



**VGIS
HANDBOOK**

**PART 2 - STANDARDS
SECTION D**

METADATA STANDARD

Vermont Geographic Information System



METADATA STANDARD

Standard History

- November 15, 1989 – version 1a - *Section A: Digitizing Data* adopted by Policy Advisory Board
- January, 1991 – version 1b - *Section A: Digitizing Data* divided into *Section A: Digital Data Conversion* and *Section D: Data Layer Documentation*. The latter document replaced and significantly expanded the earlier standard's sections on documentation. The remaining sections were consolidated and renamed *Digital Data Conversion*.
- January, 1992 – version 1c - Revision to reflect a significant expansion provides more detail and explanation on documenting coverages.
- February, 1998 – version 2a - Updated to reflect new FGDC metadata standards. Formerly *Data Layer Documentation*, has now been split into two sub-sections: D-1 FGDC Metadata Standard, and D-2 VGIS Metadata Standard.
- August, 2006 – version 3a – Dropped the VGIS Metadata Standard. The FGDC Metadata standard is now the only endorsed/supported standard in Vermont. Consolidated the standard into a single document

Acknowledgments

VCGI would like to thank the Federal Geographic Data Committee (FGDC) for its leadership in the development of the *FGDC Content Standard for Digital Geospatial Metadata* standard.

Statutory Authority

Vermont Statutes: Title 10: Conservation & Development – Chapter 8: Geographic Information – 10 V.S.A. § 123. Powers and duties

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I. PURPOSE

This documents specifies how GIS data layers will be documented. Data documentation, or *metadata*, includes information about the content, quality, condition, and other information about a particular dataset. Metadata is crucial because users of the data need to know the full description of the dataset - its source(s) and methods used to create it, its accuracy, attributes, and most recent updates.

Scope of Standard

This Standard applies to any organization receiving state or federal funding for the development of geospatial (GIS) data in Vermont. Metadata must accompany all geospatial datasets developed with such funds.

Terminology

The following terminology is used in this Standard:

<i>Metadata:</i>	Data about the content, quality, condition, and other characteristics of data.
<i>FGDC Metadata:</i>	<i>FGDC Content Standard for Digital Geospatial Metadata</i> standard adopted by the Federal Geographic Data Committee.
<i>VGIS Metadata:</i>	<i>VT Geographic Information System Metadata</i> . This is an old metadata standard (1991, 1992) developed by the VGIS community prior to the adoption of a federal standard (FGDC Metadata Standard). <u>VGIS Metadata is no longer used, supported, or endorsed by VCGI.</u>
<i>ISO Metadata</i>	International Standards Organization's (ISO) metadata standard.



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II. FGDC METADATA STANDARD

The *FGDC Content Standard for Digital Geospatial Metadata*¹ has been adopted as the metadata standard for Vermont. This documentation standard, adopted by the Federal Geographic Data Committee, was (according to FGDC literature) created for three major reasons:

- ✓ To help organize and maintain an organization's internal investment in spatial data.
- ✓ To provide information about an organization's data holdings for data catalogues, clearinghouses, and brokerages.
- ✓ To provide information to process and interpret data received through a transfer from an external source.

The metadata standard provides users with over 200 common defined data items and a uniform indentation scheme, including all possible metadata and keyword fields for the purpose of search ability.

Additional information about the FGDC Metadata Standard is available on the FGDC website (<http://www.fgdc.gov/metadata/>).

How about the ISO Metadata Standard? VCGI adopted the FGDC standard instead of ISO for the following reasons (as of 8/28/2006):

- The ISO metadata standard isn't ready for prime time. FGDC and ISO are still working on a "North American Profile", which is a necessary prerequisite to the development of detailed metadata.
- Vendors such as ESRI and Integraph currently support preliminary versions of ISO metadata. These preliminary implementations only support ISO "core", which is a limited subset of elements within the ISO standard.

The VCGI Technical Advisory Committee (VCGI TAC) will consider adopting and migrating to the ISO standard once the issues noted above have been resolved.

¹ Content Standard for Digital Geospatial Metadata (CSDGM), Vers. 2 (FGDC-STD-001-1998).
<http://www.fgdc.gov/standards/projects/FGDC-standards-projects/metadata/base-metadata/index.html>



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Important Note: The old “VGIS Metadata Standard” (1991, 1992) is no longer used, supported, or endorsed by VCGI.



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III. DEVELOPING COMPLIANT METADATA

There are a number of tools available to assist you in the development of FGDC compliant metadata. A few examples are listed below. All of this and more can be found on VCGI's "Metadata Resources" web page.

- VCGI's Metadata Resources <http://www.vcgi.org/techres/metadata/>
- **Text Editor:** Any text editor (eg: Notepad) can be used to create FGDC compliant metadata. Metadata can also be maintained in XML format using a text or XML editor. A sample text template is available on VCGI's "Metadata Resources" web page.
- **Other tools:**
 - **MP** (free)
 - Otherwise known as the "Metadata Parser" and developed by the U.S. Geological Survey, this tool offers the user an error checking option to assist in metadata development of completely compliant metadata records. This program also enables the user to produce .HTML (among other sorts of) data files of his or her metadata.
 - **Corpsmet95** (free)
 - This Windows application, developed by the U.S. Army Corps of Engineers, offers the metadata developer an interface in which to develop FGDC metadata from scratch, or edit existing FGDC metadata records.
 - **ESRI ArcView® 3.x Metadata Collector Extension** (free)
 - This is a free metadata editor/production tool developed by the U.S. NOAA Coastal Services Center in order to document ArcView 3.x shapefiles.
 - **Integrgraph GeoMedia® Catalog**
 - Supports metadata creation, editing, and publishing.



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Supports the FGDC Biological Profile.

- **ESRI ArcGIS®/ArcCatalog®**
 - Supports metadata creation, editing, and publishing.

File Format Note: DO NOT maintain your metadata in HTML or MS Word format! These formats cannot be imported into metadata utilities such as ArcCatalog. Refer to the following table for a list of supported formats.

File Format	Supported?
ASCII (CSDGM)	YES
XML (CSDGM)	YES
SGML (CSDGM)	YES
MS Word	NO
HTML	NO

Additional References

The following websites include additional information about metadata and how to create it.

- <http://www.fgdc.gov/metadata/>
- <http://www.vcgi.org/techres/metadata/>
- <http://sco.wisc.edu/wisclinc/metatool/>

Review and Modification of this Standard

Proposed amendments to this document must be provided in writing to the VCGI TAC. This group will consider amendments to this Standard. The VGIS community will be provided with an opportunity to comment.