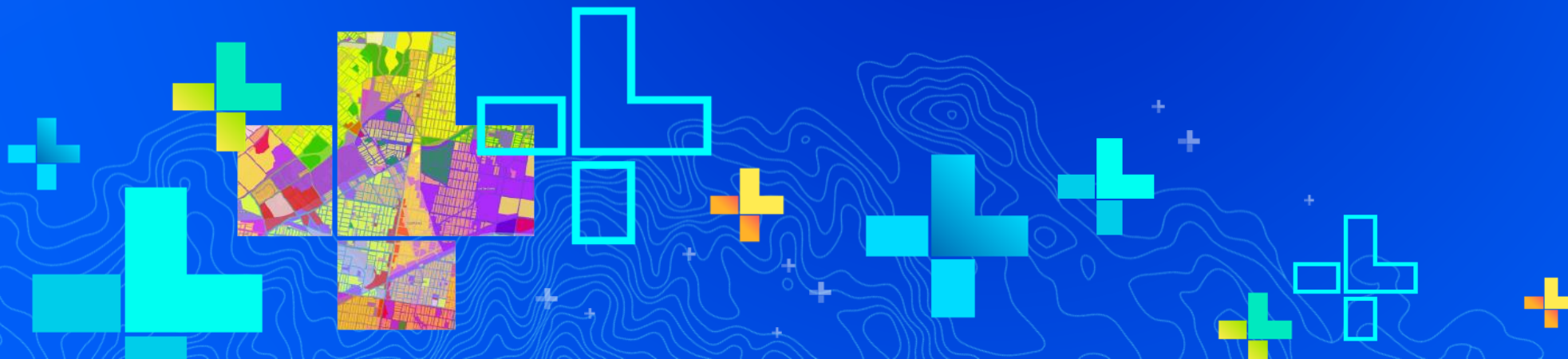




Working with Metadata in ArcGIS

Aleta Vienneau

SEE
WHAT
OTHERS
CAN'T



Working with metadata in ArcGIS

- View and edit metadata
- Import and export standard-format metadata
 - Publishing 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



Metadata Geography Table

Europe NUTS 3 Demographics

Type File Geodatabase Feature Class



Tags polygon, regions, countries, NUTS, demographics, society, boundaries, economy, Europe, 2015, 2014, 2010

Summary

Europe NUTS 3 Demographics provides NUTS 3 level demographic and economic information for Europe.

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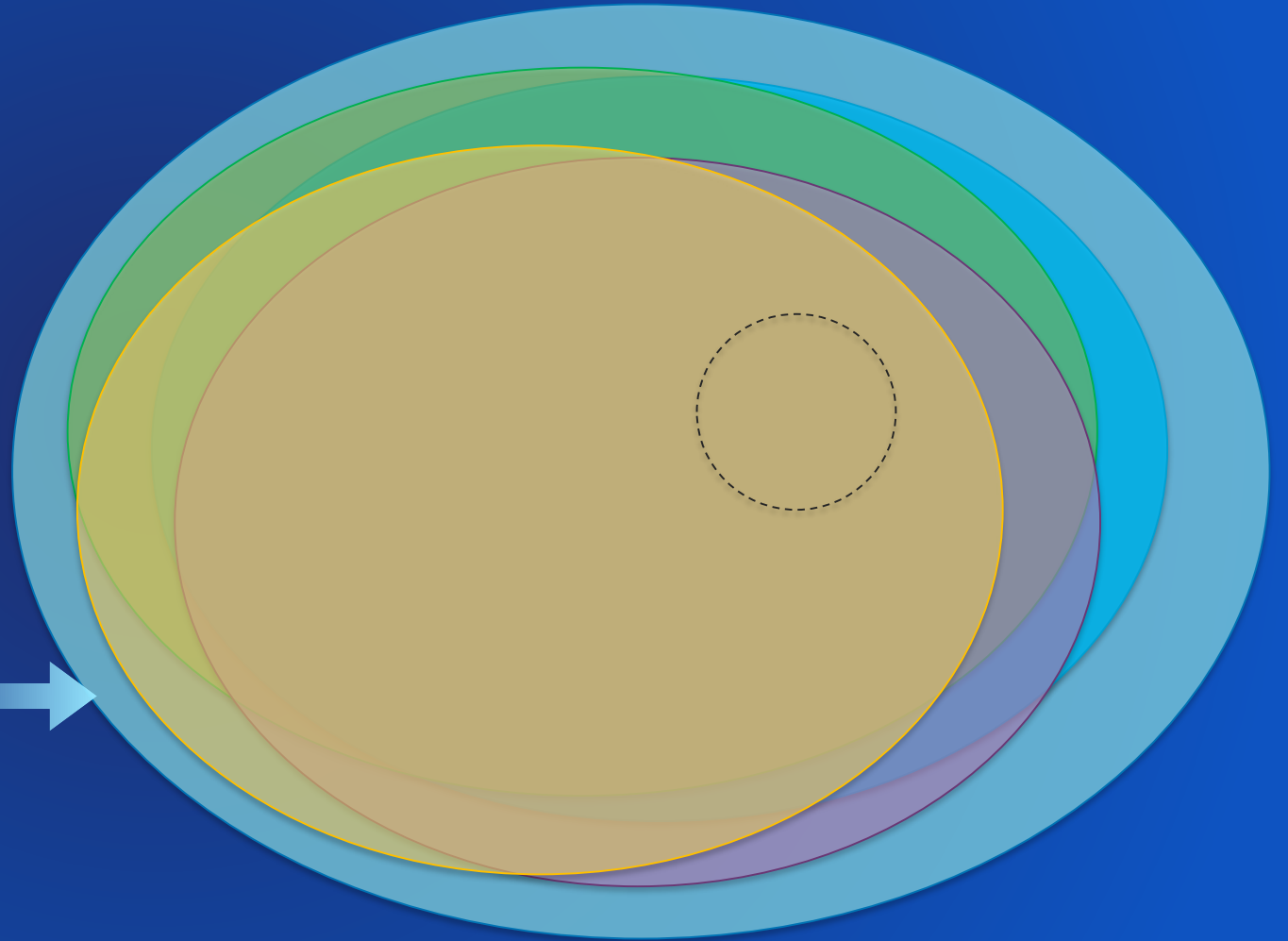
+

View and edit metadata

Set your metadata style

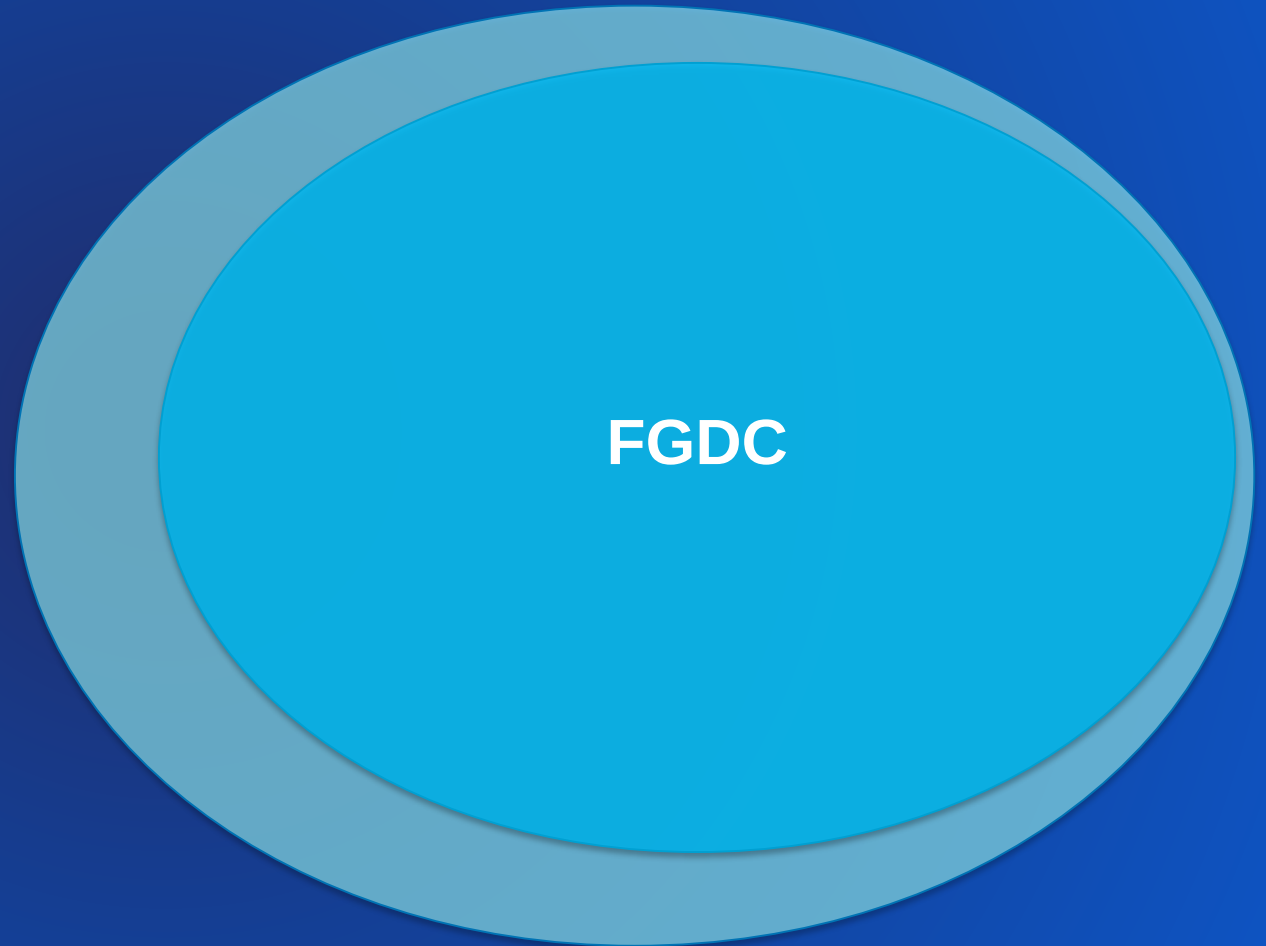
- FGDC CSDGM
- ISO 19115/19139
- INSPIRE
- North American Profile (NAP)
- Item Description (default)

ArcGIS Metadata XML



Set your metadata style

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



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

	ArcMap 10.x	Pro 2.2	Pro 2.3 + 2.4	Pro 2.5 planned
Styles for geospatial metadata standards	✓	✓	✓	✓
Display and edit full ArcGIS metadata	✓	✓	✓	✓
Map layers have full metadata	✗	✓	✓	✓
Import and export metadata	✓	✓	✓	✓
Manage metadata with .NET SDK	✓	✓	✓	✓
with geoprocessing tools	✓	✗	✗	✗
with Python scripts	✓	✗	✗	✓
Publish map with full metadata	✓	✓	✓	✓
map layers with full metadata	✗	✓	✓	✓
Customize the metadata editor	✓	(limited)	✓	✓

Import/Export vs Copy/Save As, and Publishing metadata

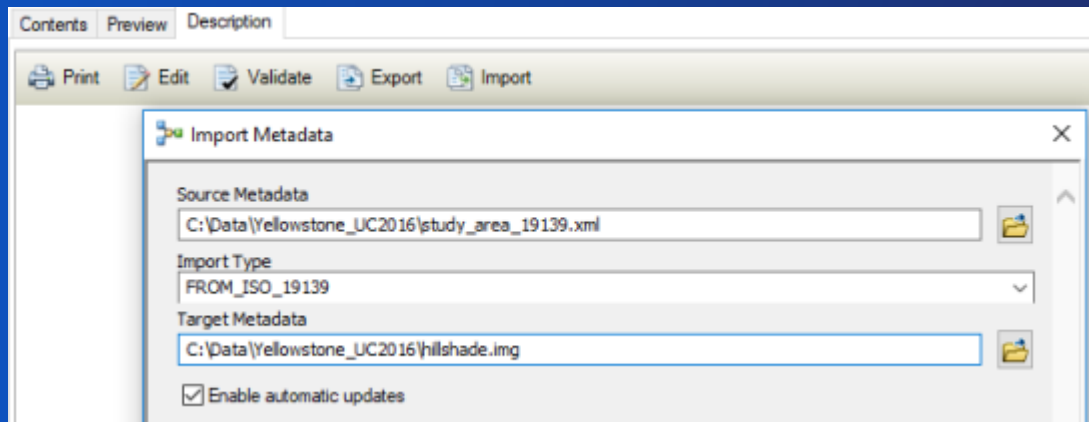
Import metadata to and export metadata from ArcGIS platform



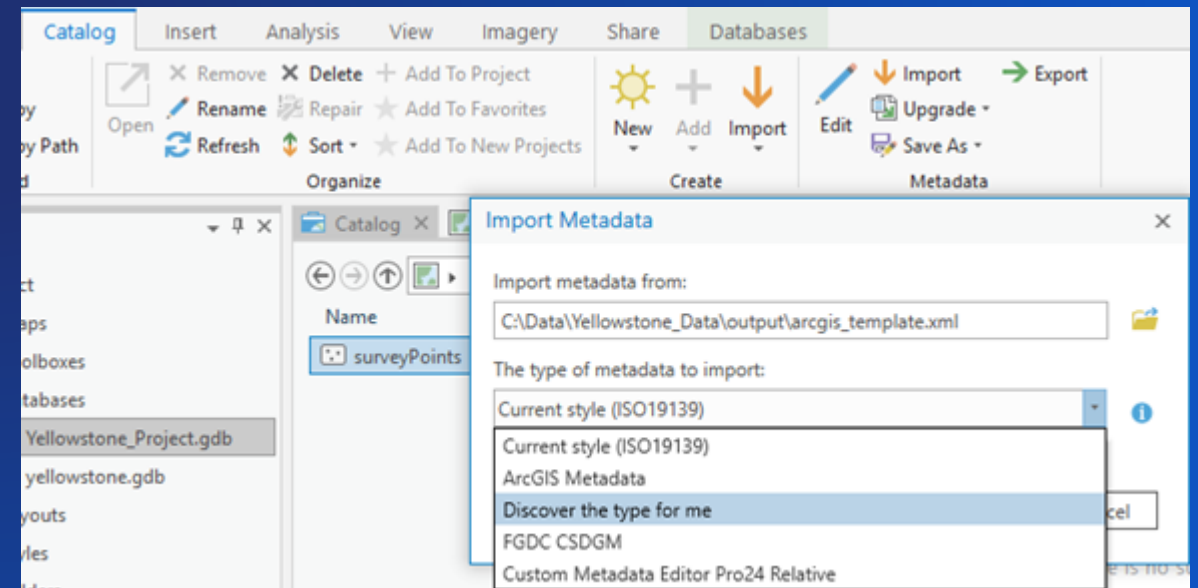
Import standard-format metadata

- Content imported without losing thumbnail, properties, geoprocessing history

ArcMap



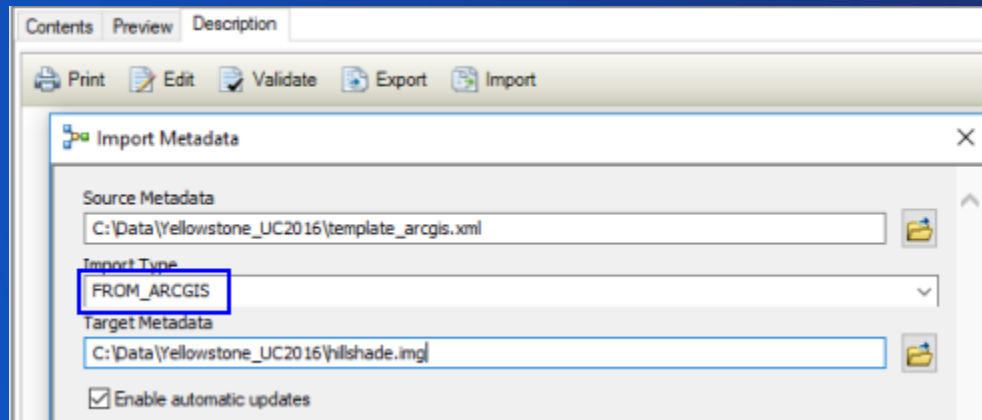
ArcGIS Pro



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

ArcMap



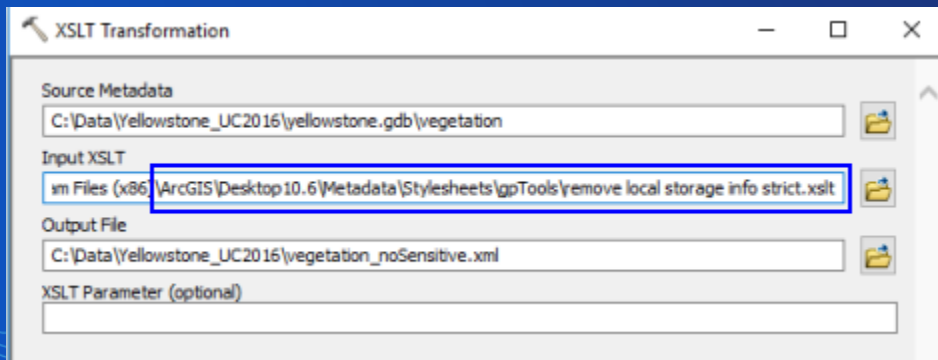
ArcGIS Pro



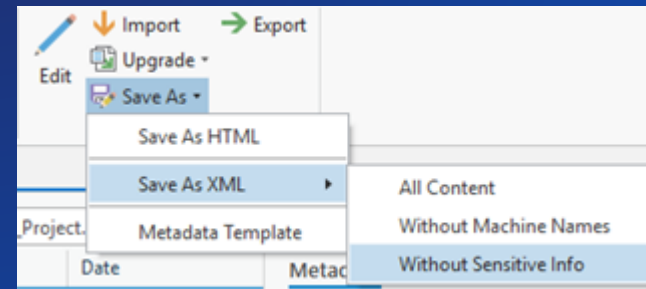
“Save As” with ArcGIS metadata

- 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

ArcMap



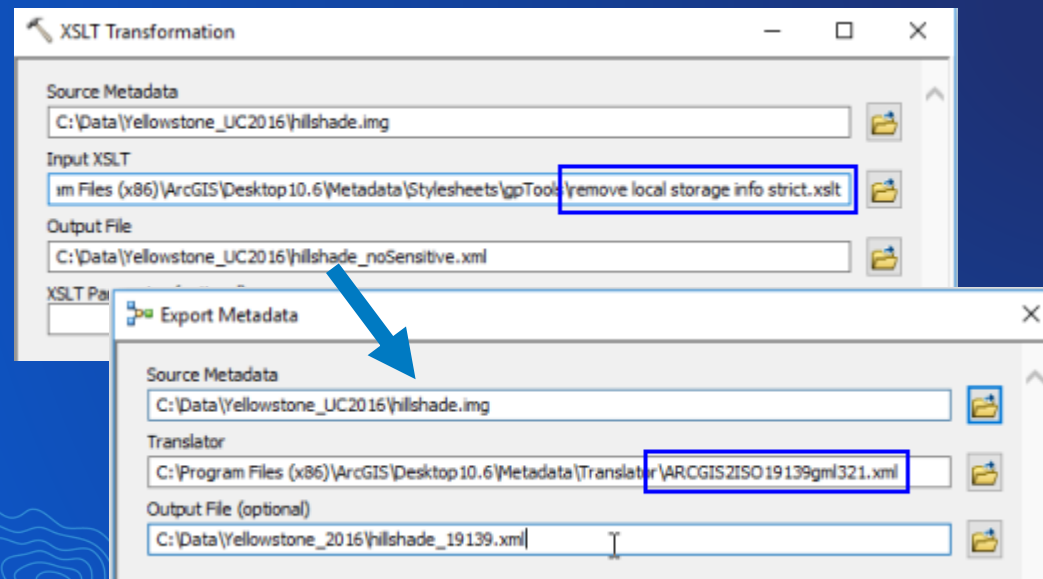
ArcGIS Pro



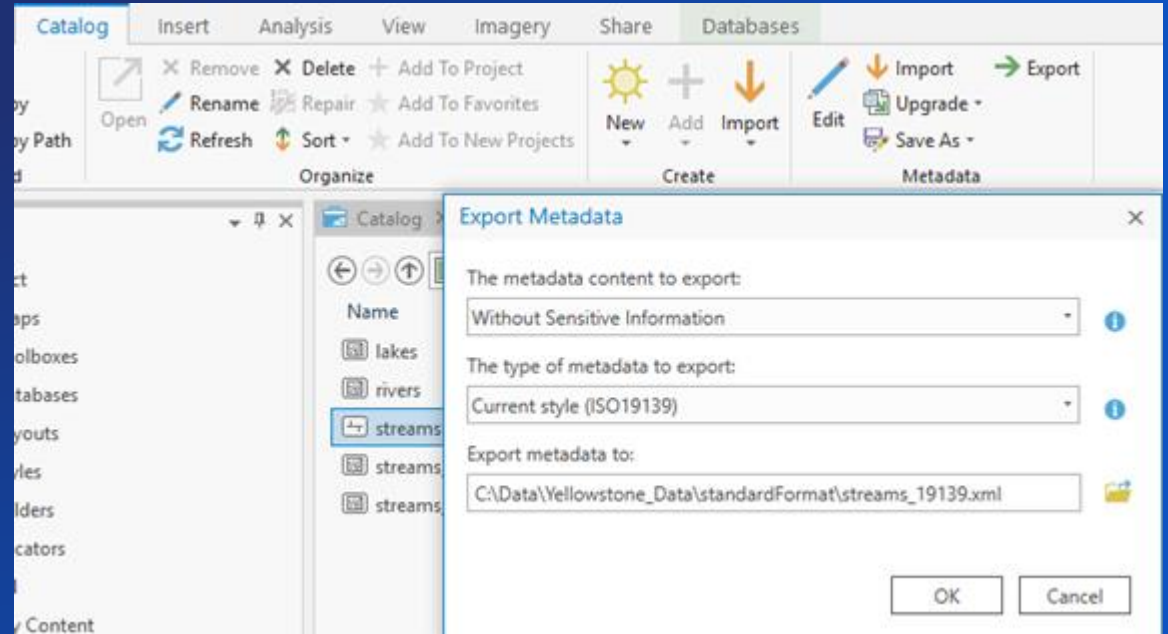
Export standard-format metadata

- 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

ArcMap



ArcGIS Pro



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





Export Metadata

The metadata content to export:

Without Sensitive Information

The type of metadata to export:

Current style (ISO19139)

Export metadata to:

S:\Projects\Europe\Metadata for European data in ISO 19139 format.xml

OK Cancel

+
+
+ **Copy/Save As,
Import/Export, and
Publish Metadata**

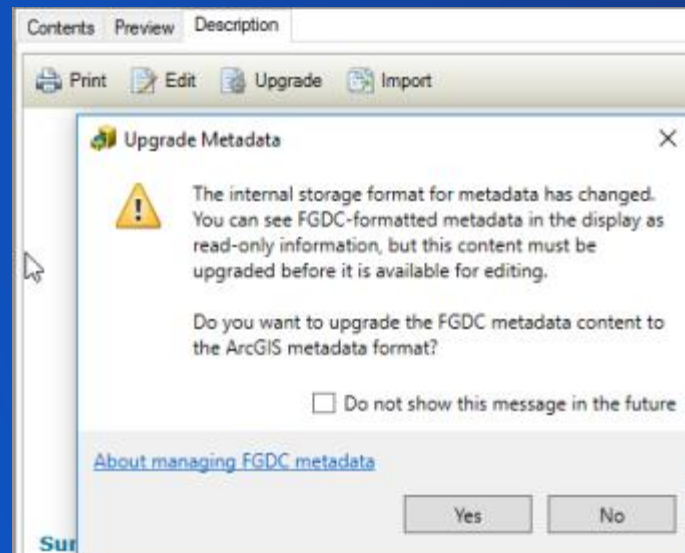
Common metadata tasks



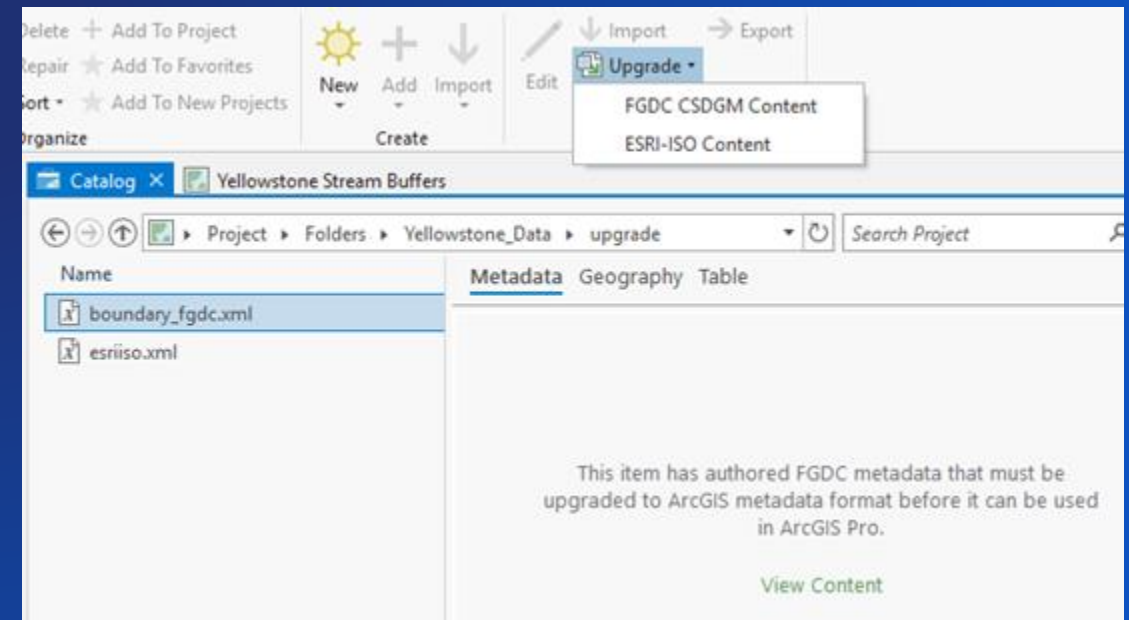
Upgrade FGDC CSDGM metadata content

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

ArcMap



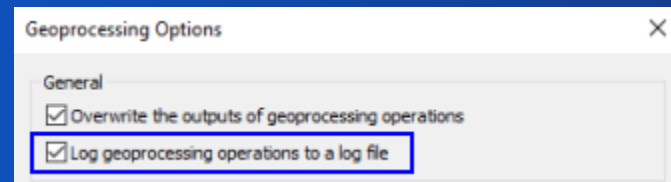
ArcGIS Pro



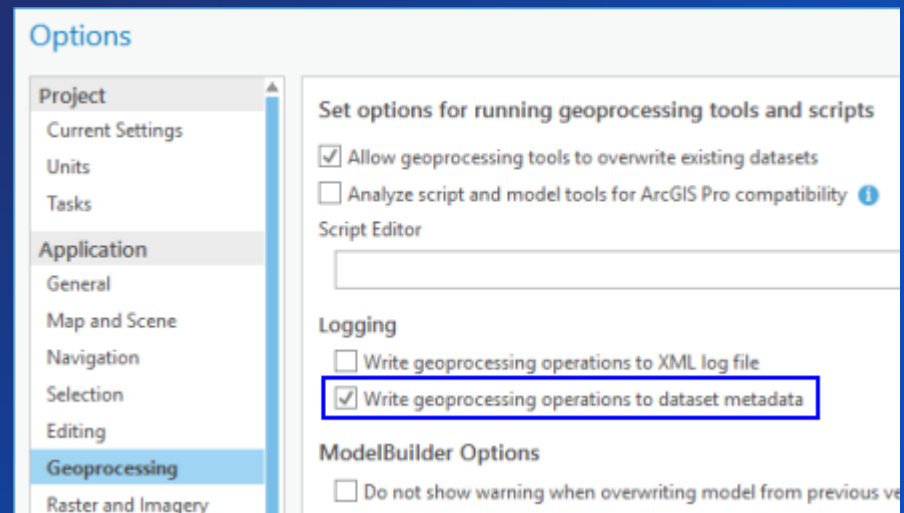
Record geoprocessing history in metadata

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

ArcMap



ArcGIS Pro



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
 - Recompile existing Visual Studio projects for a new version of ArcMap
 - Distribute dlls, custom files and metadata style configuration
- **ArcGIS Pro**
 - ArcGIS Pro Metadata Toolkit integrated with Visual Studio
 - Update Metadata Toolkit Visual Studio template
 - Recompile existing Visual Studio projects for a new version of ArcGIS Pro
 - Distribute ArcGIS Pro Add-In and custom XSLTs



Road Ahead



Road Ahead – Near Term

- Support importing and exporting ISO 19115-1/-3 formatted metadata content
- Metadata equivalency between ArcMap and ArcGIS Pro
 - Support scripting metadata workflows in Python
 - Bugs in metadata editor
 - XML schema-based validation of standard-formatted metadata documents

Road Ahead – Mid Term

- Update the ArcGIS metadata editor to support ISO 19115-1/-3 content
- Metadata editor usability improvements
- Leverage organizational metadata settings
- Develop a plan for supporting ISO 19115-2 content



Road Ahead – Long Term

- Support ISO 19115-2 content
- Common metadata editing experience for the ArcGIS platform
- Controlled vocabularies



Conclusion



Working with metadata in ArcGIS

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



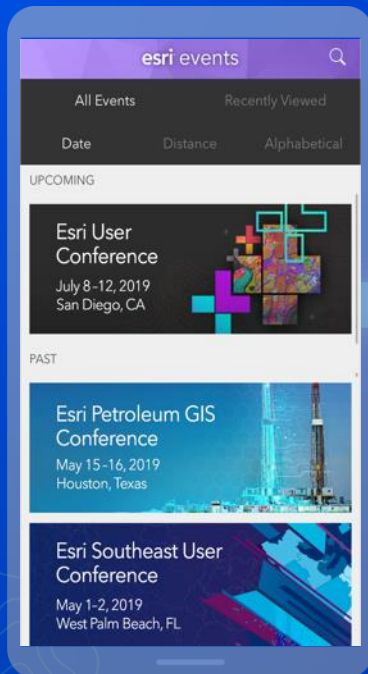
Other metadata presentations

- **Open Data: Catalogs, Metadata & DCAT Support**
 - Wed 10:00 AM – 20 min
 - Expo - Open Platform: Standards & Interoperability Spotlight Theater
- **Standardized Metadata Support**
 - Wed 3:00 PM – 20 min
 - Expo - Open Platform: Standards & Interoperability Spotlight Theater
- **Understanding and Using Metadata in ArcGIS**
 - Thu 1:00 PM
 - SDCC - Room 16 A

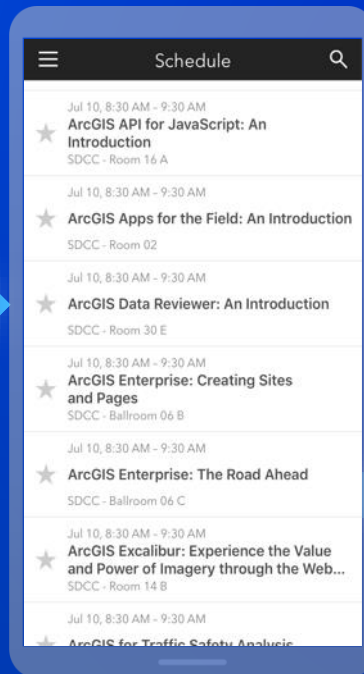


Please Share Your Feedback in the App

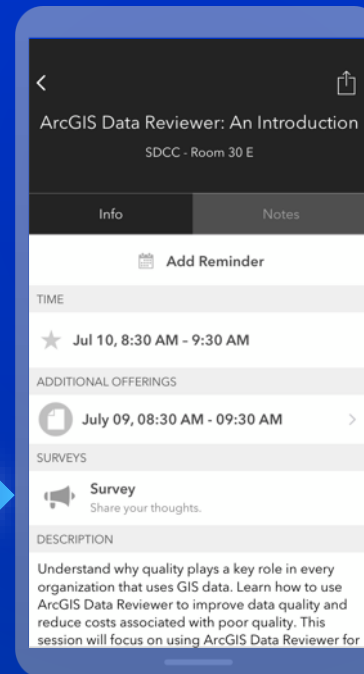
Download the Esri Events app and find your event



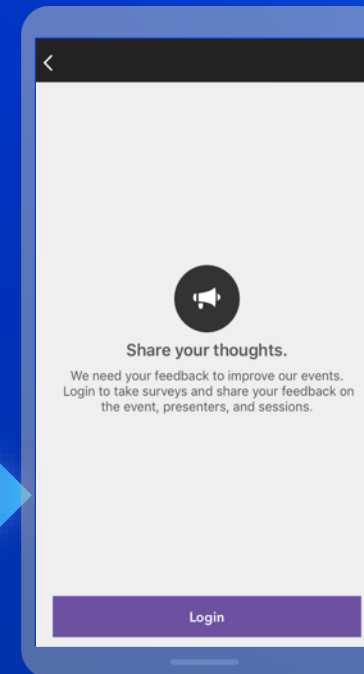
Select the session you attended



Scroll down to "Survey"



Log in to access the survey



Complete the survey and select "Submit"

