GeoBase - National Railway Network (NRWN)
Demo
Information sheet
(Developed by NRCan-CTIS)
12-2011

Note: This demo data set is provided to the community in order to allow Users to discover and become familiar with the distribution of the upcoming GeoBase - NRWN data. This dataset is a subset of the overall product. It is provided on an as-is basis. No validation was performed on this data. The final product may vary in content.

The NRWN data was created using Arc/GIS 9.2 combined with several FME workbenches that were developed in-house by CTIS.

The following information provides an overview of the process that was used to create the NRWN data:

Track (network):

- Conflate federal, provincial and private sector geometric (track) data sources
- Identify all Main Tracks within the network
- Link Transport Canada identifiers to network geometry in order to facilitate subdivision attribute transfers
- Transfer subdivision attributes to all Main tracks of the network
- Identify and update all secondary Tracks on the network
- Classify secondary network Tracks
- Validate (interactive) network connectivity and integrity
- Validate (interactive) start and end location of a Subdivision
- Assign a UUID to each feature of the network

Structures (bridges, tunnels, snow sheds…):

- Introduce federal and provincial Structures on the Tracks
- Incorporate hydrographic data sources in reference to the Track network
- Introduce Culverts at the intersection of the hydro data and rail data
- Transfer all available attributes from the various source to the Structures
- Assign a UUID to each structure

Crossings (at grade, over, under…):

- Introduce federal and private sector Crossing data to the network
- Incorporate the GeoBase - National Road Network data in reference to the Track network
- Create a Crossing at the intersection of the NRN and NRWN networks
- Search for Crossing data located in proximity to the NRN-NRWN crossings
- Link the features by UUID and ID matches
- Transfer attributes from the various sources to populate the attributes of the Crossings

Station (freight, passenger…):

- Introduce federal and private sector Station data to the network
- Link Stations to Tracks node
- Transfer all available attributes from the various source to the Stations
- Assign a UUID to each structure

Marker Post (mile, kilometer):

- Introduce private sector Maker Post data to the network
- Link Marker Post data to Tracks node
- Transfer all available attributes from the various source to the Marker Post
- Assign a UUID to each structure

General remarks:

- All Track Elements Subdivisions are assigned the same UUID
- A 'Start' and 'End' Junction are associated to each '*Track*' feature
- A few validation tools were used during the first build process to identify possible errors
- No work has been performed to correct any incoherence's

NRWN documentation

Conceptual model and feature catalogue:
- Lists all NRWN features and their associated attributes
- View of conceptual model components
- Definition for each feature and each attribute
- Enumeration of metadata fields and associated values
- PPT - NRWN illustration of the first build process

The FTP NRWN-demo directory contains;

- Shape files - one for each of the NRWN features
- KMZ file – one file for each of the NRWN features
    - Images – symbols for each one of the KMZ feature
- Unrestricted End User license