VT Center for Geographic Information

VT Open Geodata Portal: Tagging Standard

Version 1.0 FINAL

Updates

Date	Notes
June 26, 2016	Draft 1.0
8/17/2016	Draft 1.1 – presented to VT GIS Community for 30-day public comment period
10/12/2016	Approved by VT Enterprise GIS Consortium (EGC) representatives via a voice vote at 10/12/2016 meeting.

Statutory Authority and Standard Review/Approval

The Vermont Center for Geographic Information (VCGI) has the statutory authority[1] to craft and adopt VT GIS standards and guidelines. Over the past 20 years, VCGI has worked with the VT GIS community to carefully craft these standards and guidelines, helping to ensure that Vermont GIS (VGIS) data "is compatible with, useful to" others in the VT GIS community.

In 2015, VCGI was reformed as a Division under the Agency of Commerce and Community Development (ACCD) as defined in H.885 Sec. E. 800.1 10 V.S.A. § 122. VCGI's duties did not change, and therefore VCGI still has the authority to adopt VT GIS standards and guidelines.

The State's Enterprise GIS Consortium (EGC) has been established as the organization responsible for reviewing and approving Vermont GIS standards crafted by VCGI (in collaboration with the Vermont GIS Community).

Purpose
The purpose of this Tagging Standard is to establish a tagging framework that yields consistently positive user and publisher experiences with Vermont's Open Geodata Portal in terms of data searching, data discovery, portal organization, and portal content presentation.

Guiding Principles
The three guiding principles of the VT Open Geodata Portal Tagging Standard are:
- **Consistency –** Tags are consistently utilized in the same manner.
- **Query Needs –** Tags support quintessential user queries, item organization, and portal content presentation in the Vermont Open GeoData Portal.
- **Extensibility –** Additional tags can be added in order to serve particular needs.

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[1] http://legislature.vermont.gov/statutes/fullchapter/10/008

Tagging Standard

The VT Open Geodata Portal Tagging Standard is defined and described by the following 2 components; Those 2 components are a Tagging Standard Framework and a set of Tagging Standard Domains.

Tagging Standard Framework

- All items catalogued in Vermont's Open GeoData Portal are given tags in ArcGIS Online per the following table.

- Descriptions within "< >" represent variable content.

- Domain names are represented by "{ }" and correspond to domains that are defined in the Tagging Standard Domains section.

- " | " represents mutually exclusive options (choose one).

- Specifications in the Tag Format column are case sensitive. Many tags have a camel-case format (camelCase), where the first portion represents a certain attribute name in all lowercase characters and the second portion represents the attribute value with the first character in uppercase followed by lowercase and/or uppercase characters.

- Tags that begin with attribute names, such as a tag of the isotheme tag type, are primarily intended for back-end publisher-driven queries (such as category collations) while other tags are primarily intended for user-driven keyword searches.

Tag Type Name	Tag Required or Optional	Tag Format	Quantity	Description	Examples
isotheme	Required	isotheme<{ISO_THEMES}>	1	The isotheme tag assigns an item to a theme category that is based on ISO 19115 categories per the VGIS Handbook – ArcSDE Configuration and Management Guidelines. The isotheme tag's primary purpose is provision of consistent theme-based item collation.	isothemeElevation isothemeEmergency
subtheme	Required	subtheme<{SUB_THEMES}>	1…n	The subtheme tag assigns an item to a sub-category that is based on ISO 19115 categories per the VGIS Handbook – ArcSDE Configuration and Management Guidelines. The subtheme tag's primary purpose is provision of consistent theme-based item collation.	subthemeDEM subthemeFlood

Tag Type Name	Tag Required or Optional	Tag Format	Quantity	Description	Examples
node	Required	node<{NODES} |*Node**> *If Node is not included in NODES domain. First character must be in uppercase.*	1	A node-based name of the data portal or venue in which the item has been catalogued. In short-string/abbreviated form.	nodeCVRPC nodeVCGI nodeVTANR
keyword	Required	*keyword*	1…n	Some other tag types that are used with camelCase formats which begin with attribute name strings (for example, the isotheme tag) can be reflected in keyword tags without the attribute name strings to support user-driven searches. For example, a subtheme tag "subthemeE911" might be reflected as a keyword tag "E911". <u>Keyword tags can reflect keywords which are listed in metadata.</u> Additional keyword tags can be included as needed to support user-driven searches and publisher administration.	Facilities Schools college university education campuses

Tag Type Name	Tag Required or Optional	Tag Format	Quantity	Description	Examples
itemtype	**IF** item is a web service, a web app, or a mobile app, tag is Required. Otherwise, it is Optional.	itemtype<{ITEM_TYPES}>	1…n	The itemtype tag describes the item's type (web service, web app, pre-packaged .zip, etc.). The itemtype tag type supports listings of web services, web apps, mobile apps, etc. NOTE: It is possible for an item to have multiple types.	itemtypeWebService itemtypeZIP itemtypeWebApp
datayear	Optional	datayear<YYYY*> *YYYY represents year. Primarily for aerial imagery.	1…n	The datayear tag is primarily for aerial imagery. It presents the year in which the data was collected.	datayear2012 datayear1999
newness	Optional	newness<New | Updated>	1	The newness tag can be used to flag an item as being new or recently updated.	newnessNew newnessUpdated
topic	Optional	topic<{TOPICS} | *Topic**> *If Topic is not included in TOPICS domain. First character must be in uppercase.	1…n	The topic tag can be used to group items by topics that overlap one or more thematic categories. Topic tags provide alternative ways for collating items.	topicTropical Storm Irene topicClimate Change topicEnergy

Tag Type Name	Tag Required or Optional	Tag Format	Quantity	Description	Examples
dataset	Optional	dataset<*Dataset name**> *First character must be in uppercase.	1	The dataset tag is used to identify or retrieve all layers that are related to a particular dataset. For example, in an organization's geodatabase, a feature dataset might store multiple feature classes that are served through Vermont's Open GeoData Portal; The dataset tag can be used to tie those feature classes together.	datasetBoundaryOther_BNDHASH datasetWaterHydro_VHDCARTO

Tagging Standard Domains

Domain	Description	Array
ISO_THEMES	The ISO_THEMES domain contains an array of categories that are based on ISO 19115 categories per the [VGIS Handbook – ArcSDE Configuration and Management Guidelines](#).	Boundary Farm Climate Basemap Ecologic Cadastral Demo Econ Land Elevation Emergency* Environ Facilities Water Geodetic Geologic Health Imagery Ocean Tourism Trans Utility

SUB_THEMES	The SUB_THEMES domain contains an array of sub-categories that are based on ISO 19115 categories per the [VGIS Handbook – ArcSDE Configuration and Management Guidelines](#). Use of the SUB_THEMES domain in contingent on the item's [isotheme](#) tag.	If isotheme tag = Boundary:
		    County
		    Region
		    State
		    Town
		    Tile

Domain	Description	Array

		Other
		If isotheme tag = Farm:
		    Land
		    Stats
		    Other
		If isotheme tag = Climate:
		    Precip
		    Temp
		    Other
		If isotheme tag = Basemap:
		    Landmarks
		    Charts
		    Scanmaps
		    Other
		If isotheme tag = Ecologic:
		    Fauna
		    Flora
		    Habitat
		    Stats
		    Other
		If isotheme tag = Cadastral:
		    Conserved
		    Parcels
		    Publands
		    Other
		If isotheme tag = Demo:
		    Farm
		    Archeo
		    Economic
		    Education

Domain	Description	Array
		Historical
		Housing
		Natres
		Health
		Trans
		Census
		Other
		If isotheme tag = Econ:
		Stats
		Other
		If isotheme tag = Land:
		Landuse
		Landcov
		Other
		If isotheme tag = Elevation:
		Contours
		DEM
		Lidar
		Slope
		Other
		If isotheme tag = Emergency*:
		E911
		Flood
		Hazards
		Other
		If isotheme tag = Environ:
		Pollution
		Hazmat
		Mangareas
		SPA

Domain	Description	Array
		Other
		If isotheme tag = Facilities:
		Buildings
		Hospitals
		Schools
		Other
		If isotheme tag = Water:
		Hydro
		Wetlands
		Other
		If isotheme tag = Geodetic:
		Benchmark
		Other
		If isotheme tag = Geologic:
		Bedrock
		Surficial
		Soils
		Other
		If isotheme tag = Health:
		Stats
		Other
		If isotheme tag = Imagery:
		Photos
		Satellite
		Other
		If isotheme tag = Ocean:
		Fauna
		Flora
		Habitat
		Other

Domain	Description	Array

		If isotheme tag = Tourism:
		    Recreation
		    Trails
		    Other
		If isotheme tag = Trans:
		    Air
		    Marine
		    Pedestrian
		    Rail
		    Road
		    Stats
		    Structures
		    Other
		If isotheme tag = Utility:
		    Power
		    Transmit
		    Telecom
		    Other

ITEM_TYPES	The ITEM_TYPES domain contains item types.	WebService ZIP WebApp MobileApp DesktopTool Script Offline
NODES	The NODES domain contains names of data portals or venues in which items have been catalogued. The names are in short-string/abbreviated form.	ACRPC BCRC CCRPC CVRPC LCPC

Domain	Description	Array
		NRPC NVDA RRPC SWCRPC TRORC UVM VCGI VTACCD VTANR VTDPS VTE911 VTrans WRC
TOPICS	The TOPICS domain contains topics that span 1 or more thematic categories.	Tropical Storm Irene Climate Change Energy Renewable Energy

*The "Emergency" ISO_THEMES item was created by VCGI. It isn't part of the ISO19115 standard.