

GPS TrackMaker®



Manual of Compatibility GPS TrackMaker® - Mapdekode

Version 1.5

Odilon Ferreira Junior
Belo Horizonte – Brazil
www.gpstm.com
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author@gpstm.com

Importing and Exporting DBX files of MapDecode

GPS TrackMaker® Free and GTM PRO® are able to import and export DBX files of Mapdecode making possible the creation of complete background maps for GPS devices.

Importing a DBX file

When you import a DBX file, TrackMaker shows the following message:

*Importing nnnnnnnn.nnn
Do you want to add the parameters of Symbol, Zoom
and Style to the Waypoint Comments and Tracklog Names?
[YES] [NO]*

Pressing [YES], Trackmaker will add to Waypoint comments and Tracklog names the parameters of Symbol, Zoom and Style, using the notations: <S= xxxx> and <Z=xx>. This option is useful when you need to make small changes or adjusts in the DBX map.

Pressing [NO] (Default), TrackMaker will convert all data to its internal styles, modifying some Waypoint symbols and Tracklog styles to another supported symbols and styles. This option allows to create easily complete maps on the TrackMaker's environment. What you see on the TrackMaker screen, you will see after the compilation of the DBX file.

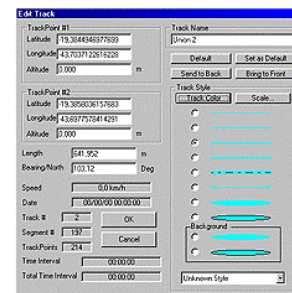
Starting a complete Map

- *Yellow Background Map*: this predefined tracklog style is used to define "4B" areas and it should have, at least, 2 points (4 or 5 points are recommended). TrackMaker considers only the minimum and maximum values of latitude and longitude.

- *Green Map Border*: this predefined tracklog style is used to define "4A" areas. Using this style, it is necessary to indicate a filename for the target map. To do that, you should use the "<F= xxxxxxxx>" keyword after the tracklog name, where xxxxxxxx is the filename of the target map with 8 numbers.

Example: Rio de Janeiro <F=40000001>

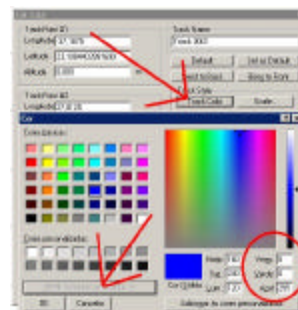
The predefined tracklog styles can be chosen in "Tracklog Edition" window.



Tracklogs (“Linien”) Compatibilities:

Number (HEX)	Tracklog Style # in TM	Tracklog Color (RGB)	Predefined Tracklog in TM
01	3	0-0-255	Blue Major Hwy
02	3	255-0-0	Red Major Hwy
03	2	255-0-0	Principal Road
04	2	0-0-0	Principal Street
05	1	0-0-0	Paved Street
06;0A	1	128-128-128	
07	1	50-50-50	
08;09	3	128-128-128	
0B	3	0-0-0	
0C	1	25-25-25	
14	6	0-0-0	Railway
15	1	15-15-15	
16	1	30-30-30	
18	1	81-168-255	
19	1	192-192-192	
1A;1B	4	0-0-0	Ferry Boat Line
1C	5	128-255-255	Interstate Boundary
1D	4	128-128-192	County Boundary
1E	5	255-255-128	International Boundary
1F	1	0-200-255	River/Canal
20	1	144-112-64	Countour Line (Main)
21	2	144-112-64	Countour Line (Secondary)
22	3	144-112-64	Countour Line (Detail)
23	1	0-248-255	Depth Countour Line (Main)
24	2	0-248-255	Depth Countour Line (Sec.)
25	4	0-248-255	Depth Countour Line (Detail)
26	1	0-200-245	
27	1	60-60-60	
28	1	70-70-70	
29	1	80-80-80	
2A	1	10-10-10	
2B	1	255-100-100	
OTHERS	1	0-0-0	Paved Street

The RGB color is defined pressing the “Color” button in “Tracklog Edition” Window:



Filled Tracklogs (“Flaechen”) Compatibilities:

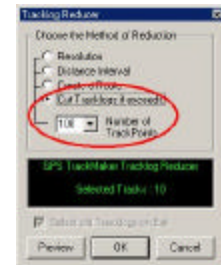
NUMBER (HEX)	TRACKLOG STYLE IN TRACKMAKER	TRACKLOG COLOR (RGB)	PREDEFINED TRACKLOG IN TM
01;02;03	>= 17	192-192-192	Metropolitan Area
04	>= 17	64-128-128	Military Area
05	>= 17	243-243-243	
06	>= 17	241-241-241	
07	>= 17	239-239-239	Airport Area
08	>= 17	237-237-237	
09	>= 17	235-235-235	
0A	>= 17	233-233-233	
0B	>= 17	231-231-231	
0C	>= 17	229-229-229	
0D	>= 17	255-150-100	Swamp Area
0F	>= 17	227-227-227	
14;16	>= 17	160-255-160	National/State Park
17	>= 17	0-183-0	Urban Park
18	>= 17	0-193-0	
19	>= 17	0-198-0	
1A	>= 17	255-194-166	Cemetery Area
1E;1F	>= 17	0-203-0	
28	>= 17	0-128-255	Ocean Surfaces
29;3B;45	>= 17	0-200-247	
32	>= 17	0-200-249	
3C to 44	>= 17	0-200-253	
41	>= 17	0-200-251	
46 to 49	>= 17	0-200-255	River/Lake Surfaces
4A	5	128-255-128	Green Map Border (*)
4B	>= 17	255-255-230	Yellow Map Background
4C	>= 17	0-200-245	
4D	>= 17	202-199-233	Glacier Area
50	>= 17	151-130-102	Mountainous Area
51	>= 17	0-248-255	
OTHERS	>= 17	192-192-192	Metropolitan Area

(*) Green Map Border is shown as a line to facilitate the map view

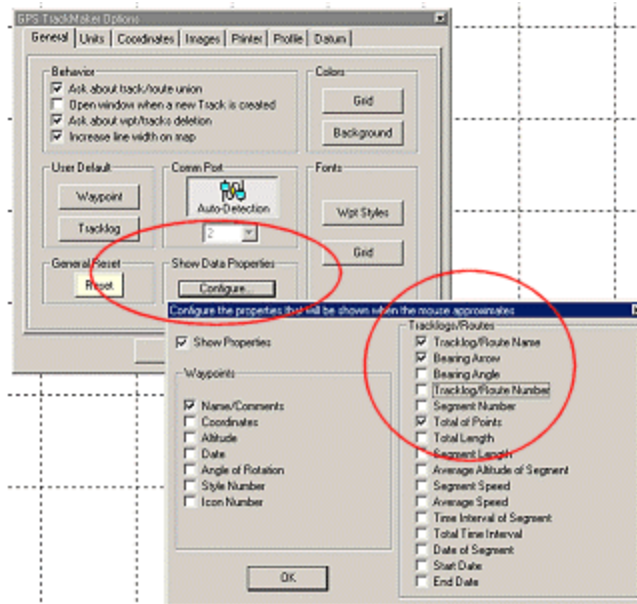
Limit of Tracklog Size – 255 points

MapDekode has a limit of 255 points for Tracklogs. So, if you need to reduce the tracklog size to this limit, you should use the “Tracklog Reducer” tool, with the “Cut Tracklog if exceeds...” option. A good value would be 230 points, giving the possibility for future editions.

Note: If you reduce filled tracklogs, it will probably necessary to edit the tracklogs, creating new segments to close correctly the area.



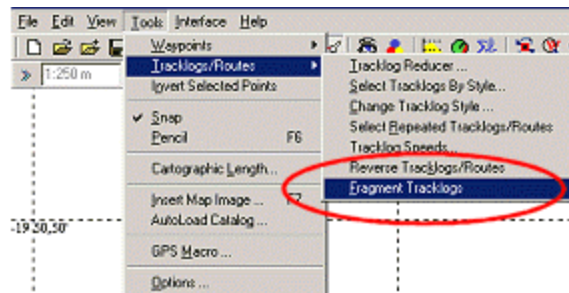
A good idea is to configure which data type will be shown on screen when the mouse approaches of the tracklogs. Basically you should configure TrackMaker® to show “Total of Points” because Mapdekode has a limit of 255 points for Tracklogs. However, you can also configure TrackMaker® to show “Tracklog/Route” names and “Bearing Arrow” to facilitate the data edition.



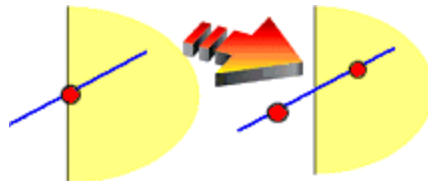
Fragmenting Tracklogs

When a map of detail is created, frequently it is necessary to do some editions in segments of Tracklogs to avoid the extrapolation of the limits of the map. The "Fragment Tracklog" tool was originally developed to create altitude profiles starting from a Tracklog that crosses topographic maps. But this tool is also useful to fragment Tracklogs that crosses the limits of detail maps, allowing to delete segments out of the map.

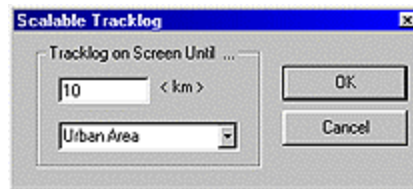
The "Fragment Tracklog" tool can be accessed from:



See below as a Tracklog that cuts the limits of the detail map can be fragmented in two parts. After fragmenting, the segment out of the map borders can be deleted.



Scalable Tracklogs and Mapkode Zoom Level



SCALE (KM)	TM PREDEFINED SCALES	MAPDEKODE ZOOM LEVEL
0	Permanent	5
=< 3	Street to Neighborhood	0
=< 10	Urban Area	1
=< 30	Metropolitan Area	2
=< 70	City (Small)	3
=< 100	City (Medium)	4
> 100	City (Large) to Country	5

Exporting and importing Points (“Punkte”) and Cities (“Orte”)

As default, TrackMaker imports:

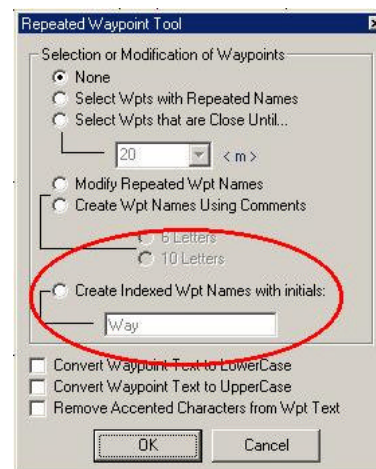
Points and POIs: named as PXXXXX where XXXXX is the index number

Cities: named as CXXXXX or OXXXXX where XXXXX is the index number









As default, TrackMaker exports:

- All Waypoints named OXXXXX or O as Cities (“Orte”). Ex: O ; O01; O0001; O1234; O4321
- All Waypoints named CXXXXX or C as Cities. Ex: C ; C01; C0001; C1234; C4321
- All other Waypoints as Points or POIs












To create Indexed Waypoints starting with “C” or “O”, you should use the “Repeated Waypoint Tool”, with the “Create Indexed WPT names with Initials:” option.



Waypoint Compatibilities

Icon	Name	TM Code	Code of Mapdecode	City Code of Mapdecode
	Airport	1	2F04	59
	Bank	3	2F06	
	Bar	4	2D02	46
	Boat Ramp	5	4700	47
	Campground	6	2B03	48
	Car	7	2F02	
	Dam	11	5500	
	Capital	90	1400	14
	Big City	8	0100	01
	Medium City	9	0600	06
	Small City	10	0B00	0B
	Dam	11	5500	55
	Drinking Water	13	5000	50
	Fishing	14	4100	41
	Gas Station	15	2F01	44
	Golf	17	2D05	40
	Heliport	18	5904	
	Hotel	19	2B00	2B
	Information	21	4C00 (2F00*)	4C
	Marina	23	4300 (2F09*)	43
	Mine	24	640C	
	Hospital	25	3002	4B
	Park	27	2C06	49
	Parking Area	28	2F0B	4D
	Picnic Area	29	4A00	4A
	Private Field	30	6602	
	Restaurant	32	2A00	2A
	Restroom	33	2F0C	22
	Scenic Area	34	5200	52
	Wreck	37	4200	42
	Shopping	38	2E02	2E
	Shower (Police)	40	4F00 (3001*)	4F
	Skiing	41	5300 (2D06*)	53
	Soft Area	42	1C00	1C
	Swimming	43	5400 (2D09*)	54
	Telephone	45	5100	51
	Exit	50	2000	
	Beach	55	6604	
	Bridge	56	6401	
	Auto Repair	58	2F03	
	Cemetery	59	6403	

	Church	60	6404	
	Civil	61	6405	
	Crossing	63	6406	
	Fast Food	64	2A07	
	Forest	65	660A	
	Ghost Town	66	6415	
	Levee	67	6409	
	Oil Field	69	640D	
	Post Offices	70	2F05	
	Scale (Forum)	72	2400	24
	Summit	73	6616	62
	Toll Booth	74	2500	25
	Trail Ahead	75	6412	
	Tunnel	77	6413	
	Fall	80	6508	
	Movie Theaters	84	2D03	
	Live Theaters	85	2D01	
	Zoo	86	2C07	
	Fog Horn	87	1B01	
	Bowling	88	2D07	
	Car rental	89	2F02	
	Danger Area	91	5700	57
	Stadium	92	2C08	
	Museums	93	2C02	
	Amusement Park	94	2C01	
	Department Stores	96	2E01	
	Pharmacies	97	2E05	
	Pizza	98	2A0A	
	Rock	111	1C09	
	Woods	113	6618	
	Sport Court	115	2D08	
	Green Square	119	5D00	5D
	Swamp	120	6513	
	Lake	121	650D	
	Fishing Area	123	4100	
	Radio beacon	141	1B02	
	Bus Station	146	2F08	
	School	148	2C05	
	Spring	159	6511	
	Light House	161		1D
	Resort	163	2B04	
	Yellow Navaid	169	1B0F	
	Violet Navaid	179	1B0F	
	Blue Navaid	171	1B15	
	Green Navaid	172	1B11	

	Orange Navaid	175	1B13	
	Red Navaid	176	1B10	
	Multi-Colored Navaid	173	1B16	
	White Navaid	180	1B0F	
	White Buoy	183	1B06	
	White Dot	184	2000	20
	Red Diamond	186	5E00	5E
	Green Square	187	5D00	5D
	Unlit Navaid	190	1B07	16
	Small Dot	191	2C04	29
	Libraries	192	2C03	
	Blank	102	2800	28
Others	Others	Others	2C04 (Default)	13 (Default)

(*) Symbols used by POIs

Points of Interest (POI) – A Special Type of “Punkte”

Points of Interest are special points (“Punkte”) with extra facilities information like address, phone number, City, ZIP codes, etc.

The POIs have the following structure in the Waypoint comment:

Name ; Number ; Street ; City Name; ZIP Code ; Phone Number ; Display Mode

The fields must be separated by “;”. If GPS TrackMaker® detects the “;” symbol, it saves the Waypoint as a POI. It is very important to respect the sequence of the fields.

Name: POI label - letters and numbers

Number: house number - letters and numbers are allowed

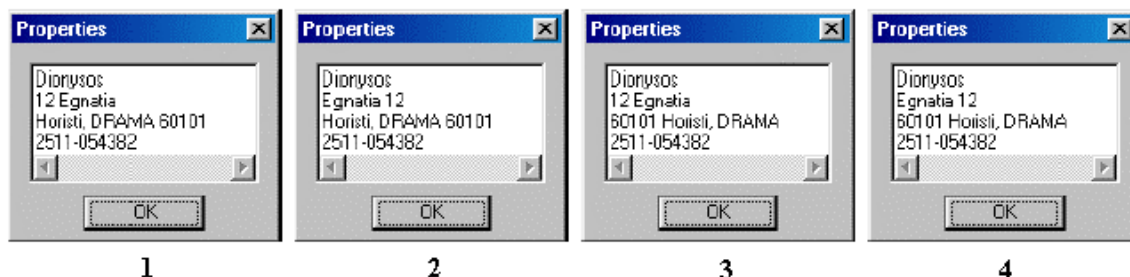
Street: Street name - letters and numbers

Zip Code: letters and numbers are allowed

Phone Number: Only numbers and “-“ are allowed

Display Mode:

- 1 - House number before and zip code after the address
- 2 - House number after and zip code after the address
- 3 - House number before and zip code before the address
- 4 - House number after and zip code before the address



Important: Remember that the Display Mode must have the same value for all POIs. To avoid repeat the Display Mode in all POIs, you can place a special tag <P=1,2,3,4> in the Yellow Background Map. If GPS TrackMaker® finds this tag, all other values indicated in Waypoint comments will be disregarded

Examples of POIs:

post office1;1900;road-5;Main City;60123;0234-142-6538;4<S=&H2F05><Z=2>
post office1;1900;road-5;Main City;60123;0234-142-6538;4
post office1;;;MainCity;;1
post office1;;;MainCity
post office1; 1900

Examples of Yellow Background Maps with a special tag for POIs

Map 1<P=1>
Map 1<P=2>
Map 1<P=3>
Map 1<P=4>

Symbols Allowed for POIs



Note: GPS TrackMaker® will convert all POIS to &H2A00 - &H30FF

Special Waypoints

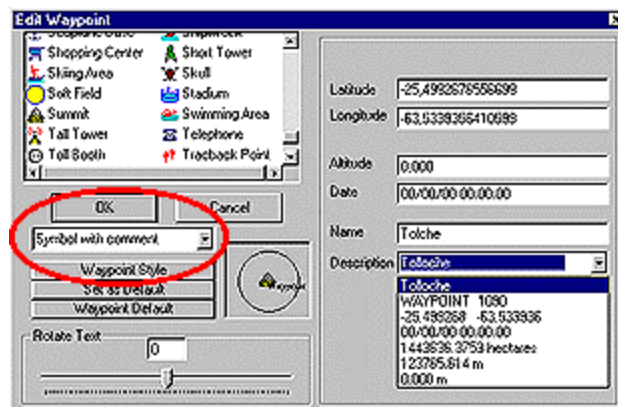
TEXT BOX STYLE (Names without Symbols)

		Exported as Punkte (Mapdekode Code)	Exported as City (Mapdekode Code)
★	Capital	&H1400	&H14
●	Large City	&H100	&H01
●	Medium City	&H600	&H06
●	Small City	&HB00	&H0B
●	Waypoint (Default)	&H2C04	&H13
▲	Summit	&H2C04	&H62
	Blank	&H2800	&H28

OTHER STYLES (With symbols)

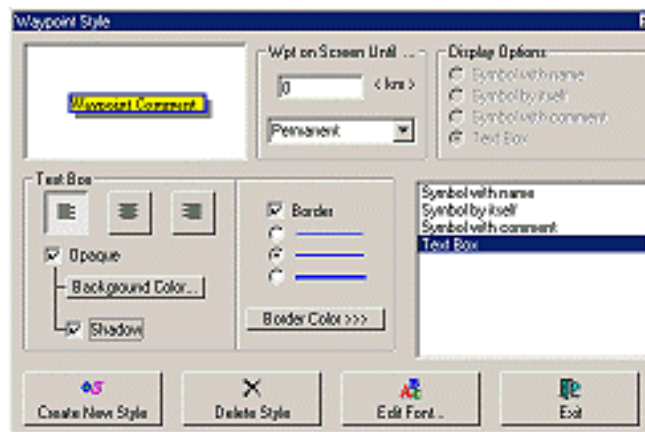
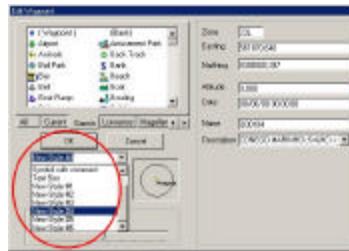
		Exported as Punkte (Mapdekode Code)	Exported as City (Mapdekode Code)
★	Capital	&H1400	&H14
●	Large City	&H1E00	&H1F
●	Medium City	&H1E00	&H1E
●	Small City	&H4F10	&H28
●	Waypoint (Default)	&H4F10	&H28
▲	Summit	&H2C04	&H62
	Blank	&H2800	&H28

Change the Waypoint Style in “Waypoint Edition” Window:



Scalable Waypoints and MapDecode Zoom level

When importing a DBX file, 6 new Waypoint styles will be created. Each style corresponds to a different level of zoom. These 6 created styles can not be modified in GPS TrackMaker freeware, but the first 4 basic styles can be modified.



SCALE (KM)	TM PREDEFINED SCALES	MAPDEKODE ZOOM LEVEL
0	Permanent	5
=< 3	Street to Neighborhood	0
=< 10	Urban Area	1
=< 30	Metropolitan Area	2
=< 70	City (Small)	3
=< 100	City (Medium)	4
> 100	City (Large) to Country	5

Style	Level of Zoom for Waypoints
Symbol with Name	Defined by User
Symbol Itself	Defined by User
Symbol with comment	Defined by User
Text Box	Defined by User
New Style #1	0
New Style #2	1
New Style #3	2
New Style #4	3
New Style #5	4
New Style #6	5

Keyword to connect Green Map Borders to map files

<F=XXXXXXXX>

“F=” : File Name Keyword

XXXXXXXX : File name with 8 numbers

Using the Green Map Border Style for “4A” maps, it is necessary to indicate a filename for the target map. To do that, you should use the “<F= XXXXXXXX>” Keyword after the tracklog name, where XXXXXXXX is the filename of the target map.

Example: Rio de Janeiro <F=40000001>

The keywords should be placed after the name of the Tracklog.

Optional Keywords for Zoom Level, Data Type and Waypoint Symbols

<Z=XXXXXXXX> : Zoom : Keyword for Zoom level

<S=XXXXXXXX> : Style : Keyword for Symbol or Line Type

TrackMaker has 2 optional keywords to make possible export special values of Zoom, Type of Lines and Filled Lines and Waypoint Symbols.

For Waypoints:

The keywords should be placed after the comments of the Waypoints:

Examples

Waypoint Comment	Level of Zoom	City Symbol of City/POI
Rio de Janeiro City <Z=3><S=8192>	3	&H2000
Rio de Janeiro City <Z=9><S=&H2000>	9	&H2000
Rio de Janeiro City <S=&H20>	-	&H20
Rio de Janeiro City <Z=0>	0	-

For Tracklogs and Filled Tracklogs

The keywords should be placed after the name of the Tracklogs:

Examples

Tracklog Name	Level of Zoom	Line/Fill Line Style
Tijuca Park <Z=3><S=23>	3	&H17
Central Park <Z=5><S=&H17>	5	&H17
Marine Boundary <S=&H2A>	-	&H2A
Pipeline <Z=0>	0	-

Optional Keyword for Display Mode of POIs

<P=XX> : POI Display Mode

This keyword must be placed in the Yellow Background Map.

Example

Name of Yellow Background Map	Display Mode
Map 1 <P=3>	3

Special Codes for Highways

There are 6 special keyword for line types:

I-	US	HwC-	HwD-	HwE-	HwF-
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This special keywords for Mapdekode Lines should be placed before the Tracklog name.

Ex: US 01

I-BR262

HWC-MG 050

HWF-MG 010