Tutorial: Developing a Geologic Story Map from Kentucky Geological Survey Images

Prepared for the 2015 KAMP GIS Workshop at Kentucky State University (5/13/2015)

Objective:

This tutorial will guide you through the process of creating a custom download of image locations with url's to those images from a web service created by KGS. You can then use this download to create a story map tour in ArcGIS Online. If you have your own web server, you can then further customize the story map for your own deployment. The purpose of this exercise is to guide users through the process of creating a story map from some "real" data.

Requirements:

- A web browser
- An ArcGIS Online account
- Microsoft Excel (for converting an Excel file to CSV)
- Optional: a web server

Steps:

- 1) Navigate to <u>http://kgs.uky.edu/storymaps/</u> this is the KGS story map gallery page. Scroll down below the map to find the gallery of sites.
- 2) Mouse over the "KGS Images Story Map Tool" and click "View app" this opens the tool for helping you create a story map (<u>http://kgs.uky.edu/storymap/genStoryMap.htm</u>):



3) On the KGS Images Story Map Tool webpage, you'll see a map of Kentucky with icons displaying the locations of KGS-hosted images throughout Kentucky. You can click on a location to view the information for each image – and view the image. You can also filter the images by image types or by searching on a term found in the image caption.

- 4) Zoom in on the map and/or filter images how you desire to create a grouping of images for a story map. Some suggestions:
 - a. Pick a road of interest (major highway), and filter for the "outcrop photo" type along that road.
 - b. Zoom into a park and see if there are images available for that area.
 - c. Search and filter the images based on a geologic feature/rock type ("chert" or "fault").
- 5) Once you are satisfied with the images and area you are interested in creating a story map with click the "Draw Polygon" button in the main dialog window:



And click on the map to start drawing a polygon around the images you are interested in. DOUBLE-CLICK the mouse to complete the drawing. Once you are finished drawing, and if you're satisfied with the area you created, you'll be prompted to create the Excel file of the images. Confirm and the process to start creating the Excel file begins:



Once complete, a dialog to download the Excel File appears. Click to download and save the file:



6) Open the Excel file in Microsoft Excel (should be called "kyImagesClip.xls) to check it out. It should have the following fields at the top:
OBJECTID | name | lat | long | description | pic url |thumb url

These are the suggested names for fields to use in the ESRI story map builder. What the KGS tool did was download the KGS images from the KGS database and output the data into this format.

The OBJECTID specifies the order that the images will be displayed in the story map. This can be changed later inside the story map builder, but you can also re-order them here. You can also eliminate images you don't want. What is important is that each OBJECTID **must** be unique.

- Save the Excel file as a CSV: in Excel Save As \rightarrow select "CSV (Comma-delimited) (*.csv)

You can now close Excel and the KGS Story Map Tool (it will prompt that you aren't saving in the correct format, you've save it - just close the application).

7) You will now be in ArcGIS Online world. You will need an ArcGIS Online account. The public accounts are free, and can be created here: <u>https://www.arcgis.com/home/createaccount.html</u>

If you have never done this before, a good place to start for creating a story map is the ESRI story map tutorial – and this tutorial you are currently viewing will use the same basic steps: http://storymaps.arcgis.com/en/app-list/map-tour/tutorial/

So, navigate to the map tour builder: <u>http://www.arcgis.com/apps/MapTour/?fromScratch</u> You will be prompted to sign in if you haven't signed in already. Once you sign in, you should see a splash screen like this:



For this exercise, click the "Advanced Options" link and...

...on the next splash screen click "Import Tour data from a CSV file":



A dialog will display asking you to Select or drop a CSV file. Find your CSV file you created from Excel in step 6 and simply drag-and-drop (or select it) into the dialog (left image below). Once you do this, ArcGIS Online magic happens and you should get a dialog that looks something like the image on the right:



If it works and you are happy with what you see (you can change the order of the points later), click the "Import" button, and the process of creating a story map starts...

8) Once done, you should now see the story map web application builder that contains your points in some type of order with the images and their captions displayed:



From the application builder you can organize the points (click the "Organize" button) or go back to the KGS tool and create another CSV file to add more points to the map. You can also change the layout colors, header, etc ("Settings" button at the top)...





But what you MUST do before you can save your map tour, is fill out a **Title** at the upper left of the web page. Go ahead and do this and then click "Save". The application is now saved in your ArcGIS Online account (in "My Content"). If you want the public to be able to view the application, click the "Share" button at the top. This builder tool will guide you through sharing and how to obtain a URL for your application.

Congratulations! You have now created a story map. Please credit the Kentucky Geological Survey in the summary of the application. To make further changes, launch it and click the "Switch to builder mode" button in the header (only you can see this button when signed into ArcGIS Online).

Going Further...

The following will guide you through accessing the application and data in your ArcGIS Online account.

9) Navigate to your "My Content" in ArcGIS Online. Sign into ArcGIS Online: https://www.arcgis.com/home/signin.html

ArcGIS FEATURES P	PLANS GALLERY MAP SCENE GROUPS		-	Douglas+ Q
My Content	KAT / ELITE			
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Show	1 - 2 of 2 results			
All				
Maps				
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And then click the "MY CONTENT" link at the top of the page:

Under MY CONTENT you should see two type of entries from the story map you just created:

- 1) a Web Map: this is the map that is created in the background when you go through the wizard that contains the data and basemap that is used in...
- 2) a Web Mapping Application: this is the actual Javascript-based story map application or wrapper around the web map that is used to display the web map and provide the story map functionality.

What you don't see is the data you imported (right now it's a part of the Web Map) – the next step will show you how to access that data.

10) Click the small pulldown arrow icon next to the "Web Map" and click "Open in map viewer":

ArcGIS FEATURES F	PLANS GALLERY MAP SCENE GROUPS MY	Y CONTENT	Douglas•	Q
My Content				
Folders	+ Add Item 👻 🔀 Create 👻 🚳 Share 🗙 D	elete 🎬 Move 👻		Using 0% of 2GB
🖴 NEW 🕌 DELETE	Title	Туре	Modified	Shared
	KGS Story Map Example	Web Mapping Application	May 8, 2015	Everyone
🚘 KYSurvey (Home)	KGS Story Map Example	Web Map	May 8, 2015	Everyone
Show	1 - 2 of 2 results	View item details	View item details	
All Maps		Open in ArcGIS for Desktop Create presentation		
Layers				

This will open the web map in the generic ArcGIS Online web map and should look something like this:



Notice the "Map Tour Layer" – these are the points you imported with the CSV file. You can view the table of these points and edit them. Use the pulldown on the layer and select "Enable Editing". You can then edit by either clicking the "Edit" button where you can add points. Or click on a feature and directly edit the attributes of the point.



There isn't a great reason to do this, but if you want to save the data as a Feature Layer in your ArcGIS Online account, use the pull down on the layer and select "Save Layer":



This will create an item in your ArcGIS Online account. You will be prompted to provide tags and summary for the layer.

The next section covers migrating a story map to your own web server. Keep your web map open to do this...

Advanced: hosting a story map on your own server.

There are many reasons you may want to host the story map application on your own server. You may want to add a custom logo to your application or further customize the layout beyond what ArcGIS Online will allow you to change. Also, you may want to have a shorter URL that is named with your own server space.

You can do this by still utilizing the Web Map that you created in ArcGIS Online, and using a downloaded template for the story map web application. You will host the application on your server, but reference the Web Map in ArcGIS Online.

Unfortunately, as of this writing, ArcGIS Online does not allow the export of a previously created web application. So you will need to download a template, install onto your server, and then modify the application with either the out-of-box edit tools or your favorite code editor.

So, assuming that your story map Web Map in ArcGIS Online is still open...

1) Click the Share button at the top ribbon above the map – then click "MAKE A WEB APPLICATION" in the splash screen:



2) You will then see a gallery of template's that you can use to create a web application from your current web map. For the story map templates, click through the pages until you find the Story Map Tour (page 3 as of this writing). Click the down arrow pulldown next to "Publish" and select "Download"...



3) This will do 2 things (as of this writing) – a) it will give you another splash screen with instructions that are somewhat incorrect, but also somewhat correct (see above); and b) it will open up the repository for the story map template in an outside website called GitHub.

The incorrect part on the splash screen is that the template does not automatically download. You now need to download it from GitHub. So, on the GitHub page that opened, simply click the "Download Zip" button on the lower right of the screen:

Esri / map-tour-sto	orytelling-template-js	Watch 43	★ Star 62 ¥ Fork 60	
storytelling template comb	ining an interactive map, a photo and text panel, and a	a thumbnail carousel.		
③ 89 commits	2 3 branches S 15 releases	3 contributors	↔ Code	
			() Issues (17)	
🗱 🕼 branch: master 🕶 🕅	ap-tour-storytelling-template-js / +	:=	1 Pull requests	
Update README.md				
🛐 glazou authored 22 days ago		latest commit f9cebdacd6 🕵	a month ago a year ago	
MapTour	Fix #35	a month ago		
misc 📔	fix SET_C: red icon number 2 was 3	a year ago		
samples	Map Tour 2.2	a year ago	HTTPS clone URL	
.gitignore	gitignore	vears ago	https://github.com/I	
CONTRIBUTING.md	Version 2.1.1 - minor fixes for Portal user and develope	r 2 yez ago	You can clone with HTTPS or Subversion. (2)	
README.md	Update README.md	22 days ago	Clone in Desktop	
Readme.pdf	Map Tour 2.2.3	a year ago	Company Download ZIP	
license.txt	Update to 2.1	2 years ago		
map-tour-storytelling-template	-js.png update readme thumbnail	a year ago		

Download the zip file and then follow the instructions to deploy (shown on the ArcGIS Online splash screen above). And then, in order to not repeat and reinvent the wheel here, you're best to follow the deploy instructions in the ReadMe.pdf that comes in the zip download. Good luck!