

TAHPDX: Great Decisions in U.S. History

Teaching American History: A partnership between Portland State University and the Beaverton, Hillsboro and Forest Grove School Districts (funded by the U.S. Department of Education)

HOW TO INSTALL AND USE THE GEOGRAPHIC INFORMATION SYSTEMS (GIS) PROJECTS

TO GET TO THE TAHPDX: Teaching American History website simply Google "TAHPDX" and it should pop up at the top of the search list.

TAHPDX URL: <http://www.upa.pdx.edu/IMS/currentprojects/TAHv3/Home.html>

PROJECT LOCATION:

GIS data and projects can be found through links on the <Historical GIS Data> page on the TAHPDX website. Projects and data are organized into categories. Click on the webpage link for the data category you are interested in to access the projects' specific webpage. The Data/Project webpages include a description and have links to all the data files, GIS project files, preview images, and metadata documents.

All the necessary project and data files that make up the GIS projects available on the Teaching American History website are compiled into a parent folder with subfolders that contain associated GIS shapefiles, data and images. For ease in downloading, the parent folders (with subfolders) have been compressed and "zipped" together.

DOWNLOAD and UNZIP:

TO DOWNLOAD: Download the project by double-clicking on the link for the zipped project folder on the TAHPDX website. A pop-up window will ask you where you want to save the folder. Use the <Browse> button to navigate to the folder where you would like to store the project. Your computer may be setup to automatically download files to a particular place (often on the desktop, in a TEMP folder or buried somewhere in Documents and Settings).

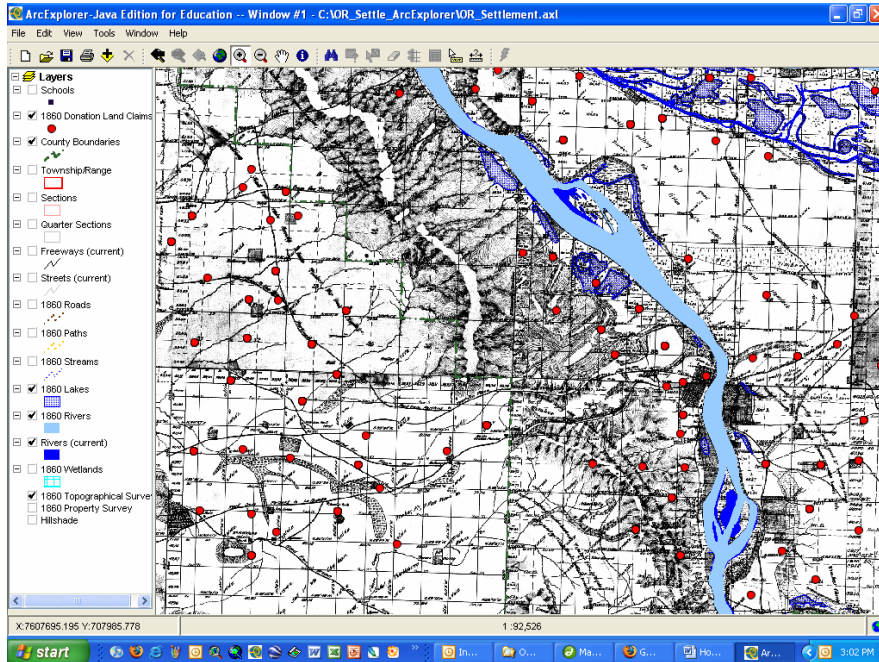
NOTE: Some of the projects require that you store the unzipped folder and data in a particular place on your computer in order for it to run properly (this is especially true of ArcExplorer and some Google Earth projects). If so, it will be noted in the more detailed instructions below.

TO UNZIP: Use the standard decompression software that comes installed on the WinXP or Vista operating system. Using My Computer or Windows Explorer, navigate to where you saved the ZIP file. Right click on the file and use the "Open With - Compressed (zipped) folders" command. Follow the instructions on the Wizard screens making sure that you BROWSE to the folder in which you want to store the project. Keep the zipped file as well in case something happens to your project!

If you do not have decompression software on your operating system - use a standard program such as WinZip or Stuffit to decompress the project.

ARCEXPLORER PROJECTS

ArcExplorer is a lightweight GIS data viewer developed by ESRI (Environmental Systems Research Institute), written in Java, that is used to perform basic GIS functions (e.g., view, navigate, and query). It is a downloadable application that operates in a stand-alone environment and does not need to connect to a server. ArcExplorer is heavily used in the education world and runs on Windows, Apple Macintosh, UNIX, and Linux computers.



Features of ArcExplorer include:

Map Viewing and Navigation

- Perform basic map navigation such as zooming and panning and switching between map and page layout view.
- Communicate more efficiently with the ability to graphically mark up maps.

Data Query and Exploration

- Use tools such as Identify, Find, Measure, and Hyperlink to discover information not available when working with static paper maps.

Map Printing

- Print map documents including all layer symbology and cartographic map elements on any supported printer.

Unlike ArcReader (described below), a useful feature of ArcExplorer is that you can also use it to build your own GIS projects (requires more advanced GIS technical skills) using shapefiles and rectified images that you can download from the internet or from the TAHPDX website. Customizing projects gives you more flexibility to tailor the project to your individual classroom needs.

NOTE: You must have the free GIS data viewer ArcExplorer installed on your computer in order to run these projects. Download this free data viewer at <http://www.esri.com/software/arcexplorer/download.html>.

PROJECT ORGANIZATION:

The folder structure for ArcExplorer projects is as follows:

<projectname_ArcExplorer> - this folder contains the ArcExplorer project file (*.axl), associated metadata and other supportive documents. This is the PARENT FOLDER that will decompress.

<Subfolders> - the parent folder will contain one or more data subfolders that contain all the GIS shapefiles, data and images used in the project.

WARNING!!!!!!

ArcExplorer projects DO NOT have RELATIVE PATHING. This means that the project is HARD CODED (the software will be looking for data files in a particular location on your computer).

You must unzip the project folder into a specified location as instructed in the README text file that is located in the project folder. In most cases, you will be instructed to unzip the project file directly onto the C: drive [C:\projectname_ArcExplorer\...]. **If the project folder is located anywhere else on your computer, it will not function properly.**

OPEN THE ARCEXPLORER PROJECT:



Open the ArcExplorer Project by launching the ArcExplorer program from the “Programs” menu or a desktop icon.



Click on the “open file” icon located on the top navigation bar. In the Open File Window, navigate to where you have stored the <projectname_ArcExplorer> folder and click on it. Once there, you should see an ArcExplorer project file (*.axl). Double-click on the ArcExplorer Project file to open it.

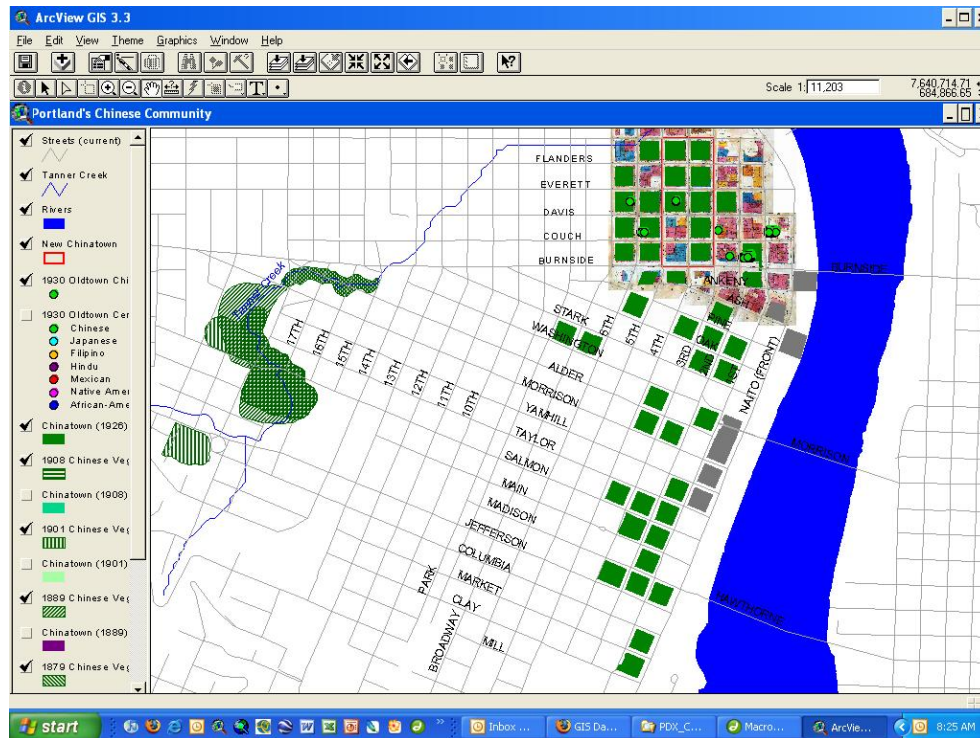
METADATA:

ArcExplorer Projects include an AEJEE Tutorial that will assist you in using the software’s tools and features.

All ArcExplorer projects come packaged with a METADATA document (in pdf format). This document will provide information about the project, the data sources, any attribute data that accompanies the data layers (field codes and information), and ideas about how to use the project in your classroom.

ARCVIEW 3.3 GIS PROJECTS

ArcView 3.3 is desktop software from ESRI (Environmental Systems Research Institute). It is a full-featured geographic information system (GIS) for visualizing, managing, creating, and analyzing geographic data.



Key features include:

1. Quality Mapping
 - Author maps using simple wizards and an extensive suite of map elements.
 - Create street-level maps that incorporate GPS locations.
 - Generate reports and charts.
 - Save, print, export, or embed completed maps in other documents or applications.
2. Spatial Analysis
 - Analyze spatial data and derive answers from data of a location-dependent nature.
 - Use a geoprocessing framework that includes ready-to-use analysis tools.
3. Map Viewing and Navigation
 - Perform basic map navigation such as zooming and panning.
 - Communicate more efficiently with the ability to graphically mark up maps.
5. Data Query and Exploration
 - Use tools such as Find and Identify to explore a variety of geographic data including raster and vector data.
 - Use tools such as Identify, Find, Measure, Hyperlink, and Magnifier Window to discover information not available when working with static paper maps.

You can find information about this product at <http://www.esri.com/software/arcgis/arcview/how-to-buy.html>.

PROJECT ORGANIZATION:

The folder structure for ArcView projects is as follows:

<projectname_ArcView> - this folder contains the ArcView project file (*.apr), associated metadata and other supportive documents. This is the PARENT FOLDER that will decompress.

<projectname_data> - this is the subfolder within the parent folder that contains all the GIS shapefiles, data, and images used in the project.

NOTE: You may copy or move the parent folder with all its associated subfolders to any place on your computer (including transportable media such as a CD or flash drive), but DO NOT CHANGE ANY OF THE FOLDER OR SUBFOLDER NAMES OR REARRANGE SUBFOLDER HIERARCHY.

OPEN THE ARCVIEW PROJECT:



Open the ArcView Project by launching the ArcView 3.3 program. When the "Welcome" box appears, select "Open an existing project." Using the middle section, navigate to where you have stored the <projectname_ArcView> folder and click on it. Once there, you should see an ArcView project file (*.apr) in the left section. Double-click on the ArcView Project file to open it.

WARNING!!!!!!

ArcView projects have been saved with RELATIVE PATHING. This means that you can move the PARENT FOLDER wherever you want and the ArcView project will open and be able to locate all its associated shapefiles and images (as long as the folder/file names and subfolder hierarchy have not been changed in any way).

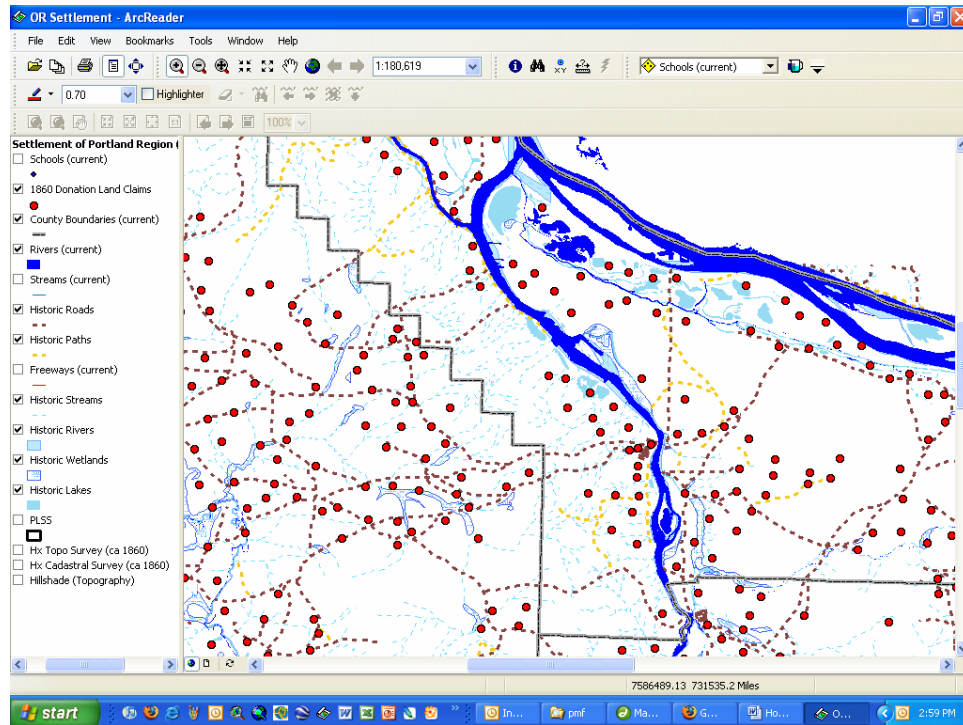
However, once you open an ArcView project file then save it again (using the SAVE or SAVE AS command) the program will HARD CODE your project. This means that you must leave the project where it is in order for it to locate its files and function properly. To avoid this problem, DO NOT save the project when you exit (you can close without saving and still open the project any time as instructed above).

METADATA:

All ArcView projects come packaged with a METADATA document (in pdf format). This document will provide information about the project, the data sources, any attribute data that accompanies the data layers (field codes and information), and ideas about how to use the project in your classroom.

ARCREADER PROJECTS

ArcReader is a free, easy-to-use desktop GIS data viewer developed by ESRI (Environmental Systems Research Institute) that allows users to view, explore, and print maps. ArcReader is a great way to explore geographic data in an easy to access and navigate prepackaged project.



Features of ArcReader include:

GIS Deployment

- View, navigate, and print maps.

Map Viewing and Navigation

- Perform basic map navigation such as zooming and panning and switching between map and page layout view.
- Communicate more efficiently with the ability to graphically mark up maps.

Data Query and Exploration

- Use ArcReader tools such as Find and Identify to explore a variety of geographic data including raster and vector data.
- Use tools such as Identify, Find, Measure, Hyperlink, and Magnifier Window to discover information not available when working with static paper maps.

Map Printing

- Print map documents including all layer symbology and cartographic map elements on any supported printer.

NOTE: You must have the free GIS data viewer ArcReader 9.0 (or above) installed on your computer in order to run this project. Download this free data viewer at

<http://www.esri.com/software/arcgis/arcreader/download.html>.

PROJECT ORGANIZATION:

ArcReader projects are self-contained (packaged) projects. The folder structure is as follows:

<projectname_ArcReader> - this folder contains support files for the project including the metadata. This is the PARENT FOLDER that will decompress.

Within the Parent folder is the <pmf> folder. This folder contains the ArcReader project file (*.pmf). Click on the folder to open it. Double-click on the *projectname.pmf* file to launch the project.

Also within the Parent folder is the <data> folder. This folder contains all the GIS shapefiles, data and images used in the project.

NOTE: You may copy or move the parent folder with all its associated subfolders to any place on your computer (including transportable media such as a CD or flash drive), but DO NOT CHANGE ANY OF THE FOLDER OR SUBFOLDER NAMES OR REARRANGE SUBFOLDER HIERARCHY.

OPEN THE ARCREADER PROJECT:



Open the ArcReader Project by launching the ArcReader program.



Click on the “open file” icon in the top navigation bar. Navigate to where you have stored the <projectname_ArcReader> folder and click on it. Click on the PMF subfolder. Once there, you should see an ArcReader project file (*.pmf). Double-click on the Project file to open it.

Alternatively, you can use My Computer or Windows Explorer to navigate to the PMF folder. Double-click on the *.pmf file to launch the program and open the project.

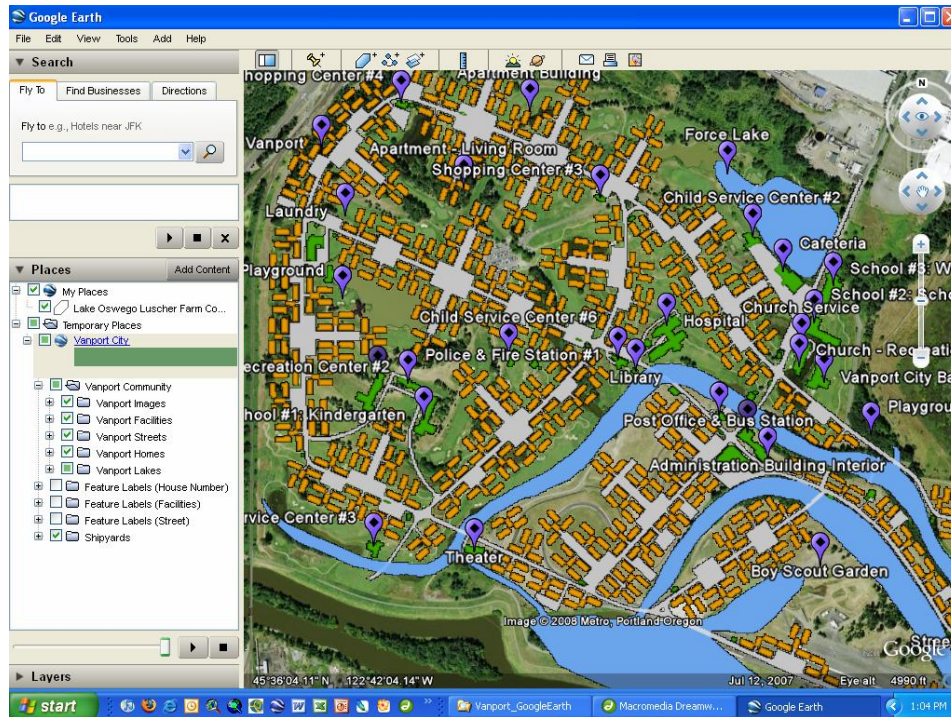
METADATA:

An ArcReader Tutorial can also be downloaded with the program. This tutorial provides instruction on how to use the software’s navigation tools and other features.

All ArcReader projects come packaged with a METADATA document (in pdf format). This document will provide information about the project, the data sources, any attribute data that accompanies the data layers (field codes and information), and ideas about how to use the project in your classroom.

GOOGLE EARTH PROJECTS

Google Earth is a free internet mapping application developed by Google (it is not the same as Google Maps). It requires a “plug-in” application and internet connection to operate. Google Earth lets you fly anywhere on Earth to view satellite imagery, maps, terrain, 3D buildings and even explore galaxies in the Sky. You can load Google Earth projects, explore rich geographical content, save your toured places, package your projects, and share them with others.



You can find information about this software at <http://earth.google.com/download-earth.html>.

The Google Earth resource page also has links to many tutorials that will assist you in using the software’s many navigation tools and other interesting options (<http://earth.google.com/>).

PROJECT ORGANIZATION:

The folder structure of Google Earth projects is as follows:

<projectname_GoogleEarth> - this folder contains the Google Earth compressed KMZ project file (*.kmz) and associated metadata and support documents. This is the PARENT FOLDER that will decompress.

<Subfolders> - within the parent folder are various subfolders that contain the associated KML files, images and other data used in the project.

WARNING!!!!!!

Most of the Google Earth Projects will be saved with RELATIVE PATHING. This means that you can move and save the PARENT FOLDER wherever you want and the Google Earth project will open and be able to locate all its associated data and images (as long as the folder/file names and subfolder hierarchy have not been changed in any way).

However, occasionally a project with a very large raster image will have been compressed using a "superoverlay" function – this is done to help the software load the images quickly at various scales. These projects DO NOT have relative pathing. The PARENT FOLDER MUST BE UNZIPPED AND SAVED AS INSTRUCTED (usually directly on your C: drive) in order to function properly.

Consult the README file that accompanies all Google Earth projects for more detailed instructions on how to unzip and where to save the project files.

OPEN THE GOOGLE EARTH PROJECT:

Google Earth is a free plug-in from Google (it is not Google Maps). Download and install via the instructions at <http://earth.google.com/download-earth.html>.



Open the Google Earth Project by launching the Google Earth program. Use the <File/Open> command located on the top menu bar to load the KMZ. In the Open File Window, navigate to where you have stored the <projectname_GoogleEarth> folder and click on it. Click on the *.kmz project file (<projectname.kmz>). The project file will open in the "My Temporary Places" section in the map legend area.

A "Getting to Know Google Earth" Tutorial has been included in the project file to assist you in getting familiar with Google Earth's navigation tools and other features.

ORIGINAL GIS DATA:

ESRI's ArcGIS and other software (such as Tiles2KML) have been used to convert GIS data layers into KMLs for use in the Google Earth platform. The original GIS data IS NOT packaged with the Google Earth projects. In most cases, you can retrieve GIS data files through the TAHPDX: Teaching American History <Historical GIS Data> webpage.

METADATA:

All Google Earth projects come packaged with a METADATA document (in pdf format). This document will provide information about the project, the data sources, any attribute data that accompanies the data layers (field codes and information), and ideas about how to use the project in your classroom.

If you have any questions feel free to email or contact the TAH GIS Coordinator:

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