Understanding and using Metadata across the ArcGIS Platform

Aleta Vienneau
Marten Hogeweg
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- Metadata fundamentals
- ArcGIS platform
- Road ahead
Metadata Fundamentals

- Metadata documents geospatial content
  - for search, discovery, evaluation, archiving
- ArcGIS platform should facilitate these efforts
- Goal is to improve the experience
Metadata Fundamentals

- All items have metadata
- ArcGIS metadata XML - a common language for the ArcGIS platform
- Metadata moves with an item through the ArcGIS platform
- Metadata styles determine how you display, edit, validate, export metadata
Metadata Styles

• FGDC CSDGM Metadata
  • Content Standard for Digital Geospatial Metadata (CSDGM)
• ISO 19139 Metadata Implementation Specification
  • ISO 19119:2005 / OGC CSW 2008
• North American Profile of ISO 19115:2003 (NAP)
• INSPIRE Metadata Directive
ArcGIS Platform

Author → Publish → Discover
ArcGIS Platform

Read

Standard formats

Stored as ArcGIS XML

Write

Standard formats
## 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>
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</table>
Metadata Support in ArcGIS Online and ArcGIS Enterprise

- Metadata styles for geospatial metadata standards
- Display and edit full metadata
- Copy ArcGIS metadata XML
- Export metadata
Metadata Support in ArcGIS for Open Data

- Leverage existing metadata for public items
- Display and edit full metadata
- Scores quality of metadata content
- Search metadata
- Export metadata
- Leverage metadata for additional access options
Demo

Viewing and editing metadata across the platform
Current Flow of Metadata in the Platform

Feature Classes
Enterprise Geodatabase

Pro Map
ArcGIS Pro

Pro Map Layers

Feature Layer Items
ArcGIS Online
ArcGIS Enterprise
Goal for the Platform

- Improve the flow of metadata through the platform
  - From data to published items
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
Proposed Flow of Metadata in the Platform

1. Feature Classes
2. Enterprise Geodatabase
3. Pro Map
4. Pro Layers
5. ArcGIS Pro
6. Feature Layer Items
7. ArcGIS Online
8. ArcGIS Enterprise
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
Esri Metadata Summit

- June 2017
- Discussed planned improvements for the platform
- Collected requirements
Metadata in the ArcGIS Platform

- Metadata support throughout the platform
- Create metadata that complies with standards
- Goals
  - Improve flow of metadata through the platform
  - Make it easier to produce high quality metadata content
Upcoming Metadata Sessions and Meetings

• Technical Workshop: Working with Metadata in ArcGIS
  - Wed July 12, 3:15pm - Room 31 A
  - Thurs July 13, 10:15pm - Room 15 B

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

• Demo Theatre: Working with metadata in ArcGIS
  - Thurs July 13, 11:30 - Esri Showcase: Interoperability and Standards Theaterette
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