



New ISO standard for geospatial metadata makes sharing easier

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Geospatial data that is easier to understand and to share is now possible with the International Organization for Standardization's (ISO) approval and publication of ISO 19115—an international metadata content standard.

Approved in July 2003, the standard includes a schema that requires the documentation of essential information about geospatial data such as identification, quality, spatial and temporal schema, and spatial reference. Currently, the most widely used geospatial metadata standard in Canada and the United States is the Content Standard for Digital Geospatial Metadata (CSDGM) Version 2.0 created by the Federal Geographic Data Committee (FGDC). ISO 19115 was developed out of a need for a universal standardized version that has more configurability to application communities and supports international use and language compatibility.¹


In anticipation of adopting the new ISO standard, representatives from the U.S. Geological Survey (USGS), the U.S. National Biological Information Infrastructure (NBII), and their counterparts from Canada and Mexico have been working together to develop a modified North American profile of the ISO 19115 standard. The North American profile, which is designated for approval as ISO 19139, will adopt the ISO 19115 core elements and the available non-core elements to meet the metadata requirements of these organizations. This includes incorporating existing CSDGM extensions (biological, shoreline, and remote sensing), establishing fixed domains, and instituting requirements for more stringent conditionality.² Essentially evolving into Version 3.0 of the CSDGM, the ISO 19139 profile was approved at the Committee Stage in October 2004 (as ISO 19139 Draft Technical Specification) and is currently moving through final approval stages.

What does this mean for existing metadata records? Metadata developed under the current CSDGM Version 2 standard will not have to be redone. Efforts have been made to develop crosswalk conversion tools to map existing CSDGM fields to equivalent ISO 19139 fields. The FGDC is in the process of developing a stand-alone application that can be downloaded for free from the FGDC Web site (<http://www.fgdc.gov>) and GIS software firms

such as Intergraph Corporation and Environmental Systems Research Institute (ESRI) are developing crosswalk tools for their products as well.

Although much has been established for the general framework and structure of the ISO 19115 standard, more guidance is needed. For example, the ISO 19115 element called "Temporal Coverage" (which is crosswalked to the CSDGM "Time Period of Content" element) has inadequate guidelines on how to develop its content (i.e., no reference to starting and ending dates; or to single date, multiple dates, or range of dates). As a result, most efforts towards adopting ISO 19115 have been tentative. Work is already underway to address this problem and tools are being developed to create ISO 19139 records. The FGDC will be developing workbooks and training materials for CSDGM Version 3.0, as well as providing assistance and training workshops.

MSRM adopts standards

The BC Ministry of Sustainable Resource Management has adopted the ISO 19115 content metadata standard in its latest release of the Land Information BC Discovery Service (<http://srmapps.gov.bc.ca/metastar/>). This on-line service allows you to discover Land and Resource Data Holdings by viewing core metadata information about the data (i.e., title, description, custodian, location, and format). 

For the latest news, information, and training events about ISO 19115/19139, visit the FGDC/ISO Metadata Standard Harmonization Web site at <http://www.fgdc.gov/metadata/whatsnew/fgdciso.html>

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¹ Source: Geoconnections. 2004. *Guide to The Canadian Geospatial Data Infrastructure*. http://www.geoconnections.org/publications/Technical_Manual/html_e/appendix_2-3.html

² Source: FGDC. 2004. *FGDC/ISO Metadata Standard Harmonization*. <http://www.fgdc.gov/metadata/whatsnew/fgdciso.html>