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National Topographic Data Base

NTDB Edition 3 - Metadata Format

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Canada

Table of Contents

Table of Contents	1
1-PURPOSE	1
2- INFORMATION STRUCTURE.....	1
3- FORMAT GENERAL DESCRIPTION.....	1
3.1- File Structure.....	1
3.2- Line Structure.....	2
3.2.1- Comments - Column 1	2
3.2.2- Key Words - Column 2 to 15	2
3.2.2.1- Key Words and Structure-related Values	2
3.2.2.2- Key words and specific values	2
3.2.2.3- Structure Example	2
3.3- Separator - column 16	3
3.4- Values - columns 17 to 80 inclusively	3
4- FORMAT DETAILED DESCRIPTION.....	3
4.1- TERRITORY Section	4
4.2- DATA_SET Section.....	5
4.3- INTEGRATION Section.....	6
4.4- POLYGON Section.....	7
4.5- THEME Section	10
5- EXAMPLE.....	12
APPENDIX A - Domain values and authorized combinations	14

1-PURPOSE

The present document describes the metadata transfer format of the National Topographic Data Base (NTDB)¹. Information on a NTDB data set is transferred in separate files: one describing the data set metadata and one or many, describing the geometry and attributes.

This metadata format meets two needs: transfer the metadata to our clients and load the metadata into the NTDB information system (SIB). The information contained in the metadata file differs slightly between both needs.

The metadata file contains all of the territory's metadata, even if the corresponding geometry is not supplied. For example, all metadata of the 14 themes will be supplied as well as all polygons when delivering one single theme.

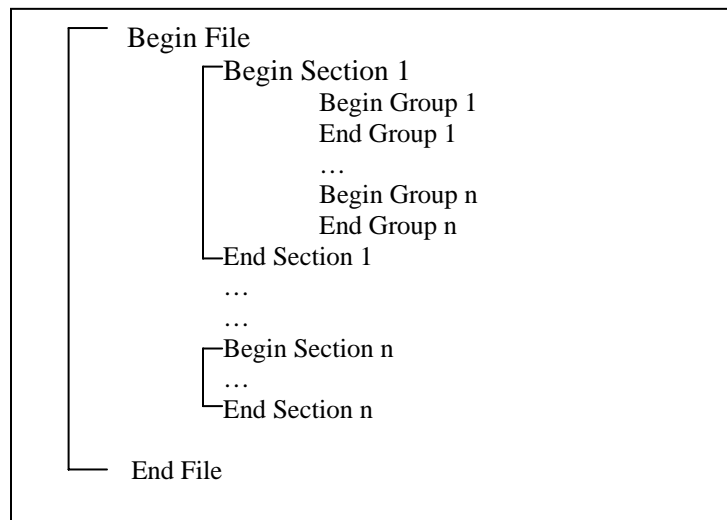
2- INFORMATION STRUCTURE

Metadata are classified into information sections. Each section has key words making it possible to determine the format and nature of the specified value. The data is thus organized so as to enable the format's evolution and to ease it's reading.

3- FORMAT GENERAL DESCRIPTION

3.1- File Structure

The file is structured in information sections. One section may repeat the same information group more than once (example: POLYGON section). The beginning and end of files, sections and information groups are delimited by key words (BEGIN, END). The following is the general structure of a metadata file:



¹ NTDB data v3.*

3.2- Line Structure

Data are expressed in lines and conform to the following format:

- comment column 1
- key word columns 2 to 15
- separator column 16
- value columns 17 to 80 inclusively

Information is supplied in lines by combining the key word, separator and value. Lines have a maximum length of 80 characters. The «Value» field is ended with a carriage return to position 81 or before. «Blank» characters inserted left of the «Value» are not interpreted. However, the first «Non-blank» character met indicates the beginning of the value. The next characters have to conform to the format determined for this particular value. A chain of characters of «0» in length (carriage return to position 17) or a chain of «Blank» characters is considered empty. Information requiring more than one line shall conform to the same format (key word, separator and value).

3.2.1- Comments - Column 1

Lines with an exclamation point (!) in column no. 1 are considered comment lines and are not interpreted.

3.2.2- Key Words - Column 2 to 15

The key word field contains a defined chain of characters for the purpose of identifying the nature of the specified value. The key words meet two (2) objectives: either they delimit the structure of the file or they identify in a unique fashion the specified values.

3.2.2.1- Key Words and Structure-related Values

The key words BEGIN and END are used to delimit the file and its sections. If more than one information group is associated to a section, it is also delimited by the key words BEGIN and END. The beginning and end of the file are combined with the FILE value. The beginning and end of a section are combined with the section name preceded by the *SECTION suffix* (e.g. *POLYGON_SECTION*). Finally, the beginning and end of a group of information are combined with the group name.

3.2.2.2- Key words and specific values

Each key word defines the nature of the value field. The key words are unique and must conform to the designated spelling.

3.2.2.3- Structure Example

```
BEGIN                       FILE
!Beginning of the polygon section
BEGIN                       POLYGON_SECTION
NB_POLYGONS                2
!First polygon
BEGIN                       POLYGON
```

```
...  
END                POLYGON  
! Second polygon  
BEGIN            POLYGON  
...  
END                POLYGON  
! End of the polygon section  
END                POLYGON_SECTION  
END                FILE
```

3.3- Separator - column 16

Column 16 is used as separator between key words and values. The blank character is used as separator.

3.4- Values - columns 17 to 80 inclusively

The «Value» field contains the information to be transmitted. This field must conform to the format designated by each key word. Field lengths must be adhered to. The carriage return will be used to indicate the end of the chain of characters.

4- FORMAT DETAILED DESCRIPTION

The detailed description specifies the values and the format to be used for transferring metadata. The metadata file format is subjected to the following rules:

- **Scope:** Some format entries are for production or external distribution only. In this format, those entries whose type is preceded by an asterisk (*) are optional for internal production. Entries which appear as shaded text are not generated when metadata are intended for external distribution;
- **Key word:** The key word is used to clearly identify the given value and it is invariable (example: MAP_EDITION);
- **Value type and length:** The second information provides the numerical (N) or alphanumerical (A) type and its maximum length (examples: A (2) for two alphanumerical characters, N (2) for a whole or integer under 100);
- **Description length:** The third information provides the description field length (example: A (15) for 15 alphanumerical characters). This field contains a brief description that will facilitate consulting the metadata file. This description will be separated from the value by a blank and included between parentheses. The given length includes the parentheses. The description may be given in either English or French. Several key words have no description and are identified as having a «0» description length. The description is always optional;
- **Number of lines:** The fourth information provides the maximum number of lines that can be used for this key word (example: 4L for 4 lines maximum).

Example :

PROVINCE	A(2)	A(27)	4L
----------	------	-------	----

4.1- TERRITORY Section

The TERRITORY Section initiates the metadata file. It contains the metadata linked to the territory represented. The data must comply with the following format and order :

BEGIN	A(30)	A(0)	1L
-------	-------	------	----

The key word BEGIN is associated with the FILE value to indicate the file's beginning.

BEGIN	A(30)	A(0)	1L
-------	-------	------	----

The BEGIN key word is associated with the TERRITORY_SECTION value to indicate the beginning of the section.

NTS	A(4) OR A(6)	A(0)	1L
-----	--------------	------	----

Territory number according to NTS sectioning at the 1:50,000 or 1:250,000 scale. If this is a special sectioning, the NTS number corresponds to the main NTS. The NTS number format will abide by the following rules.

- 1:50 000 031G01 6 characters
- 1:250 000 031G 4 characters

DATA_SET_NAME	*A(30)	A(0)	1L
---------------	--------	------	----

Name associated to the cartographic sheet. The name of a territory deriving from a map's border break corresponds to the NTS number of the original map sheet.

PROVINCE	*A(2)	*A(27)	4L
----------	-------	--------	----

Provinces ordered by decreasing order of the percentage of territory they occupy. More than one province may be supplied by repeating the key word and by giving different values.

ZONE_NUMBER_1	*N(2)	A(0)	1L
---------------	-------	------	----

Value included between 7 and 23 corresponding to the UTM zone.

Note : Main UTM zone inside of which the NTDB territory is totally or partially located. This zone is used to define the cartographic coordinate system for the entire data set.

ZONE_NUMBER_2	*N(2)	A(0)	1L
---------------	-------	------	----

Value included between 7 and 23 corresponding to the UTM zone.

Note: Secondary UTM zone inside of which a portion of the data set territory may be located. This information is only an indication of the UTM zones touching the territory referred to. The data set cartographic coordinate system never refers to this zone. When a territory is totally located inside a unique UTM zone, this specific UTM zone's value is assigned to ZONE_NUMBER_1 and the value «-1» is assigned to ZONE_NUMBER_2.

PCT_OF_LAND	*N(3)	A(0)	1L
-------------	-------	------	----

Value included between 1 and 100 which indicates, in percentage, the surface of the territory covered by mainland (i.e. excluding only the waterbodies of coastal areas, of the Great Lakes region and other major waterbodies). The reliability degree of this value is within $\pm 5\%$.

SPECIAL_LIMITS	A(1)	*A(14)	1L
----------------	------	--------	----

Value permitting to determine if the file covers a territory different from the one represented by regular NTS sectioning (example : N (Normal)).

END	A(30)	A(0)	1L
-----	-------	------	----

The key word END is associated to the TERRITORY_SECTION value to indicate the end of the section.

4.2- DATA_SET Section

The DATA_SET section contains metadata linked to a specific data set. Each data set, identified by its NTS number and its edition/version number, has data set metadata. The data must conform to the following format and order:

BEGIN	A(30)	A(0)	1L
-------	-------	------	----

The key word BEGIN is associated to the DATA_SET_SECTION value to indicate the section's beginning.

EDITION_VERSIO	*A(5)	A(0)	1L
----------------	-------	------	----

Edition and version number of the data set in the «ed.ver» form (example : 1.01).

NTDB_SPEC	A(6)	A(0)	1L
-----------	------	------	----

Version number of NTDB Standards and Specifications which the data conform to (example : 3.0A).

DATE_AVAILABLE	*A(10)	A(0)	1L
----------------	--------	------	----

Date at which the data set is included into the NTDB. The date is expressed in the following format: YYYY/MM/DD.

FORMAT	A(16)	A(0)	4L
--------	-------	------	----

This field provides the name and version of the data storage format. The information must be expressed in one single chain of characters (without blanks). It comprises the format code followed by the version (example: CCOGIF-P3.0).

UNIT_CONTOURS	A(1)	*A(7)	1L
---------------	------	-------	----

This data indicates the measuring unit used to express contour and elevation point elevations (example : M (meter)).

CONTOUR_INTERV	A(3)	A(0)	1L
----------------	------	------	----

Contour intervals correspond to the elevation difference between two consecutive contours. It is expressed in integer (e.g. 10).

CONT_AUXILIARY	A(3)	A(0)	1L
----------------	------	------	----

Auxiliary contour intervals correspond to the elevation difference between a contour and an auxiliary contour, or between two consecutive auxiliary contours. It is expressed in integer (example : 10).

DIMENSION	A(2)	A(0)	1L
-----------	------	------	----

Data indicating if the data set is in two dimensions (X,Y) or in three dimensions (X,Y,h) (example : 2D).

MAP_EDITION	N(2)	A(0)	1L
-------------	------	------	----

When the data set has been produced from reprographic material, this field indicates the edition number of the map corresponding to such material (example : 2).

COMMENT	*A(64)	A(0)	32L
---------	--------	------	-----

Notes and remarks recorded by the team responsible for the production of the data set.

END	A(30)	A(0)	1L
-----	-------	------	----

The key word END is associated to the DATA_SET_SECTION value to indicate the end of the section.

4.3- INTEGRATION Section

The INTEGRATION section provides information on the status of the horizontal integration work with the adjacent data sets.

BEGIN	A(30)	A(0)	1L
-------	-------	------	----

The key word BEGIN is associated to the INTEGRATION_SECTION value to indicate the beginning of the section.

NORTH_EDGE	A(1)	*A(13)	1L
------------	------	--------	----

Data indicating the horizontal integration status for the data set's NORTH boundary.

SOUTH_EDGE	A(1)	*A(13)	1L
------------	------	--------	----

Data indicating the horizontal integration status for the data set's SOUTH boundary.

EAST_EDGE	A(1)	*A(13)	1L
-----------	------	--------	----

Data indicating the horizontal integration status for the data set's EAST boundary.

WEST_EDGE	A(1)	*A(13)	1L
-----------	------	--------	----

Data indicating the horizontal integration status for the data set's WEST boundary.

END	A(30)	A(0)	1L
-----	-------	------	----

The key word END is associated to the INTEGRATION_SECTION value to indicate the end of the section.

4.4- POLYGON Section

The POLYGON section contains the metadata localized by polygon. The polygons provide the history of the data set's entity capture and are listed by creation order in the territory (i.e. the most recent polygon appears at the end of the polygon section). The POLYGON information group is repeated as often as there are polygons. The key word NB_POLYGONS provides the number of polygons. The data must comply with the following format and order:

BEGIN	A(30)	A(0)	1L
-------	-------	------	----

The key word BEGIN is associated to the POLYGON_SECTION value to indicate the beginning of the section.

NB_POLYGONS	N(3)	A(0)	1L
-------------	------	------	----

This field provides the number of polygons included in this section.

BEGIN	A(30)	A(0)	1L
-------	-------	------	----

The key word BEGIN is associated to the POLYGON value to indicate the beginning of the information group.

ID_POLYGON	N(4)	A(0)	1L
------------	------	------	----

Sequence number identifying in a unique fashion each polygon in the territory (example: 0001).

COORDINATES	A(60)	A(0)	998L
-------------	-------	------	------

Coordinates are expressed in integer and localize a metadata polygon. The polygon may represent a complex area. The first and last pair of coordinates of each delimiter line must be equal. Every delimiter line must be separated by two (2) number sign characters (« # »). A maximum of four pairs of coordinates or special characters are placed per line. The X and Y values, the number sign character, as well as the pairs of coordinates, are separated by blanks.

Note: For data sets produced prior to January 12, 2002, coordinates delimiting a polygon corresponding to the data set theoretical neatline (NTS territorial limits) might slightly differ from the “NTS territorial limits” entity. In such case, the maximal gap possible is one (1) meter per coordinate.

ENTITIES	A(60)	A(0)	32L
----------	-------	------	-----

List of NTDB codes (as found in the NTDB) according to geometric representation (point, line and area).

SOURCE_TYPE	A(12)	*A(52)	1L
-------------	-------	--------	----

Type of source used. When more than one source is used, the types of source are listed and separated by a plus (+).

SOURCE_NAME	A(64)	A(0)	1L
-------------	-------	------	----

Name and/or number that accurately identifies the source material used. The entry may have two distinct parts separated by a dot « . ». The first part describes the unique identifier of the source. The second (optional) describes the origin of the source. When the source has more than one origin, the different origins are listed and separated by a plus « + ».

VALID_DATE	A(7)	A(0)	1L
------------	------	------	----

Date qualifying the time-dependent validity of the entity occurrences. It corresponds to the date of the source used in identifying the data; for instance the date of field completion, the date of image taking of the earth's surface (aerial photos, satellite or other images serving to identify the data), etc. The date is expressed in the following manner: YYYY/MM. When the month is unknown, the value is «-1».

PLAN_ACCU_QUAL	A(1)	*A(10)	1L
----------------	------	--------	----

The planimetric accuracy qualifier gives information on the method used for determining the accuracy of the data source.

PLAN_ACCURACY	N(3)	A(0)	1L
---------------	------	------	----

Provides the planimetric accuracy of the source of data enclosed by the polygon. The accuracy is the degree of correspondence of the geometric data versus geodetic foundation (horizontal reference system). This value is measured in meters. Please note that the value is not very significant for the contours.

ALTI_ACCU_QUAL	A(1)	*A(10)	1L
----------------	------	--------	----

The altimetric accuracy qualifier gives information on the method used for determining the accuracy of the data source.

ALTI_ACCURACY	N(3)	A(0)	1L
---------------	------	------	----

Provides the altimetric accuracy of the source of data enclosed by the polygon. The accuracy is the degree of correspondence of the geometric data versus the geodetic foundation (vertical reference system). This value is measured in meters.

PLAN_ACCU_RES	N (3)	A (0)	1L
---------------	-------	-------	----

Planimetric accuracy estimate of all data located within the polygon. The measuring unit for this value is the meter.

ACTION	A(16)	*A(47)	1L
--------	-------	--------	----

Data that indicates the type of work carried out within the polygon. The entry may have three distinct parts separated by a dot « . ». The first part indicates the exact nature of the action carried out within the polygon. The second part indicates the NTDB theme involved. If more than one theme is involved, they are separated by a plus « + ». If the theme has only been treated partially, the smaller than sign « < » is inserted after the theme abbreviation. The third part (optional) provides additional information about the action and/or polygon contents.

IMPACT_ACT_C	A(4)	*A(52)	1L
--------------	------	--------	----

Data indicating if the action has been systematically performed on all the polygon's topographic content or not.

IMPACT_ACT_P	A(4)	*A(52)	1L
--------------	------	--------	----

Data indicating if the action has enhanced planimetric accuracy of the polygon's topographic content or not.

POL_ED_VER	A(5)	A(0)	1L
------------	------	------	----

The edition/version of the data set to which the polygon has been added, expressed in the form «ed.ver» (e.g. 1.00).

COMMENT	*A(64)	A(0)	16L
---------	--------	------	-----

Notes and remarks recorded by the team responsible for producing the data set.

END	A(30)	A(0)	1L
-----	-------	------	----

The key word END is associated to the POLYGON value to indicate the end of the group. The information group is repeated as often as there are polygons.

END	A(30)	A(0)	1L
-----	-------	------	----

The key word END is associated to the POLYGON_SECTION value to indicate the end of the section. This line is present after the last information group has been written.

4.5- THEME Section

The metadata associated to themes aims at providing a synthetic view of the data making up the theme. The number of themes is given by the key word NB_THEMES. These data are :

BEGIN	A(30)	A(0)	1L
-------	-------	------	----

The key word BEGIN is associated to the THEMES_SECTION value to indicate the beginning of the section.

NB_THEMES	N(2)	A(0)	1L
-----------	------	------	----

This field provides the number of themes included in this section.

BEGIN	A(30)	A(0)	1L
-------	-------	------	----

The key word BEGIN is associated to the THEME value to indicate the beginning of the information group.

NAME	A(2)	*A(27)	1L
------	------	--------	----

This field indicates the theme's name.

AVAIL_THEME	A(1)	*A(5)	1L
-------------	------	-------	----

Indicates if the theme is processed, whether it contains data or not. The « O » character indicates that the theme is processed while the « N » character indicates that the theme is not processed.

RESOLUTION	A(6)	A(0)	1L
------------	------	------	----

This field indicates the scale of the theme's data for the data set. No blank or space is inserted (e.g. 50000). The resolution may vary from one theme to the other within a data set.

NB_KM	N(6)	A(0)	1L
-------	------	------	----

Number of kilometers corresponding to the total length of the linear entity occurrences added to the total perimeter of the theme's surficial entity occurrences.

NB_POINTS	N(6)	A(0)	1L
-----------	------	------	----

Total number of point entity occurrences in the theme.

END	A(30)	A(0)	1L
-----	-------	------	----

The key word END is associated to the THEME value to indicate the end of the group. The information group is repeated as often as there are themes.

END	A(30)	A(0)	1L
-----	-------	------	----

The key word END is associated to the THEMES_SECTION value to indicate the end of the section. This line is present after the last information group has been written.

END	A(30)	A(0)	1L
-----	-------	------	----

The key word END is associated to the FILE value to indicate the end of the file. This is the file's last line.

5- EXAMPLE

This is an example of a metadata file

```
!  
BEGIN          FILE  
!  
BEGIN          TERRITORY_SECTION  
NTS           031D01  
DATA_SET_NAME RICE LAKE  
PROVINCE      ON (Ontario)  
ZONE_NUMBER_1 17  
ZONE_NUMBER_2 -1  
PCT_OF_LAND   100  
SPECIAL_LIMITS N (Normal)  
END           TERRITORY_SECTION  
!  
BEGIN          DATA_SET_SECTION  
EDITION_VERSIO 2.02  
NTDB_SPEC      3.1  
DATE_AVAILABLE 1994/10/06  
FORMAT         CCOGIF-P3.0  
FORMAT         IFF-BNDT-3.0  
UNIT_CONTOURS  M (Meter)  
CONTOUR_INTERV 10  
CONT_AUXILIARY -1  
DIMENSION      3D  
MAP_EDITION -  -1  
COMMENT  
END           DATA_SET_SECTION  
!  
BEGIN          INTEGRATION_SECTION  
NORHT_EDGE     C (Complete)  
SOUTH_EDGE     9 (90-99 %)  
EAST_EDGE      9 (90-99 %)  
WEST_EDGE      C (Complete)  
END           INTEGRATION_SECTION  
!  
BEGIN          POLYGON_SECTION  
NB_POLYGONS    2  
BEGIN          POLYGON  
ID_POLYGON     0001  
COORDINATES    740526 4876249 720481 4875549 700437 4874911 699593 4902679  
COORDINATES    719553 4903318 739513 4904017 740526 4876249  
ENTITIES       P 1-1576,1589-2047  
ENTITIES       L 359,370-373,383,394,405,416,429,440,451,462-469,510-710,745,815,  
ENTITIES       910-1213,1300-1799  
ENTITIES       S 1-2047  
SOURCE_TYPE    REPRO (Reprographic material)  
SOURCE_NAME    031D01-ED6  
VALID_DATE     1984/-1  
PLAN_ACCU_QUAL E (Estimated)  
PLAN_ACCURACY  15  
ALTI_ACCU_QUAL I (Unknown / Non-applicable)  
ALTI_ACCURACY  -1
```

```
PLAN_ACCU_RES      25
ACTION             ACQ.COMP.SCAN (Complete acquisition of entities by scanning
IMPACT_ACT_C       S (Systematic)
IMPACT_ACT_P       N (No)
POL_ED_VER         2.00
COMMENT
END                POLYGON
!
BEGIN              POLYGON
ID_POLYGON         0002
COORDINATES        740526 4876249 720481 4875549 700437 4874911 699593 4902679
COORDINATES        719553 4903318 739513 4904017 740526 4876249
ENTITIES           P 1-1576,1589-2047
ENTITIES           L 359,370-373,383,394,405,416,429,440,451,462-469,510-710,745,815
ENTITIES           910-1213,1300-1799
ENTITIES           S 1-2047
SOURCE_TYPE        SAT (Satellite Image)
SOURCE_NAME        LANDSAT-TM-MSS-XX-XX
VALID_DATE         1990/-1
PLAN_ACCU_QUAL     E (Estimated)
PLAN_ACCURACY      15
ALTI_ACCU_QUAL     I (Unknown / Non-applicable)
ALTI_ACCURACY      -1
PLAN_ACCU_RES      25
ACTION             CONF.PART (Partial confirmation of contents)
IMPACT_ACT_C       S (Systematic)
IMPACT_ACT_P       N (No)
POL_ED_VER         2.00
COMMENT
END                POLYGON
!
END                POLYGON_SECTION
!
BEGIN              THEMES_SECTION
NB_THEMES          14
!
! This group will be repeated 14 times
!
BEGIN              THEME
NAME               VE (Vegetation)
AVAIL_THEME        O (Yes)
RESOLUTION         50000
NB_KM              123456
NB_POINTS          0
END                THEME
!
BEGIN              THEME
.....
END                THEME
!
END                THEMES_SECTION
END                FILE
```

APPENDIX A - Domain values and authorized combinations

Some fields must respect predefined domain values. When an entry contains more than one distinct part, the domain of each part is listed along with its authorized combinations for the entry. The domain values will evolve to better respond to the change of the production environment and then describe the phenomena we want to keep and classify.

TERRITORY Section

NTS

Any valid NTS number for Canadian territory.

PROVINCE

- AB Alberta
- BC British Columbia
- FR France
- GL Greenland
- MB Manitoba
- NB New Brunswick
- NF Newfoundland
- NS Nova Scotia
- NT Northwest Territories
- NU Nunavut
- ON Ontario
- PE Prince Edward Island
- QC Quebec
- SK Saskatchewan
- US United States
- YT Yukon Territory

ZONE_NUMBER_1 and ZONE_NUMBER_2

Value included in -1², (7,23).

SPECIAL_LIMITS

- N Normal
- S Special

² Generally in this document, the value «-1» means that the value is unknown or the field is not applicable.

DATA SET Section

NTDB_SPEC

- 3.0A
- 3.0B
- 3.0C
- 3.1

FORMAT

- CCOGIF-P3.0 CCOGIF format, NTDB v3.* data profile
- IFF-BNDT-3.0 IFF format, NTDB V3.* data

UNIT_CONTOURS

- M Meters
- P Foot
- X Non applicable

CONTOUR_INTERV

The values are expressed in integer.

Value	Unit
-1	-
5	Meter
10	Meter
20	Foot/Meter
25	Foot
40	Foot/Meter
50	Foot/Meter
60	Meter
100	Foot/Meter
200	Foot/Meter
500	Foot

CONT_AUXILIARY

See CONTOUR_INTERV

DIMENSION

- 2D
- 3D

INTEGRATION Section

NORHT_EDGE, SOUTH_EDGE, EAST_EDGE and WEST_EDGE

- O (Yes)
- N (No)
- I (Imperfect)
- X (Not required)
- 0 (0-9%)
- 1 (10-19%)

- 2 (20-29%)
- 3 (30-39%)
- 4 (40-49%)
- 5 (50-59%)
- 6 (60-69%)
- 7 (70-79%)
- 8 (80-89%)
- 9 (90-99%)
- C (Complete)

POLYGON Section

ENTITIES

Codes are listed separately or by range. Each code is separated by a comma. A range of codes is represented by giving the smallest and the largest code, separated by a hyphen (e.g. 1-10 means all the codes between 1 and 10, inclusive). When a range is used, one or more codes not in the NTDB can be included (e.g. 1-2047 means all possible NTDB codes, even if some of them do not exist). Codes are grouped according to geometry, with each group labeled with a letter (P, L or S), followed by a blank space. The letter must always be positioned at the beginning of the entry. Codes are listed in ascending order. All codes must be included between 1 and 2047. When the list of codes exceeds a single line, the next line must begin without repeating the letter (P, L or S).

SOURCE_TYPE

BDN	Digital database
BNDT	National topographic database
CARTE	Paper map
CT	Field completion
MNE	Digital Elevation model
DNEC	Canadian digital elevation data
GPS	Global positioning system
REPRO	Reprographic material
ORTIM	Ortho-image
ORTPH	Ortho-photo
PHA	Aerial photography
SAT	Satellite image

The entry SOURCE_TYPE is composed of one part, but many values can be displayed and separated by a plus « + ».

Authorized combinations

BDN	Digital database
BDN+CARTE	Digital database and paper map
BDN+CT+GPS	Digital database with GPS and field completion
BDN+ORTIM	Digital database with ortho-image
BDNT+ORTIM	National topographic database with ortho-image
BNDT	National topographic database
CARTE	Paper map
CT	Field completion
CT+GPS	Field completion with GPS
CT+GPS+ORTIM	Ortho-image with GPS and field completion
CT+GPS+ORTPH	Ortho-photo with GPS and field completion
CT+ORTIM	Ortho-image with field completion
CT+ORTPH	Ortho-photo with field completion

CT+PHA	Aerial photography with field completion
DNEC	Canadian digital elevation data
GPS	Global positioning system
MNE	Digital Elevation Model
REPRO	Reprographic material
ORTIM	Ortho-image
ORTPH	Ortho-photo
PHA	Aerial photography
SAT	Satellite image

SOURCE_NAME

First part: Data source identifier

BDTC-pp-aaaa	Canadian Geographic Names Data Base (CGNDB) where «pp» stands for province and «aaaa» stands for the year in which the data were validated. The field may be repeated up to 4 times if several provinces are included in the CGNDB data set.
BNDT-nts	National topographic database where «nts» is the data set name used.
BNDT-nts-eevv	National topographic database where «nts» is the data set used and «eevv» stands for the edition and version of the data set.
CARTE	Represents any map other than «NTS» maps.
DNEC-nts-eevv	Canadian Digital Elevation Data where «nts» stands for the name of the data set used and «eevv» stands for the edition and version of the data set.
GPS	Global positioning system data.
LANDSAT-TM-MSS-tt-ff	Image from the Landsat satellite where «tt-ff» stands for the image track and frame identification number.
LANDSAT-tttfff-eevv	Image from the Landsat satellite where «tttfff» stands for the image track and frame identification number and «eevv» stands for the edition and version of the ortho-image product.
NUM	Tile name and/or tile number of the data source.
PHOTOS	Aerial photography.
SPOT	Image from the Spot satellite.
Nts-Edn	Where «nts» stands for the NTS number of the paper map used and «n» stands for the map's edition number. When the paper map represents more than one NTS division, the NTS numbers are listed.

Second part: Source provenance (this optional part is only used with the values CARTE, NUM and PHOTOS). This second part can be repeated when the source has more than one origin, the different origins are then listed and separated by a plus « + ».

AB	Alberta
BC	British Columbia
MB	Manitoba
NB	New Brunswick
NF	Newfoundland
NS	Nova Scotia
NT	North West Territories
NU	Nunavut
ON	Ontario
PE	Prince Edward Island
PQ	Quebec
RNCAN	Natural Resources Canada
SK	Saskatchewan
YT	Yukon Territory

Authorized combinations

- nts-EDn³
- BDTC-pp-aaaa⁴
- BDNT-nts
- CARTE.prov⁵
- GPS
- LANDSAT-TM-MSS-tt-ff
- LANDSAT-ttfff-eevv
- NUM.prov⁵
- PHOTOS.prov⁵
- SPOT

PLAN_ACCURACY and ALTI_ACCURACY

An integer value, which is contained in the domain: -1, (1,999).

PLAN_ACCU_QUAL and ALTI_ACCU_QUAL

- C Calculated
- E Estimated
- I Unknown / Non-applicable

Note: When the accuracy qualifier is I (Unknown / Non-applicable), the corresponding ACCURACY value is **always** «-1».

PLAN_ACCU_RES

An integer value, which is contained in the domain: -1, (1,999).

ACTION

Part one: Type of Action carried out

- ACQ Acquisition of entities
- CONF Confirmation of contents
- GEN Generalization of entities
- REH Planimetric enhancement of the whole NTS area – complete enhancement
- REHP Planimetric enhancement within the NTS area - partial enhancement
- REV Updating of entities

Part two: Theme affected by the Action

- COMP All polygon entities
- PART Part of the polygon entities

Note: All THEME section values are also possible.

Part three: Additional information on the action and/or the content (this part is optional)

- ANA Analog
- DCHG Change detection
- HP Hypsography
- MAN Manual digitization

³ If the paper map contains more than one data set (map extrusion); we must enumerate each paper map and separate them with a plus « + » adding the map edition to each map listed (e.g. 021E05-ED4+021E06-ED4).

⁴ If more than one province is present in the polygon, we repeat the field (pp-aaaa) for each province (maximum 4 times) and separate them with a plus « + » (e.g. BDTC-PQ-1987+ON-1990).

⁵ If the source of a polygon has more than one origin, we must enumerate each origin and separate them with a plus « + » (e.g. NUM.NB+PQ).

MONO	Monoscopy digitization
RR	Road Network
SCAN	Scanning
STER	Stereodigitization
TP7	Topolan7 data
TO	Toponymy

Authorized combinations

- ACQ.COMP.MAN Complete acquisition of entities by manual digitizing
- ACQ.COMP.SCAN Complete acquisition of entities by scanning
- ACQ.COMP.STER Complete acquisition of entities by stereodigitization
- ACQ.COMP.MONO Complete acquisition of entities by monoscopy
- ACQ.RR Acquisition of road network
- ACQ.TO Acquisition of toponymy
- CONF.PART Partial confirmation of contents
- REH.COMP Complete planimetric enhancement of all entities
- REHP.COMP Partial planimetric enhancement of all entities
- REV.COMP Complete updating of entities
- REV.DCHG Complete updating for Change detection
- REV.HP Updating of hypsography
- REV.PART.ANA Partial analog updating
- REV.PART.TP7 Partial updating from Topolan7 data
- REV.RR Updating of road network

IMPACT_ACT_C

- S Systematic
- P Sporadic

IMPACT_ACT_P

- O Yes
- N No

THEME Section

NAME

- AD Designated Area
- CH Roads
- CO Manmade Features
- FO Relief and Landform
- GE General
- HD Hydrography
- HP Hypsography
- LA Administrative Boundaries
- RE Power network
- RF Rail network
- RR Road network
- SS Water saturated soils
- TO Toponymy
- VE Vegetation

AVAIL_THEME

- O Yes

- N No

RESOLUTION

- 50000
- 250000
- -1

Note: When the theme is not available (AVAIL_THEME=N), the corresponding resolution value is «-1».