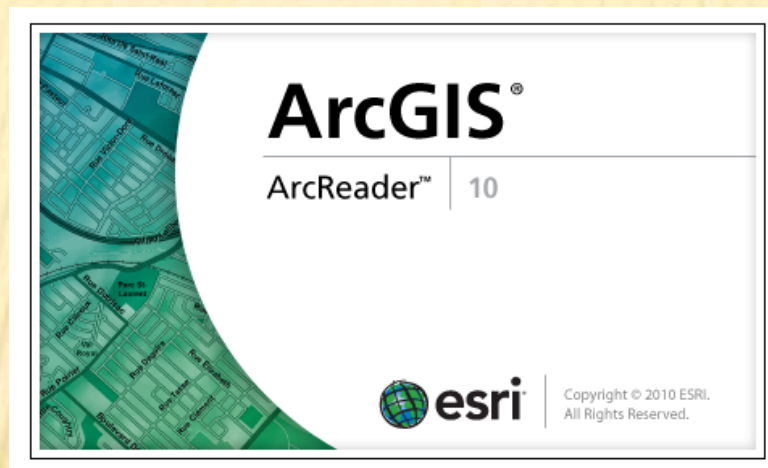


CREATING ARCREADER PROJECTS FOR LOCAL HISTORY



Robert Jones, Associate Professor
Skidmore College rjones@skidmore.edu
Spring NEARC 2013

WHAT THIS PRESENTATION COVERS

- ArcMap projects created for local use by ArcReader
 - É on a hard drive, CD, DVD or flash drive
- ArcMap and ArcReader 10.0 were used for this presentation
- What is NOT covered in this presentation
 - É ArcGlobe package

ARCMAP IS . . .

- Expensive for many potential users
 - É Especially non-profit organizations
 - É Independent map users
- Difficult for many users to learn
 - É Not intuitive
 - É Many up-front concepts to understand
 - ⌘ Especially for occasional users
 - ⌘ Easy to forget how to do things if not used often

ARCREADER IS . . .

○ Free

- É Can be downloaded or distributed to any user

○ A Simplified version of ArcMap



- É Brings interactive mapping to anyone with Windows
- É Has the look and feel of ArcMap
- É ArcReader can only read, not create, maps

○ Easy to learn

- É Uses tools common to many other applications
 - ⌘ Zoom in and out
 - ⌘ Pan
 - ⌘ Print

ARCPUBLISHER

- License required for this ArcGIS Extension
- Creates ArcReader projects
 - É Based on “.mxd” files
 - É Creates two folders
 - ⌘ A “PMF” folder for the project and hot linked files
 - ⌘ A “DATA” folder containing features and rasters

| Name | Date | Type |
|--|------------------|-------------|
|  data | 5/7/2013 6:03 PM | File folder |
|  pmf | 5/7/2013 6:03 PM | File folder |

HISTORIANS' GEOGRAPHIC NEEDS

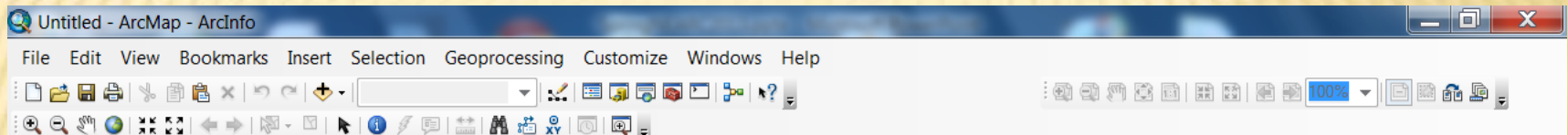
- Get frequent geographic requests such as
 - É "What is there now?"
 - É "What was there before _____?"
 - É "Where are old cemeteries in _____?"
- **Have difficulty finding same locations from paper maps**
 - É Some of which are stored in vaults and are only copies
 - É Many of which are different sizes
 - É Many of which have different features noted on them
- **Need easy access to geographic layers**
- **Need to print portions of larger maps**
 - É Often for different time periods for the same extent

SOME THINGS ARCREADER CAN DO

- Turn layers (and/or groups of layers) on and off
- Zoom in and out
- Pan
- Print
- Export maps (as .bmp files only!)
- Use the Identify tool
- Change transparency of layers
- Swipe Layers
- Use hyperlinks
- Measure distances
- Mark up a map (using pen or highlighter)
- Query (limited)
- Switch between data and layout view

TOOLBARS

ArcMap Toolbar



ArcReader Toolbar



ARCREADER CANNOT

- ò Add new data layers
- ò Create new layers from existing layers
- ò Change colors of features
- ò Turn labels off or on
- ò Change the order of layers in the table of contents
- ò View an entire attribute table
- ò Save changes to a .pmf file

SAVING THE ARCREADER PACKAGE

- The ArcReader package can be saved in one of three formats
 - É Existing format (shape files and rasters)
 - É File geodatabase
 - É Compressed file geodatabase
- Compressed GDB (not using existing format) takes up about half the space of the other ArcReader formats
- ArcReader packages take up 5 times the space of a map package (.mpk)
 - É 2.5 times the space for a Compressed GDB

ARCMAP AND .PMF FILES

- ArcMap (using the Publisher extension)
 - É Can create .pmf files
 - É Cannot open .pmf files

OPENING AND EDITING FILES IN THE ARCREADER DATA PACKAGE

- ArcMap can modify the contents of files within the package
 - depending on the data package format chosen
- ArcMap
 - É Can open and edit files saved as
 - "Existing format"
 - File geodatabase
 - É Can open, but not edit, files in Compressed GDB
 - É Cannot open files in Compressed and Locked GDB

CHANGING THE .PMF FILE

- ò Each .pmf file is created from a .mxd file
- ò .pmf files cannot be edited once created
- ò Changing the pmf file
 - É Must change and save the .mxd file
 - É Then republish a new .pmf file
 - Ð Presumably if the files in the DATA folder are the same
 - × Only the pmf file needs to be changed

MODIFYING ARCREADER PACKAGES

- A new .pmf file for a given DATA folder can be created
- Files within the DATA folder can be edited
 - É unless they are compressed
- Not possible to add new files to a DATA folder without creating a new package

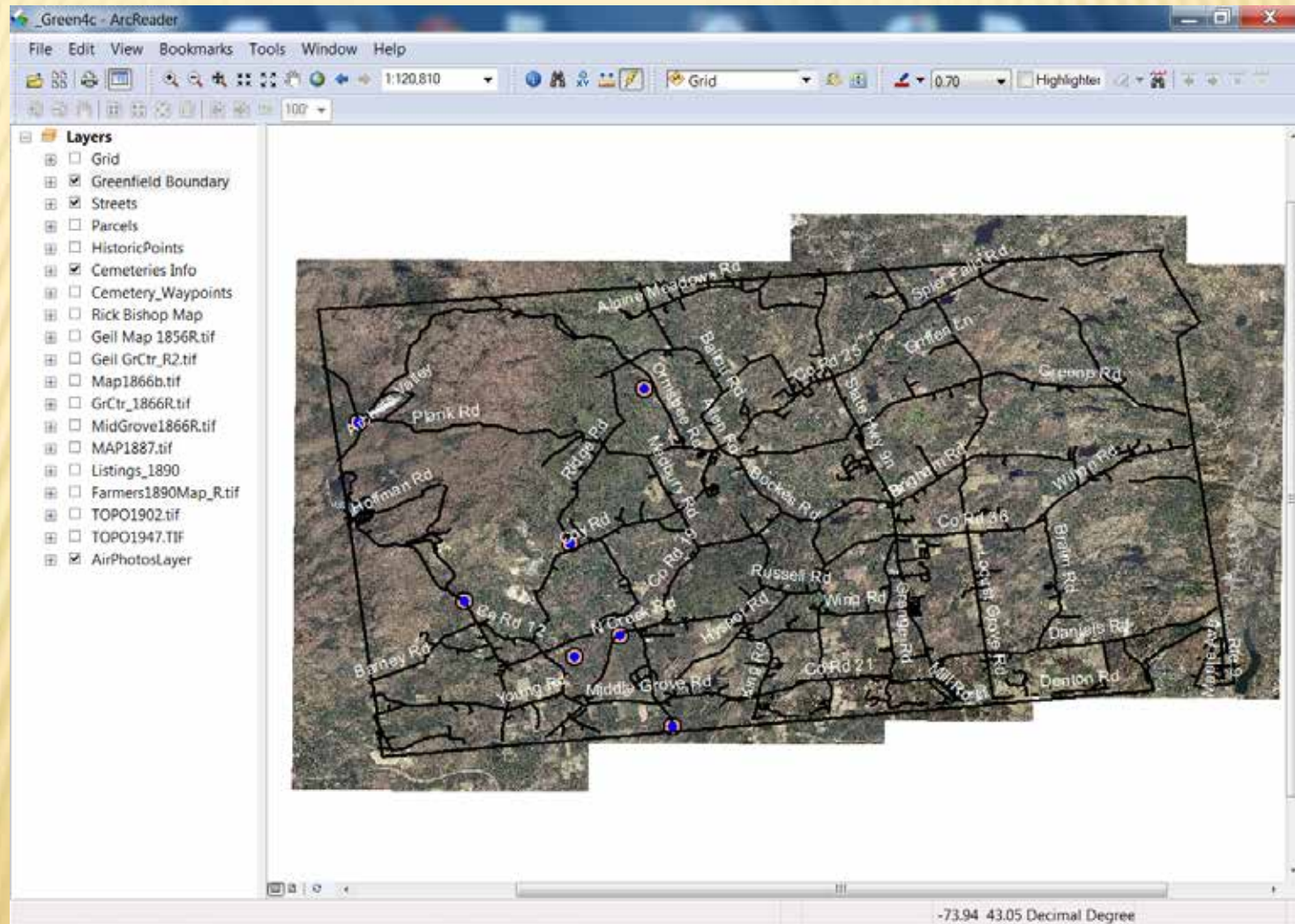
A SAMPLE ARCREADER PROJECT

CEMETERIES IN TOWN OF GREENFIELD, NY

○ Project Contents

- É Most recent aerial photos as a group layer
- É Streets layer
- É Parcels layer
- É Cemeteries as points with hyperlinked documents
 - ⌘ Word documents contain links to web pages for each cemetery
 - ⌘ Word documents contain directions and sketch of each cemetery
 - × Several cemeteries are hidden in what are now forestlands
 - ⌘ Word documents provide a photograph, parking and access information for each cemetery
 - × Some are on private property

GREENFIELD, NY CEMETERIES ARCREADER PROJECT



SOME BENEFITS TO GREENFIELD

- Town Historian reports that much time is saved looking the history of a given place
- Enables Town Clerk to include previously unknown cemeteries on deeds
 - É Some property owner did not know that their parcel contained a cemetery!
 - ⌘ Greenfield is largely rural
 - × Was once heavily farmed in 1700's
 - × Most farming ceased by late 1800's

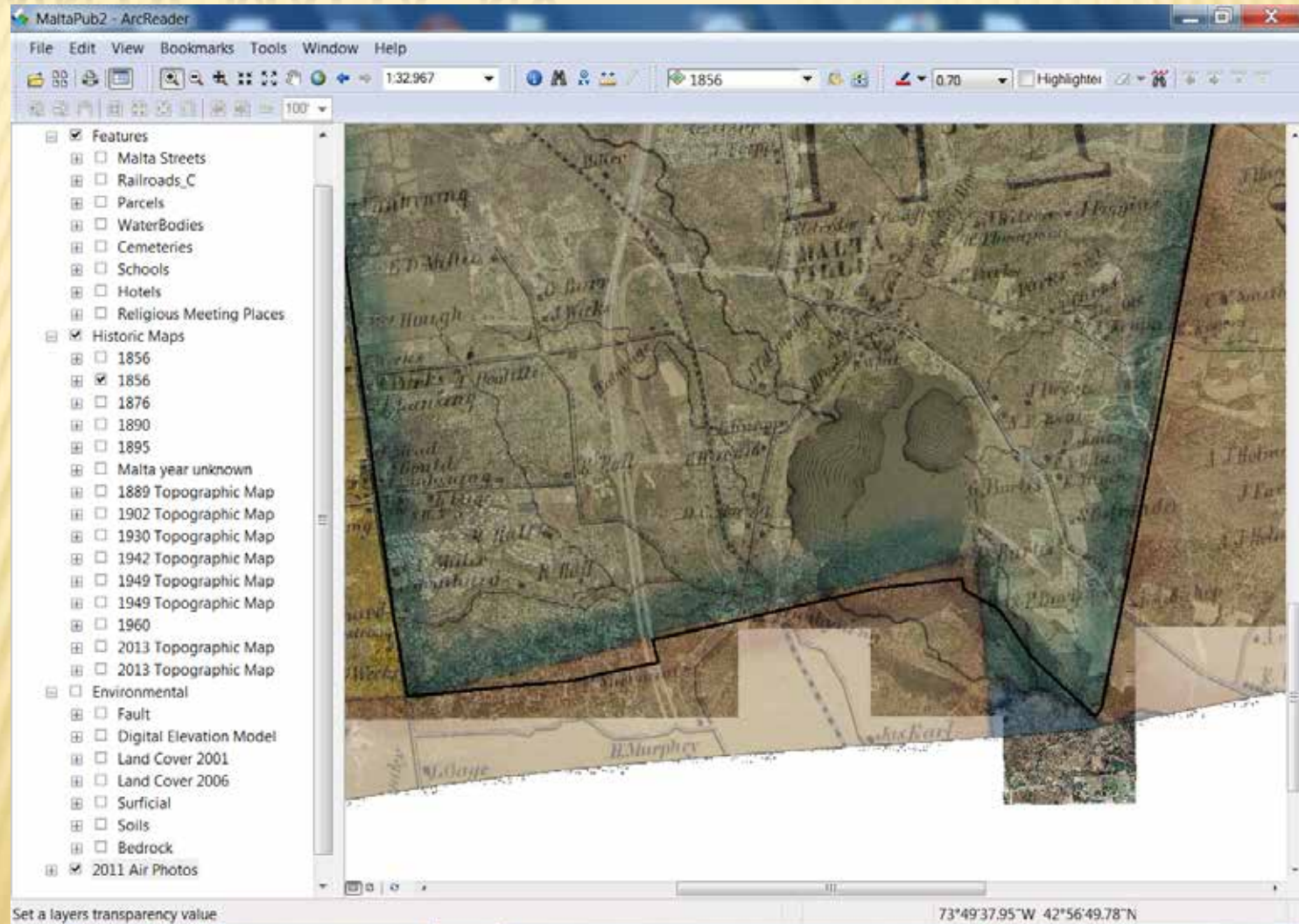
NEXT STEPS IN THE GREENFIELD PROJECT

- Historic Places of Interest in ArcReader
 - É Pictures, short videos and other information about selected historic sites

OTHER HISTORY PROJECTS: ARCREADER FOR OTHER TOWNS

- Requested (suggested) by other Saratoga Town Historians
- Assigned GIS Class students to create a town map
 - É Each student was assigned one of the towns/cities in Saratoga County
- Created an ArcReader projects for their assigned town/ city containing
 - É Streets layer
 - É Town/city Boundary
 - É All available historic maps georeferenced and clipped to boundary
 - É All available topographic maps georeferenced clipped
 - É Environmental layers clipped to town/city boundaries
 - Bedrock, soils, surficial geology, wetlands, watersheds, land cover, fault lines
 - É Most recent aerial photography for the town or city
- Provides a civic engagement project for students
 - É And to their portfolio for future GIS job applications
 - É Perform a needed public service beyond the expertise of the end users

STUDENT CREATED ARCREADER PROJECT TOWN OF MALTA, NY



SPECIAL PROJECT FOR SARATOGA SPRINGS

○ The City has hundreds of historic maps

- É Different historic maps are stored in various major locations
 - Ð Many are 200 year old originals in vaults for their own protection
 - Ð Not easily available to the public

○ Saratoga Springs mapping project

- É Using ArcReader to make historic map layers available
 - Ð In ArcReader
 - Ð And in .kml formats for Google Earth
- É See temporary web site:
http://www.skidmore.edu/~rjones/SSHIST/index_sshist.htm

[Home Page](#)

Maps scanned at the Office
of the Saratoga Springs
City Historian

Google Earth Files

The following are kmz files
for use with [Google Earth](#).
To see a ".kmz" file,, save it
to your computer. With
Google Earth installed on
your computer, open the
".kmz" file. They should
overlay the air photo in
Google Earth reasonably
well. Note: these files are
between 10 and 20 MB in
size and may take a while to
download. Please be patient .

[1793 Livingston](#) | [1810 Putnam](#) | [1838 Ellsworth](#) |
[1838 Twitchell](#) | [1839 Walton](#) | [1851 Clarke](#) |
[1853 Cox](#) | [1855 Waterbury](#) | [1879 Cramer and Mott](#) | [1881 Lawrence](#)

SARATOGA SPRINGS HISTORIC MAPS

[1793 Livingston](#) | [1810 Putnam](#) | [1813 Walton](#) | [1822 Livingston](#) | [1838 Ellsworth](#) | [1838 Twitchell](#) |
[1839 Walton](#) | [1840 Twitchell](#) | [1848 Bevan](#) | [1851 Clarke](#) | [1853 Cox](#) | [1855 Waterbury](#) | [1855 Congress Hall](#) | [1858 R. Clark](#) | [1860 Carrigan](#) | [1860c Morrissey](#) | [1867 Marvin](#) | [1867 Sheehan](#) |
[1868 Near High Rock](#) | [1870c Union Hotel](#) | [1872 Bacheller](#) | [1879 Cramer and Mott](#) | [1881 Lawrence](#) | [1887 Lester Brothers](#) | [1900unk Jumel Estate](#) | [1912 Grand Union](#) | [1920c Mott](#) | [1924 Former Clarendon Hotel Property](#) | [1935 Steam Mill GU Hotel](#) | [1955 JRS](#) |



Historic Air Photo Mosaics:

(NOTE: Some of these files are over 100 MB and may take a while to download. Please be patient.)

[1948-49](#) | [1961 Mosaic](#) | [1968 Downtown and East North](#) | [1968 Downtown and East South](#) |
[1968 West](#)

Please send comments or suggestions for improvement to rjones@skidmore.edu

Last updated: May 6, 2013

THINGS TO CONSIDER WHEN CREATING ARCREADER PROJECTS

- The layers can be created as accessible outside of ArcReader
 - If accessible
 - ArcMap can modify the layers
 - ArcMap can add or delete layers and republish a new .pmf file for the Data folder files
- Creating a new map package can be time consuming
 - 30 minutes is not unusual
- Republishing a new .pmf file takes only seconds
 - similar to saving an ArcMap (.mxd) project file

MORE THINGS TO CONSIDER

- Work with the end user when creating the package
 - É Unless you are extremely familiar with their uses and needs
- Have end-users explain how they use ArcReader projects to other similar end-users
 - É Many end-users are not experienced technical people
- Have a process for updating their ArcReader project as needed by them
- Try to make end-user into independent users

CLOSING COMMENTS

- Not all capabilities of Publisher and ArcReader were contained nor tested for this presentation
- For more information see:

É http://help.arcgis.com/en/arcgisdesktop/10.0/help/index.html#/Welcome_to_the_ArcGIS_Help_Library/