

GPX2IMG Help

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gpx2img

Making the process of converting GPX files to IMG files super simple!

by Zineer Media Ltd

This manual is written by Joel - the developer of gpx2img.

*If you notice any errors or omissions, let me know at
joel@gpx2img.com.*

Check out gpx2img at <http://gpx2img.com>

GPX2IMG Help

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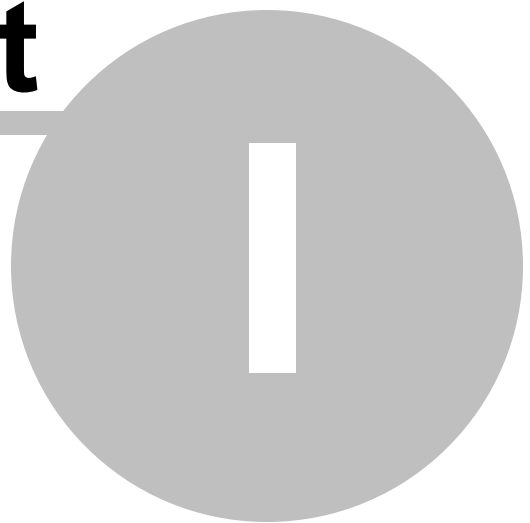
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Table of Contents

Foreword	0
Part I Welcome to GPX2IMG	6
Part II First Launch without Mapsource	8
Part III Quick Start Tutorial	10
Part IV How To	14
1 Interface Overview.....	14
2 Loading GPX Files.....	15
3 Using Created Maps in Mapsource.....	16
4 Editing POIs.....	20
5 Editing Tracks.....	21
6 Preferences.....	22
7 Using The Map View	24
Part V Advanced Features	28
1 TYP Files/Track Colors.....	28
2 Zoom Levels.....	30
Index	32

Part



1 Welcome to GPX2IMG

GPX2IMG is an application created to allow simple creation of *Garmin compatible IMG files*.

Getting started

- Check out the [Quick Start Tutorial](#) for a quick introduction to the basic workflow of GPX2IMG and to get you started making your own IMG files!
- Follow through the chapters in the [How To](#) section to learn more details of the features of GPX2IMG.
- Read through the sections of the [Advanced Features](#) to learn about the Preferences available to give you more control over the details of your created maps.

Part



2 First Launch without Mapsource

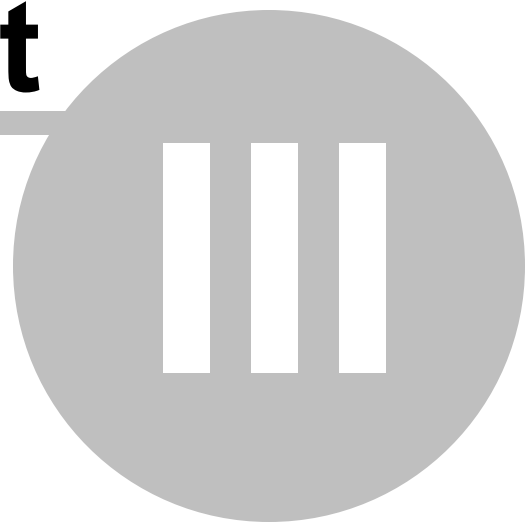
If using GPX2IMG without Garmin Mapsource installed on your computer, the first time you launch GPX2IMG you will be asked to choose a directory to generate your IMG files into.

When you press the "Convert Checked Files" in GPX2IMG, your GPX files will be converted into IMG files and will be placed in your chosen directory. The files will be named 13976001.img, 13976002.img, etc with 13976001.img being the first file listed in the file area in GPX2IMG, etc.

You can now load these files onto your GPS unit as long as it is compatible with loading IMG files this way.

If you want to change the directory where your IMG files are generated, you can do so in the [Preferences](#) window.

Part



3 Quick Start Tutorial

So you're downloaded and installed **GPX2IMG** but don't know what to do now? You've come to the right place! Follow along for a quick step-by-step tutorial on how to convert your GPX files to IMG files you can load onto your GPS unit.

What You Need

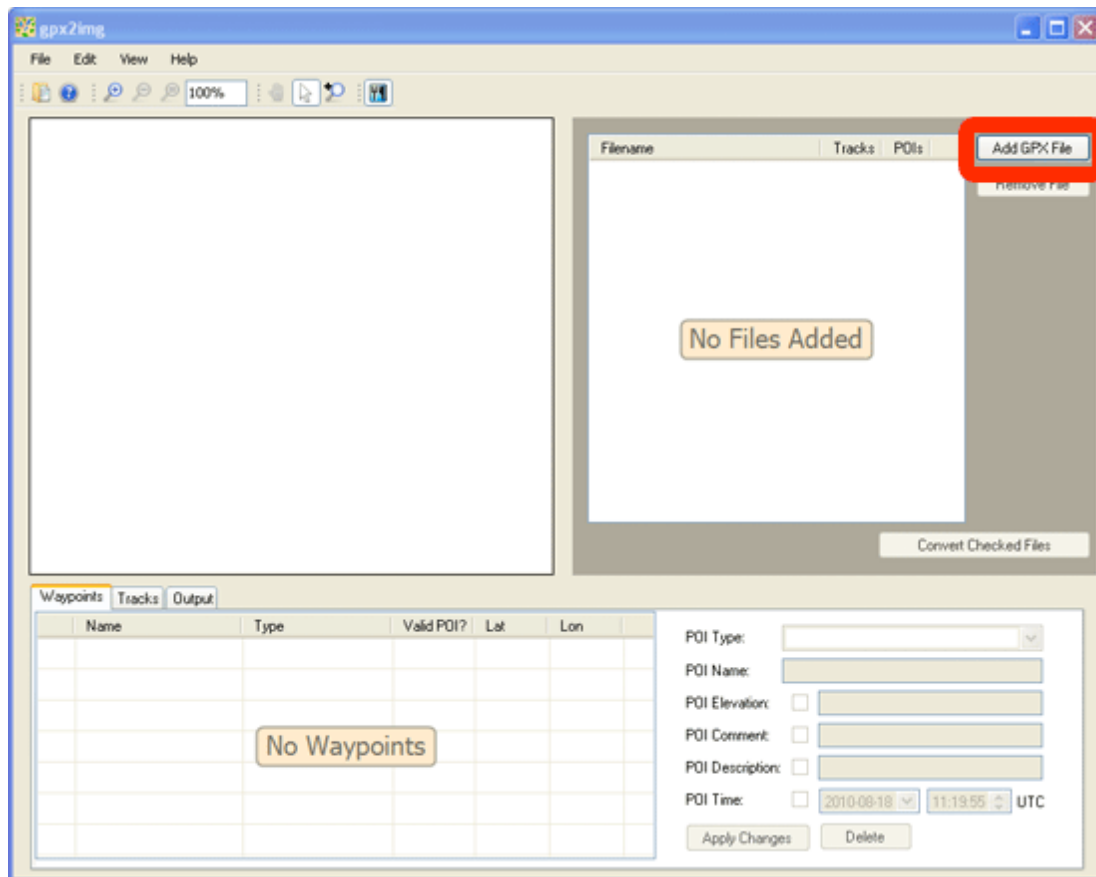
- GPX2IMG
- A GPX file from your GPS unit (or Mapsource, or online)
- Garmin Mapsource (or Basecamp) or a GPS unit you can load your own IMG files onto

Step 1

Open GPX2IMG.

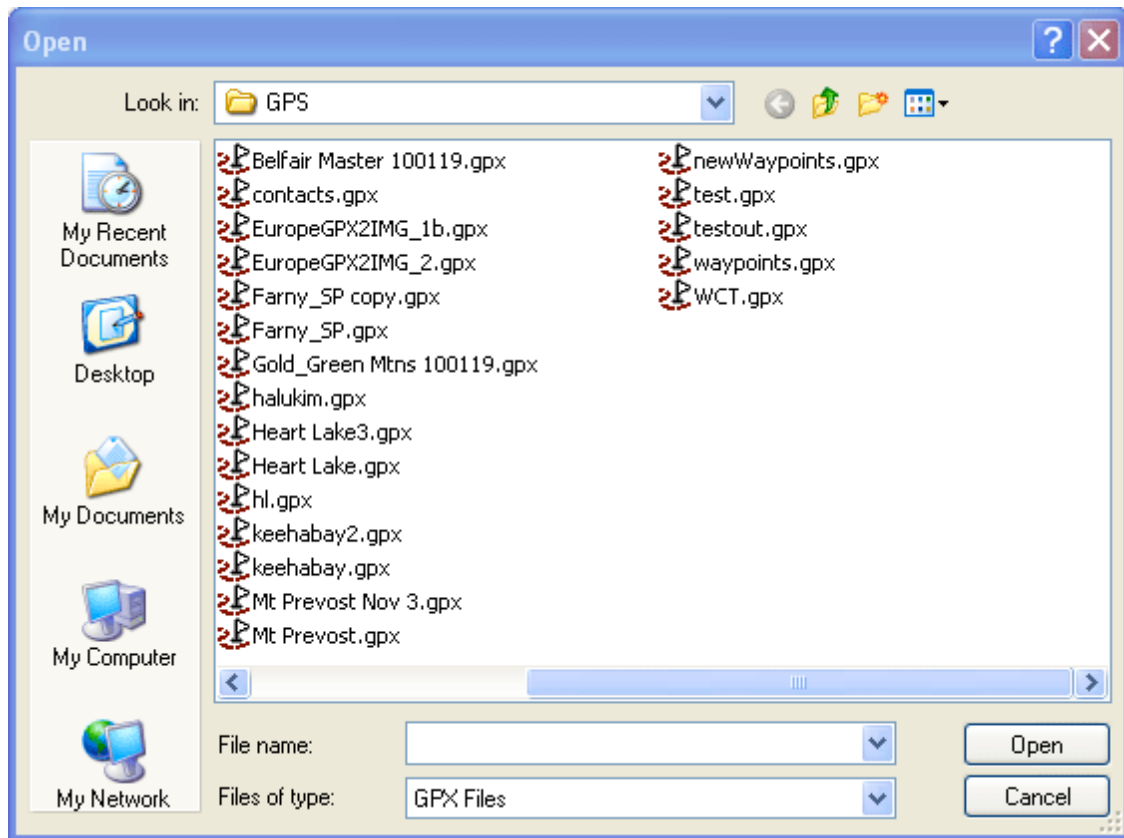
Step 2

Open a GPX file by clicking the "Add GPX File button":



Step 3

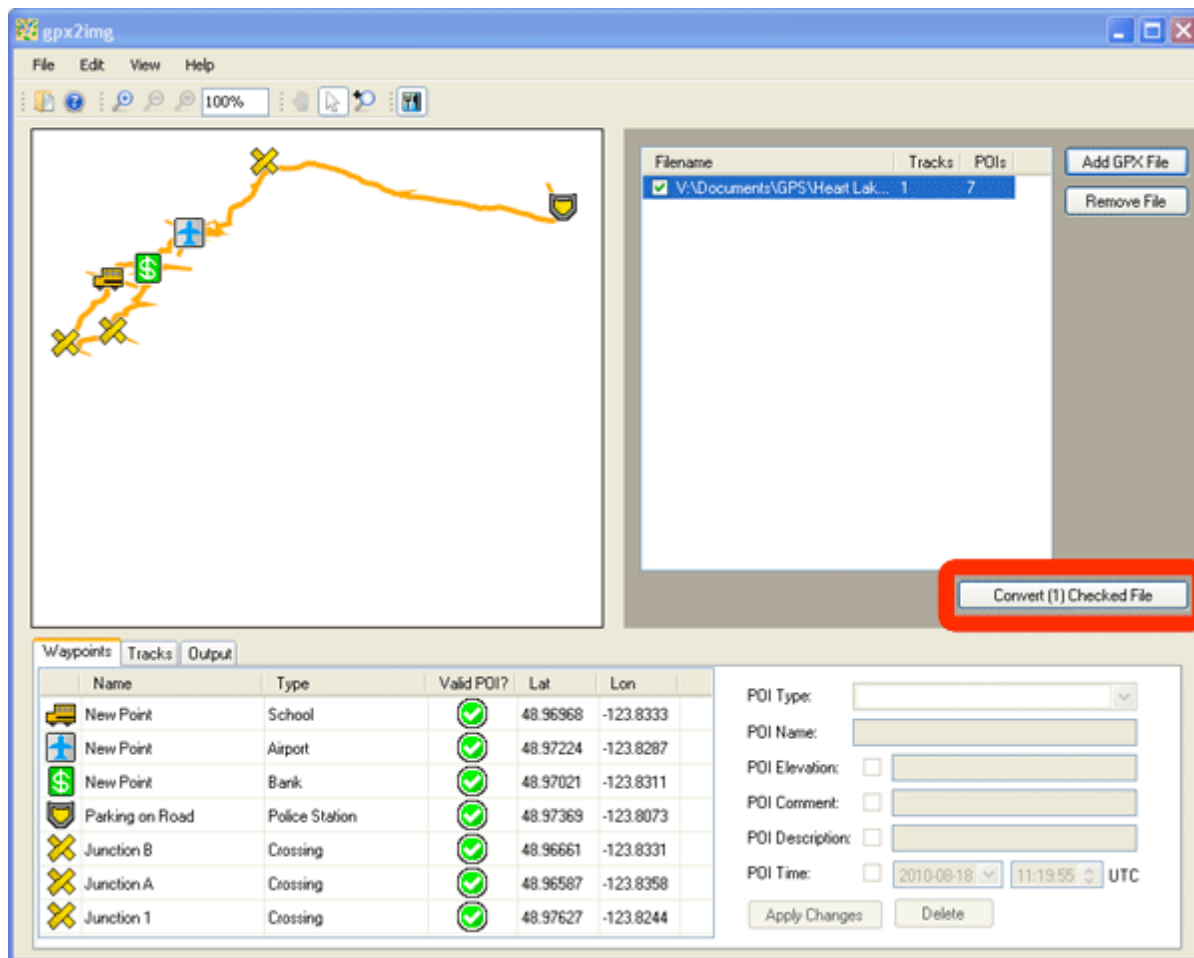
Using the Open File dialog, select your GPX file (or files) where they are stored on your computer and click the 'Open' button. (Hold the Ctrl button on your keyboard when clicking files to open multiple files at one time.)



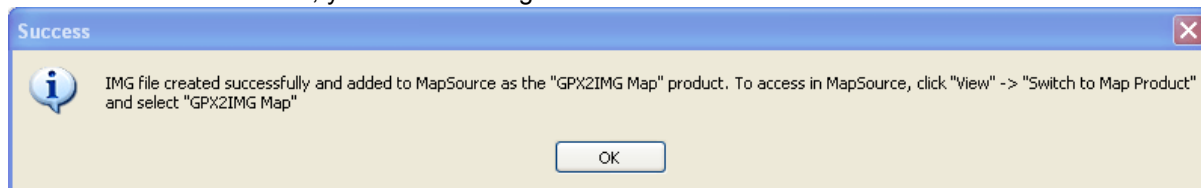
Step 4

After the GPX file has loaded, you will be given a preview of the map in the map preview area, the waypoints will be listed in the waypoint tab and the tracks will be listed in the track tab.

For basic conversion, you don't need to do anything else, just click the "Convert Checked Files" button under the file listings.



After conversion if finished, you'll see a dialog box similar to this:



Conversion has been completed successfully and you can load your maps onto your GPS unit using Mapsource!

Check out the [Editing POIs](#), [Editing Tracks](#), [Options](#) and [Advanced Features](#) sections of the help guide to explore some of the advanced features of GPX2IMG.

Part

IV

4 How To

The topics contained in this section give an overview of how each area of GPX2IMG can be used and more detail of the work flow of GPX2IMG.

[Interface Overview](#) allows you to click an area of the interface to learn more about its functions.

[Loading GPX Files](#) gives you the steps for opening a GPX file in GPX2IMG.

[Using Created Maps in Mapsource](#) explains how to load your created maps onto your GPS unit using Mapsource after they have been converted using GPX2IMG.

[Editing POIs](#) demonstrates the areas of the application used to edit waypoints/POIs.

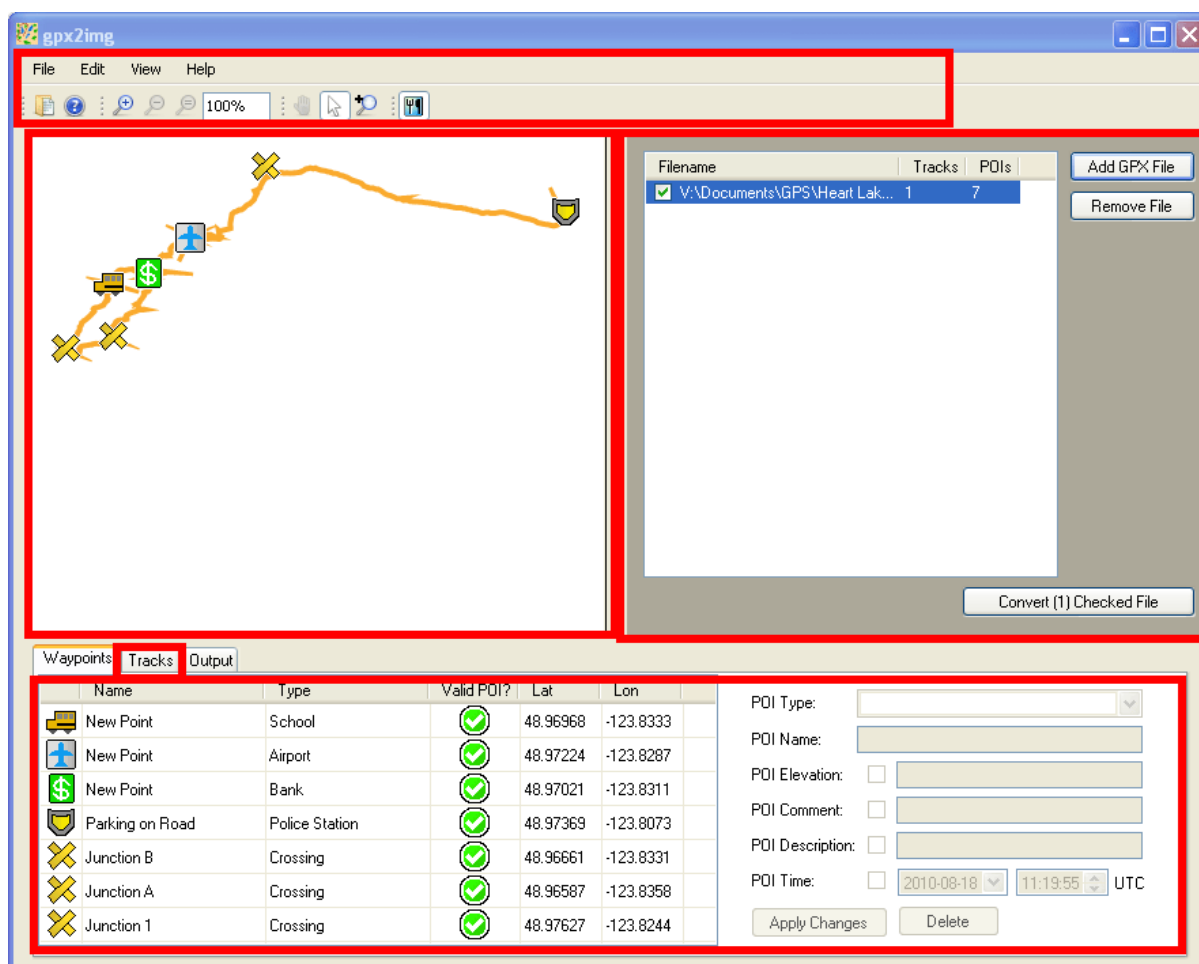
[Editing Tracks](#) shows the areas of GPX2IMG used when editing tracks.

[Preferences](#) explains the options available in the Preferences window.

[Using The Map View](#) goes through some of the advanced features hidden in the map view.

4.1 Interface Overview

Below is a screenshot of GPX2IMG with a single GPX file loaded. Click on any of the red bordered areas to learn more details of that sections of the window.

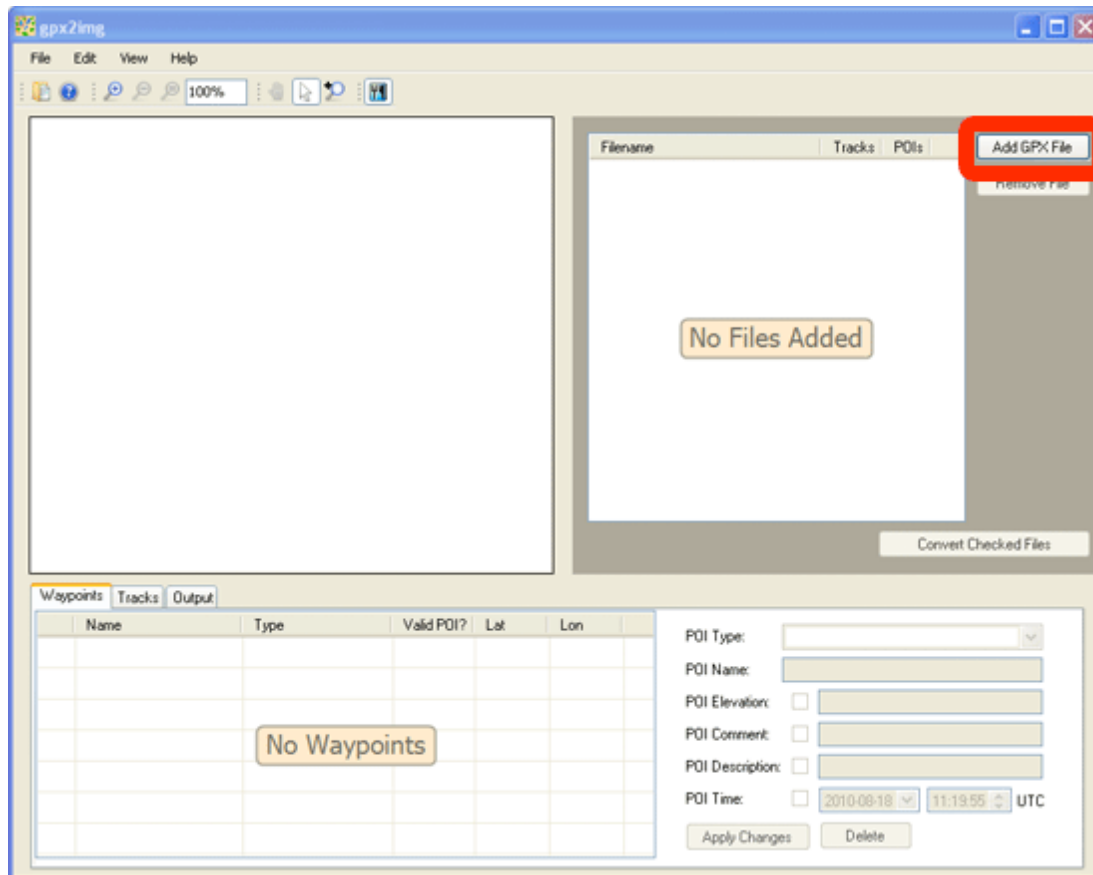


4.2 Loading GPX Files

To open GPX files in GPX2IMG, you can either drag-and-drop GPX files onto GPX2IMG, or you can use the "Add GPX File" button as explained below.

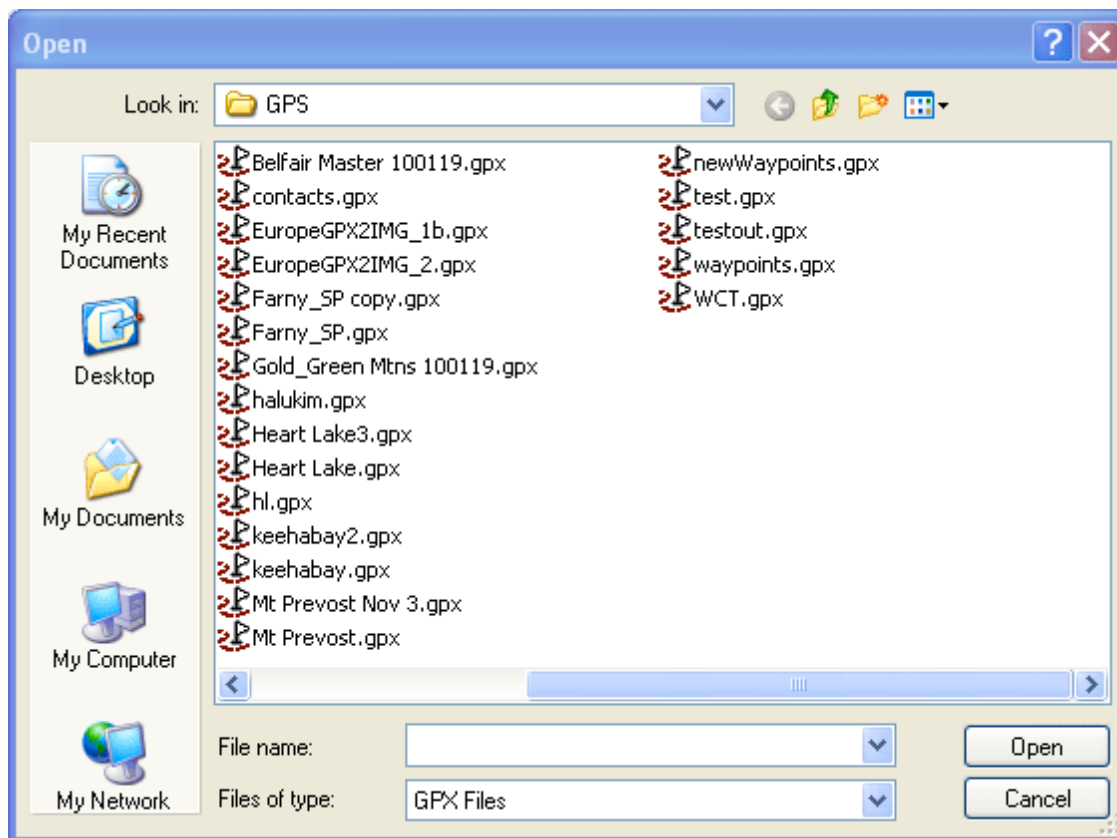
Step 1

Open a GPX file by clicking the "Add GPX File button":



Step 2

Using the Open File dialog, select your GPX file (or files) where they are stored on your computer and click the 'Open' button. (Hold the Ctrl button on your keyboard when clicking files to open multiple files at one time.)



4.3 Using Created Maps in Mapsource

Once you've converted your GPX files into IMG files using GPX2IMG, how do you get them onto your GPS unit using Mapsource?

All maps created using GPX2IMG are transparent maps. This means that the only information they contain is the tracks and waypoints from your GPX file. They do not contain a background image. This means that you can load your created IMG files along with a base map (topo, city, etc) and they will both appear on your GPS unit.

To load your created maps along with a base map, follow the instructions below:

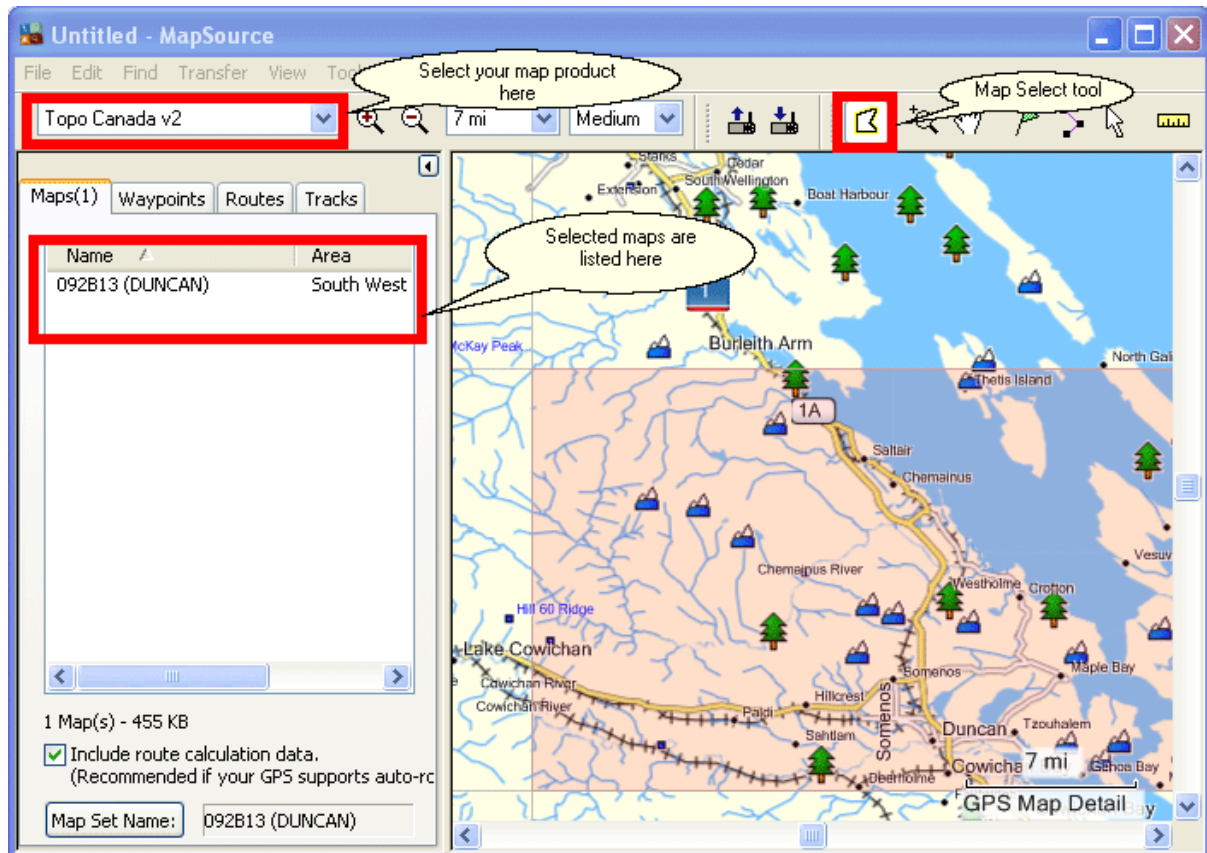
Step 1

Launch Mapsource

Step 2

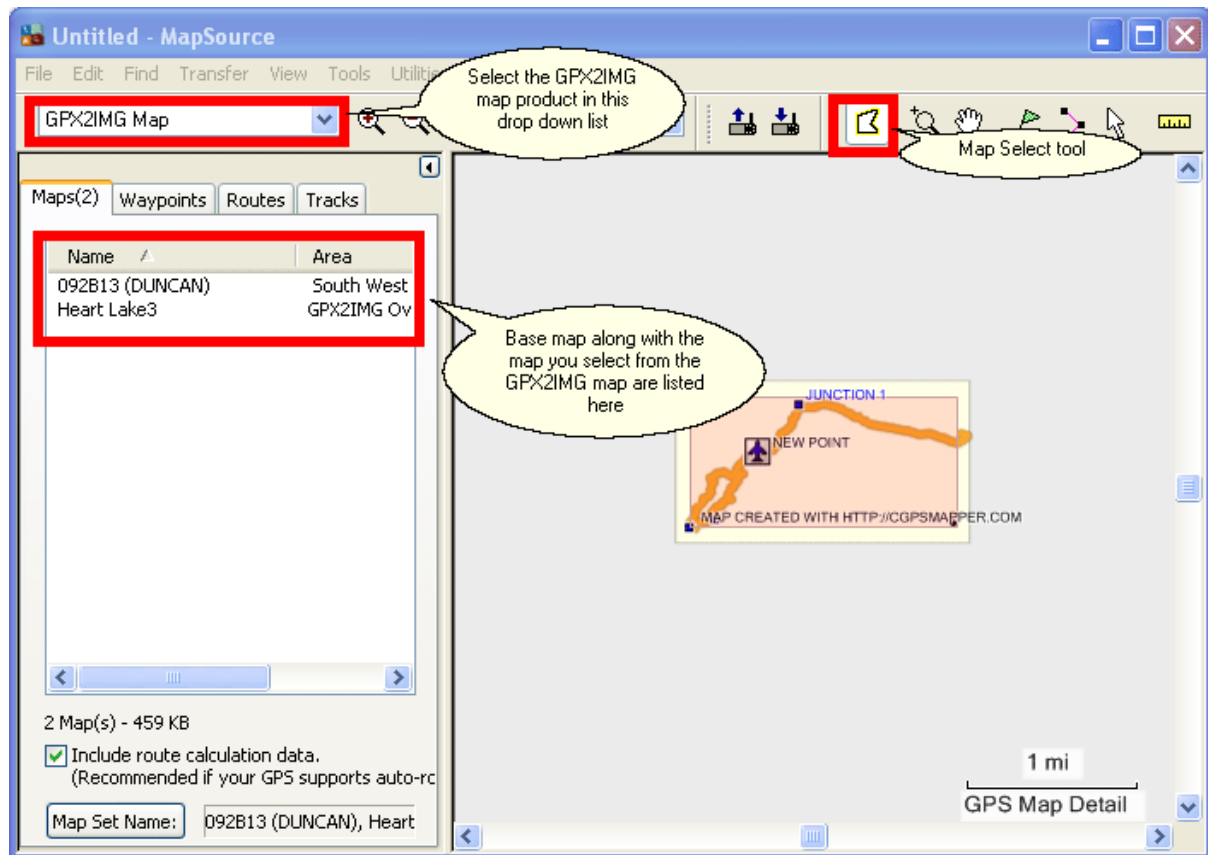
Select the base maps you wish to load with the maps you created.

In the example below, I've selected the **Topo Canada 2** map and used the Map Select tool to select the map region which is in the same area as the map I created. This map is then listed in the Maps tab on the left of Mapsource



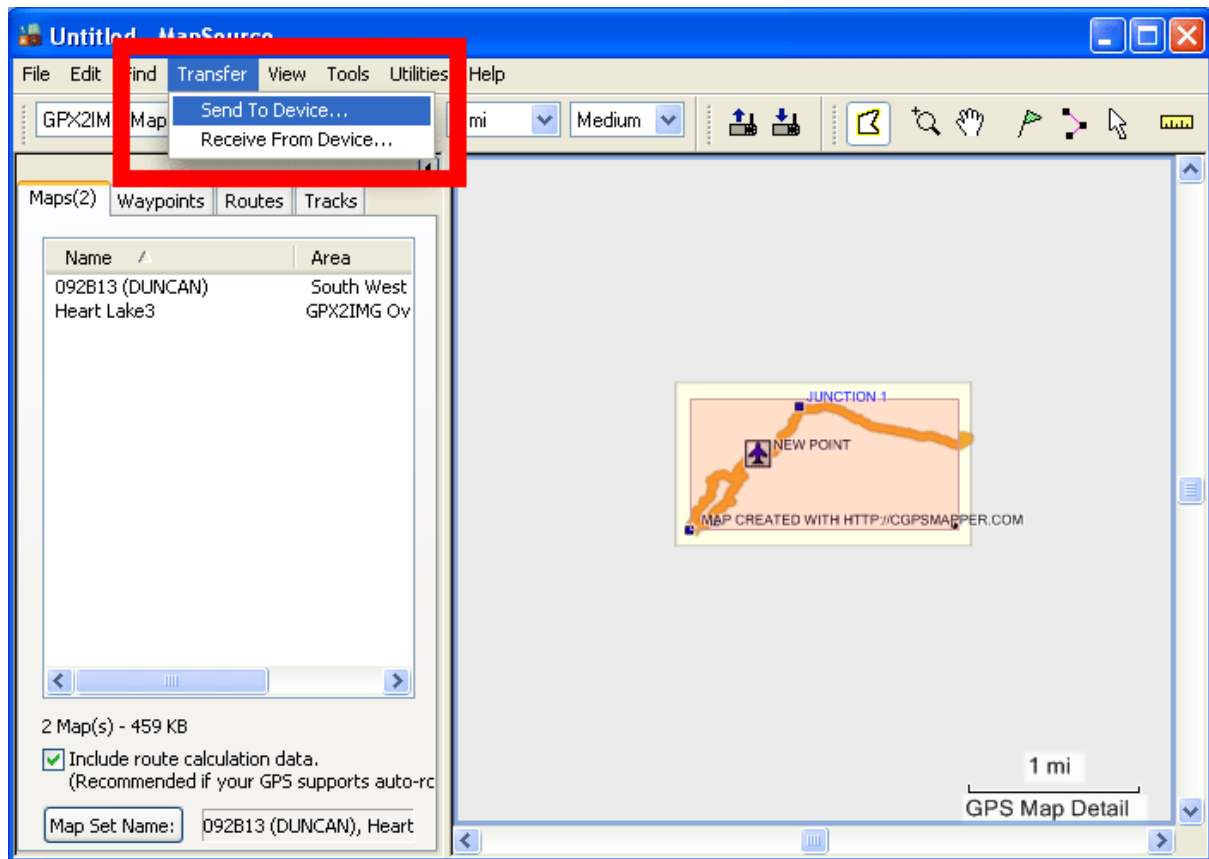
Step 3

Switch to the map product created by GPX2IMG ("GPX2IMG Maps" by default) and select the created maps using the Map Select tool. You will see the maps you select are now listed in the map listing area in Mapsource.



Step 4

Upload the map sets to your GPS unit.



Step 5

You should now be able to view your created maps on your GPS unit. If the map does not appear, you may need to change the settings of your GPS unit to enable display of the maps. See <http://www.gpsfiledepot.com/tutorials/how-to-change-which-map-is-displayed-on-a-garmin-gps/> for more details.

4.4 Editing POIs

In GPX2IMG you can edit the waypoints in your GPX file. In your IMG file and on your GPS unit, these points show up as POIs (points of interest).

After loading a GPX file, you will see something like the screenshot below on your screen. The data contained will be different based on your GPX file and the info in it, but the general concept is the same.

Name	Type	Valid POI?	Lat	Lon
New Point	School		48.96968	-123.8333
New Point	Airport		48.97224	-123.8287
New Point	Bank		48.97021	-123.8311
Parking on Road	Police Station		48.97369	-123.8073
Junction B	Crossing		48.96661	-123.8331
Junction A	Crossing		48.96587	-123.8358
Junction 1	Crossing		48.97627	-123.8244

POI Type:	Crossing
POI Name:	Junction A
POI Elevation:	<input checked="" type="checkbox"/> 381.526123
POI Comment:	<input checked="" type="checkbox"/> 14-OCT-07 15:58:54
POI Description:	<input checked="" type="checkbox"/> 14-OCT-07 15:58:54
POI Time:	<input checked="" type="checkbox"/> 2009-12-31 07:46:14 UTC
<input type="button" value="Apply Changes"/> <input type="button" value="Delete"/>	

Waypoint Table

The data shown in the waypoint table is:

Waypoint Symbol:	This is the symbol that will appear on your GPS unit to represent the POI.
Name:	This is the name of the POI and will appear in searches and while hovering over the POI.
Type:	This is a the text version of the waypoint symbol.
Valid POI?:	There are some GPX waypoint types that do not have an equivalent type of POI. If your waypoint is one of these types, an will appear and the waypoint will become a POI of default type in the generated map. If the waypoint has an equivalent POI type, a will appear.
Lat:	The latitude where the waypoint is located.
Lon:	The longitude where the waypoint is located.

Editing a POI

Selecting a waypoint from the list will: 1) Highlight it on the map view, 2) Fill in the info boxes on the right side of the screen with the data relating to that waypoint.

Poi Type and **Poi Name** are required fields. All other fields are optional.

To include data for the optional fields, check the checkbox for the field and provide the necessary info for that field. To remove a data field that is already included, just uncheck the check box for that field.

If you make any changes to the POI data, you must press the "**Apply Changes**" button to store the changes. If any changes are made to POIs or tracks, you will be asked to save your GPX files when removing the GPX file from GPX2IMG or when closing GPX2IMG.

You can also delete a POI by clicking the "**Delete**" button.

The optional fields do not have any effect on the generated POI and are only stored in the GPX file for informational purposes.

Editing Type of Multiple POIs

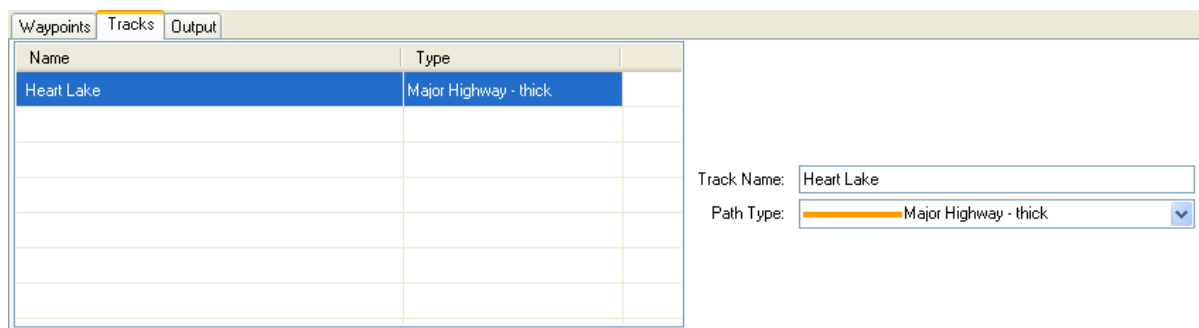
It is possible to edit multiple POIs at once by selecting more than one waypoint in the list by either holding the Ctrl button on the keyboard while selecting multiple items, or by selecting one item, holding the Shift key and selecting the last item in a sequential list.

With multiple waypoints selected, you can edit only the waypoint type.

4.5 Editing Tracks

In GPX2IMG you can edit the tracks in your GPX file.

After loading a GPX file, by clicking on the "**Tracks**" tab at the bottom of the window, you will see something like the screenshot below on your screen. The data contained will be different based on your GPX file and the info in it, but the general concept is the same.



The screenshot shows the 'Tracks' tab selected in the GPX2IMG application. It features a table with two columns: 'Name' and 'Type'. The first row is highlighted with a blue background and contains the text 'Heart Lake' under 'Name' and 'Major Highway - thick' under 'Type'. Below this are several empty rows. To the right of the table, there are two input fields: 'Track Name:' with a text box containing 'Heart Lake', and 'Path Type:' with a dropdown menu showing 'Major Highway - thick' and a blue arrow icon.

Name	Type
Heart Lake	Major Highway - thick

Track Name:

Path Type:

Track Table

The area on the left side of the track panel lists the tracks in the selected GPX file. It lists the name of the track and the track type it is currently set to.

Track Editing

Selecting a track in the track table will: 1) Highlight the track in the map view. 2) Fill in the tracks information on the right side of the panel.

When editing tracks, all changes made to the track are changed immediately in the map view.

Editing Multiple Tracks

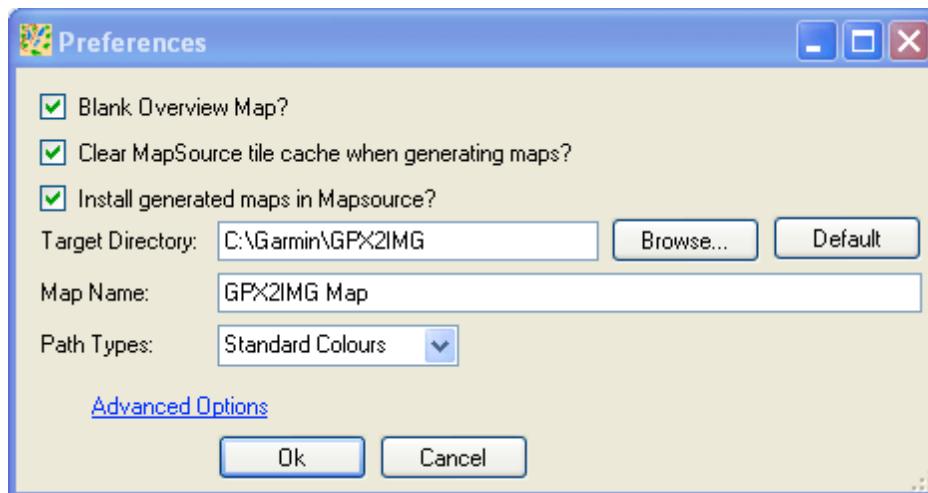
It is possible to edit multiple tracks at once by selecting more than one track in the list by either holding the Ctrl button on the keyboard while selecting multiple items, or by selecting one item, holding the Shift key and selecting the last item in a sequential list.

When editing multiple tracks, only the track type is changeable.

4.6 Preferences

To access the preferences windows, select '**Preferences**' from the '**Edit**' menu bar at the top of the window.

Click on the preference to be taken to the help section of that option.



Blank Overview Map?

Mapsource uses the overview map to display an overview of the detailed maps in its coverage area. **The overview map is never sent to your GPS unit and is only used in Mapsource.**

If while viewing your maps in Mapsource, you notice that your track lines are often doubled up with one being less detailed than the other, you are seeing your overview and detail maps at the same time. To prevent this, enable the **Blank Overview Map?** option. (Note: you may notice with this setting enabled, you have to zoom in further on your map for the tracks and POIs to appear)

Clear MapSource tile cache when generating maps?

To increase the speed at which Mapsource displays maps which it has loaded previously, it generates caches of the maps at different zoom levels.

If you find you are still seeing old map details after generating an updated map in GPX2IMG, ensure this option is enabled and it will delete the old map cache info when generating new maps.

Install generated maps in Mapsource?

Some newer Garmin GPS units allow you to load IMG files directly to the unit without Mapsource. If you don't have Mapsource installed or don't wish to use it, check this option and GPX2IMG won't try to install its generated maps into Mapsource.

Target Directory

This is the location where the IMG files GPX2IMG creates will be generated into. By default, this is a GPX2IMG folder placed in the directory where Mapsource is installed.

Map Name

This option defines the name of the map product created in Mapsource.

When changed, this is the name that you must select in Mapsource in the drop down menu to show your created maps.

Path Types

This option allows you to change between using the standard track types and colors as defined by your GPS unit, or using custom track colors as defined by a TYP file you load into GPX2IMG. For more details on using custom track colors and TYP files, see the [TYP Files/Track Colors](#) help section

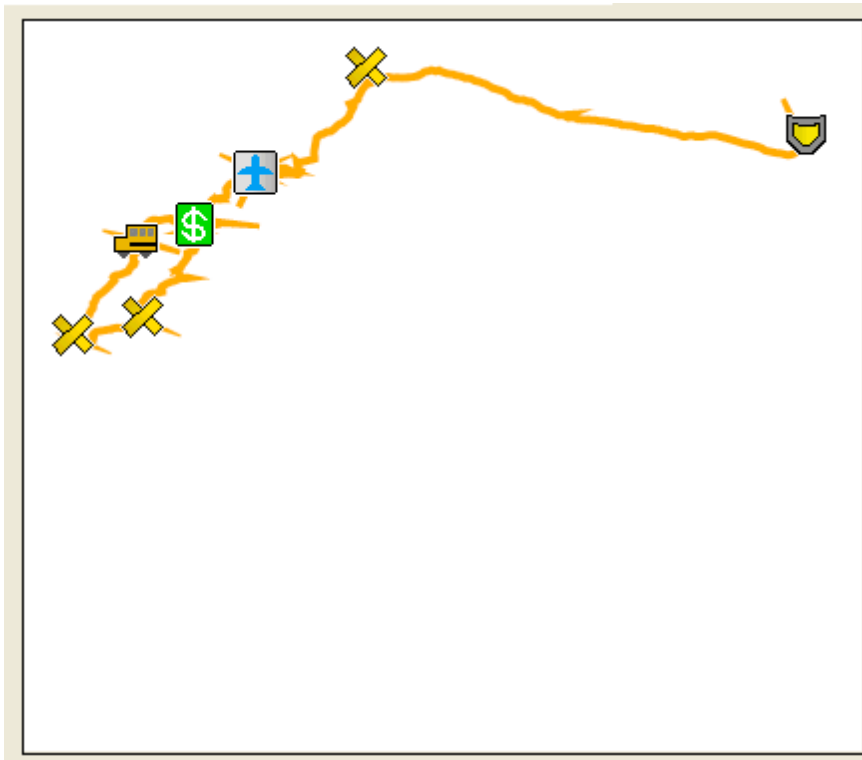
Advanced Options

Clicking this link shows the advanced option which allow you to edit the zoom levels for your map detail and overview IMG files. See [Zoom Levels](#) for more details.

4.7 Using The Map View

The Map View in GPX2IMG has multiple functions that are not readily apparent. The most obvious use is to give an approximation of how the generated map will appear on your GPS unit.

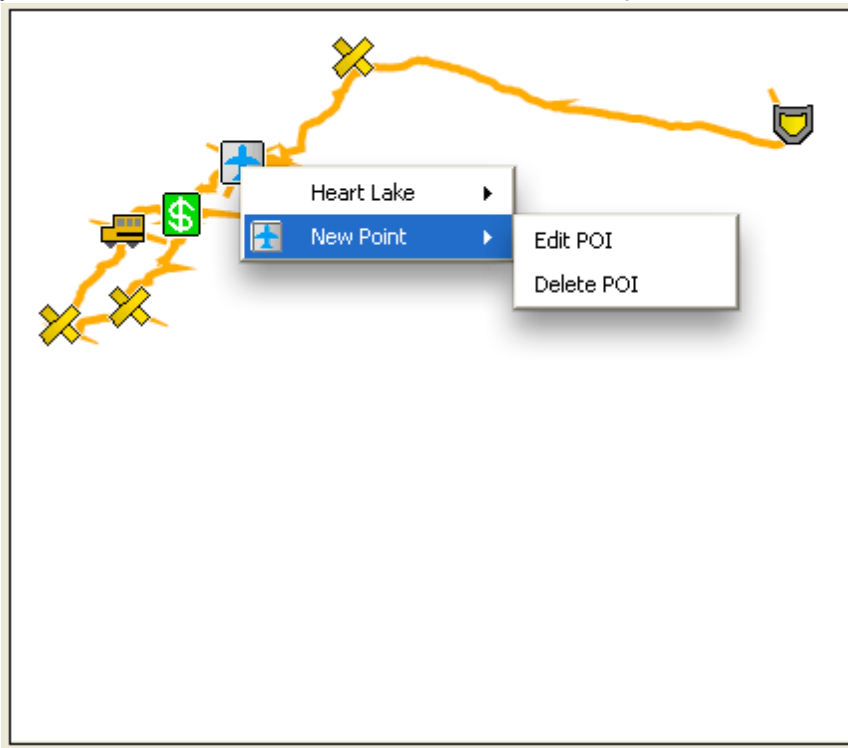
Some less obvious features are: [click on a track/waypoint to select it](#), [double click in a blank space to create a waypoint](#), [right-click on an item to edit or delete it](#).



Select A Waypoint/Track

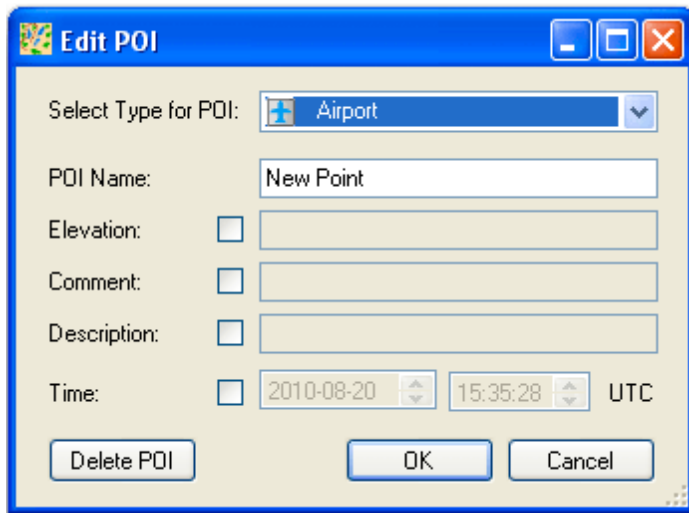
By click on a waypoint or track in the map view, it will be selected in the appropriate tab below the map view where you can edit and view more details of the item.

If there are multiple items under the mouse pointer when you click, it will bring up a context menu where you can select 'edit' or 'delete' for each item under the pointer.



Create A Waypoint

Double-clicking anywhere on the map view will create a waypoint in the location where you double clicked. After double-clicking, you will be given a window as shown below where you can choose the details for that waypoint.

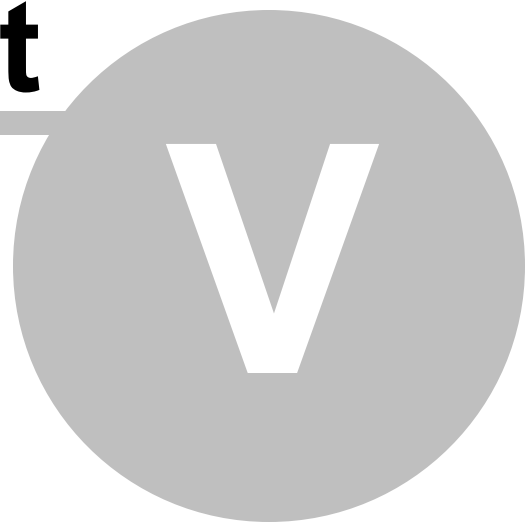


The screenshot shows a Windows-style dialog box titled "Edit POI". It has a blue title bar with standard minimize, maximize, and close buttons. The dialog contains several input fields and checkboxes. At the top, there is a dropdown menu labeled "Select Type for POI:" with "Airport" selected. Below this is a text field for "POI Name:" containing "New Point". There are three more text fields, each preceded by an unchecked checkbox, labeled "Elevation:", "Comment:", and "Description:". At the bottom, there is a "Time:" section with a date field showing "2010-08-20", a time field showing "15:35:28", and a time zone dropdown set to "UTC". At the very bottom are three buttons: "Delete POI", "OK", and "Cancel".

Right-Click to Edit/Delete

If you right-click on a POI or a track, you will be given a context menu where you can choose to edit the item (same as just clicking on it) or delete the item from the map.

Part



5 Advanced Features

The topics in this section explain how to use some of the advanced features of GPX2IMG such as [TYP files](#) and [changing the zoom levels](#).

5.1 TYP Files/Track Colors

An advanced feature of Garmin GPS units is the ability to load a TYP file along with your IMG files into Mapsource and onto your GPS unit which changes how the tracks of your maps are displayed on the unit.

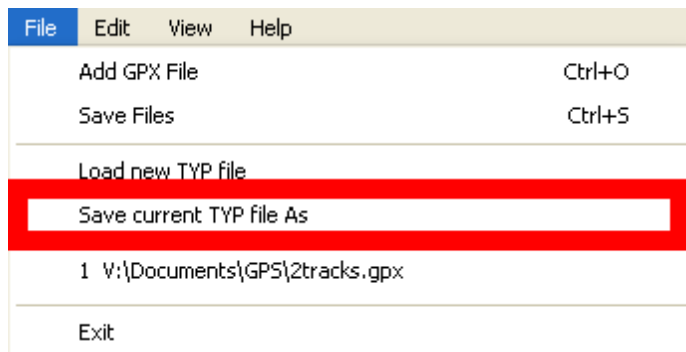
GPX2IMG supports TYP files created using different methods, but does not allow TYP file editing in GPX2IMG.

To get an idea of what is possible with TYP files, try changing the [Path Type](#) option in your preferences to **'Custom Colours'**. You will see your map tracks transformed to a variety of different colors based on the type of track they are.

To change the colors specified in the TYP file, you must use an external TYP editor. The instructions below will show how to use a free online TYP editor to change how your tracks are displayed in GPX2IMG, in Mapsource, and on your GPS unit.

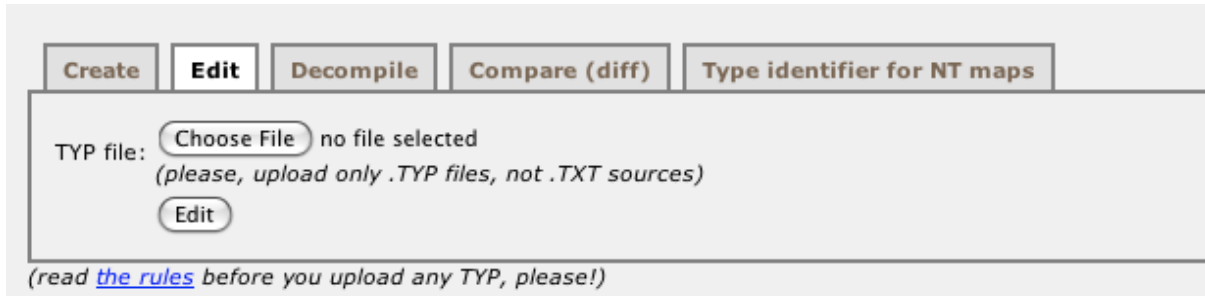
Step 1

Select the **"Save current TYP file As"** from the **File** menu and choose a location and filename on your computer to save the file as.



Step 2

Open <http://ati.land.cz/gps/typdecomp/editor.cgi> in your internet browser and select the "Edit" tab if not already selected



Step 3

Click the "Choose File" button and select the TYP file you saved in step 1. Click the "Edit" button.

Step 4

After loading, you will be presented a window with lots of different information. **DO NOT CHANGE ANYTHING EXCEPT AS SPECIFIED BELOW.**

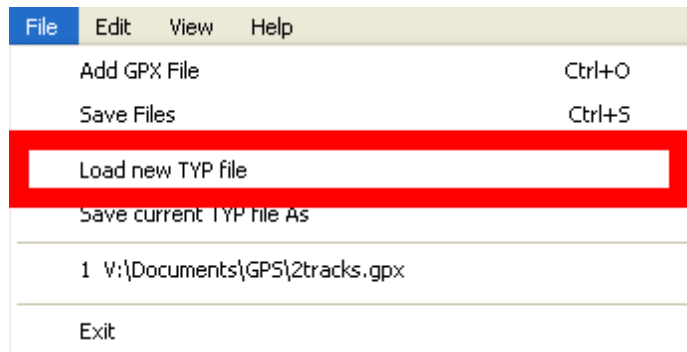
Scroll down the page to the "Lines" section. This is where you can edit the line colors, thickness, borders, etc. To change a line, click the 'Edit' button for that line and change any of the settings except for the line type and subtype. After making your changes for that line, click the 'Save' button. Do not delete or add lines or unpredictable things can happen and GPX2IMG may become unstable.

Step 5

After you are finished editing the lines, click the 'Download TYP file' button at the bottom of that page. Your browser should now download the updated TYP file.

Step 6

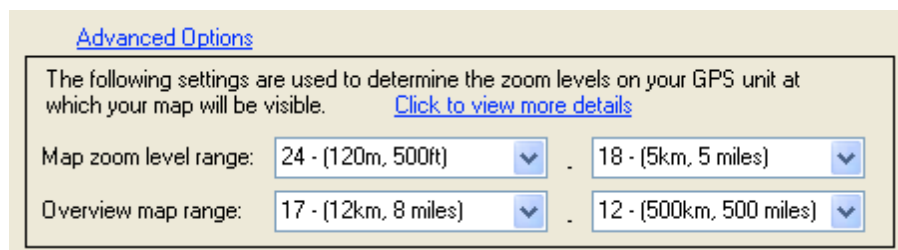
Back in GPX2IMG, select the **'Load new TYP file'** menu item from the **File** menu. Open the TYP file you downloaded in step 5 and GPX2IMG will now use your updated TYP file. (You will need to reconvert your GPX files to send the updated TYP file to Mapsource.)



5.2 Zoom Levels

The Advanced Options section in the [Preferences](#) panel gives access to setting the zoom scales where your generated maps will be visible on your GPS unit.

Unfortunately, due to the way each GPS model interprets this data, as well as certain settings on the GPS unit (eg declutter, detail level, max zoom, etc) the distance values do not correlate exactly to zoom levels. The distance numbers listed in this section are for guidance only. To determine exactly how the zoom levels are interpreted with your maps and your GPS unit, trial and error is the only option.



The zoom level ranges determine the zooms at which your map is visible. In the screenshot above, maps will be visible when the GPS unit is zoomed in at levels where the scale is between 120m and 5km (or 500ft and 5 miles). The overview map will appear in Mapsource when the map scale is between 12km and 500km (the overview map is never transmitted to the GPS unit, only used in Mapsource).

This table gives the approximate correlation of zoom levels to map scale:

Zoom Level	Scale (metric)	Scale (Imperial)
24	120m	500ft
23	200m	800ft
22	500m	0.3 miles
21	800m	0.5 miles
20	2km	0.8 miles
19	3km	2 miles

18	5km	5 miles
17	12km	8 miles
16	20km	20 miles
15	50km	50 miles
14	80km	80 miles
13	200km	200 miles
12	500km	500 miles

Index

- Z -

Zoom Levels 30

- I -

Interface 14

- L -

Load 15

- M -

Map View 24

- P -

POI 22

 Creating 26

 Deleting 26

 Editing 20

Preferences 22

 Advanced Options 23

 Blank Overview Map 22

 Clear Mapsource Tile Cache 23

 Install generated maps in Mapsource 23

 Map Name 23

 Path Type 23

 Target Directory 23

- T -

Tracks

 Deleting 26

 Editing 21

 Selecting 25

Tutorial 10

TYP Files 28

- W -

Welcome 6