Sharing Maps and Layers to Portal for ArcGIS
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Agenda
What we will cover sharing from ArcGIS Pro...

- Share a hosted feature layer
- Share a referenced map image layer
- Explore one click sharing of web maps
- Use packages to implement sharing workflows
Web GIS empowers sharing
Pro is designed to integrate with Web GIS from the ground up...

- **ArcGIS Pro as a Web GIS client**
  - Sophisticated desktop functionality
  - Share and access maps and layers

- **Web GIS deployment**
  - Portal for ArcGIS
  - ArcGIS Server
  - ArcGIS Data Store

- **GIS Server**
  - Full server GIS functionality
  - Registered enterprise data

![Diagram of Web GIS components]
### Share many different ArcGIS components

Supports both Web GIS and Desktop GIS workflows

<table>
<thead>
<tr>
<th>Maps</th>
<th>Layers</th>
<th>Packages</th>
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<tbody>
<tr>
<td>• Maps</td>
<td>Feature</td>
<td>• Project</td>
</tr>
<tr>
<td>• Scenes</td>
<td>Tile</td>
<td>• Map</td>
</tr>
<tr>
<td></td>
<td>Map Image</td>
<td>• Layer</td>
</tr>
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<td></td>
<td>Image</td>
<td>• Scene layer</td>
</tr>
<tr>
<td></td>
<td>Elevation</td>
<td>• Tile</td>
</tr>
<tr>
<td></td>
<td>Scene</td>
<td>• Vector tile</td>
</tr>
<tr>
<td></td>
<td>Vector tile</td>
<td>• Geoprocessing</td>
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<td>• Mobile map</td>
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How web maps, layers and services work together

Fundamental building blocks of a Web GIS...

- **Web map**
  - Collection of web data layers and mapping functionality
  - Fundamental map component across the ArcGIS Platform
  - Functionally like a map in Desktop GIS

- **Web Layer**
  - Portal content item that exposes data
  - References a GIS service and can configure attribute popups, symbology, etc.
  - Functionally like a map layer in Desktop GIS

- **Service**
  - Exposes a URL for web clients to access GIS data
  - Data can be copied to the server or referenced from a shared location or enterprise geodatabase
Demo
Sharing a hosted feature layer
Sharing a hosted feature layer recap

• **What you saw:**
  - Shared from map to create a layer item
  - Behind the scenes a new hosted feature service was created
  - Data was written to ArcGIS Data Store
  - Second layer pointed to same service

• **Key take aways:**
  - Layers and maps maintain your authored content through the sharing process
  - Layers are easily modified, shared and accessible across the ArcGIS Platform
  - Multiple layers can point to one service
Layers shared by ArcGIS Pro
More layer types to share moving forward...

ArcGIS Pro... Today

Future
Sharing layers from Pro to a GIS server

Layers

ArGIS Pro
GIS Server
Portal for ArcGIS
Enterprise Geodatabase
Online Content and Services
FEDERATED SERVER
Leverage enterprise data in place

- To access referenced data from ArcGIS server
  - Verify that the ArcGIS Server account has connection access and permissions to the data
  - Register the data location with Server (e.g., enterprise geodatabase, file share, etc.)

- Share the map from Pro
  - Choose to reference data which will create a new map image layer in Portal
  - A dynamic map service will automatically be created in Server
  - Registered data will be referenced by the service

When publishing to a federated server, enterprise data can be referenced.
Demo
Sharing map image layers
Sharing map image layers recap

• **What you saw:**
  - Pro shared registered data as a map image layer
  - Behind the scenes a new dynamic map service was created
  - Because it was registered, the data was referenced in an enterprise geodatabase

• **Key take aways:**
  - Ability to reference your registered data
  - Leverage enhanced map cartography
  - Enable feature or WMS capability
Quick and easy sharing of web maps
Pro just does the right thing for you...

- Pro is the ONLY Desktop app that shares web maps

- Pro supports one touch sharing of web maps
  - Creates a native web map in the portal
  - Links are used for previously shared layers
  - For new layers hosted services are automatically created

- Pro shares 3D as web scenes
  - Uses the best functionality for the data
  - 3D is fully integrated into the Pro user interface
  - Leverages the same user experience as sharing web maps
Demo
Sharing web maps and web scenes
Share a web map recap
One click sharing of maps and layers...

• What you saw:
  - Previously shared layers
  - One click sharing of entire web map
  - Included links to previously shared layers
  - Added new hosted feature layer and feature service for new data

• Key take aways:
  - Pro can share and consume web maps
  - One click sharing
    - Creates the web map
    - Creates or links layers to save resources
    - Same experience: web maps or web scenes
Packaging maps and layers

- **Create packages**
  - For Pro projects, maps, layers, etc.
  - Package contains key file components
  - Package data may be copied or referenced

- **Package destinations**
  - Saved to file
  - Upload to your portal

- **Packages created in Pro**
  - Consumed by Pro (not ArcMap)
  - Used to support portal publishing workflows
Using packages to share layers and create services
Create packages that can be used to create web layers on your portal

• **Basic workflow** (e.g., tile package → tiled layer)
  - In Pro, create the desired package type
  - Upload package can be specified in Pro user interface

• **3D Scene layer sharing workflow**
  - Currently the only way to share 3D scene layers to ArcGIS Online
  - Scene Layer
    - Create scene layer package tool
  - Custom elevation layer (optional)
    - Manage tile cache tool **NOTE**: Requires LERC tile format (optimizes elevation rasters)
    - Export tile cache tool
Demo
Package sharing of a 3D scene layer to ArcGIS Online
Sharing a 3D scene layer to ArcGIS Online

• What you saw:
  - Created scene layer pkg & upload Online
  - Custom elevation layer (optional)
    - Created tile cache with LERC compression
    - Exported tile cache to elevation layer pkg
    - Uploaded elevation layer pkg to Online

• Key take aways:
  - Desktop packaging can be used for some portal sharing workflows
  - Package upload is currently the ONLY way to publish a scene layer from 3D multi-patch data to Online
Sharing maps and layers overview

Pulling it all together...

• **From ArcGIS Pro**
  - You can share maps, layers, and packages to your portal

• **Layers and maps**
  - Support sharing of properties such as filtering, symbology and labeling

• **Sharing a map or scene**
  - Can create multiple layers and services as part of one operation

• **Package creation**
  - Can be used to implement some layer sharing workflows (e.g., 3D scene to Online)
What’s coming to sharing from ArcGIS Pro

- Extended scene packages
- Publishing locators
- Publishing tools
- Support for 3D model markers to Portal
- Additional capabilities when sharing map image and feature layers
Suggested Sessions

- Web GIS: Architectural Patterns and Practices
  - Wednesday 8:30am
  - Thursday 8:30am

- Portal for ArcGIS: An Introduction
  - Wednesday 10:15am
  - Friday 9:00am

- Create and Visualize 3D Layers with ArcGIS
  - Tuesday 11:30am
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