

Fit-ConVerter

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Latest Revision 22/04/2021

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Before you start

FIT-Converter needs administrative rights to create FIT files.

For more details visit <https://pinns.co.uk/osm/windows10.html>

FIT-ConVerter also requires java to be installed when creating FIT files.

For most W10 PCs use 64 bit version.

<https://java.com/en/>

Converting FIT files

Fit to GPX

Go File , Open FIT

Save as GPX

In Settings there is an option to add any Lap waypoints to the GPX file.

Note: GPX files cannot contain temperature / heart / cadence data.

Elevation is included if elevation is found .

Fit to TCX

Go File , Open FIT

Save as TCX

Fit to KML

Go File , Open FIT

Save as kml

Export Data

Open File to open a FIT file.

Click Data,Export as CSV.

There are various options:

- All Data
- Using FITCSVTool
- Export Data as shown on graph
- Export Lap Data
- Export Course Data
- HRV

You can also right click on graph and select Export as CSV.

This also applies to Developer's Mode

Graph Types

Go Preference , Graphs

Select Line , Barchart or Barchart Thin

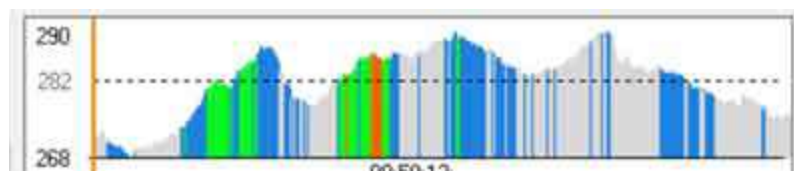
Chart Background

By default the background is white but this can be set to black in Settings.

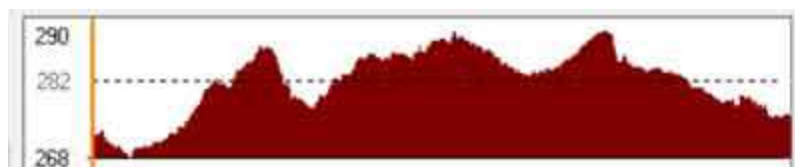
One Color Option

Select this option when you do not want the heart or speed data to be matched to say altitude,temperature

Off:



On:



Show Heart



Show Speed



No Speed or Heart



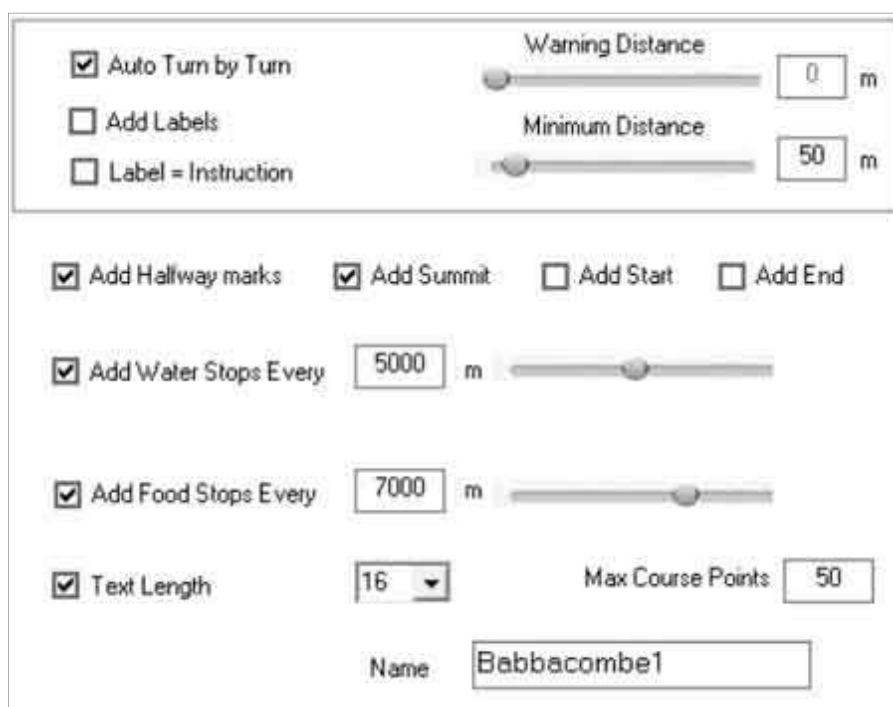
Converting to FIT

Java is required , see Introduction

GPX/TCX files by default contain a route and consequently are always saved as a 'course' and not an 'activity'.

Go GPX > Fit or TCX > FIT

The following Options are available:



The screenshot shows a dialog box for FIT conversion options. It contains several checkboxes, sliders, and input fields. The options are:

- Auto Turn by Turn
- Add Labels
- Label = Instruction
- Warning Distance: 0 m (slider)
- Minimum Distance: 50 m (slider)
- Add Halfway marks
- Add Summit
- Add Start
- Add End
- Add Water Stops Every: 5000 m (slider)
- Add Food Stops Every: 7000 m (slider)
- Text Length: 16 (dropdown)
- Max Course Points: 50 (input field)
- Name: Babbacombe1 (input field)

Auto Turn by turn

This automatically adds turn by turn instructions (waypoints).

Add Labels

Tick Add Labels to show labels added to waypoints.

Tick 'Label = Instructions' to add instructions (Turn Left etc) to a waypoint. If your device supports maps these will be shown on your map.

Use minimum distance to reduce or increase number of instructions. The larger the distance, the fewer the instructions.

Warning distances are currently not supported.

Adding Extra Waypoints

Water & Food Stops

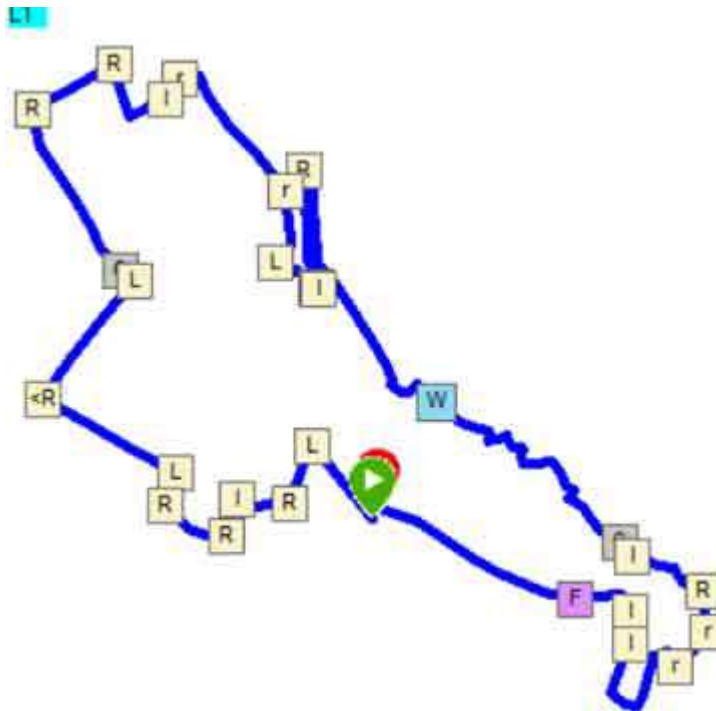
Specify distances for each waypoint.

You can specify the interval to say 5 km to be reminded of a water stop.

Depending on you FIT device you can add halway points

Most devices support Summit (top of a mountain/hill) points

Remember to check how many waypoints your device can support, The maximum of waypointys for most Garmin devices is 50.



This Course shows 1 Water (W) and 1 Food (F) stop.

<R means sharp Right

<L means Sharp Left

Lower case r and l indicate obtuse angles

R means Right Turn ~90

L means Left turn ~90

Course Points

Adding & Editing

To add a new course point tick 'show nodes'

Load a FIT/GPX/TCX file

Double click on a node .

This brings up the Editor .

Select Course Point Type

Edit label name of point

Save . Go File, Save Course Changes as FIT

When creating a Course FIT file any data apart from time,coordinates,distances and altitude is ignored.

Analysis

Fit converter provides various options to analyse data.
This can be useful when a fit file is corrupt.

Full

This shows how a fit file is compiled and includes definitions and data.
As far as possible data is converted, unlike raw data – see below.

Unknowns

This option only shows unknown definitions and data.
By unknown we mean not listed in the FIT protocol. Garmin, in particular, uses many 'unofficial' message ids and fields to process its data.

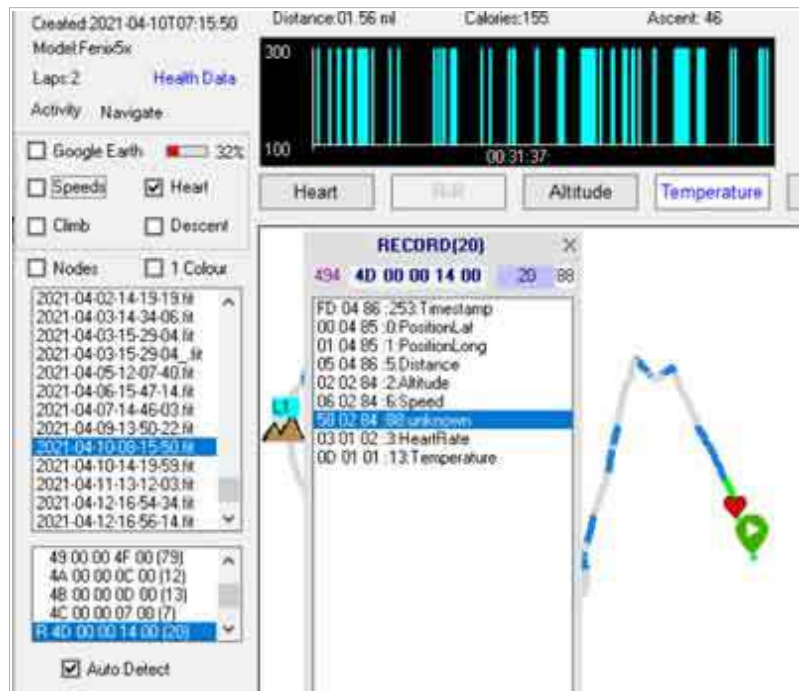
Raw Data

Useful if you employ a hexeditor

Developers Mode

Show Message ID's

This option enables you to click on the message ID and select a field.



We've click on a Record and then clicked on 'Unknown' to reveal 494 entries (in purple) with date ranging between 100 and 300.

Autodetect

We've ticked the Autodetect so that each time we click on a new FIT file it automatically displays field 0x58 (88)

There are two text boxes , one (in blue) for the message ID and one in white for the files number , both in decimal.