Working with Metadata in ArcGIS

Aleta Vienneau
Working with metadata in ArcGIS

- View and edit metadata
- Working with metadata in ArcMap and ArcGIS Pro
- Import and export metadata
- Common metadata tasks
- Road ahead
View and edit metadata

- Set your metadata style
- Full, standards-based metadata
- Item properties updated when you view metadata
Set your metadata style

- FGDC CSDGM
- ISO 19139
- INSPIRE
- North American Profile (NAP)
- Item Description (default)

ArcGIS Metadata XML
Set your metadata style

• Style tailors how metadata is
  - Displayed
  - Edited
  - Exported
  - Validated
Edit metadata

• Improvements in ArcGIS Pro
  - Open many metadata editors at once
  - Save changes without closing the editor
  - Pick up where you left off
  - Edit metadata for ArcGIS Online and ArcGIS Enterprise items
  - Map layers have metadata, edit item description content only
  - Create thumbnails with context
Help topics describe how to create compliant metadata for each metadata style
- FGDC CSDGM
- ISO 19115/19139
- INSPIRE Metadata Directive
- North American Profile (NAP)
Record geoprocessing history in metadata

- Geoprocessing history recorded
- Entries can be included in metadata processing steps on export
- ArcMap: enabled by default
- ArcGIS Pro: disabled by default
Search metadata in ArcGIS

• Item description content can be indexed and searched
  - ArcMap: configure which datasets to index
  - ArcGIS Pro and ArcGIS Online/Enterprise: automatically index content
Publish items with metadata

• ArcMap maps
  - Maps have metadata
  - Map layers have description and credits only
  - Publish map’s metadata

• ArcPro maps
  - Maps and map layers have metadata
  - Publish map or map layer metadata
  - Only item description content is published
Update metadata programmatically

- **ArcMap**
  - Access and update full metadata content with ArcObjects .NET
  - Use geoprocessing tools
    - Access, import, and export metadata
    - Update metadata using provided XSLTs

- **ArcPro**
  - Access and update item description content with Pro SDK
## Metadata Support in ArcGIS for Desktop

<table>
<thead>
<tr>
<th>Feature</th>
<th>ArcMap</th>
<th>Pro</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metadata styles for geospatial metadata standards</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Display and edit full metadata</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Map layers have metadata</td>
<td>✗</td>
<td>✔ (limited)</td>
</tr>
<tr>
<td>Publish map with full metadata</td>
<td>✔</td>
<td>✗</td>
</tr>
<tr>
<td>Manage metadata programmatically</td>
<td>✔</td>
<td>✔ (limited)</td>
</tr>
<tr>
<td>Manage metadata with geoprocessing tools</td>
<td>✔</td>
<td>✗</td>
</tr>
<tr>
<td>Import and export metadata</td>
<td>✔</td>
<td>✗</td>
</tr>
<tr>
<td>Customize the metadata editor</td>
<td>✔</td>
<td>✗</td>
</tr>
</tbody>
</table>
Metadata in ArcMap
Import metadata to and export metadata from ArcGIS platform.
“Save As” with ArcGIS metadata

- **Save As metadata template**
  - Without synchronized properties
- **Save As XML file**
  - Exact copy
  - Without machine names
  - Without local and network file paths and geoprocessing history
- **Save As HTML file**
  - Use outside ArcGIS platform
Update metadata programmatically

• Access metadata XML via geoprocessing tools or ArcObjects SDK
• Update ArcGIS metadata XML with Python scripts
• Update metadata with XSLT
• Copy updated metadata back to the item
Copy metadata to another Desktop item

- Use a metadata template
- Quick start by copying dataset content
- Click Import button
- Use FROM_ARCGIS import option
- Metadata content copied without losing thumbnail, properties, geoprocessing history
Copy metadata to a portal item

- Save a copy of metadata to an XML file without all file paths
- Access the portal item in the browser
- Copy the content to the online item by opening the file in the portal metadata editor
Copy and update metadata
Which metadata geoprocessing tool to use

• Use the right geoprocessing tool for the job
  - Importing metadata
  - Exporting metadata
  - Validate metadata
Road Ahead - Near Term (2017)

- **Move Pro closer to equivalency with ArcMap**
  - Importing and exporting metadata
  - Publish items with full metadata
  - More capabilities for accessing and managing metadata via the Pro SDK

- **Improve metadata support for map layers in Pro**
  - Reference data source’s metadata
  - Optionally import data source metadata to the layer
  - Display and edit full metadata for the layer
Road Ahead - mid term (2018)

- ArcGIS Metadata Toolkit for Pro (immediately following Pro 2.1)
- Support scripting of metadata workflows in Pro
- Extend import and export capabilities for compatibility with ISO 19115-1/ISO 19115-3
- Metadata editor usability improvements
- Common metadata editing experience for the ArcGIS platform
Road Ahead – long term

- Enhance the ArcGIS metadata editor to support concepts for updated ISO standards
- Usability improvements in the ArcGIS metadata editor
- Leverage organizational metadata settings in Pro
- Controlled vocabularies
Working with Metadata in ArcGIS

- Create standard-compliant metadata
- Search and publish metadata
- Import from and export to standard XML formats
- Use geoprocessing tools to access and update metadata
- Reference Help topics
Upcoming metadata sessions and meetings

- **Metadata Users Group meeting**
  - Wed July 12, 5:30pm - Room 28 A

- **Technical Workshop: Working with Metadata in ArcGIS**
  - Thurs July 13, 10:15pm - Room 15 B

- **Demo Theatre: Working with metadata in ArcGIS**
  - Thurs July 13, 11:30 - Esri Showcase: Interoperability and Standards Theaterette
Please Take Our Survey on the **Esri Events App**!

**Download the Esri Events app and find your event**

**Select the session you attended**

**Scroll down to find the survey**

**Complete Answers and Select “Submit”**