Agenda

- Announcements
- FGDC Standards Working Group Update
- ISO Metadata Standards Update
- User Reviews: ISO Geospatial Metadata Editors Registry
- ISO Forum Update
- MWG Activities
- News from the Field
Announcements

Discuss metadata activities
Announcements

- 2014 ISO 19115-1 standard available via ANSI/INCITS
  - Cost $133
    http://webstore.ansi.org/RecordDetail.aspx?sku=INCITS%2fISO%2fISO+19115-1%3a2014%5b2014%5d

- INCITS L1 Meeting
  - Friday October 2, 2015; 10–4 pm ET

- 40th ISO/TC 211 Meeting (June 2015)
  - Highlighted open source Alaska Metadata Tool at Standards in Action Workshop
    http://www.isotc211.org/Southampton2015/Workshop/Workshop_Southampton.htm
Announcements

- Metadata activities presentation at OGC North American Forum (June 2015)
  - Exploring potential discussion through NAF on a North American Profile update

- Data.gov Status
  - Crosswalks from FGDC/CSDGM & ISO to Project Open Data/JSON v1.1 are available
    [https://project-open-data.cio.gov/v1.1/metadata-resources/#crosswalks-for-geospatial-metadata](https://project-open-data.cio.gov/v1.1/metadata-resources/#crosswalks-for-geospatial-metadata)
  - Validation and Harvesting Group in progress
    - Working to simplify process, especially for CSDGM records and sample records being tested
Announcements

- National Geospatial Data Assets Dataset Registration
  - 100% registered! (173 with 4 datasets on hold)

- NGDA Dataset Managers now working on Lifecycle Maturity Assessment
  - Due September 30, 2015
  - 14% complete as of August 24
  - [https://www.geoplatform.gov/A-16-NGDA-Theme-Community/LMA](https://www.geoplatform.gov/A-16-NGDA-Theme-Community/LMA)

- Next NGDA activity: Theme Maturity Assessment
  - Discussed with Theme Leads Aug 27
  - Doing follow up and establishing a small team to work on assessment
ISO Standards Update

Dave Danko, Esri
# ISO Related Metadata Standards

<table>
<thead>
<tr>
<th>Name of Standard</th>
<th>Description</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISO 19109:2005</td>
<td>Defines the general feature model and rules for creating and documenting application schemas for modeling features and their properties allowing physical applications to understand and share data</td>
<td>Under revision: Sent to ISO for publication</td>
</tr>
<tr>
<td>ISO 19110:2005 + Amendment 1 Methodology for feature cataloguing</td>
<td>Catalogue defining features and properties for a domain of interest and/or a dataset and a schema for encoding in XML</td>
<td>Under revision: FDIS 2014-7, IS 2016-02</td>
</tr>
<tr>
<td>ISO 19111:2007 Spatial referencing by coordinates</td>
<td>Metadata about/defining a coordinate reference system</td>
<td>International standard</td>
</tr>
<tr>
<td>ISO 19111-2:2009 Spatial referencing by coordinates-Extension for parametric value</td>
<td>Metadata about/defining a coordinate reference system using parametric values</td>
<td>International standard</td>
</tr>
<tr>
<td>ISO 19112:2003 Spatial referencing by geographic identifiers</td>
<td>Metadata about/defining a reference system which uses spatial unit identifiers other than coordinates i.e. gazetteer, postal code, etc.</td>
<td>International standard</td>
</tr>
<tr>
<td>ISO 19113:2002 Quality principles</td>
<td>Defines the principles, the elements/sub-elements of data quality</td>
<td>Superseded by 19157</td>
</tr>
<tr>
<td>ISO 19114:2003 Quality evaluation procedures</td>
<td>Defines procedures for determining data quality</td>
<td>Superseded by 19157</td>
</tr>
</tbody>
</table>
## ISO Related Metadata Standards

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<th>Name of Standard</th>
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</tr>
</thead>
<tbody>
<tr>
<td>ISO 19115:2003 Geospatial metadata</td>
<td>Defines metadata elements and schema describing geospatial datasets</td>
<td>Superseded by 19115-1</td>
</tr>
<tr>
<td>ISO 19115-1:2014 Geospatial metadata fundamentals</td>
<td>Revision of ISO19115 which defines metadata elements and schema describing geospatial resources i.e. datasets and services</td>
<td>International standard</td>
</tr>
<tr>
<td>ISO 19115-3: XML schema implementation metadata fundamentals</td>
<td>Provides a schema for implementing ISO 19115-1 in XML</td>
<td>Under development: TS 2015-09?</td>
</tr>
<tr>
<td>ISO 19119:2005 Services</td>
<td>Provides a framework and defines the metadata for services enabling users to access and process geographic information across a generic computing interface. The metadata portion of this standard has been moved to ISO19115-1</td>
<td>Under revision, Partially superseded by 19115-1: IS 2015-08?</td>
</tr>
<tr>
<td>ISO 19130:2010 Imagery sensor models for geopositioning</td>
<td>Specifies a sensor model describing the physical and geometrical properties of specific sensors</td>
<td>International standard</td>
</tr>
</tbody>
</table>
# ISO & W3C Related Metadata Standards

<table>
<thead>
<tr>
<th>Name of Standard</th>
<th>Description</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISO 19157:2013 Data Quality</td>
<td>Defines the principles and components for describing, evaluating, and the measures used for reporting data quality. Revising and replacing ISO 19113, 19114, 19138.</td>
<td>International standard</td>
</tr>
<tr>
<td>ISO 19157-2 Data Quality XML Schema implementation</td>
<td>Provides a schema for implementing ISO 19157 in XML</td>
<td>Under development: TS 2016-05</td>
</tr>
<tr>
<td>ISO 15836:2009 The Dublin Core metadata element set</td>
<td>Cross domain resource descriptions – not limited to specific resources</td>
<td>International standard Reviewed 2014</td>
</tr>
<tr>
<td>W3C Data Catalog Vocabulary (DCAT)</td>
<td>An RDF vocabulary designed to facilitate interoperability between data catalogs published on the Web.</td>
<td>International standard</td>
</tr>
</tbody>
</table>
ISO metadata standards today

**Definitional/Content**
- ISO 19115:2003 Metadata
  - ISO 19113:2002 Quality principles
  - ISO 19114:2003 Quality eval procedure
- ISO 19110:2005 Feature Catalogue
- ISO 19115-2:2009 Metadata-Imagery
- ISO 19119:2005 Services

**Encoding**
- ISO 19139:2007 Metadata XML encoding
- ISO 19139-2:2012 Metadata imagery encoding
- OGC services
ISO metadata standards (near) future

Definitional/Content

- ISO 19115-1:2014 Metadata fundamentals including services metadata
- ISO 19157:2013 Data quality
- ISO 19115-2 Extending 19115-1 & 15-2
- ISO 19115-2 Rev Metadata imagery started 6/15 - 11/17
- ISO 19110:2015 Feature catalogue 2/16

Encoding

- ISO 19115-3 Metadata fundamentals XML encoding 9/15
- ISO 19157-2 Data quality XML encoding 6/16
- ISO 19139 Metadata XML encoding rules 6/17
- ISO 19115-2 Rev Metadata imagery Annex
- ISO 19110:2015 Feature catalogue Annex

http://standards.iso.org/iso/
FGDC Standards Working Group Update

Julie Maitra, FGDC
FGDC Standards Activities

- The FGDC Standards WG last met on Thursday, June 19, 2015.
- The SWG recommended final draft Part 2, Digital orthoimagery (revised), of the Geographic Information Framework Standard, for FGDC endorsement.
Digital Orthoimagery

FGDC Standards Activities

Part 2, Digital orthoimagery (revised) of the Geographic Information Framework Data Content Standard supports exchange of orthoimagery data. It provides a base on which to collect, register, and integrate digital orthoimagery data accurately.

Part 2 specifies data content and logical structure for description and interchange of digital orthoimagery; provides guidelines for acquisition and processing of imagery; specifies documentation of acquisition and processing; focuses on images sensed in the visible to near-IR portion of the electromagnetic spectrum; stresses complete and accurate reporting of information relating to quality control and standards employed in testing orthoimagery data; and includes a data dictionary based on its conceptual schema.

This revision primarily replaces analog camera references with digital sensors and recognizes satellite technology for digital orthoimagery production. This standard was revised with support from members of the American Society for Photogrammetry and Remote Sensing (ASPRS).
Standards Activities

The FGDC Steering Committee endorsed the following standards:

- Aeronautical Information Exchange Model (AIXM) 5.1
- GeoRSS-Simple and GeoRSS-GML
- OGC GeoPackage 1.0
- Geopolitical Entities, Names, and Codes (GENC) Standard Edition 2 (with concurrent withdrawal of GENC standard Edition 1)
FGDC Standards Activities

Next FGDC Standards WG meeting is scheduled for Tuesday, September 22. Teleconference/web meeting only.

Topics:

- SWG recommendation for public review of the Address Data Standard (revised)
- Draft SWG charter (revised)
- Objective 3.1 of the 2014-16 NSDI Strategic Plan
- Informational briefings

To participate, visit
http://www.fgdc.gov/standards/organization/FGDC-SWG/meetings/2015-09-22SWG%20meeting
FGDC Standards Activities

In FY 2016, the FGDC Standards WG plans to accomplish/discuss:

- Objective 3.1 of the 2014-16 NSDI Strategic Plan
- Mobile Lidar
- National Geologic Map Database (NGMDB)
FGDC Standards Activities

- There is a (private) FGDC Standards WG group on Linkedin. Please email Julie Binder Maitra if you would like to join.

- Monthly updates provide status of FGDC, INCITS L1/ISO TC 211, GWG, OGC, and other standards activities. The standards update log tracks over 300 standards. It has been maintained since February 2011. Download monthly standards updates from http://www.fgdc.gov/standards/monthlyStandardsUpdate/index
Questions?

Julie Binder Maitra
FGDC Standards Coordinator
FGDC Office of the Secretariat

Phone: 703-648-4627
Email: jmaitra@usgs.gov
Linkedin: https://www.linkedin.com/in/juliebindermaitra

Web site: www.fgdc.gov/standards
ISO Geospatial Metadata
Editors Registry: MWG User Reviews

Lynda Wayne, FGDC/GeoMaxim
ISO Geospatial Metadata Editors Registry

To submit a User Review for any editor you must:
- be a member of the FGDC MWG
- To join send email to fgdc@fgdc.gov
  - provide name, org, org type (fed, state, private, etc.)
- register with ISO Metadata Editor Registry site
- MWG members send message to Vsheth@USGS.gov to request User Review access

Reviews should:
- focus on helpful and challenging features
- be constructive
- provide guidance on addressing issues
ISO Geospatial Metadata Editors Registry

1. Register

ISO Geospatial Metadata Editors

<table>
<thead>
<tr>
<th>Feature</th>
<th>GeoNetwork OpenSource</th>
<th>CatMDEdit V.5.0</th>
<th>Esri Geoportal Server</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>View Full Record</td>
<td>View Full Record</td>
<td>View Full Record</td>
</tr>
</tbody>
</table>

Sign in

Email

Password

Sign in

Don’t have an account? Sign up

Forgot your password?

Didn’t receive confirmation instructions?
ISO Geospatial Metadata Editors Registry

2. Launch Review
ISO Geospatial Metadata Editors Registry

3. Select Editor

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>GeoNetwork opensource</td>
<td>GeoNetwork is a catalog application to manage spatially referenced resources as well as other resources. It provides powerful metadata editing and search functions as well as an embedded interactive web map viewer. It is used in numerous Spatial Data Infrastructure initiatives across the world.</td>
<td>Select</td>
</tr>
<tr>
<td>CatMDEdit v.5.0</td>
<td>CatMDEdit is a metadata editor tool that facilitates the documentation of resources, with special focus on the description of geographic information resources. It is an initiative of the National Geographic Institute of Spain (IGN), which is the result of the scientific and technical collaboration between IGN and the Advanced Information Systems Group (IAIA) of the University of Zaragoza with the technical support of GeoSpatiumLab (GSL).</td>
<td>Select</td>
</tr>
<tr>
<td>Esri Geoportal Server</td>
<td>The Geoportal XML Editor (GXE) is a component of Esri Geoportal Server that allows for configuring, editing, and validating XML. While typically used for geospatial metadata (including FGDC, ISO 191xx, INSPIRE, ANZLIC, GEMINI, DDMS, NGMP, NMF, Dublin Core...) it also supports editing XML formatted documents such as StratML.</td>
<td>Select</td>
</tr>
</tbody>
</table>
ISO Geospatial Metadata Editors Registry

4. Complete Form

New User Review

Instructions
- Save your work every 30 minutes using the 'Save as Draft' option at the bottom of the page. Unsaved work will be lost.
- * denotes mandatory fields
- All submissions will be reviewed prior to publishing

Please provide a constructive response to any of the following questions that relate to your experience with the specified editor. Please read through all questions first to ensure the you are providing information to the most relevant question.

Application Access and/or Installation
Describe success or challenges experienced when accessing or installing the application

(Limit: 2000 characters)

Standards Supported
For the standards supported, describe success or challenges experienced with regard to how well the standards were supported

(Limit: 2000 characters)
ISO Geospatial Metadata Editors Registry

5. Save or Submit Information

Metadata Catalog/Distribution Site/Publication
If metadata publication directly to a catalog or data collection/distribution site is supported, describe success or challenges you experienced

(Limit: 2000 characters)

Submit for Publishing  Save as Draft  Cancel
ISO Geospatial Metadata Editors Registry

6. Edit/Update Review

ISO Geospatial Metadata Editors Registry

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</table>

My User Reviews

<table>
<thead>
<tr>
<th>Editor</th>
<th>Submitted by</th>
<th>Status</th>
<th>Created on</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Editor</td>
<td>Lyncia Wayne</td>
<td>Unpublished</td>
<td>2014-04-17</td>
<td>Edit</td>
</tr>
</tbody>
</table>
### User Review for GeoNetwork opensource

**by Jennifer Walter on 03 Jul, 2015 12:26 PM ET**

<table>
<thead>
<tr>
<th>Questions</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Application Access and/or Installation</strong>&lt;br&gt;Describe success or challenges experienced when accessing or installing the application</td>
<td>Version 2.10.3 must be installed to a directory with write access, otherwise GeoNetwork will not work. There is no mention of this in the user’s guide / developer’s guide 2.10.3. I only discovered the problem/solution from an internet search of an error message I received. Potential conflict with other software programs using the same port as GeoNetwork (Oxygen, XMLSpy). Cannot be simultaneously installed together.</td>
</tr>
<tr>
<td><strong>Standards Supported</strong>&lt;br&gt;For the standards supported, describe success or challenges experienced with regard to how well the standards were supported</td>
<td>Supports 19115-2/19139-2 when schemas added to GeoNetwork v2.10.3 (not pre-installed). Schema add-in instructions in the GeoNetwork 2.10.3 user’s guide/developer’s guide didn’t work. User must have schema files. GeoNetwork-compatible files not available from GeoNetwork (that I could find). Forced schema add-in by adding 19115-2/19139-2 schemas to the GeoNetwork schema folder. This made GeoNetwork “buggy” (received “24 stylesheet errors” error message) &amp; could not export to ISO 19139-2 XML.</td>
</tr>
<tr>
<td><strong>Operating Environment</strong>&lt;br&gt;Describe success or challenges you experienced with the operating environment including: operating platform (desktop, enterprise, online), operating system(s), proprietary nature, data storage format, programming languages, 3rd party software, or other</td>
<td>Success: Downloadable .exe file made for easy desktop install of version 2.10.3.</td>
</tr>
<tr>
<td><strong>User Interface</strong>&lt;br&gt;Describe success or challenges experienced with the user interface</td>
<td>Version 2.10.3: user friendly editing HTML view with drop down menus, identification of required elements in red, links to definitions of metadata elements, easy addition/deletion of packages, full view (entire record) or section view. XML view is not as user friendly. The XML text wraps, instead of retaining the XML hierarchical/indentation structure.</td>
</tr>
<tr>
<td><strong>Support Features</strong>&lt;br&gt;Describe success or challenges you experienced with user support features including: autopopulation of metadata from data, drop-down pick-lists, links to</td>
<td>Version 2.10.3 drop-down pick-lists, links to definitions and validation tools were very useful. User manual 2.10.3 and developers manual instructions often did not match the reality of using version 2.10.3 and could not be implemented or weren’t enough to achieve the desired result (adding in a schema, exporting to XML).</td>
</tr>
</tbody>
</table>
ISO Metadata Forum Update

www.fgdc.gov/metadata/events/iso-geospatial-metadata-implementation-forum
ISO Forum Topics

October 14
State Experiences with ISO Metadata
• Sarah Wray
  North Carolina
• Lyle Hornbaker
  Virginia Information Technology Agency
• Laura Gleasner
  University of New Mexico (invited)

November 18
ISO North American Profile Implementation in Canada
• Cindy Mitchell
  Natural Resources Canada

December 9
Metadata Working Group
• updates
• activities

2016
• NASA ISO Implementation
• Tools
• ISO Basics
• Other ideas?
• Contact Jen Carlino
  jcarlino@usgs.gov
  or Lynda Wayne
  lwayne@usgs.gov
MWG Update

Jennifer Carlino, FGDC
Metadata Working Group Members

Total = 180 participants

- Federal: 50%
- State: 14%
- Tribal: 13%
- Academy: 13%
- Local: 6%
- NGO: 3%
- Industry: 1%

As of Sept. 1, 2015

http://www.fgdc.gov/participation/working-groups-subcommittees/mwg/membership

September 9, 2015
Federal MWG Members Distribution

Participating Agencies:
- Interior
- Commerce
- USDA
- Defense
- EPA
- DHS
- NASA
- Library of Congress
- Energy
- GSA
- HHS
- Transportation

Interior 36%
- USDA 13%
- Commerce 20%
- EPA 6%
- Defense 9%
- Library of Congress 2%
- HUD 1%
- NASA 3%
- DHS 5%
- Energy 1%
- GSA 1%
- HHS 1%
- Transportation 1%

13 of 30 FGDC Member Agencies Represented
Meeting Annual Report Goals

- Continue involvement with NSDI implementation initiatives such as the NSDI Strategic Plan, Geospatial Platform (Geoplatform.gov) and A–16 Supplemental Guidance – National Geospatial Data Asset Management Plan implementation.

- Continue ISO Metadata Implementation Forum series.

- Publish and manage content for the FGDC Metadata Website.

- Publish and manage the ISO Geospatial Metadata Editors Registry.

- Provide technical guidance and support for ISO Geospatial Metadata implementation, particularly with respect to ISO 19115-1 released in 2014.
Align MWG Activities to NSDI Strategic Plan (ideas)

- 1.2.4.3. Define workflow for creating new communities on Geospatial Platform. Create and manage geospatial metadata community

- 1.1.2.1. Develop components of Geospatial Interoperability Reference Architecture (GIRA). Identify possible metadata components to support GIRA

- 3.1.1.1. Identify, monitor and participate in existing and emerging external geospatial communities. Identify metadata communities and report to MWG and SWG
MWG Activities

- Plan to endorse ISO metadata standards through FGDC process
  - 19157:2013 Geographic information -- Data Quality
  - (When published) ISO/DTS 19115-3 Geographic information -- Metadata -- Part 3: XML schema implementation of metadata fundamentals

- Update Data.gov/GeoPlatform.gov Metadata Guidance
- Updated Metadata web pages in Fall 2015
MWG Activities

- Outreach to increase MWG membership from across FGDC agencies, especially those without current representation
- Possible face to face Workshop in 2016
  - Build on Summit (2011), Webinar (2013), and Forum (2014/15)
  - Hands on and breakout sessions
  - Addressing implementation challenges (e.g., workflow, policy, etc.)
- Other opportunities?
News from the Field

Announcements from
Metadata Working Group Members
Participation at URISA

- Lynda Wayne will be attending URISA GISPro Conference, Spokane WA, Oct 12-22, 2015
  - Title: Geospatial Metadata: the 411 on 19115-1
  - Wednesday, Oct. 21, 10:30 AM (same session as Bruce Godfrey)
  - Contact Lwayne@usgs.gov if you will be attending the conference and would like to touch base.

- Abstract - Geospatial Metadata standards are going international. The new standards build upon current technologies and concepts to modernize and modularize geospatial metadata into an operational data component. A quick and cogent summary of ISO metadata content, format, and transition strategies - this presentation can jumpstart your metadata program and enable you to better your GIS best practices.
Next ISO Forum:
October 14, 2015
Topic: State Experiences with ISO
November 18, 2015
Topic: ISO NAP Implementation in Canada

Next MWG Meeting:
December 9, 2015
Topic: FGDC Endorsement Process

Comments and Ideas:
fgdc@fgdc.gov or jcarlino@usgs.gov