Ce 114 Geomatics
Fall 2017

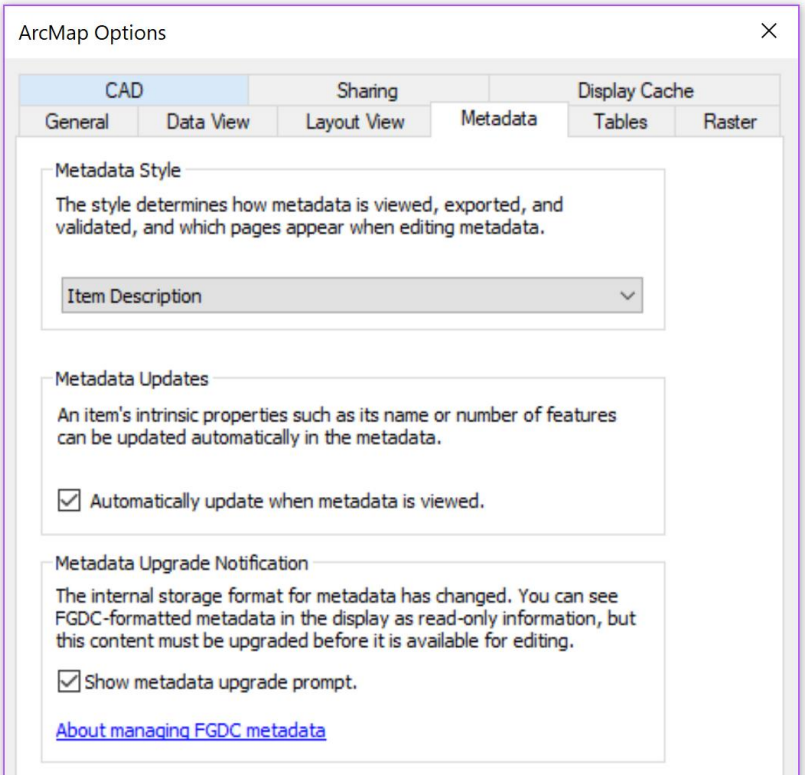
Laboratory Exercise #9 – Creating Metadata

Description

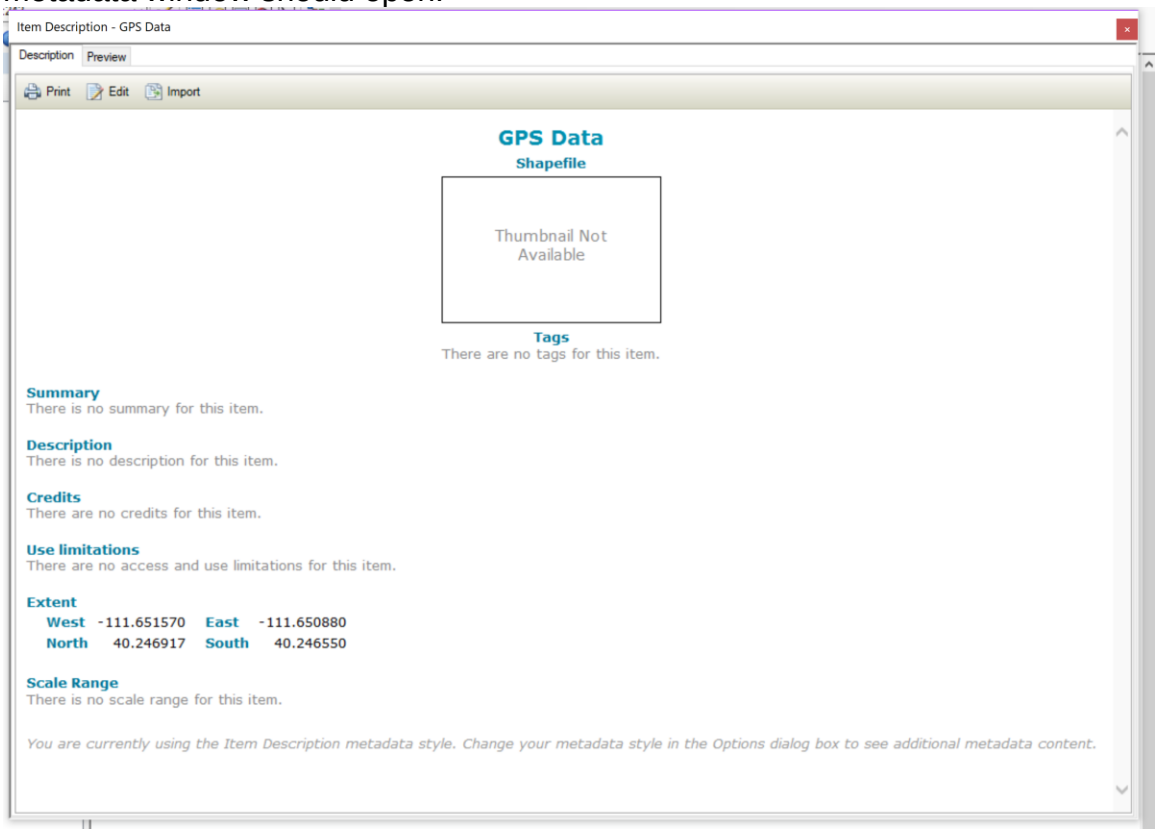
The purpose of this lab is to create and learn more about metadata using ArcMap. In lecture, we discussed that metadata is 'data about your data.' This information should answer most questions that might be important to a GIS user. It will help you organize and substantiate your own data, make your data easy to use by others, and allow you to provide necessary credit to the contributors to the data.

Procedure – Part 1

1. Start a new map document in ArcMap. Add the shapefile containing your gps points from last lab to the project.
2. On the top ribbon, open Customize > ArcMap Options. Depending on your audience and purpose, you may include different amounts of data and format it differently. For this class, you should use the standard options. Make sure the Metadata style is set to "Item Description" and that both check boxes are marked.



3. In the catalog explorer on the right of the project (*not* in table of contents), find your shape file. Right click on the file and choose “Item Description.” The metadata window should open.



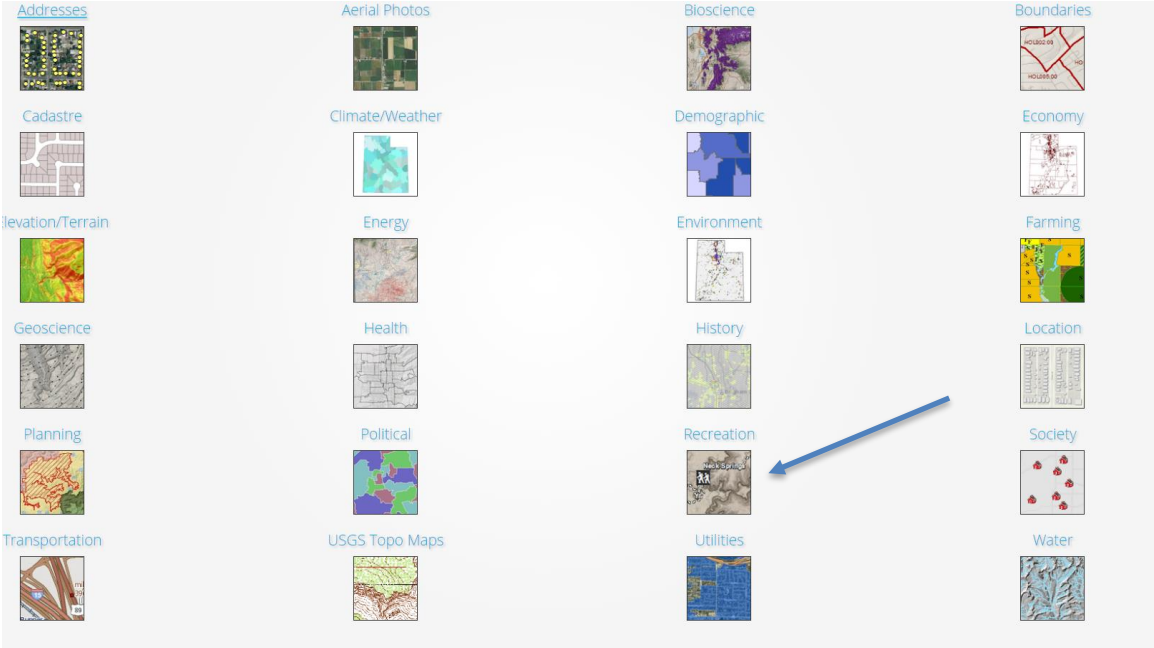
4. Toward the top left of the dialog box, click Edit.
   4.1. Title- Self Explanatory
   4.2. Thumbnail- wait for step 5
   4.3. Tags- A tag should tell you what categories your data is part of. For example, if I was surveying the Grand Canyon, I might include the tag National Park. Include a minimum of 3 tags for this data
   4.4. Summary (Purpose)- This is a short explanation of why the data was collected. You should mention something about collecting data for a class.
   4.5. Description (Abstract)- This section describes how the data was collected, with what equipment, by who, where the data is (IE on BYU campus), what physical features it describes (landmarks and locations), etc. Write several sentences explaining the data.
   4.6. Credits- If you used someone else’s equipment, facilities, employees or otherwise benefited from someone else; they should be credited. This is similar to a works cited page in an essay. You can credit the person whose phone/GPS you used, the TA’s, etc.
   4.7. Click the plus mark to add another limitation field. As a team, you may decide how you want your information to be used. You might say it should only be used with permission or that it can be freely distributed.

4.8. Scale Range- Since we're marking positions and small locations, you need to be at a small scale to see the significance of these points. Use the sliders to select the smallest scale range.

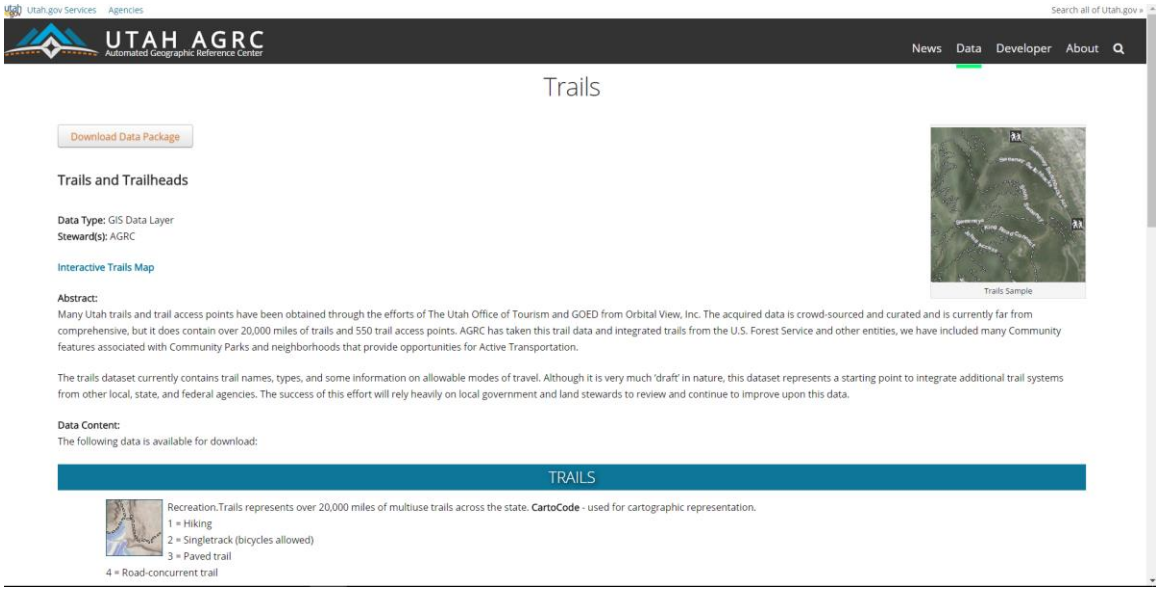
5. Save your changes. Click the preview button found on the top right. Use the zoom tools (most helpful being Full Extent) to be sure all your data points are visible on the preview screen. The farthest right button on the preview toolbar should allow you to create a thumbnail. Save it with the rest of your data.
6. Return to the Item Description page and begin editing again. Use the controls available to upload your thumbnail.

Procedure – Part 2

In a web browser, go to the Utah AGRC website https://gis.utah.gov/data/. This website contains a large selection of GIS data for Utah. You need to select 3 datasets to download into your project. Scroll down to the bottom of the webpage to see all of the possible datasets available through the AGRC website.

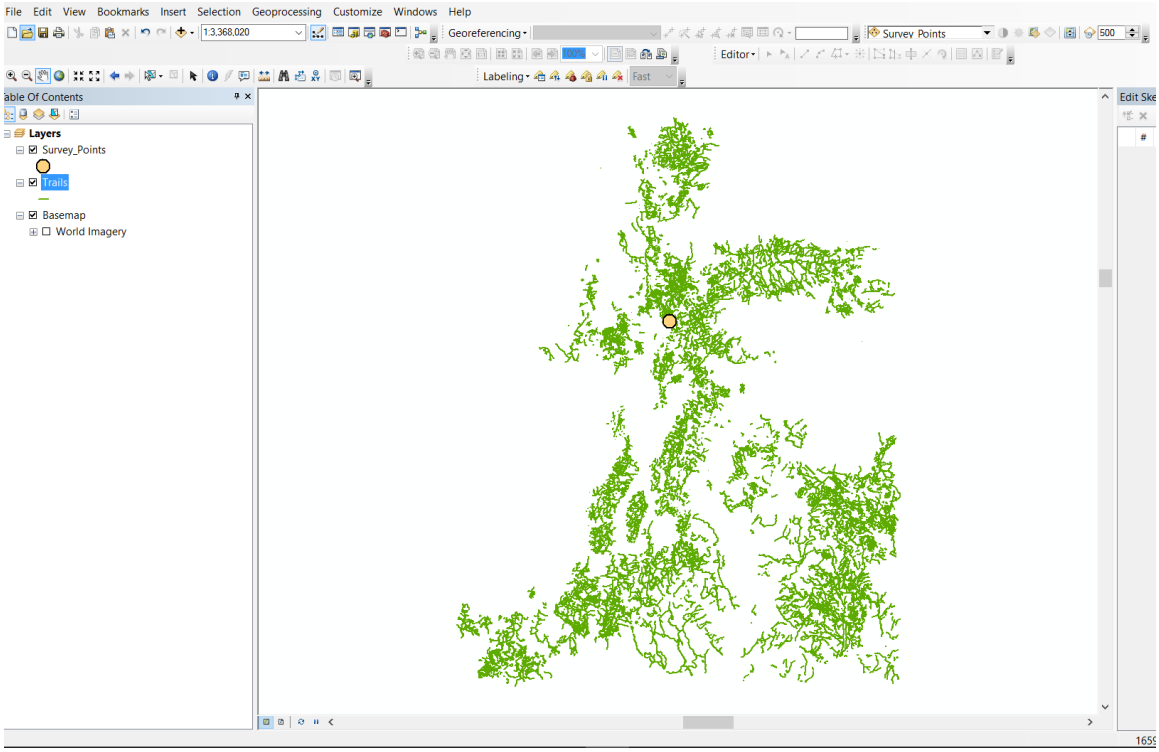


Click on the Recreation icon. Notice the table on the next page. This table contains very basic metadata for each of the GIS data products. Click on the Trails link in the table.



Notice the metadata provided for this dataset. There is the Data Type, Stewards, Abstract, and Data Content. Scroll down the page until you see the orange Downloads button. To the right of it you'll see the Updates button. Under this button is metadata for when the data was obtained. Write a brief paragraph describing the metadata. This paragraph should include at least 4 out of the 5 categories.

Under the orange Download button, right click on Trails: Shapefile and save it to where your other data is located (save it to the D Drive to speed up the loading process). Once it is downloaded and you have extracted it (right click on the zipped folder and choose Extract All), then open the data into your ArcMap project.



You will need to refresh your folder in the Catalog by right clicking on the directory folder and choosing, Refresh. Once you locate your Trails shapefile, drag it into the center screen. Under the Layers on the left, right click on the Trails layer and choose Zoom to Layer.

Take a screenshot of the trails dataset with your Survey Points showing like the image above. Repeat this process two more times so that you have a total of 3 downloaded datasets, 3 paragraphs explaining the metadata, and 3 screenshots. Save your project. You will create the complete map for the following week.

Deliverables

- 3 screenshots, one for each additional dataset you downloaded from the AGRC (your points need to be showing in the screenshots)

- 3 paragraphs describing at least 4 out of the 5 mentioned metadata types mentioned previously

- A PDF of the metadata you created for your survey points.

- Please combine all of your deliverables into one report which you will submit on Learning Suite.

Grading Rubric

Item	Points
GPS Points Metadata	10
Screenshots of 3 datasets (including GPS points in each)	10
Paragraphs describing the metadata for each of the three datasets selected	10
Total	30