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MI RouteFinder Networks

2017

Product Guide

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Chapter 1: Introduction

Welcome to the product guide for MI RouteFinder Networks. This chapter provides an overview of the product, the documentation, and how to contact us.

Following Chapter 2: Getting Started on page 8, the information relating to the product's file sets is given in Chapter 3: Database Description on page 11, which will be of particular use if you have the Editable version of MI RouteFinder Networks.

The guide assumes that you are familiar with your MapInfo RouteFinder software. For information about MapInfo RouteFinder, consult the RouteFinder documentation set.

In this chapter:

- Overview 7
- Contacting Technical Support 7

Overview

MI RouteFinder Networks comprise digital road networks at a nominal 1:10 000 scale, with a link structure. The networks include motorways, principal highways, important regional and local roads, other roads and ferries.

Pitney Bowes Software has enhanced the networks by including the signposted travel speeds, weight limits (where available), and other road and area attributes for each road link. The networks were developed for use with MapInfo RouteFinder 5 software.

Contacting Technical Support

In the unlikely event that you encounter problems working with MI RouteFinder Networks, our technical support specialists can help - refer to **Further Information on page 4**.

Technical support for MI RouteFinder Networks includes referrals to documentation, assistance with error messages and suggestions for causes of error messages.

A Technical Support contract can be obtained through your sales representative.

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Chapter 2: Getting Started

This chapter explains the file names used, and provides you with instructions for installing the data.

In this chapter:

- File Names 9
- Installing MI RouteFinder Networks 10

File Names

MI RouteFinder Networks includes the following file sets:

- **Links**: These Mapinfo format-mappable sets are used for network editing and display.
- Other essential files (**.bin**, **.spd** and **.ini** files): These files are all required for the successful running of the software with a network.

Note In order to use the data correctly, you must have access to all of the files in the file set. All the files for each file set must be located in the same directory.

Links

The Links file sets contain five different file types:

Filename		File Type
Standard Network	**Premium Network**	
xxx_links.DAT	xxx_links_pro.DAT	Data file
xxx_links.ID	xxx_links_pro.ID	Identification file
xxx_links.IND	xxx_links_pro.IND	Index file
xxx_links.MAP	xxx_links_pro.MAP	Map file
xxx_links.TAB	xxx_links_pro.TAB	Tabular file

In the above table, xxx represents the country / group three-letter code:

Three Letter Code	Country / Group	Three Letter Code	Country / Group
AUT	Austria	ITA	Italy, Vatican City, and San Marino
BEL	Belgium and Luxembourg	NLD	The Netherlands
CHE	Switzerland & Lichtenstein	NOR	Norway
DEU	Germany	SWE	Sweden
DNK	Denmark	FIN	Finland
FRA	France	GBR	United Kingdom
ESP	Spain, Andorra, and Gibraltar	GBR_ITN	ITN network for the United Kingdom
AUS*	Australia	SGP	Singapore
MYS	Malaysia	CHN	China
JPN	Japan	NZL	New Zealand
CAN	Canada	USA#	United States of America
CZE	Czech Republic	PLD	Poland
POR	Portugal	ARG	Argentina
BHR	Bahrain	BRA	Brazil

Three Letter Code	Country / Group	Three Letter Code	Country / Group
KWT	Kuwait	HUN	Hungary
OMN	Oman	IND	India
QAT	Qatar	SRB	Serbia
SAU	Saudi Arabia	UAE	United Arab Emirates
Eire_NI	Ireland & Northern Ireland	BRIT_ISLE	British Isles (Great Britain & Ireland & Northern Ireland)

* State networks are available for these countries.

#Region specific networks are available for USA viz. Central, Pacific, South, Central and Northeast and hence nomenclature differ from rest of the world i.e. USA_*RegionName*_links (Standard) USA_*RegionName*_links_Pro (Premium)

Installing MI RouteFinder Networks

Note Make sure that you choose a disk with enough space.

1. Locate the **install** executable file (install.exe) and double-click it.
2. The MapInfo MI RouteFinder Networks Installer dialog box opens. Click **Next**.
3. Accept the License Agreement by selecting **I accept the terms of the License Agreement** radio button.
4. Click **Next**.
5. Click **Choose** to select a folder where you want to install the MI RouteFinder Networks. Also choose where would you like to create product icons by selecting the appropriate radio button. If you do not want to create product icons, select the **Don't create icons** radio button.
6. If you want to create icons for all the users, select the **Create Icons for All Users** check box.
7. Click **Next** to review the disk space availability and other selections.
8. Click **Install**.
9. Click **Done** once the installation process is complete.

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Chapter 3: Database Description

This chapter describes the spatial referencing, display characteristics, and table structure, of the MI RouteFinder Networks.

In this chapter:

- Spatial Referencing 12
- Display Characteristics and Table Structures 12

Spatial Referencing

The database for MI RouteFinder Networks uses, by default, the projection and coordinates given below:

Coordinate System	Longitude/Latitude(WGS84) Longitude/Latitude(GDA94) (Australia only)
Coordinate Units	Decimal Degrees
Projection	Longitude/Latitude

Display Characteristics and Table Structures

Links

The Links table contains road and ferry links.

Table Structure - Standard Network

Field	Description	Type (Width)	Indexed
Street1	Official Street name	Char(*)	No
Street2	Alternate Street name \ Official Street name in Local Language	Char(*)	No
Street3^	Alternate Street name 2 \ Official Street name in second Local Language	Char(*)	No
Street4^	Alternate Street name 3 \ Official Street name in third Local Language	Char(*)	No
Attribute	Routefinder Road Class value	Small Integer	No
Avoid	RouteFinder Avoid columns sum values	Small Integer	No
Road_class	Road classification code (please refer to Road_class Specification table below)	Char(2)	No
Area_type	Code representing the Area type	Small Integer	No
FeatureID	Unique Feature Identifier	Char(17)	Yes
Speed	Speed limit for the segment	Integer	No
Start_Z	Value indicating the z-level at the start of the segment	Small Integer	No
End_Z	Value indicating the z-level at the end of the segment	Small Integer	No

Field	Description	Type (Width)	Indexed
Avoid1	Pedestrian values only (1)	Small Integer	No
Avoid2	Vehicle values only (2)	Small Integer	No
Avoid3	Toll Roads values only (4)	Small Integer	No
Avoid4	Motorways values only (8)	Small Integer	No
Avoid5	Ferries values only (16)	Small Integer	No
Avoid6	Tunnel values only (32)	Small Integer	No
Avoid7	Four Wheel Drive (4WD) values only (64)	Small Integer	No
Avoid8	Bridges values only (128)	Small Integer	No

^ Country specific

Table Structure - Premium Network

Field	Description	Type (Width)	Indexed
Street1	Official Street name	Char(*)	No
Street2	Alternate Street name \ Official Street name in Local Language	Char(*)	No
Street3^	Alternate Street name 2 \ Official Street name in second Local Language	Char(*)	No
Street4^	Alternate Street name 3 \ Official Street name in third Local Language	Char(*)	No
Attribute	Routefinder Road Class value	Small Integer	No
Avoid	RouteFinder Avoid columns (Avoid1 to 8) sum values	Small Integer	No
Road_class	Road classification code (please refer to Road_class Specification table below)	Char(2)	No
Area_type	Code representing the Area type	Small Integer	No
FeatureID	Unique Feature Identifier	Char(17)	Yes
Speed	Speed limit for the segment	Integer	No
Speed_AMPeak*	Average speed along segment during AM Peak times	Integer	No
Speed_PMPeak*	Average speed along segment during PM Peak times	Integer	No

Field	Description	Type (Width)	Indexed
Speed_InterPeak*	Time between end of AM Peak and beginning of PM Peak	Integer	No
Speed_Night*	Average speed for Night	Integer	No
Speed_SevenDay*	Average speed of complete week	Integer	No
Start_Z	Value indicating the z-level at the start of the segment	Small Integer	No
End_Z	Value indicating the z-level at the end of the segment	Small Integer	No
Max_Height	Maximum Vehicle Height allowed along the segment	Small Integer	No
Max_Width	Maximum Vehicle Width allowed along the segment	Small Integer	No
Max_Weight	Maximum Vehicle Weight allowed along the segment	Small Integer	No
Avoid1	Pedestrian values only (1)	Small Integer	No
Avoid2	Vehicle values only (2)	Small Integer	No
Avoid3	Toll Roads values only (4)	Small Integer	No
Avoid4	Motorways values only (8)	Small Integer	No
Avoid5	Ferries values only (16)	Small Integer	No
Avoid6	Tunnel values only (32)	Small Integer	No
Avoid7	Four Wheel Drive (4WD) values only (64)	Small Integer	No
Avoid8	Bridges values only (128)	Small Integer	No

^ Country specific
* Speed Profile data, all fields may not be available

Note The Table Structure may vary from country to country due to extra reference fields but all of the key fields listed above will be present.

The value quoted in the Speed column is derived differently depending on the Country and the source data provider. For any country built from the TomTom source data, the Speed value is the same as the value quoted in the source data. For New Zealand and Japan, the Speed value is equal to the sign-posted speed limit along the segment. For Australia, the Speed value is a combination of sign-posted speed limits and modelled speeds (based on data captured during field verification). For other countries, the Speed value is a modelled speed.

Area Type Classification

There are different Area_Type classifications used globally and the table below details the Area Type values that are available within the networks and the classifications they represent.

Code	Description
TomTom Source Data	
0	Area classed as Rural
1	Area classed as Urban
Partner Source Data	
1	Area classed as Dense Urban \ Central Business District
2	Area classed as Urban
3	Area classed as Rural Urban
4	Area classed as Rural

Road_class Classifications

Similar to the Area_Type, there is different Road_class classifications dependant on the source data used to build the network. The tables below details the Road_class codes, the Features that the codes represent, and the graphic object details.

Display Characteristics

The first table is for networks built using the TomTom source data.

Feature	Road Classification	Graphic Object Details	
Motorway	M (non-toll), N (toll)		Red, medium polyline Pen (3,2,16711680)
Major Road	I (non-toll), G (toll)		Red, medium polyline Pen (3,2,16711680)
Other Major Road	P (non-toll), Q (toll)		Red polyline Pen (2,2,16711680)
Secondary Road	S (non-toll), T (toll)		Dark yellow polyline Pen (2,2,15790080)
Local Connecting Road	C (non-toll), F (toll)		Saddle polyline Pen(30,130,14401683)

Feature	Road Classification	Graphic Object Details	
Local (Important) Road	L (non-toll), W (toll)		Saddle polyline Pen(30,130,14401683)
Local Road	D (non-toll), E (toll)		Saddle polyline Pen(30,130,14401683)
Local (Minor) Road	R (non-toll), A (toll)		Saddle polyline Pen(30,130,14401683)
Other Road	U (non-toll), V (toll)		Saddle polyline Pen(30,130,14401683)
Limited Access\Private Road	Z		Pen (1,5,16744448)
Ferry	H		Blue, dashed polyline Pen (1,9,255)
Pedestrian	Z		Pen (1,5,16744448)

The second table is for networks built using source data from Data Partners.

Feature	Road Classification	Graphic Object Details	
Motorway	A (non-toll), B (toll)	Standard Tunnel 	Pen (40,130,13777980) Pen (1,68,1377980) (Tunnel)
Highway	C (non-toll), D (toll)	Standard Tunnel 	Pen (40,130,7116418) Pen (1,68,7116418) (Tunnel)
Main Road	G (non-toll), H (toll)	Standard Tunnel 	Pen (30,130,8762781) Pen (1,68,8762781) (Tunnel)

Feature	Road Classification	Graphic Object Details	
Connector Road	I (non-toll), J (toll)	Standard Tunnel 	Pen (30,130,14401683) Pen (1,68,15518117) (Tunnel)
Local Road	K (non-toll), L (toll)	Standard Tunnel 	Pen (1,2,14401683) Pen (1,68,15518117) (Tunnel)
Minor Road	M	Standard 	Pen (1,5,16744448)
Four Wheel Drive Track	N	Standard 	Pen (1,12,14401683)
Limited Access	E	Standard 	Pen (1,2,14401683)
Restricted Access	PR	Standard 	Pen (1,2,14401683)
Intersection Construction Line	X	Standard	Invisible unless selected – Pen (1,1,0)
Passenger Ferry	Q	Standard 	Pen (1,9,255)
Vehicle Ferry	F		
Pedestrian	P	Standard 	Pen (1,3,14401683)

Appendix A: Notes

Opening Multiple RouteFinder Networks

It is not possible to open more than one MapInfo RouteFinder network at a time.

Maximum Height, Weight, and Width

Maximum limits for vehicle height, weight, and width can be specified for each link using the relevant fields within the network. A value of zero in these fields equates to No Limit specified. The maximum values that can be set are 25m for both Height and Width, and 100 tonnes for Weight. The limits for the Height, Weight, and Width can be set to 0.1 of the respective unit.

The values displayed in these fields will be the limit multiplied by 10.
For example, if the segment has a Height limit of 3.2m, the value displayed in the Height_limit field will be 32.