ArcGIS Metadata Editor

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Early advocate for “metadata” (data documentation/properties/digital marginalia)

Before “metadata” term

FGDC CSDGM

ISO 19139:2007

ISO 19115:2003

Full CSDGM support in ArcCatalog

Participate in CSDGM development

Participate in ISO 19115 development

Early support for Draft ISO 19115

Lead and participate in 19139 development

Create ISO-compliant XML

Full implementation of profiles

Participate in development and prepare for support

ISO Metadata revision ISO 19115-1
Different types of metadata standards

- Content standards
  - What to write
  - Optionality
Different types of metadata standards

- Implementation specifications
  - Format
  - Validity
ArcGIS metadata goals

- Support metadata standards and selected profiles
- Create valid metadata
- Good user experience
- Common experience for all users
- Simplify workflows
- Support the ArcGIS platform
ArcGIS metadata standards support

- *Content Standard for Digital Geospatial Metadata (CSDGM) / mp*
  - Content associated with ISO 19110:2005
ArcGIS metadata standards support

- Profiles
  - North American Profile of ISO 19115:2003 (NAP)
  - INSPIRE Metadata Directive
- Both are based on ISO 19115/19139
- Both reference ISO 19119 content
ArcGIS metadata standards support

- ArcGIS for Desktop metadata content stored in the ArcGIS metadata format
- Includes all concepts for supported standards and profiles
ArcGIS metadata standards support

- FGDC CSDGM XML
- ISO 19139 XML
- ISO 19139 (INSPIRE) XML
- ISO 19139 (NAP) XML
ArcGIS metadata standards support

- Set the ArcGIS Metadata Style in ArcGIS for Desktop
- Author metadata content
- Export metadata to standard format
- Validate metadata for standard
- Publish to metadata catalog
Set the ArcGIS Metadata Style

- **Metadata style**
  - Filters the full set of concepts
  - Associated with metadata standards
  - Set in Options dialog box
Set the ArcGIS Metadata Style

- Default metadata style: Item Description
  - Quickly document items
  - Support discovery when items are published
  - Portion of an item’s full metadata
- Full metadata—use another style
Set the ArcGIS Metadata Style
Set the ArcGIS Metadata Style

• Determines how metadata is
  - Displayed
  - Edited
  - Exported
  - Validated

• Set once to meet organizational requirements
Set the ArcGIS Metadata Style

- Adds or removes pages
- Adds or removes elements on a page
- Changes values in some drop-down lists
- Validation rules are appropriate
Author metadata content

- Focus on providing content indicated by the ArcGIS metadata editor
  - Messages based on standard conditions and guidelines
  - Messages change as you type
  - See the metadata’s status at a glance
Author metadata content
Export content to a standard format

- Export metadata content to standard format XML file
  - Export button in Description tab
  - Export Metadata gp tool
- Converts ArcGIS metadata to standard XML format
- Result stored in a stand-alone XML file
Validate content with a standard schema

- Validate exported file using XML schema
  - Validate button in Description tab
  - Validate Metadata gp tool
- Validate file using Microsoft .NET Framework XML capabilities
  - Provides warning and error messages
FGDC CSDGM Metadata Style

- Validate button: validates using online FGDC XML DTD
- Validate with mp
  - Export to CSDGM XML file
  - Run USGS MP Metadata Translator tool with Conversion Type = None
  - Warning and error messages produced by mp
ISO 19139 Metadata Style

- Validate button: validates using online ISO XML Schemas
  - One style supports GML 3.2.0 namespace
    - ISO 19139 Metadata Implementation Specification
  - One style supports GML 3.2.1 namespace
    - ISO 19139 Metadata Implementation Specification GML3.2
North American Profile (NAP) Style

- Additional codelist values and mandatory elements
  - Supports tighter transition from CSDGM
- NAP-specific rules available in the editor
- No NAP-specific XML Schemas
- Exported metadata validates with ISO 19139 for data or CSW for services
INSPIRE Metadata Directive Style

- Supports creating ISO metadata that conforms to the INSPIRE Metadata Directive
- Limited codelist values in the editor as appropriate
- INSPIRE-specific rules available in the editor
- Exported metadata validates with ISO 19139 for data or CSW for services
Publish exported metadata file

- Publish standard-format XML file to a metadata catalog
Other ISO Standards and Profiles

- Use the ArcGIS Metadata Toolkit to customize the ArcGIS metadata editor
  - Download from support.esri.com
  - Create a custom metadata style
  - Documents the ArcGIS metadata format
Other ISO Standards and Profiles

• Code for all pages in the metadata editor
  - C# WPF application with XAML forms
  - Modify elements on existing pages
  - Add custom pages
  - Change codelist values
  - Change validation rules

• Programming guide

• Sample project
ArcGIS metadata standards support

- A flexible system that adapts to changing standards
- Enhances interoperability
What’s next for ArcGIS

- Building metadata support into ArcGIS Pro
- Preparing to implement ISO 19115-1
- Improving usability of the ArcGIS metadata editor