Proposal for FGDC endorsement of ISO/TS 19157-2:2016

# Introduction

This proposal provides documentation needed to obtain FGDC recognition of ISO/TS 19157-2:2016 Geographic information -- Data quality -- Part 2: XML schema implementation. The recognition level sought for this standard will be FGDC endorsement, as described in the [FGDC Policy on Recognition of Non-Federally Authored Geographic Information Standards and Specifications](https://www.fgdc.gov/standards/standards_publications/Non-FGDC_StandardsSpecs_Policy.pdf) (November 2005)[[1]](#footnote-1).

The following information responds to the specific questions outlined per Section V.1 of the FGDC Policy.

# Documentation

1. **The category of the standard or specification (per Section III).**

International Organization for Standardization (ISO) published standards – consensus-based standards developed through the ISO standards process.

1. **The proposed level of FGDC recognition (per Section IV).**

Endorsement of ISO/TS 19157-2:2016 Geographic information -- Data quality -- Part 2: XML schema implementation.

1. **A discussion of the applicability of the proposed standard or specification in Federal geospatial activities, including discussion of the conditions where it should be employed and anywhere it should not be, i.e., provide the scope of Federal geospatial applicability of the standard or specification.**

Many Federal agencies maintain and manage geospatial data and geographic information systems (GIS) and are required to develop metadata to support the National Spatial Data Infrastructure (NSDI), as outlined in [Executive Order 12906](https://www.archives.gov/files/federal-register/executive-orders/pdf/12906.pdf)[[2]](#footnote-2) and [OMB Circular A-16 Revised (2002)](https://obamawhitehouse.archives.gov/omb/circulars_a016_rev/)[[3]](#footnote-3).

ISO/TS 19157-2:2016 complements INCITS/ISO 19157:2013[2014], Geographic information – Data quality[[4]](#footnote-4), which the FGDC previously endorsed. It defines data quality encoding in XML. The XML schema implementation is derived from ISO 19157:2013 and data quality related concepts from INCITS/ISO 19115-2:2009[R2014], Geographic information - Metadata - Part 2: Extensions for imagery and gridded data[[5]](#footnote-5).

1. **The specific reason(s) that the standard or specification would be of value to the Federal government and, if applicable, to other members of the FGDC. These should include, but not be limited to, identification of the specific FGDC subcommittee(s) and/or working group(s) whose members support the submission of the standard or specification and how it benefits its/their responsibilities.**

The FGDC Metadata Working Group (MWG) supports FGDC endorsement of ISO/TS 19157-2:2016 because this standard furthers the MWG’s efforts to promote NSDI principles through implementation of geospatial metadata and related semantic and structural standards established by Federal, National and International Standards organizations by promoting the documentation, discovery, and reuse of geospatial data resources.

1. **Any restrictions, limitations, or other constraints that may affect promulgation and/or adoption and/or implementation of the standard or specification, e.g., copyright, license fees, restriction of applicability to a specific technology, and the like. The FGDC staff will negotiate with standards organizations to attempt to acquire free standards documents for FGDC members.**

ISO/TS 19157-2:2016 may be purchased from ISO[[6]](#footnote-6) or ANSI[[7]](#footnote-7). See Why Charge for Standards?[[8]](#footnote-8) from ANSI.

ISO and ANSI standards are copyrighted. Standards are works of authorship and, under U.S. and international law, copyright protected to give the owner rights of control and remuneration that cannot be taken away without just compensation. See statement on [ISO copyright](http://www.iest.org/Bookstore/General-Terms-and-Copyright-Statement).[[9]](#footnote-9) For more information, contact:

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E-mail: copyright@iso.org

Web: [www.iso.org](http://www.iso.org)

1. **The name and business addresses of a point-of-contact (POC) in the proposing or sponsoring FGDC member agency and, if applicable, the name and business addresses of a POC in the proposing non-Federal body.**

Jennifer Carlino

FGDC Metadata Coordinator

Chair, Metadata Working Group

Federal Geographic Data Committee

Core Science Systems

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Web: [www.fgdc.gov/metadata](http://www.fgdc.gov/metadata)

1. **Identification and/or explanation of the process by which the proposed standard or specification was developed and reviewed. This information will support FGDC determination as to whether the process meets the criteria for a voluntary consensus standards process as defined in OMB Circular A-119. When accredited standards development bodies such as ISO, ANSI/INCITS, and NIST are the authors, only their identity shall be supplied. Otherwise, a description of the development and review process and a list of participants must be included.**

ISO/TS 19157-2:2016 was developed through the ISO standards development process.

# Additional information

The working ISO TC211 XML Schema Repository[[10]](#footnote-10) contains draft XML schema and related documents for the ISO TC211 metadata (ISO 19115-1) and data quality (ISO 19157) standards. The schema repository for ISO 19157 is available at <http://standards.iso.org/iso/19157/-2>[[11]](#footnote-11). These are not final schemas, but may be suitable for initial testing and familiarization. Comments, suggestions, change requests and revisions are managed in the ISO TC211 GitHub Repository[[12]](#footnote-12).

Summary information about namespaces is available at <http://standards.iso.org/iso/19115/resources/namespaceSummary.html>. Each namespace directory in the repository has an index file that provides links to relevant information, which includes:

* UML Package Diagrams
* Sample XML files for the namespace and demonstrating related schematron rules.
* Code lists (If the namespace includes code lists).
* Namespace location
* Schema location
* Related schemas
* Related namespaces
* Schematron rules

1. <https://www.fgdc.gov/standards/standards_publications/Non-FGDC_StandardsSpecs_Policy.pdf>, accessed October 2, 2017 [↑](#footnote-ref-1)
2. <https://www.archives.gov/files/federal-register/executive-orders/pdf/12906.pdf>, accessed October 2, 2017 [↑](#footnote-ref-2)
3. <https://obamawhitehouse.archives.gov/omb/circulars_a016_rev/>, accessed October 2, 2017 [↑](#footnote-ref-3)
4. <https://webstore.ansi.org/RecordDetail.aspx?sku=INCITS%2fISO+19157%3a2013%5b2014%5d>, accessed October 2, 2017 [↑](#footnote-ref-4)
5. <https://webstore.ansi.org/RecordDetail.aspx?sku=INCITS%2fISO+19115-2%3a2009%5bR2014%5d>, accessed October 2, 2017. The FGDC has endorsed INCITS/ISO 19115-2:2009[R2014]. [↑](#footnote-ref-5)
6. <https://www.iso.org/standard/66197.html>, accessed October 2, 2017 [↑](#footnote-ref-6)
7. <https://webstore.ansi.org/RecordDetail.aspx?sku=ISO%2fTS+19157-2%3a2016>, accessed October 2, 2017 [↑](#footnote-ref-7)
8. <https://www.ansi.org/help/charge_standards?menuid=15>, accessed August 16, 2017 [↑](#footnote-ref-8)
9. <http://www.iest.org/Bookstore/General-Terms-and-Copyright-Statement>, accessed July 14, 2017 [↑](#footnote-ref-9)
10. <http://standards.iso.org/iso>, accessed October 2, 2017 [↑](#footnote-ref-10)
11. <http://standards.iso.org/iso/19157/-2>, accessed October 2, 2017 [↑](#footnote-ref-11)
12. <https://github.com/ISO-TC211/XML>, accessed October 2, 2017 [↑](#footnote-ref-12)