

Subject: True Turn by Turn Track Navigation.

With True Track Navigation files, you follow a track design 100% true, thanks to the integrated instructions. This works perfectly true due to the turn by turn instructions already attached, even with not mapped paths. (A gpx route is excluded as after importing a (re)calculation is needed which can so change the original).

Which TRUE track navigation methods have I already used ?

+/- Year 2012. Garmin tcx course.

*Used in hardware Garmin cycle Edge 705 gps.
The mother of TRUE track navigation by tcx files.*

In a Garmin tcx course, the instructions are attached in the associated tcx Coursepoints. The actual turn instructions are contained in the Coursepoint's [EN]PointType tag. Additional information may be provided in the Name and Notes tag of the Coursepoint. These important turn instructions are provided as easily readable text in the [EN]PointType. This text determines not only the display of the turn Icon but also the desired turn instruction.

VERY IMPORTANT !

This tcx [EN]PointType principle is also used identically in the next gpx files by using the [EN]sym.

Advantages.

This method, which I knew first, is especially popular with MTB.

This is mainly used in the robust Garmin cycle gps devices.

Disadvantages.

Contains a limited number of turn directions Left_Right_Straight.

Limits the number of text characters in the name and also in the Notes.

Garmin fit course.

A newer system uses a compressed (smaller) file.

If you are working with the latest Garmin equipment, you need this, otherwise not happy.

Advantages.

Apart from the extra support for Slight and Sharp and U turn virtually none imo.

Disadvantages.

It does not support Notes, so you cannot attach additional info.

Recovering a corrupted file is quite difficult due to the non-readable format.

Locus map True Track smartphone navigation.

+/- Year 2014 Locus map.

<https://forum.locusmap.eu/index.php?topic=4178.msg32083#msg32083>

After I left the Garmin hardware for Locus, I asked for tcx support there too.

This because some webplanners offered export in the tcx format and there was no alternative.

Advantages. The necessary webplanners were already (still) available at that time

Disadvantages. Limited flexibility due to the very strict Garmin tcx standard.

+/- Year 2016. A gpx trk_navwpt_extension file.

A track with associated waypoints with Locus extension.

Router web export with turn by turn info attached in the Locus extension.

Advantages.

More turn instructions are now available.

Disadvantages.

You must NOT forget to "merge" the navigation waypoints with the track.

You cannot easily separate the normal waypoints from the track.

Alternative navigation tracks together in one gpx file is not possible because of the associated waypoints.

Many navigation waypoints pollute the waypoint list and also pollute the map due to many Icons.

This is very annoying for users who do not need or do not want navigation.

So you have to choose whether you export with or without turn instructions.

+/- Year 2018. A gpx trk_navwpt file.

<https://forum.locusmap.eu/index.php?topic=4178.msg50723#msg50723>

A gpx track with associated waypoints. (Best compared to a tcx clone by gpx)

Advantages:

No character restrictions this in both name and cmt.

Disadvantages.

You must NOT forget to "merge" the navigation waypoints with the track during import.

You can't easily separate the normal waypoints from the track.

Alternative navigation tracks together in one gpx file is not possible because of the associated waypoints.

Many navigation waypoints pollute the waypoint list and also pollute the map due to many icons.

This is very annoying for users who do not need or do not want navigation.

So you have to make a choice whether you export with or without turn instructions.

Who generates this?

Locus map generates this together with the Locus waypoint extensions.

If you remove the Locus extension, the gpx export still functions.

Plotaroute web generates a compatible gpx file in this format.

Plotaroute limits the total number of instructions and truncates the names similar to tcx

+/- Year 2020. A gpx trk_navtrkpt file.

<https://forum.locusmap.eu/index.php?topic=5953.msg49519#msg49519>

A gpx track with the instructions discretely placed into the trackpoints.

Was assumed to be not possible but is indeed VERY reliable possible!

Advantages.

- Navigates 100% faithful after gpx track import even without (routable) maps present in the app.

- Manage/separate the free located (poi) waypoints without any risk to damage the navigation.

- Easy import, navigate 100% faithful without "must" set: "Merge waypoints with imported track".

- Less fragile than the trk_navwpt method with the more vulnerable associated waypoints.

- Compact POI wpt_list not cluttered by many associated wpt's as by the trk_navwpt method.

- Synced gpx files to pc offers extra simple edit tools or an alternative for only Locus edit.

- In a single operation add multiple selected freely positioned wpt's (poi) into the gpx file.

- Timestamps are not obligatory but can freely be attached according to expected speed

- A single gpx file can contain multiple navigation tracks including turn-by-turn instructions.

(The original plus several free selectable alternative navigation tracks to choose from).

Disadvantages.

Unprecedented and uncommon is unloved ?

Who generates this?

Route You web exports this format including the Shaping and Via Points in the point type.

Roundabout support is still missing with this web planner. (planned)

Extra.

The Cruiser app and Kurviger app already support Via and Shaping Points by the gpx point type.

This works perfectly and is simple but here only is used in gpx route exports in the route points.

In gpx routes where you first recalculate after import, however, you cannot guarantee the label TRUE.

In navigation track mode you have the snapped to track Via and Shaping Points in the gpx trackpoint type.

Importing a track with instructions in track points, you do not have to (re)calculate as it is already calculated.

After you import this track as a ready to go plug and play file so it is instantly ready to navigate with it now.

Anyway is still flexible, because if desired, you can quickly recalculate using the Via and Shaping points.

So if you want to get unfaithful and change the design after all, it still can be done fairly quickly and easily.

Router web.

assign turnInstructionMode.

Mode for the generated turn instructions | [0=none, 1=auto-choose, 2=locus-style, 3=osmand-style, 4=comment-style, 5=gpsies-style, 6=oruxmaps-style]

This list is getting bigger. This is not really desired. It would be better to make it smaller.

Discretely adding turn instructions in exported gpx tracks which than you do use or not can turn the tide?