User Manual

CanMap® RouteLogistics V5.1

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smart
spatial
solutions™

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About DMTI Spatial™

DMTI Spatial Inc. is Canada's leading spatial solutions provider that enables users to understand their customers, optimize resources, realize opportunities, maximize profitability and make more informed decisions through accurate products and innovative thinking.

DMTI Spatial publishes precision built street map data (CanMap®), and innovative geocoding software (GeoPinpoint™). In addition, DMTI Spatial publishes a full range of positionally accurate geo-spatial data products including; census data and boundaries, postal geography, topographic maps, marketing databases, and US maps & data. As part of a complete business geographic solution, DMTI Spatial offers a wide range of GIS services, consulting, and software training.

Established in 1994, DMTI Spatial is dedicated to serving its customer's specific Geographical Information System requirements. Committed to setting the standard within the GIS industry for precision built street map data, innovative geocoding technology and positionally accurate geo-spatial datasets, DMTI Spatial believes the key to its customer's success is quality, customer service and in providing a complete geographic solution.

At DMTI Spatial, we believe that our true strength comes from working closely with our customer base and providing innovative spatial solutions to meet their strategic business requirements. As Canada's premier solution spatial provider we pride ourselves with having worked with North America's leading organizations to help them achieve their business geographic requirements.

DMTI Spatial has worked strategically with large and small organizations represented from a wide range of industries:

Agriculture	Forestry	Mining
Banking/Finance	Government	Real Estate
Consulting	Health	Retail
Education	High Technology	Telecommunications
Emergency Services	Insurance	Transportation
Engineering	Manufacturing	Utilities
Environmental	Media	

In October 2000, the Markham Board of Trade selected DMTI Spatial as the co-winner of the board's prestigious Business Excellence Award for Entrepreneurship and Innovation.

DMTI Spatial is a member of the ESRI Business Partner Program.

Really Smart Spatial Solutions

Through the application of its products and services, DMTI Spatial has been involved with projects such as: logistic planning, emergency dispatch, facilities management, data management, customer care, land base development in support of network planning, and marketing/demographic analysis applications. DMTI Spatial can provide all of the components necessary for the acquisition, implementation, operation and maintenance of a successful GIS system within companies of all sizes. Through its product and service offering, DMTI Spatial can provide users with 5 key components for a successful GIS application:

- Accurate and compatible data products and base maps
- Comprehensive Maintenance Subscription program
- GIS software
- Consulting and services
- Software training

For more information on DMTI Spatial's Geographic Solutions for Business, please visit
www.dmtispatial.com

DMTI Spatial Product & Service Portfolio

DMTI Spatial's product & service offering includes:

CanMap - *Digital Street Maps for Canada*
- CanMap® Streetfiles
- CanMap® Major Roads and Highways
- CanMap® RouteLogistics

GeoPinpoint™ - *Canada's Geocoding Solution*
- Standalone Geocoder
- ActiveX Control (OCX)
- UNIX Version

Points of Interest Layers
- Education
- Health Care
- Accommodation
- Car Rental Agencies
- Border Crossings & Customs Offices

Topographic Data and Base Maps
- Canadian Atlas Map Bundle
- National Topographic Data Base
- Canadian Digital Elevation Model
- Clutter Data

Postal Geography & Data
- Six-Digit Postal Code File
- Enhanced Postal Code File
- Forward Sortation Area (FSA) Boundary File

1996 Census Demographic Boundaries & Data
- Enumeration Area (EA)
- Census Subdivision (CSD)
- Census Division (CD)
- Census Metropolitan Area/Census Agglomeration (CMA/CA)
- Census Tract (CT)
- Federal Electoral Districts (FED)

GIS Software
- For the Desktop
- For the Developer

Consulting and Services
- GIS Consulting
- Application Development
- Database Marketing
- Data Conversion and Creation
- Database Scrubbing
- Geocoding Services
- Technical Support
- Training

If there is a map, data set, software package or service that you need and it is not listed, please contact DMTI Spatial. For technical product or service inquiries, please email us at support@dmtispatial.com

We are constantly looking for ideas on how to improve our products and for new tools you need to stay competitive. We welcome your input, and look forward to being your solution provider for value-added geo-spatial products and services. To submit your feedback, please email us at wishlist@dmtispatial.com

By using our data everyday in your mission critical application, you are our best product tester. Please let us know if you have found an error in any of our products so that we can make the correction as soon as possible. To report your finding, please email us at fixme@dmtispatial.com

Contacting DMTI Spatial

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About CanMap® RouteLogistics

CanMap® RouteLogistics has been developed to be used within logistics software to help you minimize operating costs, optimize routing and scheduling, and ensure customer service.
Use this precision based data to build and optimize route manifests and delivery schedules, reduce maintenance and fuel costs, print delivery maps, and deliver to the right address.

Built for the desktop, web, or GPS-enabled application, CanMap® RouteLogistics data offers you the ability to locate customers and routes with accuracy. The data is compatible with GeoPinpoint™, DMTI Spatial's geocoding solution, which enables you to pinpoint customer or warehouse locations for delivery or pickup.

CanMap® RouteLogistics has been built on CanMap® Streetfiles which provides you with comprehensive street names address range coverage communities nationwide. It also provides you with the highest level of detailed topographic and geographic features for all major urban areas throughout Canada.

CanMap RouteLogistics Nationwide Features

Enhance your solution by integrating these nationwide features into your application:

- Road directions
- Road type, name and number
- Exit numbers in ramps and road segments
- Street names for communities 1,000+ population
- Street address ranges for communities 2,000+ population Local, major, county, or regional roads
- Provincial highways and limited access expressways
- Additional highway attributes including Toll Roads, Yellow Head Highways, and Trans Canada Highway
- Canada/USA Border Crossing (Point of Entry) - including the name of the US road that links to the Canadian road across the border
- Ferry Routes and Ice Roads
- Forward Sortation Area (FSA) boundaries
- Estimated travel time in minutes
- Estimated travel speed

- Estimated speed limit
- Regional, municipal, and provincial boundaries
- Major hydrography (rivers, lakes, and coastlines)
- Topologically correct network fabric
- Relative elevation node point layer containing node ids and relative elevations. This layer links the From Node and/or To Node of a street segment via node id
- Turn restrictions provided in a separate DBF table, including both legislated and non-legislated restrictions and links to the roads via the CanMap UniqueID
- Exit attribution fields have been added to ramp and road segments (where available)
- Weight station locations added
- Free Canada Directory
- Precision based on CanMap® Streetfiles

In addition to these nationwide features, CanMap® RouteLogistics major cities include:

- Land-use classifications
- Points of interest
- Building footprints
- Buffered street centreline road network

- Airport locations in urban areas including airport name and code
- Railway and utility features
- Topographic features
- Named geographic feature

Benefits

Integrate CanMap® RouteLogistics data into your application and profit by:
- Reduce operation costs through increased efficiency
- Optimize routes and scheduling to minimize travel time
- Ensure customer service and delivery to the right address
- Enable your GPS solution with an accurate base and clearly defined national transportation infrastructure
- Pinpointing your customers with accuracy by integrating with GeoPinpoint™
- Combining with DMTI Spatial's geospatial data sets for organization-wide applications

Coverage: Nationwide

Currency: Quarterly, semi-annual, or annual Maintenance Subscriptions available

Formats: ESRI - ArcLogistics Route, ArcView, EOO, MapInfo, RouteView Pro
Custom formats available upon request

Using CanMap® RouteLogistics V5.1

DMTI Spatial™ has provided you with custom workspaces for MapInfo and project files for ArcView that have been created to maximize the ease of use of the CanMap® RouteLogistics V5.1 files. These data files have been layered, and will turn on and off based on the optimum viewing scale for each layer. Other formats such as MidMif and E00[1] will not have any workspaces or projects provided. For MidMif and E00 formats, please refer to the section: Suggested CanMap® Streetfiles V5.1 Layering in the CanMap® Streetfiles V5.1 User Manual.

There are three workspaces and project files to choose from, ranging from opening all of the topographic files to take advantage of all the layers or to only opening a limited number of files for geocoding or analysis purposes. The third workspace/project file opens the files contained in the free Canada directory.

Workspaces & Project Files

Workspaces and Project files enable the user to open CanMap® RouteLogistics V5.1 files all at once. The RTE and RTP workspaces/project files are prefixed with the CanMap® Region Code and suffixed by the short form of the workspace name. For example, the Ontario Roads workspace is named ONrte. For a list of codes and their descriptions, please refer to the section: CanMap® Region Codes in the CanMap® Streetfiles V5.1 User Manual.

File Name	Description
rte	Opens and zoom layers Roads, Major Roads and Highways, Highways, Municipal and Regional Municipal Boundaries, National Water, Provincial Boundaries, Forward Sortation Areas (FSA) and Highway Exits.
rtp	Opens and zoom all layers of CanMap® and includes labeling of Roads, Highways, Major Roads and Highways, Municipalities, Regional Municipalities, Provinces. [2] Includes legend.
CANADA	Opens and zoom layers Topographic Area Boundaries, Regional Municipalities, Provincial Boundaries and National Water for all of Canada.

Attention ArcView Users:
DMTI Spatial now provides ArcView users with a tool that allows the user to label the CanMap RTP project as previously labeled in V2.0. The inclusion of this tool eliminates the existence of labels in the project file, significantly decreasing it's size. Please refer to Appendix B in the CanMap® Streetfiles V5.1 User Manual for instructions on using the new CanMap Label Tool for ArcView.

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[1] Please note, CanMap® RouteLogistics V5.1 in arc export (e00) format, has NOT been built as a native Arc/Info route-system. Therefore, the RTE file does NOT contain a route attribute table nor a section table
[2] Labeling provided in MapInfo workspaces only. ArcView users please refer to Appendix B for instructions on using the new CanMap Label Tool (see note above).

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File Directory for Additional RouteLogistics Files

All files are prefixed with the CanMap® Region Code, suffixed by the short form of the file name.

For example: \STREETS\ONrte

File Directory	CanMap® Region Code	File Name
\STREETS\	ON	rte

The CanMap® Region Code represents the data coverage purchased by the user from DMTI Spatial. For a list of codes and their descriptions, please refer to the section: CanMap® Region Codes in the CanMap® Streetfiles V5.1 User Manual.

Locate these files under the \STREETS\ directory.

File Name	Description
rte	Roads
fsa	Forward Sortation Areas (FSAs)
xit	Highway Exits
ren	Relative Elevation Node Points[1]
rte_lut	Roads Lookup Table

Note
All references to RDS layer in the CanMap® Streetfiles V5.1 User Manual will apply to the CanMap® RouteLogistics V5.1 RTE layer.

Locate these files under the \POI\ directory.

File Name	Description
wgh	Weigh Stations

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[1] Includes a node point layer with a node id and relative elevation. These nodes link to the From Node and/or To Node of a street segment via the node id

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Suggested CanMap® RouteLogistics V5.1 Layering

Workspaces and Projects cannot be provided for formats such as MidMif or E00.

The MapInfo Interchange format (MidMif) is an ASCII representation of MapInfo files. The MIF file is an ASCII file listing the coordinates for each graphical object. The MID file is an ASCII file containing attribute data for each graphical object. Each object in the MIF file relates to a record in the MID file.

The ARC/INFO Interchange Format (.E00) files define complete ARC/INFO coverages to be used with ESRI's ARC/INFO GIS.[1]

We suggest that you use the following layering system to properly view your CanMap® V5.1 RouteLogistics files:

ll – Land Feature Labels	hsc[2] – Secondary Highways
wl – Water Feature Labels	mrc[2] – Major Roads
xit – Exit Numbers	lrc[2] – Local Roads
bp – Building Points	tlc[2] - Trails
cul – Cultural	**rte** – Roads
emg – Emergency	hrd – Major Roads and Highways
fol – Food and Lodgings	hwy – Highways
gov – Government and Institutional	hs – Hydrographic Structures
rec – Recreation and Entertainment	ta – Transportation Related Areas
srv – Shopping and Services	ir – Industrial and Resources
wgh – Weigh Stations	ph – Physiography
trp – Transportation	we – Wetlands
ppn – Populated Placenames	hy – Hydrography
btp[2] - Bus Transit (Points)	rp – Recreation and Amusement Areas (regions)
rtp[1] - Rail Transit (Points)	ve – Vegetation
btl[1] – Bus Transit (Lines)	lu – Land Use
rtl[1] – Rail Transit (Lines)	wat – National Water
ra – Recreation and Amusement Areas	**fsa** – Forward Sortation Areas
pt – Pipes and Transmission Lines	top – DMTI Spatial Topographic boundaries for Canada
ot – Other Transportation & Routes	rmn – Regional Municipality(ies)
bf – Building Footprints	mun – Municipal Boundary(ies)
exc[3] - Expressways	prv – Provincial Boundaries for Canada
hpc[2] – Primary Highways	

Other layers that are not displayed as part of a workspace/project include:
nde – Nodes layer
acb – Canadian Area Code Boundaries
tzs – Canadian Time Zones (Standard Time)
tzv – Canadian Time Zones (Savings Time)
lnk – Canada\USA Roads Linkages
rte_lut – Roads Lookup Table

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[1] Please note, CanMap® RouteLogistics V5.1 in arc export (e00) format, has NOT been built as a native Arc/Info route-system. Therefore, the RTE file does NOT contain a route attribute table or a section table
[2] Data currently available in selected Major Urban Centers across Canada only.
[3] Casement data currently not available in E00 format.

CanMap® RouteLogistics Files – Structure and Contents

Exit Numbers (xit)[1]

Location
> \STREETS\ directory

Structure

Field Name	Field Type	Field Size	Description
Exit_Num	Character	30	Highway Exit Number
Exit_Dir	Character	2	Direction of Exit ramp

Notes

- Exit number information has been added to the STREET field in the roads (RTE) file

- The EXIT_NUM field contains commas as the delimiter where multiple exit numbers exist, for example "356, 357"

- The STREET field contains the ampersand sign as a delimiter where multiple exit numbers exist, for example "HIGHWAY 401 (EXIT 356 & 357)"

- Exit Numbers now include as much information as possible for the purpose of routing and associated manifest generation

- Direction has been assigned where multiple options are available to the vehicle in transit (see Diagrams B and H below)

- Direction, as listed in the Exit_Dir field, is associated with the exit number only

- Street segments, whose name includes directionality, are kept separate (see the following table for a general breakdown on naming conventions used)

- A One-to-One relationship exists between the XIT point layer and the Street Segments updated with Exit Number information. Only the street segments actually intersecting an exit point will be updated with exit information

- The majority of segments updated with exit information are segments designated as RAMP or ÉCH (échangeur) in the SufType field

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[1] Highway exit numbers are only available for the following provinces: BC, ON, QC, NB, and NS

Example Summary of Street Segments Associated with Exit Number Information

STREET (CANrte)	PRETYPE (CANrte)	SUFTYPE (CANrte)	STREET (CANrte)	EXIT_NUM (CANrte_LUT)	EXIT_DIR (CANrte_LUT)
		RAMP	EXIT 163	163	
		RAMP	EXIT 107 N	107	N
		RAMP	EXIT 293 (COLLEGE HILL RD[1])	293 (COLLEGE HILL RD)	
		RAMP	EXIT 6 (HIGHWAY 7) N	6 (HIGHWAY 7)	N
HIGHWAY 8 BYPASS	HWY		HIGHWAY 8 BYPASS (EXIT 278[2])	278	
POINT ACONI RD N		RD	POINT ACONI RD N (EXIT 18)	18	
ALDER POINT RD		RD	ALDER POINT RD (EXIT 19 N)	19	N
		ÉCH	SORTIE 202	202	
		ÉCH	SORTIE 100 S	100	S
		ÉCH	SORTIE 21 (COTE D'ABRAHAM)	21 (COTE D'ABRAHAM)	
		ÉCH	SORTIE 21 (AUT DES LAURENTIDES) N	21 (AUT DES LAURENTIDES)	N
ROUTE 185	RTE		ROUTE 185 (SORTIE 499)	499	
BOUL PERROT N	BOUL		BOUL PERROT N (SORTIE 37)	37	
ROUTE 132	RTE		ROUTE 132 (SORTIE 601 N)	601	N
		ÉCH	SORTIE 76 & 77	76, 77	
		RAMP	EXIT 29 & 31	29, 31	
		ÉCH	SORTIE 78 & 82 & 83	78, 82, 83	
HIGHWAY 401	HWY		HIGHWAY 401 (COLLECTORS TO EXPRESS)	COLLECTORS TO EXPRESS	
HIGHWAY 401	HWY		HIGHWAY 401 (EXPRESS TO COLLECTORS)	EXPRESS TO COLLECTORS	
HIGHWAY 401	HWY		HIGHWAY 401 (TO COLLECTORS)	TO COLLECTORS	
HIGHWAY 401	HWY		HIGHWAY 401 (TO EXPRESS)	TO EXPRESS	
		RAMP	TO EXPRESS	TO EXPRESS	
		RAMP	TO COLLECTORS	TO COLLECTORS	

[1] Parentheses contain the name of the street being exited to
[2] Parentheses contain the exit number associated with the named road

Diagram A – Example of a basic ramp system with naming conventions

Diagram B – Example of a basic ramp system with naming and directionality conventions
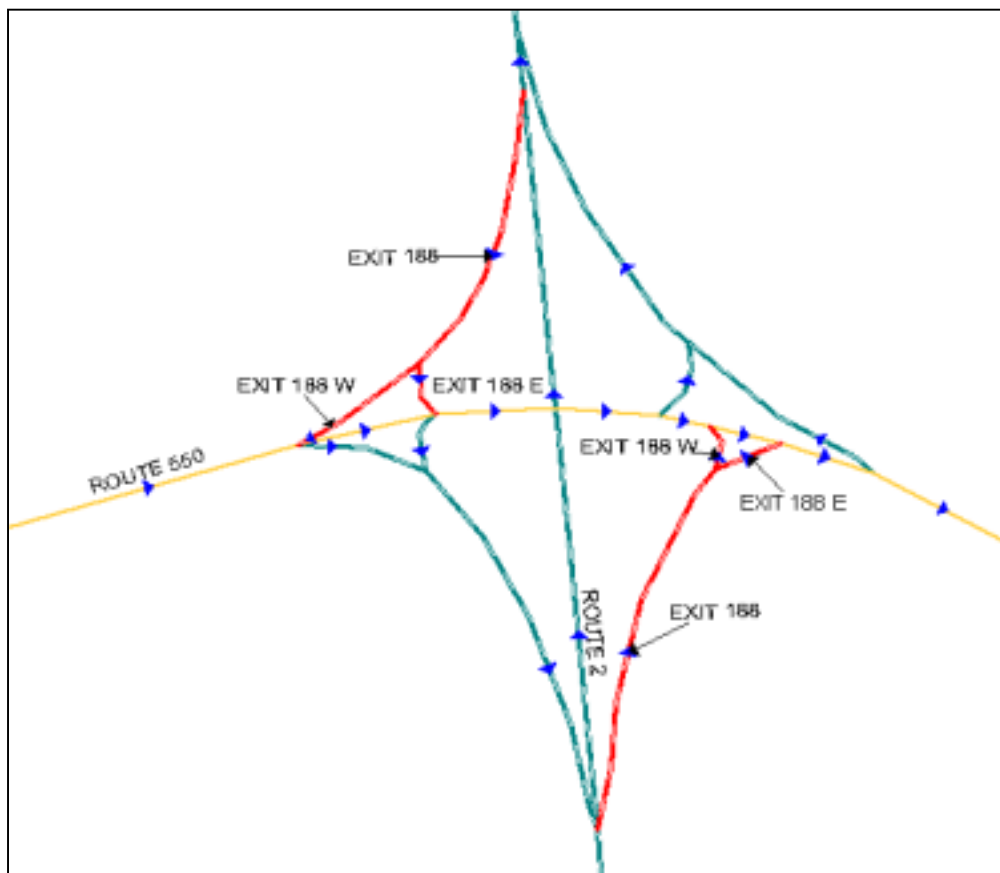
Diagram C – Naming conventions used to illustrate the differences of accessing and exiting the collectors and express lanes along Highway 400 in the GTA, Ontario
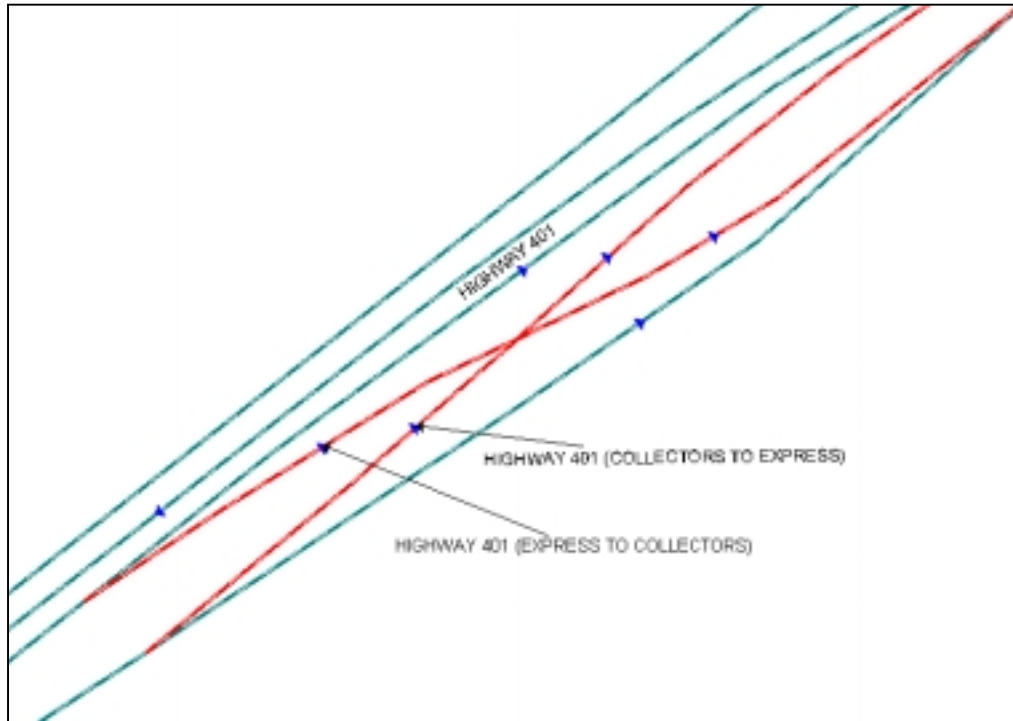
Diagram D – Illustrates the scenario of exiting an off ramp and choosing to take either the express or collectors lanes
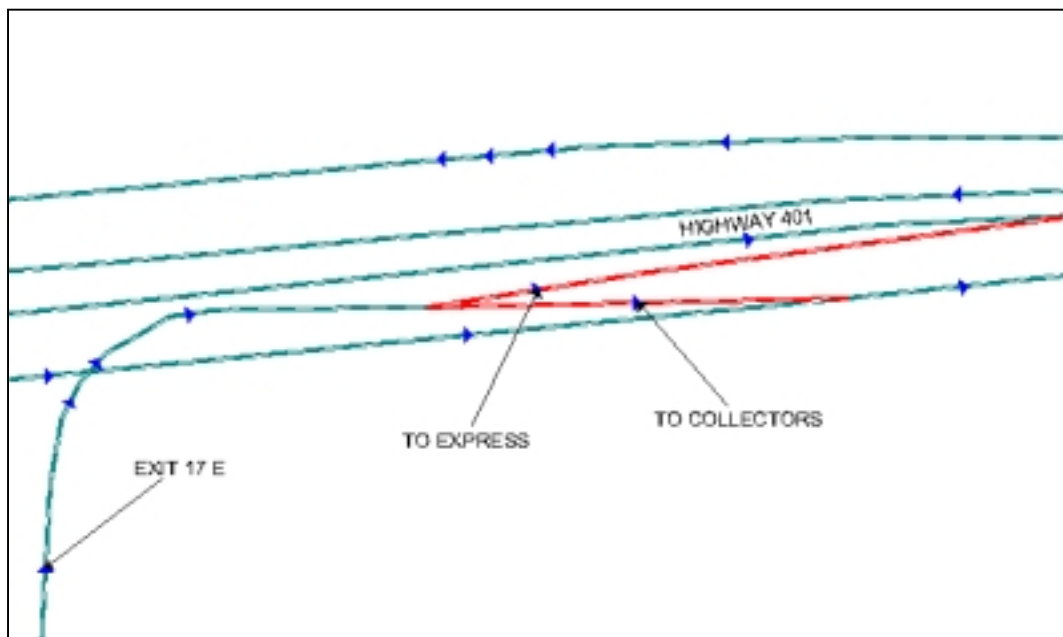
Diagram E – Similar scenario to diagram D
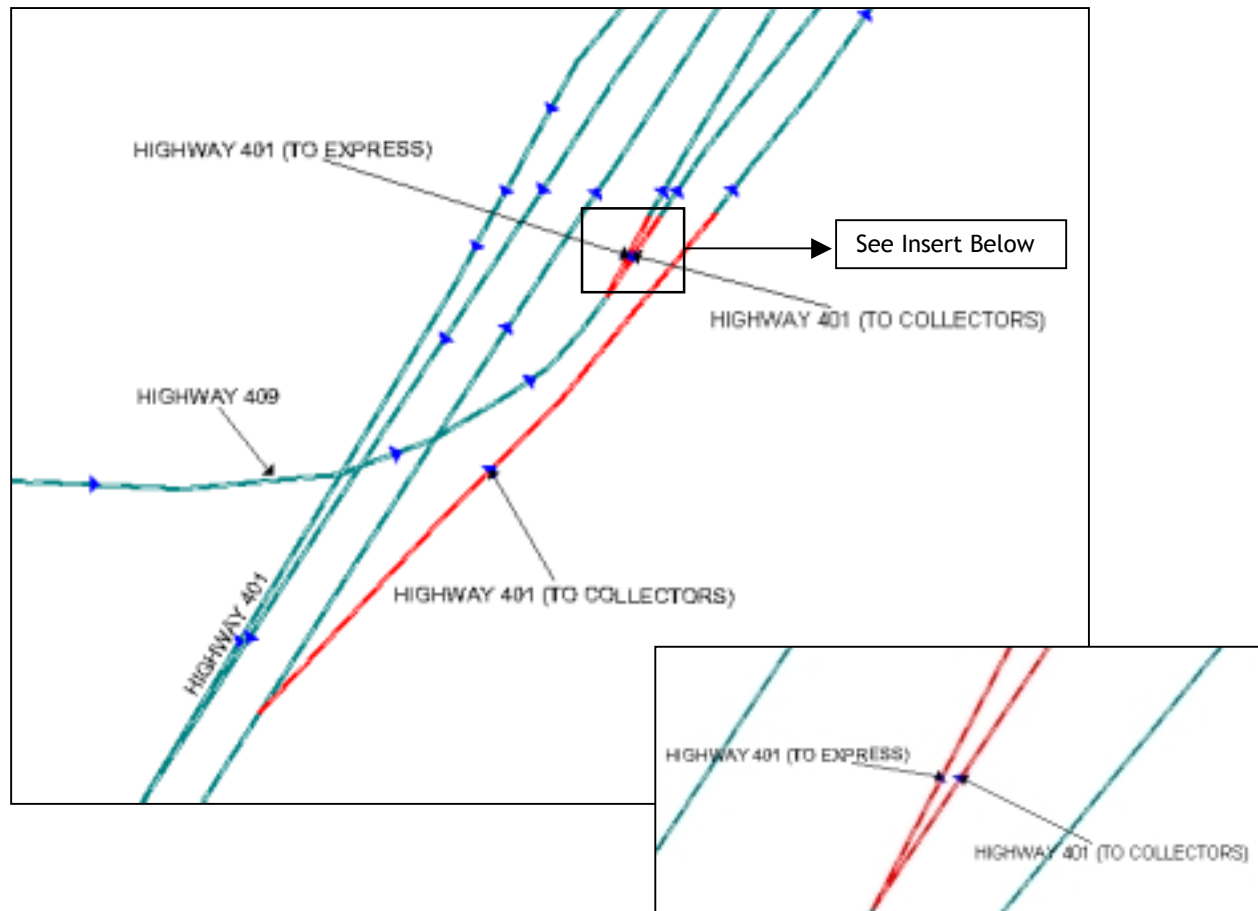
Diagram F – Illustrates where a named road segment also acts as an off ramp
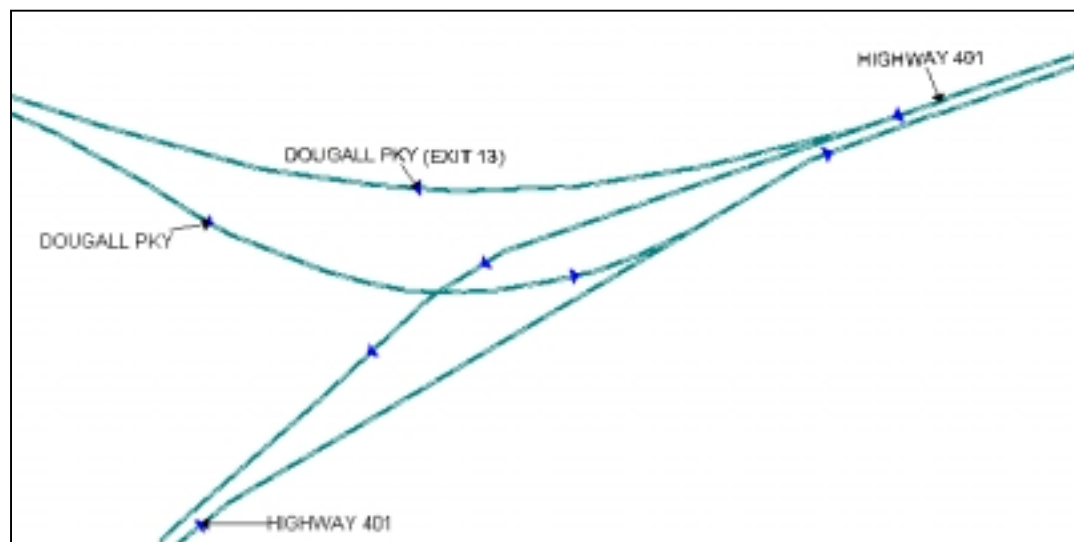
Diagram G – Multiple exits from one off ramp
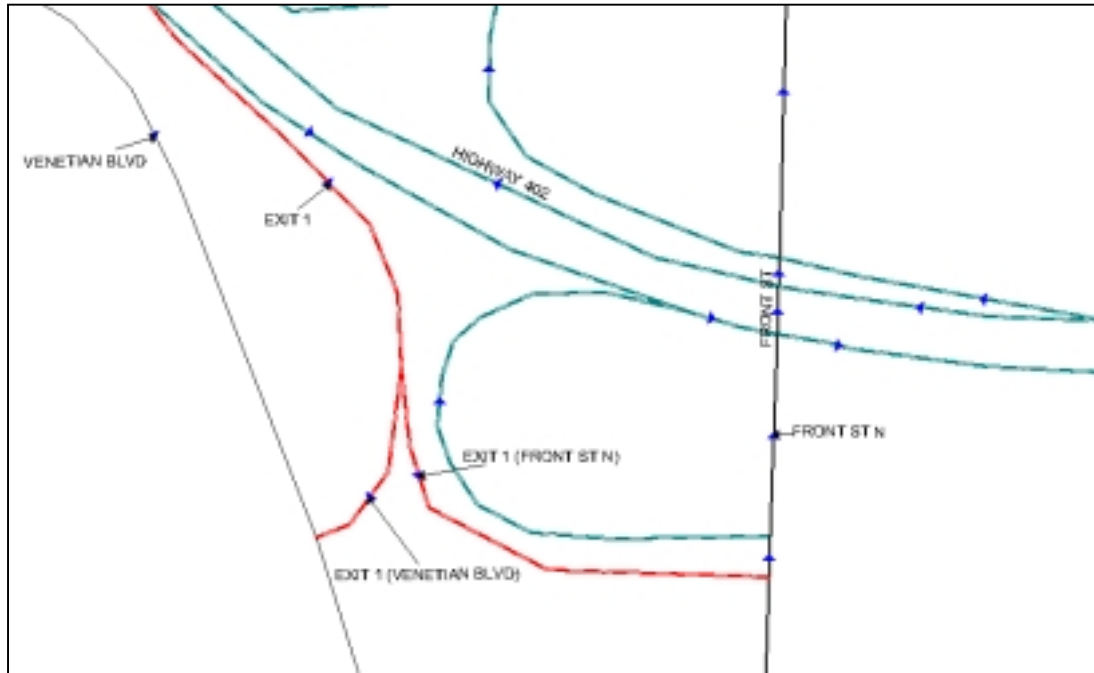
Diagram H – multiple exits from one off ramp with direction
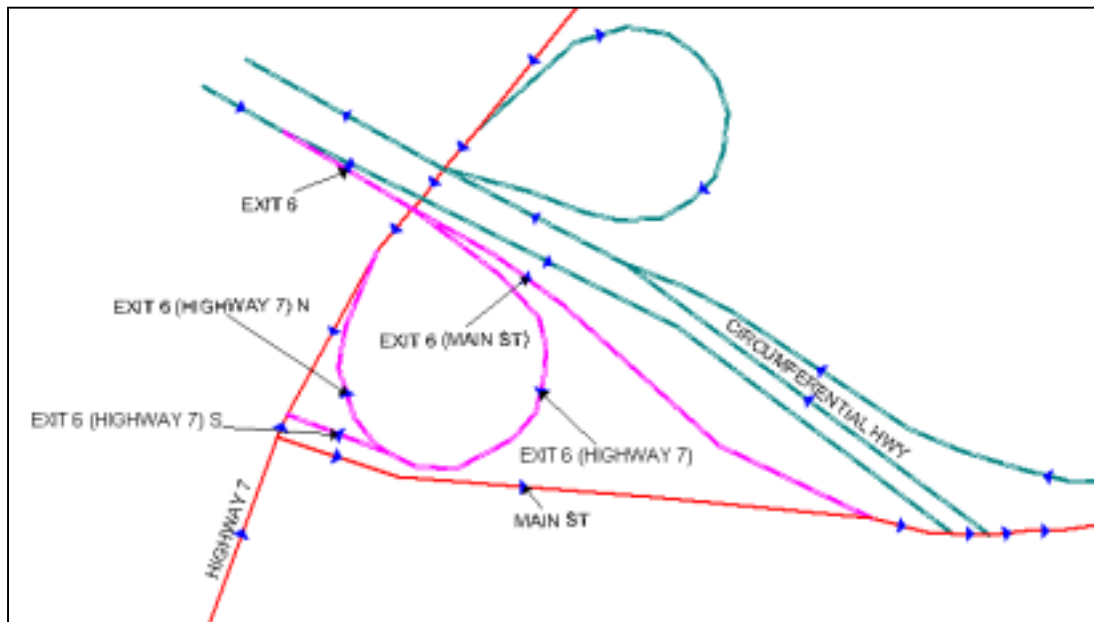
Forward Sortation Area (fsa)

Location
> \STREETS\ directory

Structure

FieldName	Description	Type	Size
FSA	Forward Sortation Area	Character	3
Pop96[1]	1996 Population	Integer[2]	-
Dwell96[1]	1996 Dwellings	Integer[2]	-

Contents

Postal Province Codes for Canada:

The following table describes the provincial designation for the first letter in a Forward Sortation Area:

| First Letter	Province or Territory
A	Newfoundland
B	Nova Scotia
C	Prince Edward Island
E	New Brunswick
G	Quebec (east)
H	Quebec (metropolitan Montreal)
J	Quebec (west)
K	Ontario (east)
L	Ontario (central)
M	Ontario (metropolitan Toronto)
N	Ontario (southwest)
P	Ontario (northern)
R	Manitoba
S	Saskatchewan
T	Alberta
V	British Columbia
X	Northwest Territories
X	Nunavut
Y	Yukon Territory

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[1] The Population and Dwelling counts are based on the 1996 Census recast to DMTI Spatial's March 2001 FSA boundaries.
[2] In MapInfo, the field type will be Integer, and for ESRI packages, the field type will be Decimal (11,0)

Lookup Table (rte_lut)

Location
     \STREETS\ folder

Structure

Field Name	Field Type	Field Size	Description
Rds_ID	Decimal	9,0	UniqueID of related RDS segment
Alias_Name	Character	64	Alternate Street Name
FormerName	Character	64	Former Provincial Hwy Name
Hwy_Num	Character	20	Highway Number (e.g. 404)
Hwy_NumNam	Character	64	Highway Numeric Name (e.g. Highway 404)
Hwy_Name	Character	64	Highway Name Non-Numeric (e.g. Don Valley Pky)
Rd_Num	Character	20	Road Number (e.g. 4)
Rd_NumNam	Character	64	Road Numeric Name (e.g. Regional Rd 4)
Rd_Name	Character	64	Road Name Non-Numeric (e.g. Taunton Rd W)
AlaskaHwy	Logical	-	Alaskan Highway flag
CaribooHwy	Logical	-	Cariboo Highway flag
CrwsnstHwy	Logical	-	Crowsnest Highway flag
DempstrHwy	Logical	-	Dempster Highway flag
JohnHrtHwy	Logical	-	John Hart Highway flag
KlondkeHwy	Logical	-	Klondike Highway flag
McknzieHwy	Logical	-	Mackenzie Highway flag
TrnsCdaHwy	Logical	-	TransCanada Highway Flag
YelowHdHwy	Logical	-	Yellow Head Highway Flag
Toll_Rd	Logical	-	Toll Road Flag
On_ramp	Logical	-	On ramp flag
Off_ramp	Logical	-	Off ramp flag
Tunnel	Logical	-	Tunnel flag
Exit_Num	Character	30	Highway Exit number
Exit_Dir	Character	2	Direction of Exit ramp
Ferry_Type	Character	68	Type of Ferry Route (e.g. Passenger, Vehicle, etc.)

Relative Elevation Nodes (ren)
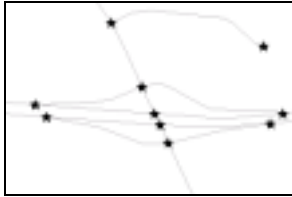
Location

> \STREETS\ directory

Structure

Field Name	Field Type	Field Size	Description
Node_ID	Decimal	9,0	Unique identifier of Relative Elevation Node
Rel_Elev	Integer		Relative elevation value of node
Longitude	Decimal	20,6	Node's Longitude location
Latitude	Decimal	20,6	Node's Latitude location
Intrsction	Logical		Illustrates whether the node exists as a dangle or where two or more segments intersect

Definition

The relative elevation is used to differentiate two or more coincident nodes. One location requiring that type of distinction would be an overpass or underpass situation. In that example, the polylines on the lower road would be linked together by a common node and the upper road polylines would be linked together by a common node, different from the node used for the lower road segments. The relative elevations are given as integers greater than or equal to zero. It should be noted that the relative elevation merely differentiates two coincident nodes and does not imply the true ground relationship, either absolute or relative, of a higher versus a lower road.

Roads (rte)

Location

   \STREETS\ directory

Structure

Field Name	Field Type	Field Size	Description
Street	Character	64	Street Name
FromLeft	Decimal	6,0	From Left Address
ToLeft	Decimal	6,0	To Left Address
FromRight	Decimal	6,0	From Right Address
ToRight	Decimal	6,0	To Right Address
PreDir	Character	2	Street Direction before Streetname (ex. W 5 St)
PreType	Character	10	Street Type before Streetname (ex. Rue Jean)
Streetname	Character	40	Streetname (ex. John St E)
Suftype	Character	10	Street Type after Streetname (ex. John St E)
SufDir	Character	2	Street Direction after Streetname (ex. John St E)
Carto	Decimal	3,0	Road Classification
Left_MUN	Character	68	Municipality Name
Right_MUN	Character	68	Municipality Name
Left_Fsa	Character	3	FSA Name
Right_Fsa	Character	3	FSA Name
Left_Prv	Character	2	Province Abbreviation
Right_Prv	Character	2	Province Abbreviation
UniqueId	Decimal	9,0	Street segment unique identification number
Oneway	Logical	-	Road segment is one-way either True or False
Road_Dir	Character	2	Road segment direction is either from the Fromnode to the Tonode (FT) or from the Tonode to the Fromnode (TF)
FromNode	Decimal	9,0	Node begins road segment
ToNode	Decimal	9,0	Node ends road segment
Speedmiles	Decimal	3,0	Estimated speed limit (miles per hour)
RdLenMiles	Decimal	8,3	Length of road segment in miles
SpeedKm	Decimal	3,0	Estimated speed limit (kilometers per hour)
RdLenMeter	Decimal	8,3	Length of road segment in meters
TravelTime	Decimal	6,3	Estimated travel time in minutes based on speed limit and road length

Contents

Ferry Types

Canadian Passenger & Freight Ferry
US Passenger & Freight Ferry
Private Passenger & Freight Ferry
Canadian Passenger & Freight Ferry/Ice Road
US Passenger & Freight Passenger Ferry/Ice Road
Private Passenger & Freight Ferry/Ice Road

Notes

- Address fields will contain only zeros in Unaddressed CanMap® RouteLogistics V5.1

- The estimated speed was derived using the "Carto" value and the population density in the vicinity of the road. Population density was classified into two groups using the 1996 Census using the following scheme: "Populated Areas" have a population density of 100 persons per square kilometer or greater; "Sparse Areas" are less that 100 persons per square kilometer. The speed limits where then assigned as follows:

Carto	Population Density	Speed Limit (km/h)	Speed Limit (mph)
1	All	100	60
2	Populated	80	50
2	Not Populated	80	50
3	Populated	60	40
3	Not Populated	80	50
4	Populated	60	40
4	Not Populated	80	50
5	Populated	50	30
5	Not Populated	80	50
6+	All	10	6
All	All Ramps	50	30

- The following Highway routes are flagged on the appropriate segments that comprise these routes: TransCanada, Yellowhead, Alaskan, Cariboo, Crowsnest, Dempster, John Hart, Klondike, & Mackenzie. The ramps connecting these routes are not presently considered a part of the route system.

- Ferry ramps connect ferry routes to the main network of streets

Weigh Stations (wgh)

There are over 280 Weigh Stations in Canada. This product (at a minimum) will contain the Name and Address (if applicable) of each weigh station as well as the site type (permanent or portable scale).

Location
\POI\ directory

Structure

Field Name	Field Type	Field Size	Description
Name	Character	100	Name of Weigh Station
Location	Character	50	Location of Weigh Station
Box_Unit	Character	25	P.O. Box# or Unit#
City	Character	45	City
Prov	Character	2	Province
Postal	Character	10	Postal Code
Phone	Character	15	Telephone#
Fax	Character	15	Fax#
WS_Type	Character	15	Permanent or Portable Scale
Direction	Character	2	Indicates the direction of road scale is on
Hours	Character	20	Hours of operation
Year_Round	Logical	-	Year Round operation
Restroom	Logical	-	Restrooms available
Avion401	Logical	-	Avion 401 automated clearance system
Type	Character	10	Facility Type
Category	Character	40	Category
Fcode	Decimal	11,0	Feature Code
Scode	Decimal	11,0	Symbol Code
Prec_code	Character	2	Representative point flag, this identifies the method used to geographically position the coordinate

Contents

Prec_Codes

Precision Code	Description
1	Centroid of 1:50,000 NTDB feature
2	Block-face representative point from CanMap streets – High precision
3	Block-face representative point from CanMap streets – Lower precision
4	Postal Code -Block-face representative point
5	Postal Code –EA centroid
6	Municipal Centroid
7	Canadian Geographical Names Database (CGNDB)

Type

Value	Description
WS	Weigh Station

Feature Codes

Weigh Station Type	FCode
Weigh Station	709

Appendix A: Turn Restriction Table (trn)

To enhance CanMap® RouteLogistics, turn restriction attribution has been captured. These turn restrictions identify where a turn cannot be made from one road segment to another.   It is maintained in a separate table called TRN.dbf (for example, the Ontario turn file would be named ONtrn.dbf).

CanMap® RouteLogistics contains two different types of turn restrictions, legislated and non-legislated.
- A legislated turn restriction is one where a municipality has posted a sign, which lists one or a combination of restrictions. For example, no left turn from 6am-9am, Monday to Friday.
- A non-legislated turn restriction is a physical restriction, for example, a road that crosses over another road (i.e. a turn can not be made from a bridge directly to the road below and vice versa).

Location
        \STREETS\ directory

Structure

Field Name	Field Type	Field Size	Description
Turn_id	Decimal	9,0	Unique identifier of turn restriction
Rds_id	Decimal	9,0	Unique identifier of road segment traveling on
Res_Rds_id	Decimal	9,0	Unique identifier of road segment where a turn is restricted to from the uniqueid
Via_Rds_id	Decimal	9,0	Uniqueid of road segment needed to be traveled on to make a wrong turn onto the restricted_uniqueid (used for u-turns only, on doubled lined roads)
Direction	Character	5	Traveling direction on uniqueid segment
Type	Character	10	Type of turn restriction (left, right, straight, u)
Time1_From	Character	8	Start time of turn restriction
Time1_To	Character	8	End time of turn restriction
Time2_From	Character	8	Start time of turn restriction
Time2_To	Character	8	End time of turn restriction
Day_From	Character	10	First day of turn restriction
Day_To	Character	10	Last day of turn restriction
On_Red_Sig	Logical	-	T = can not turn on red, F = turn on any signal
Auth_Vehic	Logical	-	T = authorized vehicles only, F = all vehicles excepted
Bus_Except	Logical	-	T = buses excepted, F = no exceptions
Legislated	Logical	-	T = legislated, F = non-legislated

How to Use the trn.dbf with the RTE file

- In order to utilize the turn data effectively, the Rds_id field in the TRN file must be linked to the Uniqueid field in the RTE file.

Appendix B: CanMap® RouteLogistics for RouteView Pro Format

RouteView Pro is an extension to MapInfo Professional providing a user with routing and catchment area functionality.

How to use the data in RouteView Pro

1. Open the RouteView Pro extension. In MapInfo Professional, under the File pulldown menu, select 'Run MapBasic Program' and run "c:\Program Files\Dataview\RV Pro 1.2\rvpro.mbx"
2. Under the RouteView Pro pulldown menu, select 'Configuration', then 'Open Road Network'.
3. The Road Network file to open is **\RVP\Nad83\CanmapRL*Geography*\ _rvp.gph** and the Road Table is **\RVP\Nad83\CanmapRL*Geography*\ _rvp.tab**
4. Start using RouteView Pro.

File Structure

Roads (rvp.tab)

Field Name	Field Type	Field Size	Description
		-	
ID	Integer	-	Unique identifier for RouteView Pro
NAME	Character	64	Street Name
TYPE	Small integer		Road classification
YSKA	Integer	-	Turn restriction code used by RouteView Pro
ONE_WAY	Character	1	F - if road is one-way in direction of start to end (direction of digitization) R - if road is one-way in direction of end to start (reverse direction of digitization) *Left blank* – if road is 2 way

Note

All the files found under the **\RVP\Nad83\CanmapRL*Geography*** directory are needed by RouteView Pro. To view all of CanMap RouteLogistics in MapInfo Professional, please use the data under the **\MapInfo\Nad83\CanmapRL*Geography*** directory.