

MI RouteFinder Networks

Version 2019.00.0

Product Guide



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1 - Introduction

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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 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 team can help - refer to support section at the end of this guide.

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.

2 - Getting Started

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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:

File Name		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

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.

Note: The MI RouteFinder Networks for certain countries like USA, France etc. have very heavy file sizes due to their extensive road network and greater geographic expanse. Such databases have not been packaged with an install executable file and hence there is no need for going through the above mentioned installation steps. The required network files for such datasets can be directly found in a folder named "DATA" within these data bundles.

3 - Database Description

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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.

Standard Networks

Table 1: Standard Networks

Field	Description	Type (Width)	Indexed
Street1	Official Street name	Char(*)	No
Street2	Alternate Street name/Official Street name in Local Language	Char(*)	No

Field	Description	Type (Width)	Indexed
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 (please refer to Area_Type classification table below)	Small Integer	No
FeatureID	Unique Feature Identifier	Char(10)	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
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

Field	Description	Type (Width)	Indexed
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

Premium Networks

Table 2: Premium Networks

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

Field	Description	Type (width)	Indexed
Area_Type	Code representing the Area_Type (please refer to Area_Type classification table below)	Small Integer	No
FeatureID	Unique Feature Identifier	Char(10)	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
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

Field	Description	Type (width)	Indexed
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

Note:

- Fields marked with "^" are the country specific fields and fields marked with "*" are for the speed profile data.
- 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






Code	Description
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 Classification

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 below is for networks built using the TomTom source data.

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)

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 below is for networks built using source data from Data Partners.

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)

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)	 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)

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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.

Height restrictions are defined in tenths of a meter in 0.1 steps (i.e 73 = 7.3 meters) Width restrictions are defined in tenths of a meter in 0.1 steps (i.e 52 = 5.2 meters) Weight restrictions are defined in half a tonne steps (i.e 19 = 9.5 tonnes).

Coverage

Following table lists the countries covered for this product.

Country	Abbreviation
Albania	ALB
Argentina	ARG
Australia	AUS
Austria	AUT
Bahamas	BHS
Bahrain	BHR
Belarus	BLR
Belgium & Luxembourg	BEL

Country	Abbreviation
Bermuda	BMU
Bosnia and Herzegovina	BIH
Brazil	BRA
British Isles (Great Britain, Ireland and Northern Ireland)	BRIT_ISLE
Bulgaria	BGR
Canada	CAN
Chile	CHL
China	CHN
Croatia	HRV
Cuba	CUB
Czech Republic	CZE
Democratic Republic of Congo	COD
Denmark	DNK
Egypt	EGY
Estonia	EST
Finland	FIN
France	FRA
Germany	DEU
Ghana	GHA
Greece	GRC

Country	Abbreviation
Hong Kong	HKG
Hungary	HUN
India	IND
Indonesia	IDN
Ireland	IRL
Ireland and Northern Ireland	EIRE_NI
Israel	ISR
Italy, Vatican City and San Marino	ITA
Japan	JPN
Jordan	JOR
Kenya	KEN
Kosovo	RKS
Kuwait	KWT
Latvia	LVA
Lesotho	LSO
Lithuania	LTU
Macau	MAC
Malaysia	MYS
Malta	MLT
Mexico	MEX

Country	Abbreviation
Moldova	MDA
Morocco	MAR
Mozambique	MOZ
New Zealand	NZL
Nigeria	NGA
Norway	NOR
Oman	OMN
Philippines	PHL
Poland	POL
Portugal	POR
Qatar	QAT
Romania	ROU
Russia	RUS
Saudi Arabia	SAU
Serbia	SRB
Singapore	SGP
Slovakia	SVK
Slovenia	SVN
South Africa	ZAF
Spain, Andorra and Gibraltar	ESP

Country	Abbreviation
Sweden	SWE
Switzerland & Liechtenstein	CHE
Taiwan	TWN
Tanzania	TZA
Thailand	THA
The Netherlands	NLD
Turkey	TUR
Ukraine	UKR
United Arab Emirates	UAE
United Kingdom	GBR
United States of America	USA
Vietnam	VNM

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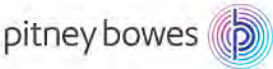
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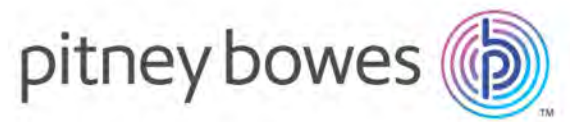
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