Working with Metadata in ArcGIS

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Working with metadata in ArcGIS

• View and edit metadata
• Import and export standard-format metadata
• Common metadata tasks
• Road ahead
View and edit metadata
View and edit metadata

- All items have ArcGIS metadata
- Edit full standards-based metadata
- Set the metadata style for the appropriate standard
View and edit metadata
Set your metadata style

- FGDC CSDGM
- ISO 19115/19139
- INSPIRE
- North American Profile (NAP)
- Item Description (default)

ArcGIS Metadata XML
Set your metadata style

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

FGDC
Edit metadata in ArcGIS Pro

• Edit full metadata for map layers
• Edit metadata for ArcGIS Online and ArcGIS Enterprise items
• Spellcheck content
• Create thumbnails with context
• Open many metadata editors at once
• Save changes without closing the editor
• Pick up where you left off
Edit metadata

- Help topics describe how to create compliant metadata for each metadata style
  - FGDC CSDGM
  - ISO 19115/19139
  - INSPIRE Metadata Directive
  - North American Profile (NAP)
### Current status of metadata support in ArcGIS for Desktop

<table>
<thead>
<tr>
<th>Feature</th>
<th>ArcMap 10.x</th>
<th>Pro 2.0</th>
<th>Pro 2.1</th>
<th>Pro 2.2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metadata styles for geospatial metadata standards</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Display and edit full metadata</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Map layers have full metadata</td>
<td>✗ (limited)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Import and export metadata</td>
<td>✓</td>
<td>✗</td>
<td>✗</td>
<td>✓</td>
</tr>
<tr>
<td>Manage metadata programmatically</td>
<td>✓</td>
<td>✓ (limited)</td>
<td>✓ (improved)</td>
<td>✓</td>
</tr>
<tr>
<td>Manage metadata with geoprocessing tools</td>
<td>✓</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Publish map with full metadata</td>
<td>✓</td>
<td>✗</td>
<td>✗</td>
<td>✓</td>
</tr>
<tr>
<td>Customize the metadata editor</td>
<td>✓</td>
<td>✗</td>
<td>✗</td>
<td>✓ (soon)</td>
</tr>
</tbody>
</table>
Import/Export vs Copy/Save As, and Publishing metadata
Import metadata to and export metadata from ArcGIS platform.
Import standard-format metadata

- Content imported without losing thumbnail, properties, geoprocessing history
Copy metadata from another item

- Content copied without losing thumbnail, properties, geoprocessing history
- Copy to portal items
  - ArcMap: save filtered content to file, then upload with portal editor
  - ArcGIS Pro: same as local items
“Save As” with ArcGIS metadata

- ArcGIS Metadata content saved to file on disk – no change in XML format
- ArcMap
  - *Save As* metadata template
  - *Save As* XML file
  - *Save As* HTML file
Export standard-format metadata

- ArcGIS Metadata content converted to standard XML format and saved to file
- ArcMap
  - Use a model with Save As and Export Metadata to export no sensitive information
Publish items with metadata

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

- **ArcGIS Pro maps**
  - Maps and map layers have metadata
  - Publish map and/or map layer metadata
  - Full metadata published for feature layers and map image layers
Copy/Save As, Import/Export, and Publish Metadata
Upgrade FGDC CSDGM metadata content

- Transform FGDC CSGDM XML content to ArcGIS format, and include ArcGIS format content in the metadata document.
Record geoprocessing history in metadata

- Record geoprocessing operations in metadata
  - Enabled by default, can be disabled
- Entries can be included in metadata processing steps on export
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
Update metadata programmatically

- **ArcMap**
  - Access individual elements or full metadata with ArcObjects SDK
  - Access full metadata XML with geoprocessing tools, individual elements with XSLT or Python
  - Update ArcGIS metadata XML with Python scripts
  - Update metadata with XSLTs

- **ArcGIS Pro**
  - Access item description elements or full metadata XML via Pro SDK
  - Update full XML with XSLT or individual elements programmatically
Customize the metadata editor

• ArcMap
  - Download ArcGIS Metadata Toolkit from the support site
  - Distribute custom files and metadata style configuration

• ArcGIS Pro
  - ArcGIS Pro Metadata Toolkit integrated with Visual Studio
  - Distribute ArcGIS Pro Add-In
Road Ahead – Near Term

- Publish ArcGIS Pro Metadata Toolkit
- Support importing and exporting ISO 19115-1/-2/-3 content
- Support publishing full metadata with more portal items
Road Ahead – Mid Term

- Support scripting metadata workflows in Pro
- Leverage organizational metadata settings
- Metadata editor usability improvements
- Enhance the ArcGIS metadata editor to support ISO 19115-1/-2/-3
Road Ahead – Long Term

- Common metadata editing experience for the ArcGIS platform
- Controlled vocabularies
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