



**Federal Electoral Districts
Product Distribution Formats**

Edition 1.0

2010-04-27

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GeoBase®

RELEASES HISTORY

| Date | Version | Description |
|-------------|----------------|--------------------|
| 2010-04-27 | 1.0 | Initial version |

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1 OVERVIEW

The following dataset is one of the managed GeoBase layers, Federal Electoral Districts (FED).

The product is available in the following output file formats: GML (Geography Markup Language), KML (Keyhole Markup Language) and Shapefile (ESRI™ Shapefile).

2 PRODUCT IDENTIFICATION

Name: Federal Electoral Districts

Version: 1.0

Date: 2009-05-15

Standard: Federal Electoral Districts: Data Product Specifications – Edition 1.0, 2009-05-15

Feature catalogue: Federal Electoral District: Feature Catalogue – Edition 1.0, 2009-05-15

3 DISTRIBUTION FORMAT IDENTIFICATION

3.1 GML – Geography Markup Language

Name: GML – Geography Markup Language

Version: 2.1.2

Date: 2002-09-17

Specifications: Geography Markup Language – GML – 2.1.2, OpenGIS® Implementation Specifications, OGC Document Number 02-069 (http://portal.opengeospatial.org/files/?artifact_id=11339)

The character encoding may be either ISO 8859-1 (ISO Latin 1) or UTF-8 (8-bit Universal Character Set / Unicode Transformation Format). The use of UTF-8 with GML is governed by the character-encoding rules in XML (www.w3.org/TR/REC-xml/#charsets). The encoding will be in the header of the file.

3.2 KML – Keyhole Markup Language

Name: KML – Keyhole Markup Language

Version: 2.2

Date: 2008-04-14

Specifications: Open Geospatial Consortium Inc., OGC® KML, Version 2.2.0, 2008-04-14, Reference number of this OGC® project document: OGC 07-147r2 (www.opengeospatial.org/standards/kml)

KML format specifications are available on the Google™ Web site.

(<http://code.google.com/apis/kml/documentation/>)

The character encoding may be either ISO 8859-1 (ISO Latin 1) or UTF-8 (8-bit Universal Character Set / Unicode Transformation Format). The use of UTF-8 with KML is governed by the character-encoding rules in XML (www.w3.org/TR/REC-xml/#charsets). The encoding will be in the header of the file.

3.3 Shapefile – ESRI™

Name: Shapefile

Version: 01

Date: July 1998

Specifications: *ESRI Shapefile Technical Description*, an ESRI White Paper, July 1998 (www.esri.com/library/whitepapers/pdfs/shapefile.pdf)

The character encoding may be either ISO 8859-1 (ISO Latin 1) or UTF-8 (8-bit Universal Character Set / Unicode Transformation Format). The encoding is not included in the Shapefile, but is in the metadata file (e.g. FED_CA_1.0_0_FGDC_eng.xml) that is available with the Shapefile. UTF-8 is necessary to encode some of the Aboriginal languages used in Canada.

If UTF-8 encoding is used, certain restrictions may exist when the file is read. ESRI provides guidance on reading shapefiles with UTF-8 encoding in ArcSDE 9.2 (<http://support.esri.com/index.cfm?fa=knowledgebase.techarticles.articleShow&d=31834>).

4 DISTRIBUTION FILES IDENTIFICATION

The FED dataset is distributed in the following file formats: GML, KML and Shapefile. All three data formats contain the same data content.

The latest published release of the federal electoral districts can be downloaded in any one of the three data formats.

The structure of the distribution files identification is provided below. Examples and material specific to the three formats are provided in the subsections that follow.

The name of a file is structured accordingly:

- FED = Abbreviated English product title
- CF = Abbreviated French product title

- <identifier> = Code of a province or a territory, or Canada, corresponding to the dataset extent. Possible codes (in both English and French) are AB, BC, CA, MB, ON, NB, NL, NS, NT, NU, PE, QC, SK and YT

- <edition> = Dataset edition number

- <version> = Dataset version number

- <language code> = ISO code for the language of the distribution format. Possible values, in accordance with ISO 639-3, are eng (for English), fra (for French).

- <format> = File name extension. Possible values are gml (for GML), kmz (for zip compressed KML) and shp (for Shapefile).

4.1 GML examples and associated files

Examples:

- FED_BC_1.0_0_eng.gml (the FED dataset for British Columbia, edition 1.0, version 0, English)
- CF_CA_1.0_0_fra.gml (dataset for Canada, edition 1.0, version 0, French)

Associated files:

An XML schema (XSD file) is also provided along with a GML data file. This file defines, in a structured manner, the type of content, the syntax and the semantic of GML documents. The name of this file is: FED _<identifier>_<edition>_<version>[_<language>].xsd and a reference is recorded within the GML file.

4.2 KML examples

Examples:

- FED_CA_1.0_0_eng.kmz (dataset for Canada, edition 1.0, version 0, English)

Associated files:

There are no associated files.

4.3 Shapefile examples and associate files

Examples:

- FED_NU_1.0_0_eng.shp (FED dataset for Nunavut, edition 1.0, version 0, English)

Associated files:

Five files are associated with the main geometry file of an entity in Shapefile format:

- .dbf – attribute format; columnar attributes for each shape, stored in dBASE® file
- .prj – projection format; description of the coordinate system and projection
- .shx – shape index format; a positional index of the feature geometry
- .sbn and .sbx – spatial index files for the geometric data
- .shp.xml – metadata in XML format

4.4 Metadata

Two metadata files in each language (English and French) are provided for the current state of the FED data product. The files provide a description of associated FGDC metadata. The name of the metadata file is structured accordingly:

FED_<identifier>_<edition>_<version>_FGDC_<language code>.<format>
CF_<identifier>_<edition>_<version>_FGDC_<language code>.<format>

The identifier, edition, version and language code are as specified for the data files above. The file name extension is specified as follows:

- <format> = File name extension
- xml
- html

Examples:

- FED_SK_1.0_0_FGDC_eng.xml (metadata file associated with the dataset for Saskatchewan, edition 1.0, version 0, English, in FGDC/XML format)
- CF_CA_1.0_0_FGDC_fra.html (metadata file associated with the dataset for Canada, edition 1.0, version 0, French, in FGDC/HTML format)

5 ATTRIBUTES IDENTIFICATION

The table below lists the data fields included in each of the three file formats.

| Feature Catalogue Attribute Name | GML and KML Attribute Name | GML and KML Data Type | Shapefile Attribute Name | Shapefile Data Type |
|---|---------------------------------------|----------------------------------|-------------------------------------|--------------------------------|
| NID | NID | CHAR(36) | NID | CHAR(36) |
| FedNum | FedNum | Integer | FedNum | Integer |
| EnName | EnName | CHAR(100) | EnName | CHAR(100) |
| FrName | FrName | CHAR(100) | FrName | CHAR(100) |
| ProvCode | ProvCode | CHAR(2) | ProvCode | CHAR(2) |
| CreaDT | CreaDT | DATE | CreaDT | DATE |
| RevDT | RevDT | CHAR(8) | RevDT | CHAR(8) |
| RepOrder | RepOrder | CHAR(4) | RepOrder | CHAR(4) |
| DecPopCnt | DecPopCnt | Integer | DecPopCnt | Integer |
| QuiPopCnt | QuiPopCnt | Integer | QuiPopCnt | Integer |
| EnLegalDsc | EnLegalDsc | Network link | EnLegalDsc | Network link |
| FrLegalDsc | FrLegalDsc | Network link | FrLegalDsc | Network link |