear. Over time in the course you will learn to take advantage of most of these Topics.
7. For your first log in to the Collaboratory, we suggest you peruse the Main Forum and then go to your assigned Class Discussion Forum (This is assigned in your Registration packet letter).

4. Choosing the GIS software to use in VISIT

You may choose to use ArcView, ArcVoyager, or web-based interactive mapping software for your own learning in VISIT and for the lessons you will create or adapt for your students.

- ArcView 3.2a. If your school or school district has a license for ArcView software, you most likely will choose to use ArcView in your VISIT lessons. ArcView is a very commonly used GIS software package in business, government, and education. If your school or district does have an ArcView license but you have not yet installed ArcView on your computer, you should either arrange to have it installed or use the instructions in this manual to assist you.
- ArcVoyager. In your VISIT registration packet you received a CD labeled ‘GIS for Schools and Libraries version 5’. This CD includes instruction about GIS and data sets, as well as the ArcVoyager software. "ArcVoyager Special Edition," contains the critical elements of ArcView software and ArcVoyager data. ArcVoyager Special Edition allows you to explore far and wide; adding data, printing maps, querying themes, and almost all the standard ArcView activities.

5. Installing ArcVoyager.

Hardware requirements For Windows PC users:

- PC computer running Windows 95, Windows 98, or Windows NT
- Minimum of 16 MB RAM, preferably 32 or more
- Minimum of 100 MB free hard drive space
- Color monitor
- CD-ROM drive
- Mouse

1. Insert the Arc Voyager disc that reads ‘GIS for schools and libraries Version 5’ into your CD ROM drive. Arc Voyager installation should start automatically after a few seconds. If not, then double click on ‘My Computer ‘ on the desktop. This will open up the contents window; now double click on the Arc Voyager icon that reads ‘K12lib_5’ on the CD ROM location.



2. Follow the path given. Double click on ‘GIS’, then ‘Voyager’, and ‘Special’ (GIS\VOYAGER\SPECIAL). This then displays a ‘Setup’ Icon. Double click on it to initiate setup.

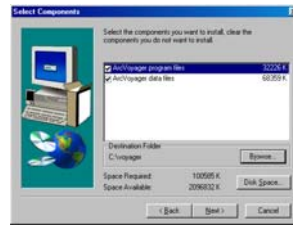


3. This will start the installation Process.

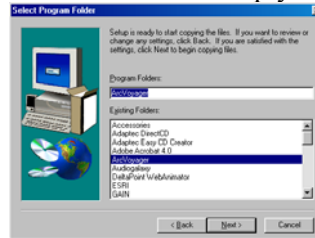


Click ‘Next’ on the displayed window to continue.

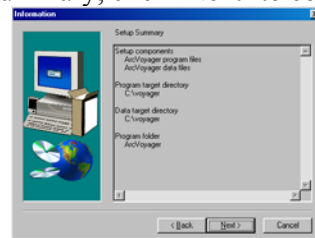
4. It will automatically select ‘C:\Voyager’ for installation. However incase you have insufficient space, or the hard disc is split into C drive and D drive, please specify a location by clicking the “Browser” button. Otherwise click ‘Next’ to continue.



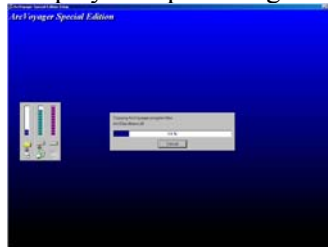
5. It will automatically load the Icon under Accessories. Simply click on 'Next' to continue.



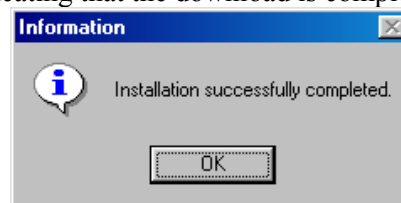
6. The next window displays a Setup Summary, click 'Next' to continue with the installation process.



7. This window is displayed, and it also displays the percentage of download completed.



8. A final window is displayed indicating that the download is completed

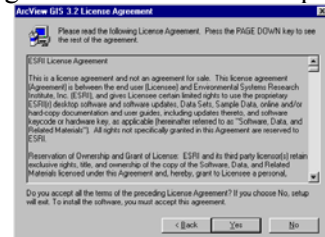


9. It is always advisable to restart your computer. After restarting the computer, to start working with Arc Voyager; click on 'Start' on the left hand corner of the screen, then select 'Programs'. This displays a list of programs loaded in your system. Scroll your way to 'Arc Voyager', click on it - you will see 'Arc Voyager Special Edition'. This will start up Arc Voyager.



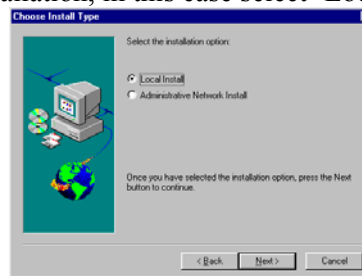
Click 'Next' on the displayed window to continue.

3. After clicking 'Next' the 'License Agreement Window' is displayed.

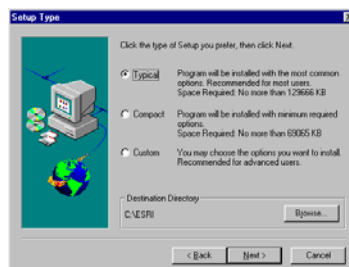


In order to continue click on 'Yes'.

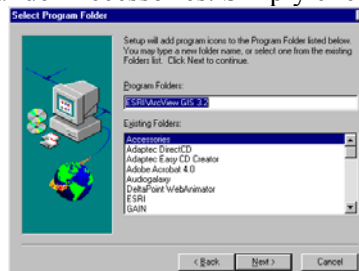
4. It will now require the type of installation, in this case select 'Local Install' and then click on 'next'.



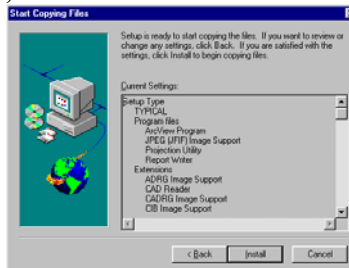
5. Select the 'Typical' form of setup. In the lower section of the window; a destination directory is asked for. It will automatically select C:\ESRI for installation. However, in case you have insufficient space, or the hard disc is split into C drive and D drive, please specify a location by clicking the "Browser" button. Otherwise click 'Next' to continue.



6. It will automatically load the Icon under Accessories. Simply click on 'Next' to continue.



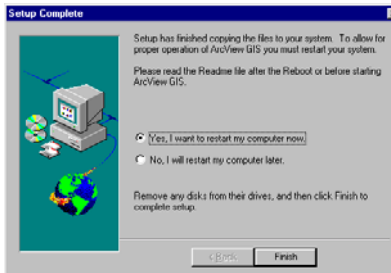
7. Now the installation process begins, click on 'Install' to continue.



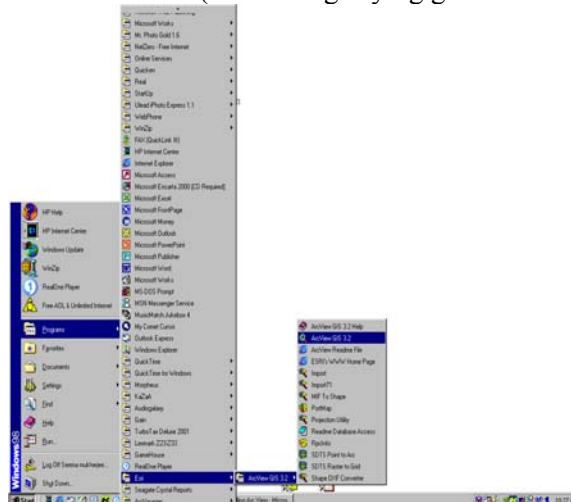
8. This window is displayed, and it also displays the percentage of download completed.



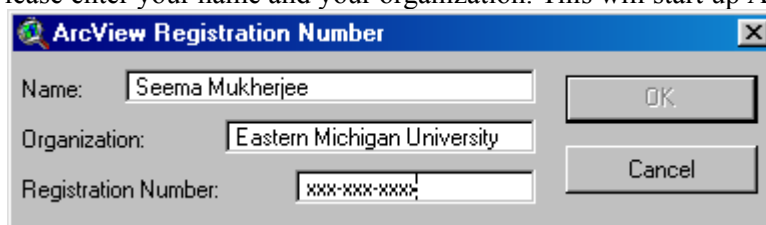
9. After the installation is complete it is advisable to restart your computer. Click on 'Finish' this will restart your computer.



10. After restarting the computer, to start working with Arc view; click on 'Start' on the left hand corner of the screen, then select 'Programs'. This displays a list of programs loaded in your system. Scroll your way to 'ESRI', click on it you will see 'Arc View GIS 3.2'. Click on that and a list of Arc View functions is listed, from that select 'Arc View GIS 3.2'(with a magnifying glass icon over a green map).



11. When you start Arcview for the first time it will require a 'Registration Number'. This is provided with the software. Please enter your name and your organization. This will start up Arc View.



7. Accessing Lessons Included on the ESRI Schools and Libraries CD

ArcVoyager Users

If you are experiencing difficulties with the VISIT downloadable exercises, you are recommended to use the readymade lessons on the ESRI CD (Schools and Libraries) instead. Here are some directions for accessing them (Al Lewandowski, 2002, WebCT Message # 5727). The first set of directions is for directly accessing the file folders. The second is for accessing the files through the menu [start.htm file]. If you encounter any problems with the directions, please post a note on the WebCT, or contact Al Lewandowski directly by email or phone,

alew222@yahoo.com

810.679.4177

i) Accessing File Folders

If you view a directory of the disk, you'll see a folder called [lessons]. Open that folder and you'll see a list of folders, the last one being a folder called [VOYAGER]. Open this folder, and you'll see a set of pdf files. The last of these should be one called [Q_start] (Stands for quick start). It will give you a quick intro to ArcVoyager you may or may not need to work through. I suggest you look over the file and decide if there's any new info there. Regardless, it may be useful when you begin working with students.

Next, I recommend looking at:

[LSN_Land.PDF]

[LSN_Quake.PDF]

[LSN_Race.PDF]

LSN is a short term for lesson. Land is a landform exploration, Quake explores earthquake data, and Race explores distribution of ethnic groups within the United States.

ii) Accessing Through Start.Htm Menu

You may also approach the disk by running the [START.htm] file at the top level of the disk directory. However, in some ways the navigation from here is more difficult than simply viewing the directory. I guess it depends upon how your mind works.

Starting with Start.htm

1. open the directory for the ESRI K12lib_5 disk.
2. open the file [start.htm]
3. On the Welcome page, click [Use the CD]

4. On the Main Menu click: [Learn about using GIS in Schools and Libraries]
5. Scroll down to [Part III. Documents and Lessons]
6. In the first line of text, click on [classroom lessons]
7. Under lessons, click on [ArcVoyager]
8. Explore the directory that appears.

Again, my recommendations are that you look at the following files:

- A. Quickstart tutorial
- B. Landforms
- C. Earthquakes D.
- D. Race and Ethnicity

ArcView Users

There are two methods to access ArcView exercises on the CD. The first set of instructions is for directly accessing the file folders. The second is for accessing the files through the menu [start.htm file]. If you encounter any problems with the instructions, please post a note on the WebCT, or contact Ling Zhang directly by email, or phone,

Lzhang2@emich.edu
734.487.5396

i) Accessing File Folders

If you view directories on the CD, you'll see a folder called [lessons]. Open that folder and you'll see a list of folders. We suggest that you look at the following four folders in order,

[LSNQUAKE]
[LSNELELCT]
[LSN_CLIM]

LSN is a short term for lesson. Quake explores earthquake data, Elect is a lesson about the 1996 US federal and state election, Clim is for creating and exploring climate graphs around the US.

Under each of these folders, there is a PDF file, which is the instruction about the lesson. You can open this PDF file and follow the instruction to do your exercise.

ii) Accessing Through Start.Htm Menu

You may also approach the CD by running the [START.htm] file at the top level of the CD directory. However, in some ways the navigation from here is more difficult than simply viewing the directory.

Starting with Start.htm

1. Open the directory for the ESRI K12lib_5 disk.
2. Click the file [start.htm]
3. On the Welcome page, click [Use the CD]
4. On the Main Menu click: [Learn about using GIS in Schools and Libraries]
5. Scroll down to [Part III. Documents and Lessons]
6. In the first line of text, click on [classroom lessons]

7. Under lessons, click on [ArcView]
8. Explore the directories that appear

Again, we recommend that you look at the following files:

- A. **Earthquakes Around the World** - [\LESSONS\LSNQUAKE\LSNQUAKE.PDF](#)
- B. **1996 US Election** - [\LESSONS\LSNELECT\LSNELECT.PDF](#)
- C. **US Climate** - [\LESSONS\LSN_CLIM\CLIMATEG.PDF](#)

8. Downloading and saving GIS lessons

Many of the lessons and assignments in VISIT are formatted as web pages and you only need to click on the name of the lesson to read it on the screen and print it. For GIS lessons, you need to download files to your local computer. Each lesson document also has with it a set of data files. You will be downloading those at the same time with the lesson. You should set up a folder on your hard drive to store these materials before you click on the link to download them, and download the file into your folder.

Winzip(PC) or StuffIt Expander (Mac) will be required to extract the files. A detailed procedure for doing this is given below in section 8.. Here is an example on how to save and download a lesson:

- You can create a “GISLessons” folder in your C drive, then create “Lesson1” subfolder to store files for the first Basic Skill Lesson. Of course you can change the path and folder name if you’re familiar with file management.
- Save the downloaded file “exer1.zip” (for ArcVoyager users, the file name should be “exer1_ArcVoyager.zip”) to C:\GISLessons\Lesson1.
- Once you have saved the file - go to the folder where it was saved (C:\GISLessons\Lesson1 in this case). The downloaded file will appear in this folder with a yellow winzip icon and will be identified as a winzip file;
- When unzip the file, remember to Extract to the same folder. If you work properly, both an instruction file and a data subfolder will appear under C:\GISLessons\Lesson1.
- Usually the instruction file is in PDF format, you need Adobe Acrobat Reader to open it. If you do not have the software on your computer, go to <http://www.adobe.com/products/acrobat/readstep2.html> for free download version.
- It is recommended that you print out the lesson/exercise instructions. Make a notebook to keep all of your lesson materials, for ease of reference now and later.
- NOTE: If you want to revise or tailor a lesson for use in your own classroom and would like a Word version, please post a request in the Technical HELP Forum and we will provide it. You are welcome to use any VISIT materials in your own classroom and modify them as you desire.

9. Unzipping downloaded files

This procedure explains the process of downloading files using Winzip (PC) or StuffIt Expander (Mac). If you don't have WinZip installed in your computer, click on <http://www.winzip.com/ddchomea.htm> to download a free version. If you are using a Mac and need to install StuffIt Expander, click on <http://www.stuffit.com/expander/macindex.html> to download a free version.

Further References:

You can find a lot of resources from the following links:

<http://www.emich.edu/visit/help/TechTips.htm>

Check the VISIT 'Calendar' in WebCT frequently for Online Chat dates and Course dates.

Any questions regarding the course are posted in the 'Discussions and Forums' topics.

The more you browse the website the more comfortable you become with the whole program.

For Further queries please contact:

Ling Zhang

lzhang2@emich.edu

(734) 487-5396