TDB Editor 3

Latest Revision 04/11/2017

Introduction

Mapsource or Basecamp won't function without a tdb file. More importantly, the wrong tdb file for just one mapset can cause Mapsource (not Basecamp) to crash, as many would have experienced in the past.
TDB Editor offers the user new opportunities to control the functionality of Mapsource or Basecamp.
Qlandkarte GT also uses tdb files.

Mapsource or Basecamp?

Garmin would want us to use Basecamp but for many Mapsource is more useful.

TDB Editor works for both!

MAKE SURE YOU ARE NOT USING AN OLD VERSION OF MAPSOURCE

Why have an editor?

With TDB Editor you can:

- Restore Mapsource when it crashes
- Rename any mapsource/basecamp name
- Change mapnames so they are easier to read on your gps
- Enable/disable Lock messages
- Quickly identify & edit mapnames, useful when you want to isolate a particular IMG file.
- Add/remove routable option
- Add/remove elevation profile option
- Show the coordinates for each block or the sizes of TRE,LBL etc in an img.
- Add or edit copyright description when creating your own maps
- Create or remove 'Reduced map window for printing' and other (printing or viewing) messages
- Disable any form of printing.
- Add Restricted Window View
- Resize or magnify/reduce Restricted Window View
- Update old tdb versions to make it compatible with Basecamp
- Use NT Maps
- Add DEM files to TDB file

Getting started

- Unzip torquay.zip and click install.bat to install 'torquay' to Mapsource/Basecamp
- Open torquay.tdb and change Mapsource name
- Locate Mapsource in Preference --> Locate Programs
- Click Mapsource button and look for the name you have given it.
- Use the Youtube video for more ideas

What if Mapsource does not work anymore?

1) Undo a setting and save again, ie undo locking or window reduction

2) TDB Editor makes backups of the original tdb when saving a file for the first time.
As a precaution, original files are backed up as *read only*.
Just load the backup and use 'save as' to overwrite the offending file.
However, ensure that your folder is not write protected!

3) Sometimes the cache can interfere with any changes. If you can't clear the cache by CTRL G 2x ,
you may have to force it by adding a Map Window.

3) If all fails , remove the offending map from the register - you can use various tools including our
mapuploader2.

Note: We do not take any responsibility for wrong use of TDB Editor.

Warnings can be ignored in Preferences BUT AT THE USER's PERIL

Why can Mapsource crash when locked?

Mapsource & Basecamp need a 'basemap.img' which responds to the tdb lock settings . When
maps are locked only a basemap is visible - after the cache has been cleared.

Lockable maps require extra information to placed in the basemap. At the moment, this can only
be achieved by using cgpsmapper , not mkgmap.
 So, if you want your custom maps to be 'lockable' , you need to use MapsetToolkit to create the
correct basemap . Unfortunately, these basemaps are blank.

Basemaps are created via a .mp file . When using cgpsmapper to parse such mp files separately
from MapsetToolkit or even Gmaptool(!) the extra information is not entered! There seems to be
some alliance...

Preferences

From the main window click Preferences --> Settings
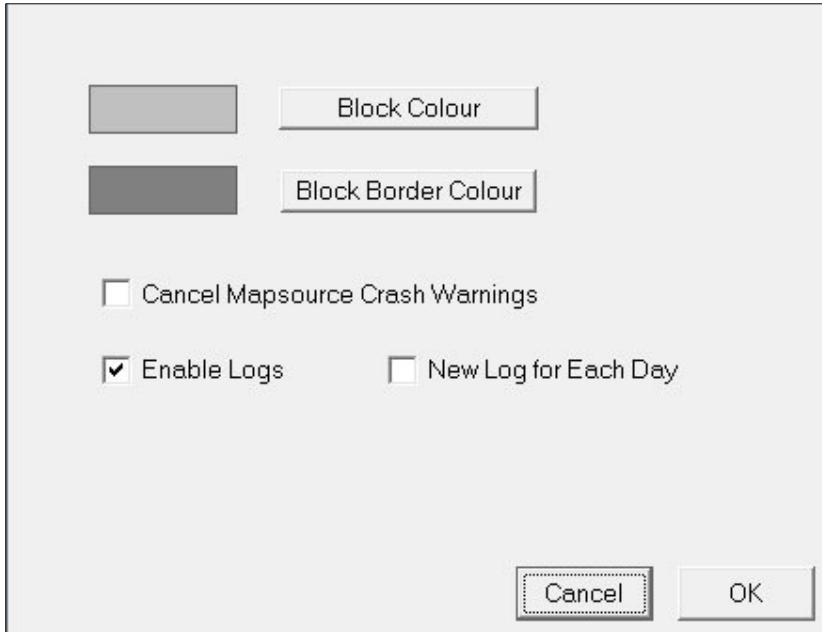
When selecting a map block the colours are set to the ones shown above,
You can change block and border colour.

Tired of constant Mapsource Warnings . Tick 'Cancel Mapsource Crash Warnings'

Changes are automatically saved.

How to

How to rename a Mapsource map

Enter a new name and save - you will notice that when launching Mapsource the title has been changed.

How to rename maps on your GPS

Oddly, no two types of Garmins behave in an identical way.

When loading a tdb all the various blocks which make up the map are shown. Double click on a block and rename. You need to use Mapsource or Mapinstaller to upload your map.

How to add Profile/Route or DEM (elevation)

Tick each box, but bear in mind that Mapsource will only show profiles or DEM if the map contains elevation or DEM data

For more details on how to add DEM elevation see DEM Elevenation.

How to add Routing

Tick Routable but bear in mind that Mapsource will only be routable if the IMGs are routable.

 In Basecamp unticking this option can set the routing option to Direct - in which case ticking it means enabling all other routing options , ie Hiking,Climbing etc.

This can be very useful when 'certain' walking/ mountain biking maps default to say hiking or cycling and don't allow you to go off road.

How to Lock a Map

We do not support the idea of unlocking TOPO maps.
The editor is designed to be used with custom maps; however, all maps can be unlocked using the 'override settings' feature.

When locking a map, Mapsource can crash - untick lock and save again if that happens or use backup tdb - see before.
Please note, when you lock the detailed map may still be visible - this is because it's still held in a cache.

CTRL G 2x will clear it .
Locking caused the basemap to appear only.
Note, that if you are using basemaps created by mkgmap, Mapsource more than likely will crash.
If possible use cgpsmapper to create a basemap.

Locking OSM Maps

At present, OSM maps ,when locked , cause Mapsource to crash due to its basemap - even to the newly coded overview map.
TDB Editor PRO will soon provide a work around.

How to disable Print Preview

You can disable printing by unticking the Print option at the top.
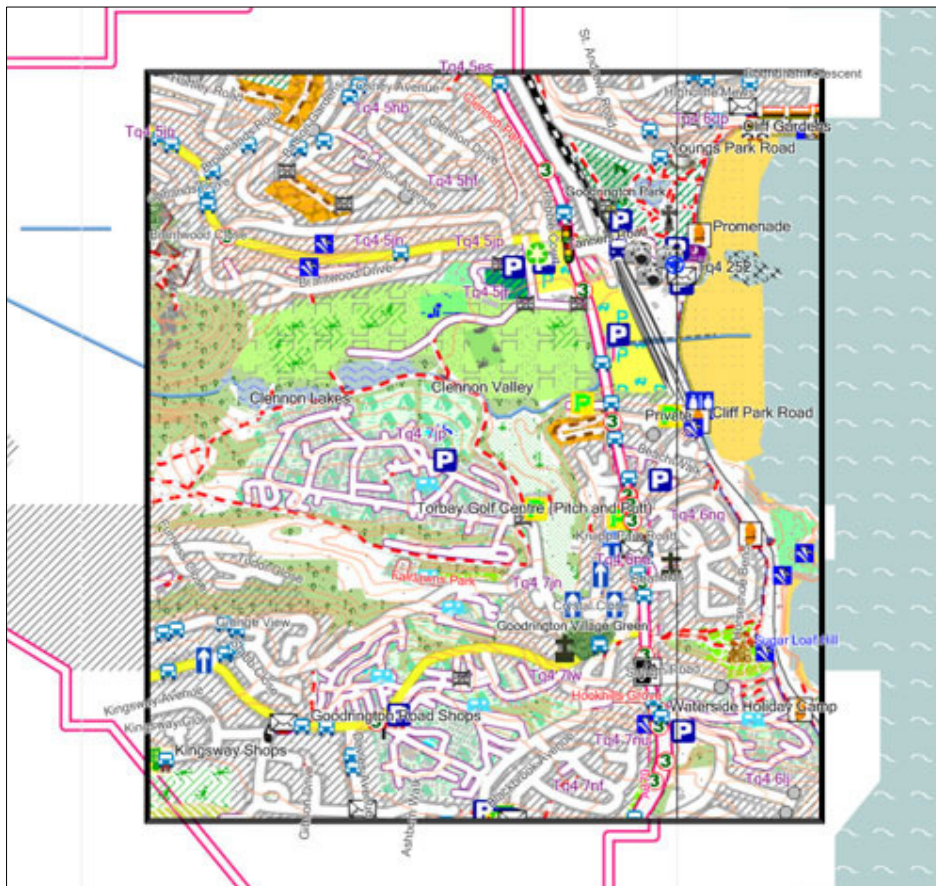
How to add a restricted map window

Click Map Window. Standard TDB Editor uses a default value of 40%.

With TDB Editor PRO you can vary the sizes.

You should not select Printing & Map Window, as Mapsource will crash.

You will be warned although this warning can be ignored in Preferences --> Settings

File Handling

Getting Started

Load a tdb file --> File Open

Once loaded, you should see all the clickable blocks defining the whole map.
Each block is a separate IMG file, with its own number and name.
Not all blocks are the same size, the smaller the block the more information it
contains.
So, with TDB Editor you can quickly locate an img without the need of a basemap.img

saving tdb files

Go File --> Save or Save As

A backup of the original file is automatically created in the same folder.

When saving files, the tdb version may change - see tdb versions, depending on the options you have
selected.

More Information

Mapsource Name

This name appears in Mapsource/Basecamp only.

When changing this name make sure the name does not already exist.
Interestingly,   Mapsource automatically adjusts registry entries.

Family Name

A family name is the name given to the whole group of maps

Individual Map names

To change the name given to each block click on the block ; double click on a block.

Enter a new name in the text box and click 'Change'.
It seems that the effect of changing any of the above names is dependent on your
Garmin GPS model .

Routable

Although a tdb file contains a flag to show if all the imgs are routable, setting this
won't make them routable.

DEM

Ticking this options does not add 3d elevation unless img files contain DEM subfiles.
But see DEM Elevation.

Profile

Ticking this options does not add elevation unless img files contain contour lines , ie (0x21 etc)
When routing Mapsource can provide a profile - dbl click on route and click Via Points.
The Show Profile button should become enabled.

TDB versions

TDB Editor supports most versions, including:

version	Additional features	Mapsource	Basecamp	&50 Data stream length in bytes
3.00		✓	✓	0
4.03	Locking, routing & basemap off sets	✓	✓	30
4.07	Codepages,routing,dem,profile	✓	✓	41
4.08		✓	✓	
4.09	Specific Print & View options View restrictions	✓	✓	62'78
4.11		✓	✓	

Note:

1) a higher version includes features of lower versions

2) TDB Edit will increase version number to accommodate features selected by the user.

3) It is not advisable to revert to a lower version

4) Changing a tdb version to 3 may cause Mapsource to hang up!

Please report any other tdb versions you may have encountered so we can incorporate them in our list
and possibly make available new features - email found on pinns.co.uk/osm.

Overview

To access this section click More Options - *only available in TDB Editor PRO.*

This is an important section. If a map can not be seen properly in Mapsource, more than likely some of the overview data is incorrect.

Overview Name

This is the name given to the block encompassing all the other blocks.

Overview Map number

Editing this hex number is possible , however *it must correspond to the number contained in the overview map (img).* For this reason you cannot simply copy an overview map from another source. If you do, the 'cream coloured' overview map won't show and more than likely Mapsource will crash.

In a TYP file you can change its colour by altering 0x4A and 0x4B polygons.

Overview Limits

These define the boundaries(north,south,east & west) of all your imgs.
They can be edited. Altering limits does not affect the shape of the preview polygons, as they are defined in the preview img.

FID & PID

Do not change these settings unless you know what you are doing.
Changing the numbers will more than likely result in Mapsource not displaying the maps!

Note: Any FID or PID changes made need to be applied in the mdx file & registry.

Note: FID & PID must not be zero. TDB Editor will warn you but you may continue saving your file,

Codepages

This option enables you to select your character set – it supports 9 types:

code	language
1250	Central & Eastern European
1251	Cyrillic, mainly Slavic
1252	West European
1253	Greek
1254	Turkish
1255	Hebrew
1256	Arabic
1257	Baltic
1258	Vietnamese

Copyright

Click 'More Options'

This section speaks for it self. Display / Print are additional options added for the sake of completeness but not very valuable.

With TDB Editor PRO two additional copyright boxes are available used by TOPOs

DEM Elevation

How to add DEM elevation.

Recently, thanks to reverse technology , most of the DEM file structure is now fully understood, including the complex way hgt data is streamed. You need BuildDEMFile to construct dem files.

Mapuploader 5 when available facilitates the process of creating DEM files – you just need to locate the tdb file in a gmapi.

At present , DEM data is not joined into an img file but instead appears as a .dem file in map subfolders of a gmap folder – these are used by the MAC but can also be used on a PC in the /programdata/garmin/maps folder.

The tbd file is always found in the Product1 folder.

To see the effect of DEM files you need Basecamp which also searches tdb files in gmapi folders .

How to export maps with DEM onto a gps device

1) Use TDB Editor 3 to add .dem file data to the tdb editor and recompile (save)
2) Use Garmin's Mapinstall to install the map

File → Open gmap folder and select your .tdb file

To add DEM data go :

File, → Save DEM data or click CTRL D

For more information visit   www.pinns.co.uk/osm/dem.html

Mapinstall generates an error when DEM data is NOT included in a tdb file.

TDB Editor

- All future development will apply to TDB Editor 3   only.

- You are given you extra control over Mapsource & Basecamp.

- You can add your own copyright messages

- Additional 'hidden' Copyright Boxes used by TOPOs are available

Each new version of the tdb has more bytes added to the main header block. TDB Editor PRO allows for new versions to be added - most recent is 4.11

Main Header contains various 'zeros' many of which are still unknown but they could be altered (ie set to 1) and saved. There is still a lot to investigate.

You can bypass some of the restrictions imposed by the editor and explore the effects!

Tile Copyright			

Override settings   Caution: Do not edit unless you've made a backup!   Copy Stream | Paste Stream

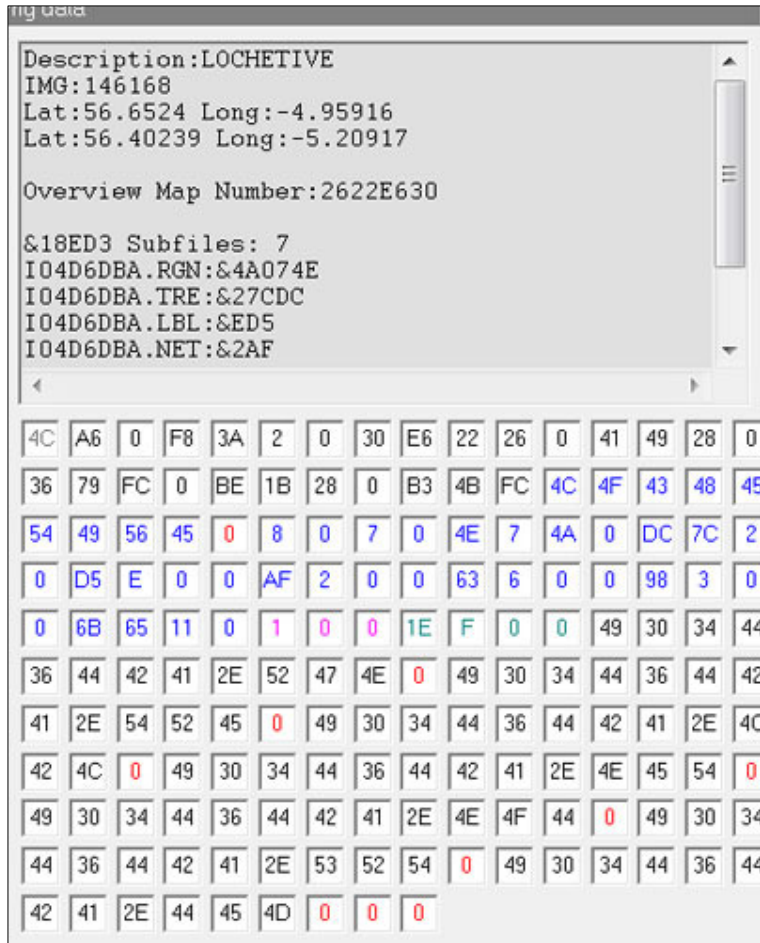| 0	12	1	1	1	0	0	0	0	0	27	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	E5	4	0	0	10	27	0	0	0	0
0	0	0	0	0	0	0	0	0	1	40	2	0	0	0	2	0	0		

Override Settings

Click Override Settings to save the values you have given to each box**. Depending on the values, some if not all check box settings found at the top of the main window will be overwritten.**

You can copy a stream of bytes, from byte1 to the last one and paste them into another tdb file using Paste Stream

Header 0x4c

Another block , not fully understood , deals with data found in each IMG. With TDB Editor Pro you can alter these bytes and investigate possible effects. The bytes in question are coloured magenta & green.

Currently, these bytes cannot be altered.