

FGDC Standards Endorsement Process

to FGDC Metadata WG
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Topics

- ❖ Status of metadata and related standards
- ❖ Standards policies
- ❖ Proposed metadata and related standards for FGDC endorsement
- ❖ Standards for concurrent withdrawal
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Metadata and related standards update

Name of Standard	Description	Status
ISO 19109:2015 Rules for application schema	Defines the a 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	International standard Published November 25, 2015
ISO 19110:2005 + Amendment 1 Methodology for feature cataloguing	Catalogue defining features and properties for a domain of interest and/or a dataset and a schema for encoding in XML	DIS approved for registration as FDIS June 5, 2014. Project to revise ISO 19110 at risk for cancellation.
ISO 19111:2007 Spatial referencing by coordinates	Metadata about/defining a coordinate reference system	International standard. NWIP for revision under ballot, to close on May 12.
ISO 19111-2:2009 Spatial referencing by coordinates- Extension for parametric value	Metadata about/defining a coordinate reference system using parametric values	International standard. ISO/TC 211 resolved to abandon the NWIP 19111-2:2009/Amd. 1. The proposed amendment will be taken into consideration in the next revision of ISO 19111.

Metadata and related standards update

Name of Standard	Description	Status
ISO 19112:2003 Spatial referencing by geographic identifiers	Metadata about/defining a reference system which uses spatial unit identifiers other than coordinates i.e. gazetteer, postal code, etc.	A project to revise ISO 19112:2013 was approved on January 28
ISO 19113:2002 Quality principles	Defines the principles, the elements/sub-elements of data quality	Superseded by 19157
ISO 19114:2003 Quality evaluation procedures	Defines procedures for determining data quality	Superseded by 19157
ISO 19115:2003 Geospatial metadata	Defines metadata elements and schema describing geospatial datasets	Superseded by 19115-1
ISO 19115-1:2014 Geospatial metadata fundamentals	Revision of ISO19115 which defines metadata elements and schema describing geospatial resources i.e. datasets and services	International standard
ISO 19115-2:2009 Extensions for imagery and gridded data	Defines additional metadata elements and schema describing imagery and gridded geospatial datasets	New project to revise ISO 19115-2 approved 2014-07-14. At risk for cancellation.

Metadata and related standards update

Name of Standard	Description	Status
ISO 19115-3 XML schema implementation of metadata fundamentals		CD approved for registration as DIS 2014-06-05. At risk for cancellation.
ISO 19119:2016 Services	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	International Standard published January 2016.
ISO 19130:2010 Imagery sensor models for geopositioning	Specifies a sensor model describing the physical and geometrical properties of specific sensors	International standard
ISO 19130-1 Imagery sensor models for geopositioning	Revision of ISO 19130	New project approved 2014-06-16: at risk of cancellation.
ISO 19130-2:2014 Imagery sensor models for geopositioning SAR, InSAR, Lidar and Sonar	Specifies a sensor model describing the physical and geometrical properties for the stated sensors	International standard to be revised

Metadata and related standards update

Name of Standard	Description	Status
ISO 19138:2006 Data quality measures	Defines commonly used measures for reporting data quality for the sub-elements defined in ISO 19113 and a structure so they may be maintained in a register.	Superseded by 19157
ISO 19139:2007 Metadata XML Schema implementation	Provides encoding rules and a schema for implementing ISO 19115 in XML.	International standard To be partly superseded by ISO 19115-3
ISO 19139-1 Metadata XML Schema implementation	This revision will include only the encoding rules for metadata	New project approved 2014-06-06. Revises ISO 19139:2007.
ISO 19139-2:2012 Metadata - XML schema for imagery and gridded data	Provides a schema for implementing ISO 19115-2:2009 in XML	International standard under periodic review

Metadata and related standards update

Name of Standard	Description	Status
ISO 19157:2013 Data Quality	Defines the principles and components for describing, evaluating, and the measures used for reporting data quality. Revises and replaces ISO 19113, 19114, 19138.	International standard
ISO 19157:2013/NP Amd 1 Geographic information -- Data quality -- Amendment 1		New project ballot initiated 2016-02-05. Revises 19157:2013
ISO 19157-2 Data Quality XML Schema implementation	Provides a schema for implementing ISO 19157 in XML	Close of CD ballot 2014-09-03. At risk for cancellation
ISO 15836:2009 (Ed 2) The Dublin Core metadata element set	Cross domain resource descriptions – not limited to specific resources	International standard confirmed 2014-12-09
W3C Data Catalog Vocabulary (DCAT)	An RDF vocabulary designed to facilitate interoperability between data catalogs published on the Web.	W3C recommendation 2014-01-16

Standards policies

- ❖ OMB Circular A-16 (2002)
- ❖ OMB Circular A-119 (2016)
- ❖ FGDC Policy on Recognition of Non-Federally Authored Geographic Information Standards and Specifications (November 2005)

Standards policies

- ❖ OMB Circular A-16 (2002)
 - ❖ vests in the FGDC responsibility for establishing geographic information associated standards and their development and implementation
 - ❖ sets forth the obligation of Federal agencies to adhere to FGDC established standards.

Standards policies

- ❖ OMB Circular A-119 (1998) directed Federal agencies to use "voluntary consensus standards" in lieu of Federal government-unique standards except where inconsistent with law or otherwise impractical
- ❖ Revised OMB Circular A-119 published on January 22, 2016
- ❖ OMB Circular A-119 (2016) re-asserts preference for voluntary consensus standards over government-unique standards

Standards policies

- ❖ **FGDC Policy on Recognition of Non-Federally Authored Geographic Information Standards and Specifications (November 2005).**
 - ❖ OMB Circulars A-16 and A-119 do not expressly define a mechanism for identification, selection, and coordinated implementation of non-Federally developed standards.
 - ❖ The FGDC policy provides a means to identify and evaluate non-Federally authored standards and specifications and, when appropriate, require their Federal use via FGDC endorsement.

Standards policies

12-step FGDC standards process

STAGE	STEP	CUSTODIAN
PROPOSAL	1- Develop proposal	Standards Development Group (could be FGDC Subcommittee or Working Group)
	2 - Review proposal	FGDC Standards Working Group (SWG)
PROJECT	3 - Set up project	Standards Development Group
DRAFT	4 - Produce working draft	Standards Development Group
	5 - Review working draft	Standards Development Group
REVIEW	6 - Review and evaluate committee draft	SWG
	7 - Approve standard for public review	FGDC Coordination Group (CG)
	8 - Coordinate public review	FGDC Secretariat
	9 - Respond to public comments	Standards Development Group
	10 - Evaluate responsiveness to public comments	SWG
	11 - Approve standard for endorsement	CG
FINAL	12 - Endorse standard	FGDC Steering Committee

Standards policies

- ❖ Because ISO standards proposed for FGDC endorsement were already developed and approved/endorsed through a rigorous voluntary consensus standards process, steps 1-9 of the FGDC standards development process are waived through the FGDC policy.

Standards policies

- ❖ The sponsor shall submit to the FGDC Standards Working Group (SWG) Chair a report that provides the following information:
 - ❖ The category of the standard or specification: in this case, ISO.
 - ❖ Applicability of the proposed standard to Federal geospatial activities, including where it should/should not be employed.
 - ❖ The reason(s) that the standard would be of value to missions and spatial data responsibilities of Federal agencies.
 - ❖ Restrictions, limitations, or other constraints that might affect promulgation, adoption, and/or implementation of the standard: for example, copyright, license fees, and restriction of applicability to a specific technology. This might also include the cost of standards.
 - ❖ Contact information for the sponsor.
 - ❖ Identification and/or explanation of the process by which the proposed standard was developed and reviewed. For ISO standards, it is necessary only to say that standard was developed through ISO process

Standards policies

- ❖ The SWG Chair will list the proposed standard on the FGDC standards web site.
- ❖ The SWG Chair will circulate the standard and report to SWG members and FGDC Subcommittee and Working Group chairs for a review/comment period of not less than 30 calendar days.
- ❖ Based on comments, the SWG Chair will then prepare a report and provide the report and a recommendation to the FGDC Coordination Group within 21 calendar days.

Standards policies

- ❖ The FGDC Coordination Group (CG) will publicize the SWG report and recommendation, make the standard available to FGDC membership, and provide a member review/comment period of not less than 21 calendar days.
- ❖ The SWG Chair will prepare the final report and recommendation for endorsement and forward them to CG members at least 14 calendar days in advance of the next scheduled CG meeting.
- ❖ The CG will vote to approve or disapprove the recommendation for endorsement.
- ❖ Upon CG approval, the recommendation will be forwarded to the FGDC Steering Committee for final endorsement.

Standards policies

- ❖ Some external standards have been developed through a process that has already provided FGDC membership sufficient time to review them. For these standards, taking all steps and/or adhering to some or all of the prescribed review durations might be unduly inefficient.
- ❖ Exceptions to the prescribed step structure and duration may be made subject to affirmative vote of the SWG.
- ❖ This policy does not supersede the authority or obligation of an agency to use a particular standard due to treaty, agreement, or other policy.

Standards proposed for FGDC endorsement

Name of Standard	Description	Status	Price
ISO 19110:2005 Amendment 1 2011 Methodology for feature cataloguing (Annex E feature catalogue encoding)	Catalogue defining features and properties for a domain of interest and/or a dataset and a schema for encoding in XML	International Standard	\$200.00
ISO 19115-1:2014 Geospatial metadata fundamentals	Revision of ISO19115 which defines metadata elements and schema describing geospatial resources i.e. datasets and services	International standard	\$133.00
ISO 19115-3 XML schema implementation of metadata fundamentals		CD approved for registration as DIS 2014-06-05. At risk for cancellation.	
ISO 19157:2013 Data Quality	Defines the principles and components for describing, evaluating, and the measures used for reporting data quality. Revises and replaces ISO 19113, 19114, 19138.	International standard	\$133.00
ISO 19157-2 Data Quality XML Schema implementation	Provides a schema for implementing ISO 19157 in XML	Close of CD ballot 2014-09-03. At risk for cancellation	

Standards proposed for FGDC endorsement

Name of Standard	Description	Status	Price (ANSI)	Price (ISO)	Price (ISO)2
ISO 19110:2005 Amendment 1 2011 Methodology for feature cataloguing (Annex E feature catalogue encoding)	Catalogue defining features and properties for a domain of interest and/or a dataset and a schema for encoding in XML	International Standard	USD 200.00	USD 160.45	CHF 158.00
ISO 19115-1:2014 Geospatial metadata fundamentals	Revision of ISO19115 which defines metadata elements and schema describing geospatial resources i.e. datasets and services	International standard	USD 133.00	USD 200.99	CHF 198.00
ISO 19115-3 XML schema implementation of metadata fundamentals		CD approved for registration as DIS 2014- 06-05. At risk for cancellation.	N/A	N/A	N/A
ISO 19157:2013 Data Quality	Defines principles and components for describing, evaluating, and the measures used for reporting data quality. Revises and replaces ISO 19113, 19114, 19138.	International standard	USD 133.00	USD 200.99	CHF 198.00
ISO 19157-2 Data Quality XML Schema implementation	Provides a schema for implementing ISO 19157 in XML	Close of CD ballot 2014- 09-03. At risk for cancellation	N/A	N/A	N/A

Standards for concurrent withdrawal

- ❖ ISO/TS 19138:2006 Geographic information --
Data quality measures

Why must I pay for ISO standards?

- ❖ Sales of standards provide support for standards development, support for standards users, intellectual property and commercial value issues, and electronic dissemination.

Resources

- ❖ OMB Circular A-16 (2002)
https://www.whitehouse.gov/omb/circulars_a016_rev/
- ❖ Revised OMB Circular A-119 (2016)
https://www.whitehouse.gov/sites/default/files/omb/inforeg/revised_circular_a-119_as_of_1_22.pdf
- ❖ Slides and recording from an ANSI webinar on the revised OMB Circular A-119: see
http://www.ansi.org/news_publications/news_story.aspx?menuid=7&articleid=1f55785a-6cfa-4f29-a337-0164eb8bd6b0&source=whatsnew022216
- ❖ FGDC Policy on Recognition of Non-Federally Authored Geographic Information Standards and Specifications (November 2005),
http://www.fgdc.gov/standards/standards/standards_publications/Non-FGDC_StandardsSpecs_Policy.pdf

Resources

- ❖ Examples of completed reports available on request
- ❖ Why charge for standards? ANSI lists factors impacting the final price of a standard: see https://www.ansi.org/help/charge_standards.aspx?menuid=15

Backup slides



Standards status log

- ❖ February 2016 marks the 5th anniversary of the standards status log.
- ❖ The standards status workbook now tracks over 300 standards from FGDC, INCITS Technical Committee L1, ISO Technical Committee 211, Open Geospatial Consortium and other geospatial-related standardization activities.
- ❖ The latest standards update is available at <http://www.fgdc.gov/standards/monthlyStandardsUpdate/feb-2016/feb-2016-standards-update.pdf>. The PDF file includes a link to the standards status workbook

Standards status log

- ❖ The FGDC OS is informally surveying the geospatial community about use of the standards status log.
- ❖ Do you use the standards status log?
- ❖ Do you find it useful?
- ❖ How might the FGDC increase use of the standards status log?