

GIS: Projects and Data Sources

Summary

Beginning users of ArcView often mistakenly assume that data is saved along with the .apr project file. More correctly the .apr project file points to data locations. This lesson demonstrates how data is stored in separate locations from the project file.

Materials

MS Word - to view, edit or print out lesson

MSPowerPoint - to view, edit or print out presentation

ArcView - to view themes and create maps

Data, as included in the [lesson pack zip files](#):

williams.shp - a field boundary to be copied to a floppy disk (included in lesson pack)

sheep.shp - a field boundary to be copied to the C: drive (included in lesson pack)

northflds.shp - a field boundary to be copied to a network drive (included in lesson pack)

- [project&data.doc](#)

- Objectives, use of the lesson and procedures are found within this MS Word document.
(included in lesson pack)

- [project&data.ppt](#)

- graphics and brief description of resolution are found within this MSPowerPoint presentation.
(included in lesson pack)

Instructional Procedures

Project and Data Sources

This activity was developed by the Precision Agriculture Education Network (PrAEN) as a part of the curriculum project funded by the National Science Foundation (ATE/DUE# 9752081). It was designed for use at the community college level. This lesson has been used in an Application of GIS course and an Introduction to ArcView course to introduce the use of projects.

Objectives:

Differentiate between a project file and data files

Describe the use of a project .apr file.

Lesson Summary:

Many beginning students of GIS or ArcView are confused by the difference between a project and data. The first time students save a project, they believe they are also saving the data. Thus by saving the project .apr file on a floppy they think they are also saving the data on the floppy disk at the same time. After using the floppy disk in another computer and not finding any data, they wonder what happened to the data.

The concept that the project .apr file only points to where the data is, and does not include any data itself must be made. In this lesson and activity, students build a project using data from various sources, saving the project to a floppy disk. Floppy disks are then exchanged between students and the project opened. Students have the opportunity to discuss why some data showed up in the project and why other data seemed to have disappeared.

Background/ [PowerPoint Narrative](#) (attached)

Slide 1 Introduction

Slide 2 Objectives

Slide 3 Definitions

Definitions are provided for project and data.

Slide 4 Example of a project

A graphic illustrating the components of a project including views and data. A project will also include layouts, scripts and tables, all documents and their properties. The project allows the user to save how data is used in views, tables and layouts, but does not save the data itself.

Slide 5 Example of one view and sources of data.

A graphic illustrating a view and a list of data along with a scenario of possible drives where those data sets may reside. The point of this slide is that data can be stored in various locations and still be used in a project.

Slides 6 & 7 What happens when data is moved

An illustration of moving a project with one view and data to a second computer. Point is made that if the data is moved to the same drive on the 2nd computer, the project will be able to recognize it.

Slide 8 - 17 Series of slides with overview of exercise

These slides demonstrate what happens when data on one computer and a project stored on the A: drive., is then moved to another computer.

Activity

Data:

williams.shp - a field boundary to be copied to a floppy disk (included in lesson pack)

sheep.shp -- a field boundary to be copied to the C: drive (included in lesson pack)

northflds.shp - a field boundary to be copied to a network drive (included in lesson pack)

Procedure:

Use File/Manage Data Sources to copy each of the above shapefiles to the drive listed and to change the name of each so that it includes the student's initials.

Open a new view and add each of the shapefiles to the view from the sources used in step 1

Save the project as the student's first name to the A: drive floppy disk.

Close ArcView and remove disk, exchanging it with another student.

Before starting the previous student's project guess and discuss which data themes will work and which ones won't.

Start ArcView and open the project of the previous student.

Teacher's Note: The data saved to the A: and the network drives should work since the .apr file will look in those same drives. The shapefile saved to the C: drive will not work since the .apr is looking for a shapefile that is on the previous student's computer.

Using notepad, open the .apr file for student to view what is actually in a .apr file.

Bibliography

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Authors

[Utah LessonPlans](#)