Getting your data into ArcGIS Online

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Easton, Massachusetts

About
Incorporated in 1725, the Town of Easton is located 30 minutes from Boston, 45 minutes from Cape Cod, and 45 minutes from Providence.

Population
23,112 (U.S. Census Bureau, 2010 Census of Population)

Area
29.2 square miles (U.S. Census Bureau)
Summary

• ArcGIS Server vs. ArcGIS Online considerations
• Publishing services to ArcGIS Online
• Scripting – Python, ArcGIS REST API
ArcGIS Server/AGOL Considerations

- Credits
- Dynamic Map Services – Server only
- Desktop editing requirements
- Tiled map service with routine updates
Web Application Services

ArcGIS Server
- Map Services
- Tiled Map Service
- Geocode Service
- Geoprocessing Service

ArcGIS Online
- Feature Services (Feature Layer)
- Tiled Map Services (Tile Layer)
Benefits/Tradeoffs

• Benefits
  • More service capacity
  • Improve reliability

• Tradeoffs
  • Script maintenance
Publish a feature layer with ArcMap

- Create map project
- Login to AGOL
- Share as Service
- My Hosted Services
- Capabilities - Feature Access
- Feature Access operations
  - Create, Delete, Query, Sync, Update
- Sharing
Publish a tile layer with ArcMap

- Create map project
  - Example – 25 sq km imagery
- Login to AGOL
- Share as Tile Package
- DO NOT SHARE AS SERVICE
Publish a tile layer with ArcMap (cont.)

• Upload a package to AGOL
• Tiling Scheme
• Open the tile package in AGOL
• Publish as tile layer
How much is this costing me?

- Tile and data storage (8/26/2016) – 1.2 credits per 1GB stored per month
  - http://www.arcgis.com/features/plans/credits.html

- Tile layer – 802MB
  - < 12 credits per year

- Tile package – 802 MB
Publish a tile layer – Custom scheme

- Create tile scheme - ArcToolbox: Generate Tile Cache Tiling Scheme
- Default AGOL tiling scheme XML - C:\Program Files (x86)\ArcGIS\Desktop10.3\TilingSchemes\ArcGIS_Online_Bing_Maps_Google_Maps.xml
- Add additional scale level(s): 564.248588
- Create Cache - ArcToolbox: Manage Tile Cache
- Create Package - ArcToolbox: Export Tile Cache
- ArcToolbox: Share Package
- Tile layer size – 3,137 MB
AGOL Resources

• Esri on GitHub - AGOL Admin wiki
  • Python modules – PortalPy, ArcREST
  • Tools - ArcGIS Online Assistant

• Sample script
Breaking down the script

• Log in (Generate Token)
• Find your item
• Create Service Definition file
  • Defines capabilities, sharing, etc..
  • Uses arcpy.mapping.CreateMapSDDraft
• Update Service Definition of your item
• Publish Service Definition
ArcGIS REST API

- Demo – Query a feature service through REST
- Demo – Changing service capabilities through REST

Link to AGOL feature service
ArcGIS REST – Finding URLs

• Admin service catalog
  • http://XYZ.arcgis.com/YOUR_ORG_ID/ArcGIS/rest/admin

• User content URL (usercontent-url)
  • Item in root
    • https://www.arcgis.com/sharing/rest/content/users/USER_NAME/items/ITEM_ID
  • Item in subfolder
    • https://www.arcgis.com/sharing/rest/content/users/USER_NAME/FOLDER_ID/items/ITEM_ID

• Find content ID
  • Find the item ID
    • http://leongis.maps.arcgis.com/home/item.html?id=7fe14a05e8f74b548b2a029d0f7048a8

• Find the folder (root or subdirectory)
  • https://www.arcgis.com/sharing/rest/content/users/lscott@LeonGIS?f=pjson&token=DONT_KNOW
Updating Tile Layer on AGOL

• Create a tile package  
  • ArcToolbox: Create Map Tile Package
• Import package to AGOL  
  • Use ArcREST module
• Find tile package item ID  
  • "orgid:" + MY_ORGID + " AND type:Tile Package AND title:" + MY_PACKAGE
• Run Import Tiles on existing map service

Link to AGOL tile layer
Changes Coming

- Vector Tiles
- ArcGIS Pro
Thank you for listening!

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