

IM/IT Architecture & Standards Manual STANDARD Office of the Chief Information Officer Province of British Columbia	Effective Date: 2010-03-01 Scheduled Review: Annual Last Updated: 2010-03-01 Last Reviewed: 2010-03-01
	Type: Technical Standard
3.0 Information Management (CPPM 12.3.3)	
3.11 Open Data Physical Dataset Format Standard	
Keywords: Open, data, formats, Open Government	

Description of Standard:

This standard describes physical formats that must be used when publishing Open Datasets. Open Datasets are files that contain machine processable information that is accessible by the public.

The scope of this document is file formats only. All other factors such as file contents, metadata, hosting, licensing, IP, and security are out of scope.

Format Types:

Open Datasets

These dataset types must be used for any Open Dataset. These "least at-risk" formats are non-proprietary, open formats. These tend to promote a wide range of uses, backward and forward compatibility, and an independence from short-term commercial interests.

Dataset	Description
<u>KML</u>	Keyhole Markup Language – an XML-based language schema for expressing geographic annotation and visualization.
<u>KMZ</u>	Zipped KML files.
<u>GML</u>	Geography Markup Language – the XML grammar defined by the Open Geospatial Consortium (OGC) to express geographical features.
<u>GeoJSON</u>	GeoJSON is a format for encoding a variety of geographic data structures.
<u>GeoTiff</u>	GeoTIFF is a public domain metadata standard that allows geo-referencing information to be embedded within a TIFF file.
<u>Jpeg2000</u>	JPEG 2000 is a wavelet-based image compression standard and coding system.
<u>XML</u>	Extensible Markup Language – a set of rules for encoding documents electronically.
<u>CSV</u>	Comma-separated values – a file that is used for the digital storage of data structured in a table of lists form.
<u>ODF</u>	Open Document Format – XML-bases document format.
<u>OOXML</u>	Office Open Extensive Markup Language – an ISO/IEC standardized file format.
<u>JSON</u>	JavaScript Object Notation is a lightweight data-interchange format.

Semi-Open Datasets

These are proprietary. They should only be used as a companion to a Format found in the Open Dataset Formats list above.

Dataset	Description
<u>Shapefile</u>	A popular geospatial vector data format. www.esri.com/library/whitepapers/pdfs/shapefile.pdf
<u>PDF</u>	Adobe document format.
Pre Office 2007 .DOC, .XLS, .PPT, MDB	Microsoft Office file formats. www.microsoft.com/interop/docs/OfficeBinaryFormats.msp Microsoft Access file format, a database file format http://office.microsoft.com/en-us/access/default.aspx

Where to Apply This Standard

This standard must be used when publishing any file that is an Open Dataset.

Authority and Exemptions

If there are compelling business reasons why an organization is unable to comply with the format types outlined in this standard or wish to extend the standard the organization's, CIO may authorize a submission for exemption through the Architecture and Standards Branch.

Metrics and Enforcement

Ministry designated contact.

References

Normative	Informative
KML/KMZ http://www.opengeospatial.org/standards/kml/	US Open Data Principles: http://wiki.opengovdata.org/index.php?title=OpenDataPrinciples The American Library Association: "Key Principles of Government Information" http://www.ala.org/ala/aboutala/offices/wo/woissues/governmentinfo/keyprins.cfm Open Knowledge Foundation's Open Knowledge Definition: http://www.okfn.org/
GML: http://www.opengeospatial.org/standards/gml/	
GeoJSON: http://geojson.org/geojson-spec.html	
GeoTiff: http://www.remotesensing.org/geotiff/spec/geotiffhome.html	
Jpeg2000: http://www.jpeg.org/jpeg2000/	
XML: http://www.w3.org/XML	
CSV: http://tools.ietf.org/html/rfc4180	
OOXML: http://www.ecma-international.org/publications/standards/Ecma-376.htm	Australia http://www.csiro.au/solutions/ps1u1.html
ODF: http://www.oasis-open.org/committees/tc_home.php?wg_abbrev=office	New Zealand http://data.govt.nz Open Access/Licensing framework (NZGOAL): http://epsiplatform.com/layout/set/print/content/download/28721/381845/version/1/file/New+Zealand+o

JSON: http://www.json.org	pen+licensing+Draft_NZGOAL%5B1%5D.pdf
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Additional Information

Please refer to the Open Data document (currently under development).

The OCIO is the owner of this standard. Its website is located at www.cio.gov.bc.ca.

Contact

Architecture and Standards, OCIO

email: ASB.CIO@gov.bc.ca