4.9.3 Autonomy

In this section you will find utilities that will help you maximize the autonomy of the system:

- 'Shutdown screen': determine a time after which the screen will automatically turn off *. Select 'never' to activate this function.

  *** Note**: The option 'Turn screen off after' won't work if the device is connected to an external power source and 'car' has been selected as vehicle.

- 'Shutdown backlight': Just backlight will be turned off, so screen will still be on. Shutting down screen saves more energy than shutting down only backlight.
- 'Disconnect GPS at stops': it will detect a stop in your itinerary and will disconnect the GPS. A message will then appear asking if you wish to activate the GPS again. It is important to say yes to this message when setting out again.
- Protection against accidental unplugging: To prevent the device from discharging if it is disconnected accidentally from the power source (engine turned off, automatic turning off of the PC, etc.), TwoNav detects the unplugging and an alert message appears. If you don't answer the message, after half an hour, the system will go off.
- Don't shutdown if plugged: Shutdown screen time is not applied, leaving the GPS with the screen on during all the trip.
- GPS connection interval can be set for:
  - Continuous GPS connection
  - Intermitent GPS connection

4.9.4 Language

You may modify the language of the texts and voices of the system from this section.

Note: The conversion of the voices may take more than one minute.

4.9.5 Calibrate screen

The option 'Calibrate screen' lets you correct all the little maladjustments that the touch screen may have, that is to say, that you press on one spot and the reactions does not appear on this concrete spot, but a little misplaced.

When calibrating the screen, the following instructions message will be displayed:

"Press and briefly hold stylus on the center of the screen and repeat as the target moves around the screen. Press Esc to cancel"

Click briefly with the stylus on the centre of the cross and repeat as the objective moves across the screen.

Once the new screen calibration is done, the following message will be displayed:

"New calibration settings have been measured. Press Enter key to accept the new setting. Press the Esc key to keep the old settings"

Press on the screen to end calibration.

4.9.6 Barometer calibration

The errors on the setting of the pressure may cause wrong readings of the altitude.

By default, the barometer will be calibrated automatically by means of the altitude data supplied by the GPS using an algorithm that will optimize its function.

If you wish, you may calibrate the barometric altimeter manually from 'Main Menu > Settings > Off-road > Barometer Calibration' introducing the present altitude with the keypad that will be displayed when pressing this option.

- Manually
- Current GPS altitude
- Current *.CDEM map altitude

In order for this manual calibration not to be altered by the automatic calibration process, you must set TwoNav to take the altitude by only taking the barometer reading.

4.9.7 Compass calibration

Calibration is a necessary procedure for the directions supplied by the electronic compass to be correct.

It is an instrument very sensitive to weather and magnetic fields changes, so it has to be re-calibrated each time it is going to be used in a new area.

Calibration must be carried out in the open air and far from sources of alterations of the magnetic fields, such as cars, buildings or electric lines.

For more safety, it is recommended to calibrate the compass before each outing.

Once inside the calibration utility, all you have to do is rotate the device in the 3 axes until compass is calibrated.

4.9.8 Calibration tools

Some system gadgets need to be calibrated to work correctly:

- Touch screen: try to calibrate touch screen if you experience inaccuracy when pressing on it.
- Compass: Digital compass is very sensitive to environment conditions. Calibrate compass at the beginning of every trip.
- Barometer:
  - Manually

- Current GPS altitude
- Current *.CDEM map altitude

All calibration tools can be found at ‘menu > settings > system’. Just press on the option and follow on-screen instructions.

4.9.9 **Folders**

In order for your data (maps, waypoints routes and tracks) to be considered by TwoNav when creating lists in the ‘data’ section, they have to be inside the folder you have created for this purpose.

You may define one or more folders for maps (then, the maps of all folders will be included in this map list) and a folder for data (waypoints, routes and tracks).

The folder for maps by default is ‘**TwoNavData/maps**’.

The folder by default for the rest of data (waypoints, routes and tracks) is ‘**TwoNavData/Data**’.

If there are any other folders inside the one you have selected, they will also be shown in the data list.

For example, if we create a folder called ‘Pyrenees routes’ inside ‘TwoNavData/Data’, and ‘TwoNavData/Data’ is set as the only routes, waypoints and tracks folder, we will have the following representation in the routes list:

You can configure which folders will be considered. Just go to ‘menu > settings > system > folders’ (advanced mode may be enabled) and change the Maps or Data folders.

You can add more than one folder. Then data list will show the data from the different folders in a single list.

4.9.10 **Units**

You may determine which type of measurement unit to use in TwoNav:

- Distances: in kilometres, miles, nautical miles, metres or feet.
- Altitudes in: metres or feet.
- Speed in: kilometres/hour, miles/hour, nautical miles or minutes/kilometre.
- Short distances in: kilometres/hour, miles, nautical miles, metres or feet.
- Acceleration in: metres/second^2, gravity or kilometres/hour/second.
- Vertical speed in: metres/second, feet/minute, metres/minute or metres/hour.
- Areas in: m^2, hectares or km^2.

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4.9.11 **Coordinates**

You may choose the type of coordinates (UTM, Latitude/Longitude, BGN…) and datum (WGS 84, European 1950, Geodetic Datum 1949, etc.) with which you wish to work in TwoNav.

This setting will be the one used when introducing any coordinate into the program or when creating elements the kind of waypoints routes or tracks.

Besides, from this option, you may configure the order in which the degrees will be displayed.

By default, TwoNav Works with Lat / Long and Datum WGS84 Coordinates.

4.9.12 **Time zone**

TwoNav lets you choose the time it is according to the Universal Time Coordinates (UTC) that will appear by default with the time-zone corresponding to the Central European Time (CET).

You may also set the Summer Time automatically if you wish, so TwoNav carries out the seasonal time change.

Note: TwoNav keeps the time updated as long as the device receives a GPS signal. Usually, inside the buildings, the signal from the satellites is not received unless there is a repeater, so the time and also the, night vision, will be affected.

4.9.13 **Keys**

Key manager allows you to change the function of each device's button. In order to change the default assignations enter at 'Settings > System > Keys'.

Each button has a double command: short press and long press. Both of them can be personalized for different usages.

Available functions are the same as in tool bar editor (link Settings > display > toolbar), adding next ones:

- Zoom
- Hold mode: block device and shutdown screen. Same key to unhold
- Block
- Exit
- Menu

4.9.14 **Default settings**

This option lets you re-establish all the settable parameters to its initial status. All the options that have been manipulated will be modified, time zone, audio, folders and other tools that you may have previously established.

4.9.15 **Update OS**

When an Operating System update is available, you will need to download the update file from www.compegps.com and place it at the root folder of your Ultra/Ultra+. Once done, you only need to start updating by pressing this button.

Follow the steps to update the operating system at FAQs section of www.compegps.com

4.9.16 **Device ID**

The 'Device ID' is an alphanumeric identifier exclusive to your device. This identifier is necessary in order to activate TwoNav and any map you want to use in the device.

4.9.17 **About**

'About' shows you which TwoNav version the device is working with. It will be displayed on the top left hand corner of the screen.

To know the version of the TwoNav program installed in your device, it is very important to check out doubts or software updating.

4.9.18 **Advanced**

TwoNav has and 'advanced mode' which enables some extra functions that are not frequently used and could add unnecessary complexity to the system.

You can enable 'advanced mode' entering 'Settings > System > Advanced' section. Then some advanced functions will appear directly inside that section:

- Keyboard: in addition to alphabetical order, you can choose QWERTY or AZERTY key layout for keyboards.
- Active waypoints mode: Basic (fixed active WPT file + autoload it at start) or Advanced (first WPT opened will be de active and it will not be autoloaded at start). (+info)
- Reload data when restarting: Load same data which was loaded when closed application last time.
- Draw map corners: Show frames of available maps on navigation window.
- Zoom with double click.
- Hide zoom buttons: show or hide on-screen zoom+/zoom- buttons which are located at map's visualization window.
- Resume navigation at start: Propose same destination which was set when closed application last time.
- Lane info (onroad): In roads with several lanes, a representation will inform about the correct lane to take.

  Note: 10q2 Vmaps or higher are required.
- Car+OnRoad->screen on: If it is enabled, 'shutdown screen' options will not be considered when vehicle is 'car' and mode is 'Onroad'.
- Antialias: technology to draw smoother lines in vector maps.
- Seabed areas: By applying this option, only depth contours are displayed.
- Profiles Onroad/Offroad: If disabled, all options, menus and data fields will be the same for Onroad and Offroad.
- Minimum moving speed: field which fixes the minimum speed considered movement. Speeds under this value won't be counted as movements (will be considered as 0 km/h).

  Note: The user has to remember that this function depends on the selected vehicle ('Settings > Vehicle'), each vehicle has a different default speed.

- Screenshot creates WPT: a waypoint with an associated image is created each time a screenshot is made (the picture will be equally save at 'data' folder)

Also some other options will be added in other sections and depending on the current mode (Onroad/Offroad). Check Display and Navigation sections to see the list.

4.10 Sensors

Activate sensors

5 Select destination

You may select your destination in three different ways:

5.1 "Navigate…" button

The most widely used function to select destination is the 'navigate…' button which is found in the main menu and contains the following options:

- **Home**: You can go home directly if you have determined your position from the favourites management.
- **Address**: Enter any address (country/city/street/number) as destination.
  - You can enter ZIP code instead of city name.
  - You can enter a crossing street name instead of number. Just press on 'Intersection - choose' button and enter its name or choose it from the list.
- **POI**: The V-maps contain an enormous data base of Points of interest (gas stations, hospitals, cash dispensers…). You may search POIs according to various criteria:
  - Place: The device will consider POIs close to:
    - Your present position
    - Your present destination
    - To the address introduced
    - The location you choose on the map.
    - To a waypoint
  - Name: Select the category that you are searching for, introduce the wished POI name and it will be searched in all the available ones from the loaded cartography.
  - Parking: Creates a list of parkings available near from current position.
  - Gas station: Creates a list of gasoline stations available near from current position.
- **Itinerary**: Create a route with one or more intermediate points.

- Press  to add points to the itinerary.
- Press  to remove a point.
-  buttons at right of the point allow to change order
-  button will show that point on screen
-  button will start navigation to the first point. When first point is reached, next one will be set as destination.

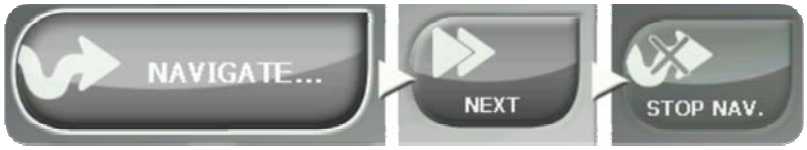
For each point, an estimation of distance and time to arrive will be displayed.

You can modify itinerary after starting it. Just enter again in 'menu > Navigate > Itinerary' and apply changes.

- **Favourites**: You may create your own list of favourite places to be able to enter them quickly. To manage this list, press the 'edit' button. (+info)
- **History**: The recently selected destinations are stored here.
- **By map**: Select the exact spot and press OK.
- **Bearing**: Destination point will be determined introducing bearing and distance (+info)
- **Waypoint**: Select a waypoint among the ones loaded or created.
- **Route**: The chosen route will be activated and it will guide consecutively to the waypoints it contains.
- **Track**: The reference of the loaded track will be available and its direction indicated. If you go too far from the track (>50m), the perpendicular direction to the trace of the track will be indicated so you can go back to it.
- **Coordinates**: Introduce the exact coordinates for your destination.
- **Man Over Board**: It will set current position at that moment as destination. It will permit to return to that place.

- **Trackback:** The currently recorded track up to this moment is inverted, so the user can navigate it in reverse. Inverted track file is recorded with a different name: '*trackback1*', '*trackback2*',... By pressing 'trackback' the recorded track is inaltered and TwoNav keeps recording it.

To stop any type of navigation (On-road or Off-road) running, you must press on the **'Stop Navigation'** option.



You may enter it from the main menu or by opening the contextual menu on map.

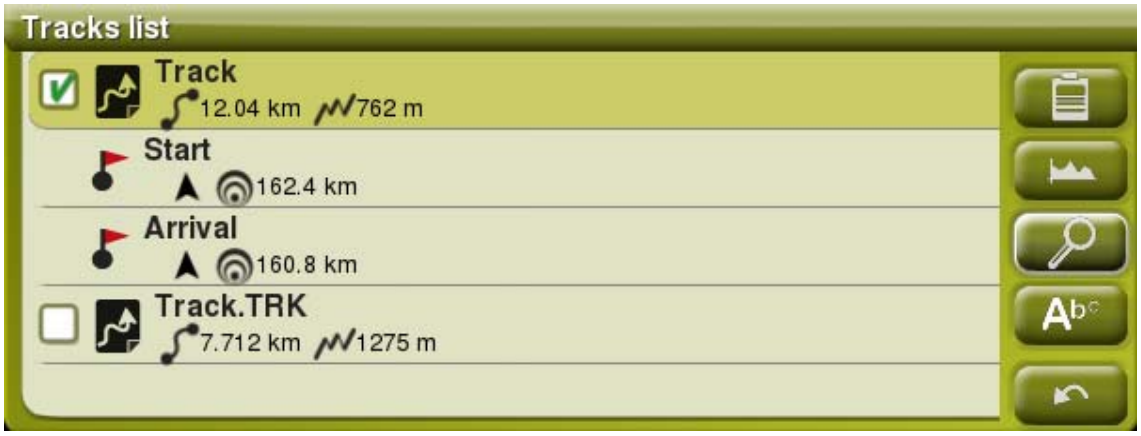
5.2 Waypoints, routes and tracks Lists

From the 'Data' section of the main menu you may manage the typical references of 'Off-road' (waypoint, routes and tracks) positions.

One of the available functions for each element is **Navigate (Activate)**. This option will let you head navigation towards the selected element establishing it as the next destination.

The easiest way of placing an element as destination is to click briefly on its name and, once selected, press the button.

You may also find the option '**Activate**' inside the contextual menu of the element.

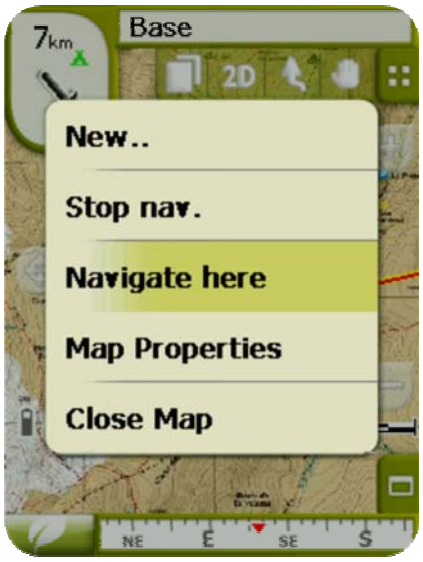


Moreover, TwoNav allows the possibility to present on lists of elements extra information related to these elements such as date, distance, height, relative bearing arrow, track color,... The information is presented in a 2nd line right after the name of the item and it can be customized showing multi-selectable data fields ('Contextual menu of the item > 2nd line data').

Note: The data contained in the 2nd line is only available for elements which have been saved using TwoNav 2.5 or Land/Air 7.3 (or higher).

5.3 On the map

Search on the map the point you wish to establish as destination and open the Contextual Menu on it (by means of a long click). Choose the '**Navigate here**' option and this point will be established as destination.



6 Following indications

Once the destination is selected, TwoNav will assist you in reaching it. TwoNav offers two navigation ways that will allow you to adapt to each surroundings in the best possible modes:

On Road: Door to door navigation on the CompeGPS V-maps cartographic basis, enjoying the characteristic assistance type of the urban navigators. The route will be automatically calculated through the streets and along the itinerary accurate visual and aural indications will be given on the manoeuvres to carry out.

Important: On-road mode will only be available if you have a routable V-map present in maps folder. Otherwise, On-road tab will be disabled.

Off Road: It can be used on any type of map (topographic, orthophoto, vectored graph) and it is based on the use of previously created references (waypoints, routes and tracks). The route won't be calculated automatically and a straight line will link our present position to our destination.

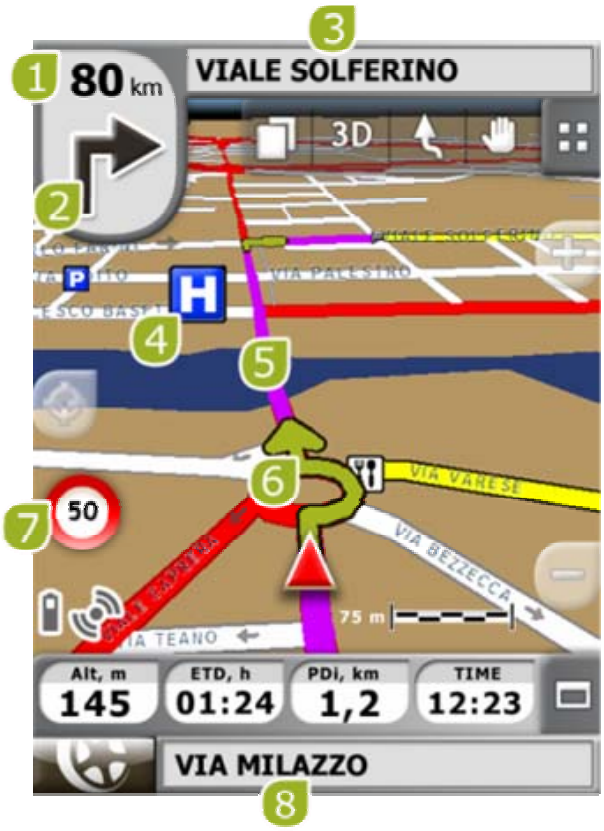
Within the same itinerary, some changes in the mode may be necessary (e.g. if we set out from the city and reach a point far from it in which there is no usable information on the streets). In these cases you may change the mode depending on the information of available maps.

6.1 On-road Navigation

The information offered by this navigation mode is more than in Off-road mode, as all the information contained in the V-maps cartographic data base is used to show accurate indications of the next manoeuvres. Besides, audible signals are given in order not to get distracted from the traffic.

Important: On-road mode will only be available if you have a routable V-map present in maps folder. Otherwise, On-road tab will be disabled.

6.1.1 Visual information



1. **Distance to next event:** Distance left to next event (roundabout, waypoint, exit...).
2. **Next manoeuvre:** When navigating On-road, the 'next event' space will display a representation of the next manoeuvre to be done (right turn, left turn, roundabout, diversion, etc.).
3. **Next Street:** Indicates the next street to be taken following navigation.
4. **POI**: V- map point of interest (petrol station, hotel, cash point, etc).
5. **Calculated Route:** Shows the automatically calculated route to be followed.
6. **Manoeuvre indication:** Illustrates the manoeuvres to be carried out on the map and more accurately.
7. **Speed limit of present road:** Indicates the legal speed limit of the road on which we are.
8. **Present Street:** Name of the street where you are.

When pressing on an element of the map (for instance a Chemist's) a yellow square will appear indicating the name of this element plus some other interesting information. This way, you may also check the names of the streets in the area.

See the On screen section for complete information on the elements present on the navigation screen.

6.1.2 Audible information

Due the fact that TwoNav Ultra has no voice indicator, voice alarm advices will be displayed as beeps:

- 700 m. – short beep.
- 300 m. – immediately long beep.
- 50 m. – double long beep

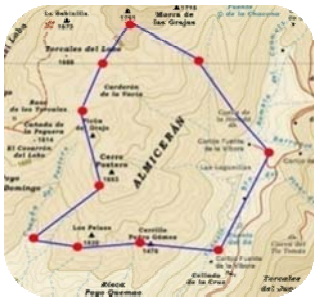
6.2 Off-road navigation

In Off-road mode, the information on streets and roads will not be available for the route to be calculated automatically and to tell you the next manoeuvres with precision. The automatic information will be limited to a straight line, which will join your current position with your destination.

Because of this, you will need to pay special attention to the information on the underlying map you have loaded. This situation is comparable to conventional navigation with a topographical map, with the advantage that your current position is marked on the map.

The degree of detail of the available information can be enhanced if you prepare the journey in advance, finding reference points (waypoints, routes and tracks) that will help to guide you.

A well planned route, with the appropriate information and file attachments on each waypoint, can be equivalent to a route calculated automatically in On-road mode.



See the Waypoints, Routes and Tracks section for further information on these elements.

6.2.1 Visual information

1. **GOTO arrow:** Direction on which the next waypoint is. When following a track, it will indicate its direction (see Off-road navigation).
2. **Track name / Next Waypoint:** Name of the next waypoint or the track being followed.
3. **Loaded route**
4. **Loaded Track**
5. **Next waypoint**
6. **Guide line (waypoint direction/track):** Joins your present position to the place you are heading for (track or next waypoint)
7. **Currently Recorded Track:** If the present track is being recorded, we can see its trace marks behind us.

8. **Compass:** Shows the orientation of the device. The source of this datum may be set (GPS, electronic compass or 'automatic') from 'menu > Settings > Off-road > Bearing'.

6.3 Virtual Coach

TwoNav can use a previous track as a reference to compare your current performance.

Just need to choose a track and start navigation. A simulation of that track will start being played at its original speed, so you can compete against it.

Virtual coach will be represented on map with a green pointer. There are 2 data fields related to Virtual coach:

- Time to virtual coach (TVC)
- Distance to virtual coach (DVC)

You can add these fields either in data bar or data page

This command allows you to place the Virtual Coach automatically in your current position. You can apply this function by clicking at  button placed at the tool bar.

Note: 'Virtual coach' option needs to be enabled at 'Settings > Navigation > Tracks'.

7 Radar warnings / POIs

During your navigation, TwoNav may alert you when you get close to certain points of special interest.

7.1.1 Radars

One special case of these types of points is the radars that control traffic speed.

TwoNav will consider the points introduced in the 'TwoNavData\Radars' folder as radars and will alert you with a sound and an image when you get close to one of them (see section Speed limit to get to know the setting options of these warnings).

The system includes a radars data base from the AlerteGPS company that may be updated from their web page, www.alerteGPS.com. In it you will find a section devoted to TwoNav products.

If you wish to update this information, all you have to do is substitute the original files by the updated ones (in GPX, WPT or BWPT formats) into the 'radars' folder kept in the 'TwoNavData\Radars' data folder.

7.1.2 POIs

You may also be alerted of other general interest points (POIs) that you may customize yourself.

TwoNav will load automatically the waypoints (in GPX, WPT or BWPT format) that you place inside the 'TwoNavData\POI' folder when starting up the system. These waypoints will not be displayed in the waypoints list, but they will be drawn on the map.

You can hide these files on map from active personal POIs tool.

BWPT format is recommended, allowing a much quicker access to information. Files in other formats can be converted to BWPT from CompeGPS Land PC software.

If you want to be alerted when reaching one of these POIs, each one of them will have to be associated to a sound or image file, which will be reproduced when getting close to the point.

You may associate images or sounds in WAV format to the waypoints from the properties of the waypoint window.

Warning: Using BWPT files with more than 5000 points may cause system slow down. GPX or WPT files may cause such slow down even with much smaller files.

8 Data management (waypoints, routes, tracks and maps)

8.1 Waypoints

8.1.1 What is a waypoint?

The waypoint is a point defined by a geographical position, latitude and longitude coordinates and in most cases altitude, used by the GPS navigation tools.

TwoNav lets you create, edit and navigate waypoints.

The waypoints are kept inside waypoints files (usually in **.WPT format**), so a waypoint folder may contain just one or more waypoints.

They are represented on screen as points to which a name or an icon may be applied.

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8.1.2 Supported formats

TwoNav can open directly next waypoint formats:

- *.WPT
- *.BWPT
- *.LOC
- *.GPX

More waypoint formats can be imported and converted to these ones from CompeGPS Land/Air.

8.1.3 Waypoints list

The management of waypoints is centralized on the waypoints list, but it is also possible to carry out many actions directly from the navigation screen by means of the contextual menu.

When entering the waypoints lists, you will be able to see all the waypoints files available in the 'TwoNavData/Data' folder.

See the 'data' section to get to know the general operation of the lists.

If you have selected a waypoints file, the buttons on the bottom of the screen will let you enter the most important functions to carry out on this element:

In order:

- Create a new waypoints file: It will generate and open an empty waypoints file.
- Create a new waypoint.
- Zoom here
- Name search

If you have selected a specific waypoint from the waypoints file, the buttons will change to adapt to the functionalities of the selected element:

In order:

- Enter the properties of the waypoint window. In properties window, element can be activated for navigation.
- Create a new waypoint within the waypoints file in which the selected waypoint is.
- Zoom here
- Name search

Waypoints can be ordered in different ways. Open context menu on waypoints file name and select ‘Sort by’ to choose the rule to order waypoints (name, proximity, etc).

By a long click on any open Waypoints file or on a specific Waypoint, you will enter the Contextual Menu with all the available functions for this element.

TwoNav allows the possibility to present on waypoints lists extra information related to these elements such as date, distance, height, relative bearing arrow, track color,... The information is presented in a 2nd line right after the name of the item and it can be customized showing multi-selectable data fields ('Contextual menu of the item > 2nd line data').

Note: The data contained in the 2nd line is only available for waypoints which have been saved using TwoNav 2.5 or Land/Air 7.3 (or higher).

8.1.4 Open and close

8.1.4.1 Open waypoints file

From the waypoints list, clicking on the name of one of its available files, it will open. You will know it is open because it will be visible at the top of the list with the left square marked ☑.

8.1.4.2 Close waypoints file

Press on the left check mark ☑ of the open waypoints file in order to close it.

The file will move from the first places on the list and will go back to its alphabetical corresponding position with the other unloaded waypoints files.

You may also enter this function from the contextual menu from where you may also delete files from the memory permanently.

8.1.5 Create and edit

8.1.5.1 Create waypoints (Active Waypoints File)

All the waypoints must be contained in a **waypoints file**. You can have several waypoints files open, but created waypoints will be always saved inside the **Active Waypoints File (AWF)**.

By default, active waypoints' is **Waypoints.WPT**, but you can choose any file you want following next steps:

1. Open the waypoints file you want to be AWF.
2. Open context menu > 'Set as active WPT'

When a new waypoints file is created from waypoints list, it will be automatically set as active.

AWF will be opened automatically when application starts, and asterisk on the icon will mark it in Waypoints' list.

If AWF is closed and a waypoint is created, AWF will be automatically opened to place the new waypoint.

This is the easiest way to manage new waypoints, but users who work frequently with several waypoints files may not like it. For those cases, there is an option '**Active waypoints mode**' in 'menu > settings > advanced':

- Basic: Normal mode.
  - AWF will be automatically loaded at start
  - AWF will be fixed and only can be changed manually (context menu > Set as Active WPT)
- Advanced: Better when working frequently with several waypoints files.
  - AWF will NOT be automatically loaded at start
  - First waypoints file you open will be set as AWF.

A **waypoint can be created** in the following ways:

8.1.5.1.1 Create a waypoint in the present position

You may create a waypoint quickly in the exact position where you are.

There are two functions to do this:

- Mark WPT: No access to waypoint properties. Default name and icon will be used. Waypoint properties can be accessed later.
- Mark and edit WPT: Waypoint properties will be automatically opened allowing to modify its information.

These functions can be added to tool bar by means of the tool manager.

'Mark and edit WPT' can be also accessed from 'Main menu > Data > Mark and edit WPT'

8.1.5.1.2 Create a waypoint on the map

Open the contextual menu on the point of the map where you wish to generate the waypoint and select 'New > Waypoint here'.

Properties window will open so you can modify any of them.

8.1.5.1.3 Create a waypoint from the waypoints list

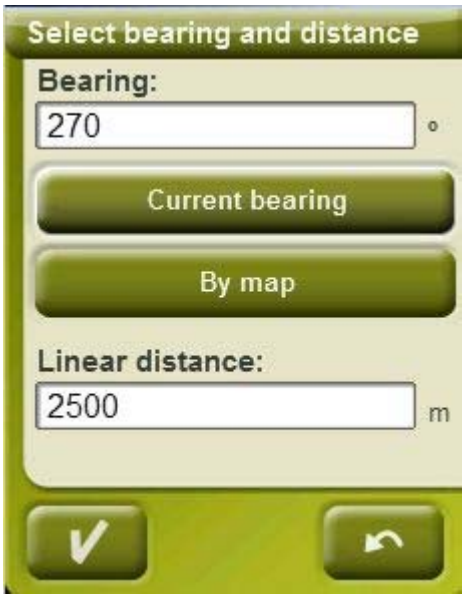
When selecting a waypoints folder from the waypoints list_Trabajando_con_waypoints, you will be able to enter the 'New waypoint' functions (from the contextual menu or directly by means of the list buttons). When selecting it you will be able to create the Waypoint in 5 different ways:

- **Present position:** GPS position in which you are when creating it.
- **Present destination:** final point of your present navigation.
- **Address:** enter the address using the Vmap data base.
- **By map:** it will open a window from which you will be able to select on the map the exact point where you want to create the waypoint.
- **Waypoint:** in this file you can add a waypoint from a different waypoints file. All you have to do is select the waypoint inside the concrete waypoints file.
- **Bearing**: Destination point will be determined introducing bearing and distance (+info)

8.1.5.1.4 Create a waypoint by bearing and distance

When 'new waypoint' function is used (from waypoints list of tool bar), 'bearing' option will be present to choose its position.

Destination point will be determined introducing bearing and distance:



- **Bearing:** it can be entered in 3 ways:
  - Click on 'bearing' field and enter numeric values.

- Click on 'Current bearing' to automatically enter current direction
- Click on 'By map' to automatically enter current direction, but having current position and map as reference.

o **Distance**: enter numeric values

8.1.5.2 Edit waypoints

8.1.5.2.1 Modify properties

Once a waypoint is created you may change several parameters from the waypoints properties window.

8.1.5.2.2 Delete Waypoint

You may delete a specific waypoint from its contextual menu, both from the map as from the waypoints list.

8.1.5.3 Save

8.1.5.3.1 Save waypoints

If you are satisfied of your operations on your waypoints, you may save them by selecting the option **Save waypoints** from the waypoint or waypoints file contextual menu of the map or waypoints list.

The changes you may have made will be saved directly overwriting the old file.

Note: the 'create waypoint on present position' function automatically saves the waypoint file where the present waypoint has been added as a safety measure in order not to lose the waypoints quickly created with this function.

8.1.5.3.2 Save waypoints as

If you wish to save the waypoints file by another name, location (folder) or format (*.WPT or *.GPX), you may select the option **Save WPT As** from the contextual menu of the waypoints in the waypoints list.

8.1.6 Search loaded waypoint on screen

To centre the screen on a waypoint:

1. Enter Main Menu by pressing 
2. Select '**Main Menu** > **Data** > **Waypoints** > W**aypoints list'**
3. Click on a specific waypoint and choose between:
   a. Press  button
   b. Enter the waypoint Contextual Menu (long click on its name or the 'Menu' button) and click on 'Zoom here'.

A window will open to show the waypoint on screen with the possibility of zooming in or out.

- To exit the window press and it will return to the waypoints list.
- To see the waypoint on the map click

You can personalize which specific information will be displayed together with each waypoint at waypoints list. In order to personalize that information go at 'Settings > System > Advanced', once you are there, you only have select 'Info in waypoints list' and then choose which kind of information do you prefer to be attached to your list of waypoints:

- nothing (no information will be displayed)
- by proximity (following example)
- by height
- a short description for each point or
- bearing

8.1.7 Properties

8.1.7.1 Properties of a Waypoints file

You may enter the properties of a collection of waypoints from the waypoints list (using the direct button or the contextual menu).

The following properties are available:

- **Name of the waypoints:** name of the waypoints file.

- **Number of waypoints:** number of waypoints included in this waypoints collection**.**

8.1.7.2 Properties of a waypoint

You may enter the properties of just one waypoint from the waypoints list (with the direct button or the contextual menu) or from the navigation screen (by opening the contextual menu on the waypoint in the map).

The following properties are available:

- **Short name:** shows the concrete name of each waypoint
- **Description:** short description of the waypoint
- **View:** selection of the items that you wish to see around the waypoint on the map
- **Icon:** small image representing the waypoint
- **Coordinates:** geographical position of the waypoint
- **Altitude:** altitude of the waypoint
- **Colour of Text:** colour for the name, description, altitude and other data close to the waypoint that will be displayed on the map
- **Background colour:** colour that highlights the waypoint texts on the map
- **Position of Text:** position in regards to the waypoint where the texts will be displayed on the map
- **Radius:** scope embraced by the waypoint
- **Associations:** associates image or sound files to your waypoints to be displayed during navigation of these waypoints.
- **Bearing:** orientation in degrees to the position of the waypoint. The data must be introduced in radians and TwoNav will change it automatically into degrees.

Geocaching files include extra properties (+info).

8.1.8 Associated files (images, sounds, texts)

Waypoints can have associates files, like images, sounds or texts.

Files can be associated to waypoints from waypoint properties in TwoNav or also from CompeGPS Land.

If a waypoint has an associated file, it can be reproduced in several ways:

- Video can be reproduced directly by **'Open...' function**, but also be associated to waypoints so it is automatically played when reaching that place.
- **Waypoints list**: Associated files will be represented inside waypoints in waypoints list.

  When associated file is selected 'play' function will be enabled in buttons at lower part of the screen and also in its context menu.

- **Rich-formatted HTML texts** can be displayed on-screen using certain HTML tags. This function has been specially designed for e-roadbooks, geocaching and routes.

  You only need to upload HTML files which have been edited and formatted to the storage unit of your device. After that, each HTML file containing styled text has to be associated to the corresponding waypoint of the route ('Properties > Associated').

  Only texts with a minimum format can be associated, although not all HTML tags are supported, the user will be able to customize his texts using these properties:

  - **Title levels:** <h2> title at 2nd level </h2>
  - **Text in bold:** text
  - **Text in italic:** <I> text </i>
  - **Underlined text:** <u> text </u>
  - **New paragraph:** Text content presented in a new paragraph
  - **Text colour:** <h3 color="#ff0000"> 3rd-level title in red </h3>
  - **Background colour:** background-color: #ff0000 (read background)
  - **Text size:** font-size: 18px (size: 18 pixels)
  - **Text alignment (left, center, right or justified):** Justified image → text
  - **Attached images:** 50x50 image → <img src="image root" width="50" height="50"></img>

Note: Users using Land/Air will only need to attach the HTML-formatted text by clicking at 'Properties > Associated' of the right waypoint. Once attached, select 'send to GPS' option to start the transfer.

- **Infocurrent**: When current GPS position is inside the radius* of a waypoint with associated files, infocurrent will show a '+' symbol. Associated file will be reproduced when clicking on it.

- **Automatic play**: By default, the attached file will be reproduced when current GPS position is inside the radius* of the waypoint. Automatic play can be configured from 'menu > Navigation > WPT alert'.

***** If radius of a waypoint is not defined, 'default radius for WPTs' parameter will be taken. (+info)

8.1.9 Navigate

This option will be shown on the Contextual Menu with by a long click on the concrete waypoint from the waypoint list or on the map. Navigation will be activated towards this waypoint from your position.

You may also navigate to a waypoint using the "Navigate…" menu.

'Navigate' button  is also available in properties window.

8.1.10 **Waypoints contextual menus**

Next is a list of all the functions present in the various waypoints contextual menus:

To open the contextual menu on an element, all you have to do is keep it pressed for one second.

1. Contextual menu of a file inside the waypoints list_Trabajando_con_waypoints:
    - Properties (+ info)
    - Save Waypoints (+ info)
    - Save Waypoints as (+ info)
    - Close Waypoints (+ info)
    - Rename file
    - Set as active WPT (+info)
    - Delete file (+ info)
    - New Waypoint (+ info)
    - Zoom here (+ info)
    - Send to
    - Sort by (+info)

2. Contextual menu of a concrete waypoint inside the Waypoints list:
    - Properties (+ info)
    - Save Waypoints (+ info)
    - Close Waypoints (+ info)
    - Delete Waypoint (+ info)
    - Zoom here (+ info)
    - Send to
    - Navigate… (+ info)

3. Contextual menu of a concrete waypoint on the map:
    - New…
        - Waypoint here (+ info)
        - Begin a route here (+ info)
        - Begin track here (+ info)
    - Properties (+ info)
    - Save Waypoints (+ info)
    - Close Waypoints (+ info)
    - Delete Waypoint (+ info)
    - Navigate… (+ info)

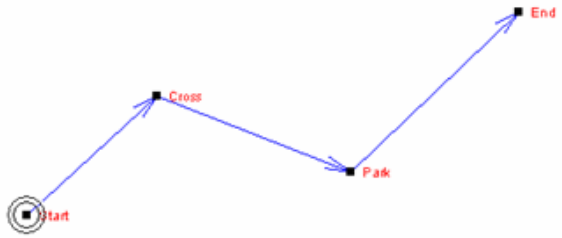
To see the options of the contextual menu of a waypoint within a route go to Routes contextual menus'.

8.2 Routes

8.2.1 What is a route?

A route is a group of waypoints ordered in a predetermined way. It is a way of navigating that allows for planning a course from one place to another going through various waypoints. The routes are used when it is not possible to reach a place in a direct way (in straight line). The route file will be saved in the *rte format.

TwoNav allows you to create routes and navigate them. It also lets you modify many of its parameters. For further information, see Edit a route.



8.2.2 Supported formats

TwoNav can open directly next route formats:

- *.RTE
- *.GPX

More route formats can be imported and converted to these ones from CompeGPS Land/Air.

8.2.3 List of routes

The routes management is centralized in the routes list, although it is also possible to carry out many actions directly from the navigation screen by means of the contextual menu.

When entering the routes list you will be able to see all the available routes in the folder 'TwoNavData/Data'.

See the 'data' section to get to know the general operation of the lists.

If you have selected a route, the buttons at the bottom of the screen will let you enter the most important functions to be done on this element:

From left to right:

- Create a new route: an empty waypoints file will be generated and opened.
- Create new waypoint inside the route
- Zoom here
- Name search

If you have selected a concrete waypoint within the route, the buttons will change to adapt to the functionalities of the selected element:

From left to right:

- Enter the waypoint properties window. In properties window, element can be activated for navigation.
- Create a new waypoint within the route in which the selected waypoint is.
- Zoom here
- Name search

By a long click on any open route or on any concrete Waypoint within a route, the Contextual Menu with all the available functions for this element will open.

8.2.4 Open and close

8.2.4.1 Open route

From the routes list, by clicking on the name of one of the available files, it will open. You will know it is open because it will be located on top of the list with the left square marked ☑.

8.2.4.2 Close route

Click on the left check mark ☑ of the open route for closing it.

The file will lose its place on the first positions of the list and will return to its corresponding alphabetical position among the other unloaded files.

You may also enter this function from the contextual menu, from which you will also be able to delete files from the memory permanently.

8.2.5 Create and edit

8.2.5.1 Create a route

8.2.5.1.1 Create a route on the map

The fastest and easiest way of creating a route is from the routes editor in the navigation window, on the map.

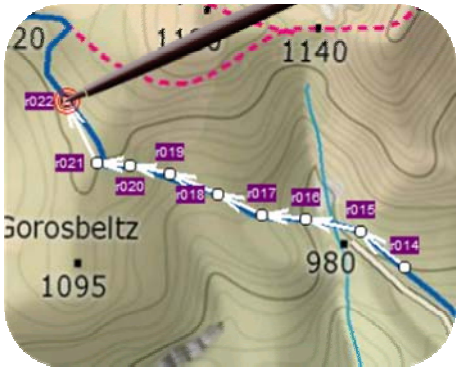
To obtain a correct route you will need a well calibrated map as a reference. Besides, if you want the waypoints of the wished route to have information on the altitude of the ground, an elevations map of the area in CDEM format must be loaded.

You may create the route with the following steps:

1. Keep a long pressure on the point in the map where you wish to begin the route. A contextual menu will be displayed.
2. In this menu, select **New** > **Begin route here**.

In this moment, the menu will close and will go into the routes edit mode.

3. On the map and with the stylus, create the points of the route (clicking on the spots where waypoints must be):



While editing, you may move the map by dragging it for adding waypoints in other spots in the map. The dragging movement won't add waypoints it will only shift the map. To include a waypoint you must click briefly.

You may move the position of the created waypoints by selecting and dragging them (+info)

4. Once you are satisfied with the route, enter the Contextual Menu of route (by means of a long click on the screen) and select **Close Edit**.

See the section edit a route to add new waypoints or modify the existing ones.

8.2.5.1.2 Create a route from the routes list

When you enter the routes list and you have selected a route or nothing is selected, a button to create a new route will be displayed  .

When pressing it, a new route file will be generated and you will be asked how to name it.

The file won't contain any waypoints and they will have to be added using the button (+info)

8.2.5.2 Edit a route

8.2.5.2.1 Add waypoints to the route

You may add waypoints to the route from the routes list or directly on the map.

8.2.5.2.1.1 On the map

1. Open the contextual menu on the route and select 'Edit route'
   In this moment the menu will close and will go into the routes edit mode.
2. Select (by means of a short click) the waypoint after which you want to add a new waypoint.

3. Press on the spot in the map where you want to generate the new waypoint.

4. Add as many waypoints as you wish.
   If you want to add waypoints in other places along the route, all you have to do is repeat step 2 and 3.
5. Once you are satisfied with the route, enter the Contextual Menu of the route (by means of a long click on the screen) and select 'Close Edit'.

When entering the editor, the selected waypoint will be the last, so if you press on the map, waypoints will be added to the last part of the route.

8.2.5.2.1.2 From the routes list

You may enter the 'New Waypoint' function from the routes list, be it through the contextual menu of the route or by clicking briefly on the name of the route and pressing the button.

You will be able to select the position of the new waypoint in 5 ways:

- **Present position:** GPS position in which you are at the moment.
- **Present destination:** if you have selected a destination.
- **Address:** choose country, city, street and number based on the Vmap information.
- **By map:** a window will open so you can place the waypoint on the map.
- **Waypoint:** it lets you copy a waypoint contained in any available waypoints file.

8.2.5.2.2 Delete waypoints of the route

You may delete a waypoint from the routes list or directly from the map. To do so, open the contextual menu on it and select 'delete waypoint'.

8.2.5.2.3 Move the position of the waypoints of the route

You may modify the position of any waypoint on the map or by introducing its coordinates:

8.2.5.2.3.1 On the map

1. Open the contextual menu on your route and select 'Edit route'
   In this moment, the menu will close and will go into the routes selection mode.
2. Select the waypoint that you wish by means of a brief click.

3. Drag it to the spot you want by keeping the pressure on it.

4. To move another waypoint you must first select it and then drag it.
5. Once you are satisfied with the route, enter the Contextual Menu of the route (by means of a long click on the screen) and select '**Close Edit'**.

If after selecting a waypoint you click briefly on the map, a new waypoint will be created just after the selected one.

8.2.5.2.3.2 Introduce coordinates

In order to modify the coordinates of a waypoint, all you have to do is enter its properties window and introduce the new value, checking that the datum and the projection are correct.

8.2.5.2.4 Change the order of the waypoints in the route

To move the added waypoint and approach it or move it further from the beginning of the route, make a long click on the name of the waypoint and select the option 'Move Up' or 'Move Down' from the Contextual Menu.

8.2.5.2.5 Invert the route

To apply on a route the contrary sense to the one it originally had, open the contextual menu of the route from the routes list and select **Tools** > **Invert the route**. This way the sense of the route will be changed and it will begin at the end.

8.2.5.2.6 Convert a route into a track

If you wish to change a route into a track format, open the contextual menu of the route from the routes list and select **Tools** > Change **into a track**.

8.2.5.3 Save

8.2.5.3.1 Save route

If you are satisfied with the work on your routes, you may save it by selecting the option **Save route** from the contextual menu of the route on the map or routes list.

The modifications that you may have made will be saved directly overwriting the old file.

8.2.5.3.2 Save route as

If you wish to save the route under a different name, location (folder) or (*.RTE or *.GPX) formats, you may select the option **Save route As** from the contextual menu of the route contained in the routes list.

8.2.6 Search loaded route on screen

To centre the screen on a route:

1. Enter Main Menu by clicking on 
2. Select '**Main Menu** > **Data**> **Routes**
3. Click on a concrete waypoint and choose between:
   a. Press the  button.
   b. Enter the Contextual Menu of the waypoint (long click on the name or 'Menu' button) and then click on 'Zoom here'.

   A window will open displaying the waypoint on screen with a possibility of zooming in or out.
4. To exit the window, you may choose between:
   - Press  and return to the waypoints list.
   - Press  and return to the navigation window keeping the focus you had on the zoom window.

8.2.7 Properties

8.2.7.1 Properties of a route

Different data of a loaded route can be checked (distance, area it encloses, maximum altitude, etc.) and modify some of its parameters (real and pixel colours) from the window of route properties.

This window can be entered in two ways:

- Contextual Menu of the route in the list
- Contextual Menu of the route on the map

In order to modify the editable parameters, click on them. The ones that can be edited will display a keypad, figures and a colour palette. The ones that cannot be edited will be displayed in grey.

8.2.7.2 Properties of a waypoint

You may enter the properties of a single waypoint from the routes list (by selecting it and pressing the direct button or from the contextual menu) or also from the navigation screen (by opening the contextual menu of the waypoint on the map).

The properties of the waypoints that are contained in a route are the same as the loose waypoints (+info)

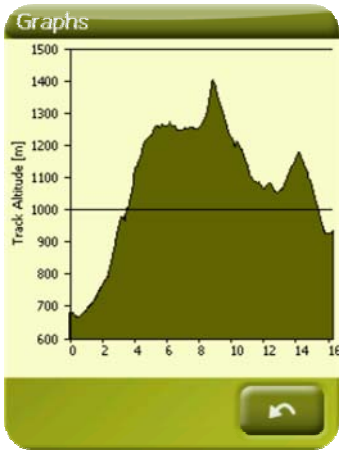
8.2.8 Associated files (images, sounds, texts)

Waypoints of a route can also have associated files (images, sounds and texts). See 'Associated files' at 'Waypoints' section.

8.2.9 Route Graph

You can see a graph of the loaded route in two ways:

- From the routes list: By selecting the 'graphs' option from the contextual menu of the route.



Through the data fields: You may place the field 'route graph' in any position in the data pages, although it is recommended to use the space of the graph page to do it. (+info)

8.2.10 **Activate a route (navigate)**

You may activate (navigate) a route in three ways:

- Menu "Navigate…"
- Contextual Menu of the route within the routes list (long click on the route within the routes list).
- Contextual menu of the route on the map (long click on the route on the map).
- 'Navigate' button  is also available in properties window.

Once activated, TwoNav will guide you towards the first waypoint along the route. When you reach a waypoint along the route, you will be guided towards the next one, and so on until the end of the route.

If you are in **Off-road** mode, a straight line will be displayed from your position to the next waypoint.

If you are in **On-road** mode, TwoNav will try to automatically calculate the sub-route through the streets in order to orientate you in detail with voice instructions.

8.2.11 **Routes contextual menus**

To open the contextual menu on an element, all you have to do is keep the pressure on it for one second.

1. Contextual menu of a route file within the routes list:
    - Properties of the Route (+info)
    - Save Route (+info)
    - Save Route As… (+info)
    - Close Route (+info)
    - Rename file
    - Delete file (+info)

- Graphs (+info)
- Zoom here (+info)
- Send to
- Tools (+info)
- New Waypoint (+info)
- Activate (+info)

2. Contextual menu of a concrete waypoint within a route file or in the routes list:
   - Properties (+info)
   - Delete Waypoint (+info)
   - Zoom here (+info)
   - Send to
   - Navigate… (+info)
   - Move Up (+info)
   - Move Down (+info)

3. Contextual menu of a route on the map:
   - New…
     - Waypoint here (+ info)
     - Begin route here (+ info)
     - Begin track here (+ info)
   - Properties of the Route (+info)
   - Save Route (+info)
   - Close Route (+info)
   - Edit Route (+info)
   - Activate (+info)

4. Edit contextual menu of a route on the map:
   - Close edit (+info)
   - Delete Point (+info)
   - New…
     - Waypoint here (+ info)
     - Begin route here (+ info)
     - Begin track here (+ info)
   - Properties of the Route (+info)
   - Save Route (+info)
   - Close Route (+info)
   - Edit Route (+info)

- Activate (+info)

5. Contextual menu of a concrete waypoint on the map:
    - New… (+info)
        - Waypoint here (+ info)
        - Begin route here (+ info)
        - Begin track here (+ info)
    - Properties (+info)
    - Delete Waypoint (+info)
    - Navigate… (+info)

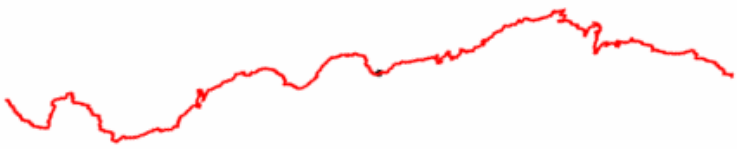
8.3 Tracks

8.3.1 What is a track?

A track is a group of points ordered by time, where each point contains information on the position, time and date, coordinates and, in most cases, altitudes.

Tracks can be split into 2 and 3 **dimensional** ones, depending on whether they have or not the altitudes of the track points. For further information, check Track tools.

Whenever we save the tracks in TwoNav, besides the track points, a series of data is saved that can be modified or inserted from the device, such as the **name of the track**, **remarks**, **colour of display**, among others. For further information check Track properties.



8.3.2 Supported formats

TwoNav can open directly next track formats:

- *.TRK
- *.IGC
- *.PLT
- *.GPX

More track formats can be imported and converted to these ones from CompeGPS Land/Air.

8.3.3 Record a track while navigating

During navigation, TwoNav will record the track of your outing.

This recording will be saved by default in the 'TwoNavData/Data' folder in *TRK format with a name based on the date, (YYYY-MM-DD)*.

You may check if track points are being recorded from the 'Status' page.

TripLog has been designed to control all track data ('trip computer') and points of track recording ('tracklog') at the same time. Data fields and recorded tracks are synchronized, so if you press 'pause', you pause both counters (chronometer, distance, mean speed...) and track recording until 'record' is pressed again. Press 'stop' to reset the triplog.

Access to triplog from:

- Status window
- Context menu at 'Chronometer' data field
- Adding 'Pause' command at the toolbar

Note: When starting new navigation or changing mode, the user is asked to re-start triplog.

If you wish to save the track that is currently being recorded and go on recording into a new file, all you have to do is close the track currently open. Once closed, a new track will be automatically created in which the new track points will be recorded.

You may set the recording parameters from 'Main menu > Settings > Off-road >Tracklog' (+info).

Note: If, in the same day, you have made more than one track, the names will be distinguished by a number at the end that identifies the order in which they were created, (e.g. 2008-12-15-**01**.TRK, 2008-12-15-**02**.TRK, …). You may rename both the tracks previously saved as the track currently being recorded by using the track properties or save as.

A security system has been added to avoid losing tracks if you forget to start Triplog. If 'Save discarded tracklog in trash' ('Main Menu > Settings > System > Advanced') is enabled, when 'pause' or 'stop' buttons are pressed, the following movements of the user are automatically recorded as backup track copy inside 'TwoNavData/Data/Tracklog/Trash' folder.

8.3.4 Default alarm when far from track

When the user is getting away from the original track, there is an option to enable a special alarm to warn him.

By clicking at 'settings > navigation > alarms > tracks', you will be able to activate or deactivate 'deviation alert' field. In case of activation, you will need to fix a 'deviation distance' parameter (by default this function is fixed as '50 meters'). Moreover, you can also configure alarm properties such as: alarm sound (on or off), interval of alert repetition...

8.3.5 Track list

Management of tracks is centred in the track list, although it is possible to carry out many actions directly from the navigation screen through the contextual menu.

By entering the tracks list you will be able to see all the available tracks in the 'TwoNavData/Data' folder.

See the Data section to get to know about the operation of the general lists.

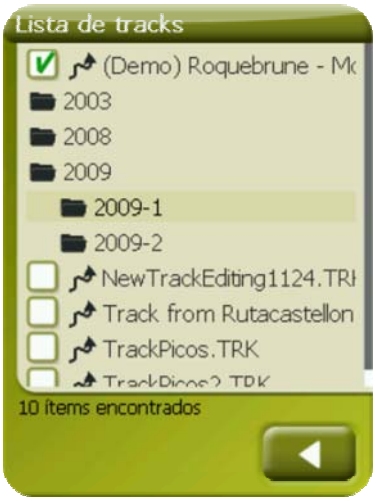
If you have selected a track, the buttons at the bottom of the screen will let you enter the most important functions to carry out on that element:

From left to right:

- Enter the track properties window. In properties window, element can be activated for navigation.
- See the track graph
- Zoom here
- Name search

By means of a long click on any open track, you will enter the Contextual Menu with all the available functionalities for this element.

When the list of recorded tracks becomes too long, they will automatically be grouped in folders selected by year and, inside them, by month of creation (e.g. all the tracks created in 2009 will be found in that folder and inside 2009-1, all the tracks created in January 2009).



TwoNav allows the possibility to present on tracks lists extra information related to these elements such as date, distance, height, relative bearing arrow, track color,... The information is presented in a 2nd line right after the name of the item and it can be customized showing multi-selectable data fields ('Contextual menu of the item > 2nd line data').

Note: The data contained in the 2nd line is only available for tracks which have been saved using TwoNav 2.5 or Land/Air 7.3 (or higher).

8.3.6 Open and close

8.3.6.1 Open track

From the tracks list, by clicking on the name of one of the available folders, it will open. You will know it is open because it will be visible at the top of the list and with the left square marked ☑.

8.3.6.2 Close track

Press on the left check mark ☑ of the open track in order to close it.

The folder will change position from the first place on the list and will go back to its alphabetical position among the other unloaded files.

You may also enter this function from the contextual menu, from where you will also be able to delete files from the memory completely.

8.3.7 Create and edit

8.3.7.1 Create a track

The way to create a track is from the tracks editor from the navigation window on the map.

To obtain a correct track, you must have a well calibrated map as a reference. Besides, if you want the waypoints of the created track to have information on the altitude of the ground, a map of the elevations of the area in CDEM format must be loaded.

You may create the track following these steps:

1. By means of a long click on the point of the map where you want to begin the track. A contextual menu will be displayed.
2. On this menu, select **New** > **Begin new track here**.

In this moment, the menu will close and it will go into the tracks edit mode.

3. On the map and with the stylus, start creating the points of the track (by pressing on the places where there should be points):

During editing, you may move the map by dragging it in order to add points in other parts of the map. The dragging movement won't add points, it will just move the map. To add a point you must click briefly.

You may move the position of the created waypoints by selecting and dragging them. Once you are satisfied with the track, enter the Contextual Menu of the track (by a long click on the screen) and select **Close Edit**.

See the edit track section to add new points or modify the existing ones.

Besides the 'manually' created tracks, TwoNav will keep creating 'automatically' the track of your outing recording your position according to the settings of tracklog.

8.3.7.2 Edit track

8.3.7.2.1 Add points to a track

You may add points directly on the map:

1. Open the contextual menu on the track and select 'Edit the track'.
   In this moment, the menu will close and it will go into the track editing mode.
2. Select (by means of a short click) the point of the track after which you want to add a new point.

3. Press on the spot in the map where you wish to generate the new point.

4. Add as many points as you wish.
   If you want to add points in other spots in the track, all you have to do is repeat steps 2 and 3.
5. Once you are satisfied with the track, enter the contextual menu (by means of a long click on the screen) and select **Close Edit**.

When entering the editor, the point of the selected track will be the last one, so if you press on the map, points will be added to the last part of the track.

8.3.7.2.2 Delete points from track

1. Activate the edit mode: long click on the track on the navigation screen (on the map) and then select 'edit track'.
2. Open the contextual menu on the point you wish to delete and select 'delete point'.
3. Delete as many points as you wish by repeating step 2 while you are in edit mode.
4. Exit the tracks editor (long click on the screen and then select **Close Edit)**

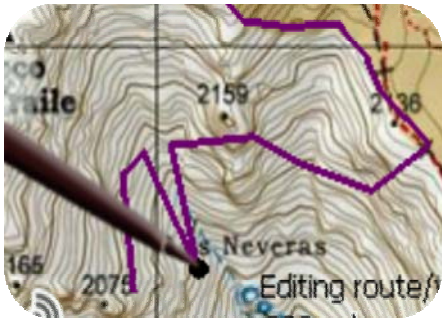
8.3.7.2.3 Move the position of the track points

You may modify the position of the track points directly on the map or by introducing its coordinates:

8.3.7.2.3.1 On the map

1. Open the contextual menu on the track and select 'Edit track'
   In this moment, the menu will close and it will go into the routes edit mode.
2. Select the point you wish to move by pressing briefly.

3. Drag it to the place of your choice by keeping the pressure on it.



4. To move another point you must select it first (by pressing briefly) and then drag it.
5. Once you are satisfied with the track, enter the contextual menu (by a long click on the screen) and then select **Close Edit**.

If, once selected a point, you click briefly on the map, a new track point will be created right after the selected one.

8.3.7.2.3.2 Introduce coordinates

In order to modify the coordinates of a track point, all you have to do is enter its properties window and introduce the new value, checking that the datum and projection are correct.

8.3.7.3 Track legs

TwoNav allows you to work with tracks fractioned in legs.

8.3.7.3.1 Create legs

8.3.7.3.1.1 Create legs on an existing track

You may split the track in two legs by opening the contextual menu on the point that divides the two selected legs 'legs > Change leg here'.

In this moment, the leg closer to the end of the track will change colour to highlight the difference between the two legs. The initial leg will remain the original colour of the track.

You may repeat this operation as many times as you want in order to get the amount of tracks you need.

8.3.7.3.1.2 Create new legs on the present track

If during the recording of the present track you activate a pause from the status window, when starting recording again, the new points will keep being recorded in the same file as before the pause, but a new leg with the new points will be generated automatically. This way, you will be able to make out easily the parts of the present leg and apply independent modifications on them.

If there is a distance from the moment you paused the recording of the track until you activated it again, the empty space passed in this time will be visible on its display.

8.3.7.3.2 Operations with legs

If you open the contextual menu on a leg of the track in the navigation window from the 'legs' option, you will be able to enter the following functions:

- **Leg properties:** You may change the colour and thickness of the leg and add a note.
- Change leg (+info)
- **Delete this leg:** the points of this leg will be deleted from the track, leaving an empty space in its place.
- **Save track as:** You may save the track independently from the rest of the track. This way, a new track file will be created with just this leg.

8.3.7.4 Reverse track

Any track can be reversed so the order of its points is the opposite. This can be especially useful if you have run a distance recording the track as you go and then you wish to go back along the same way.

To reverse the track, all you have to do is open the contextual menu on it from the track list and select 'Tools > Reverse track'.

8.3.7.5 Advanced track tools

From the track contextual menu in the tracks list, you can enter the 'Tools' submenu, which includes highly interesting secondary tools for concrete needs:

- **Calculate the altitude of the ground of each point (Import altitudes):** If you have 3D relief (CDEM) loaded, TwoNav may assign each point of the track its altitude considering the information of the relief.
- **Delete stopped points from the beginning and the end (Del.strt/end points)**: The track omits the repetitive points from the beginning and the end, where you were stopped before and after making the track.
- **Reduce the number of points (Reduce num. points):** By introducing the number of points, the track is drawn with the points keeping the shape of the track in the most possible faithful manner.
- **Assign time and speed (Assign time/speed):** By using this option you may determine a time for departure and a constant speed so TwoNav calculates the estimated time of arrival to each point in the track.

If a track does not contain time data, you cannot enter the play function of its contextual menu.

- **Delete the aberrant points (Del. aberrant points):** In case a point diverts excessively from the rest, it will be considered an error and deleted.
- **Change the track into a route (Convert TRK to RTE):** This option will change the track into a route. The program will ask you to introduce the number of waypoints you want the route to have. The new file of the route will be displayed on the 'Main Menu > Data> Routes'.
- **Invert track:** This function reverses the sense of the itinerary of the track, so if you decide to navigate it, it will be in reverse sense.

8.3.7.6 Save

8.3.7.6.1 Save track

When you are satisfied with your track, you may save it by selecting the option **Save track from the** contextual menu of the track or track list. The modifications that you have made will be directly saved overwriting the old file.

Note: The track being recorded as you go is saved automatically every 5 minutes. When closing the system, a final saving of the present track will be saved.

8.3.7.6.2 Save track as

If you wish to save the track under another name, location (folder) or format (*.TRK, *.IGC or *.GPX) you may select the option '**Save track as'** from the contextual menu of the track in the tracks lists.

8.3.8 Search a loaded track on screen

To centre a track on the screen:

1. Enter the Main Menu by pressing 
2. Select '**Main Menu** > **Data**> **Tracks**
3. Click on the track and choose between:
   a. Press  button.
   b. Enter the Contextual Menu of the track (long click on its name or 'Menu' button) and click on 'Zoom here'.

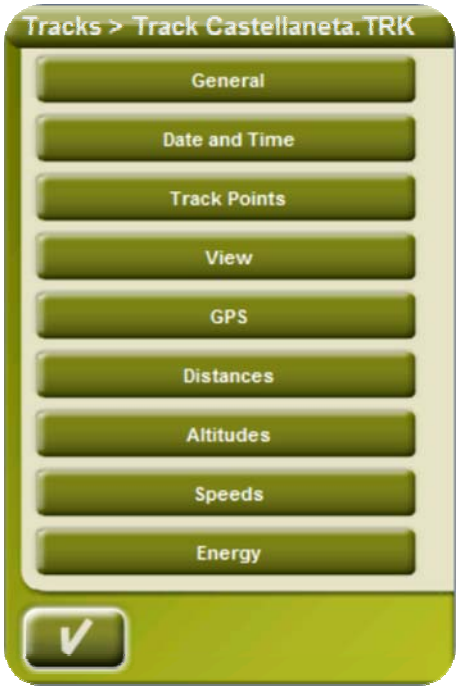
   A window displaying the track on screen with the possibility of zooming in or out will open.

4. To exit the window you may choose between:
   - Press  and return to the tracks list.
   - Press  and return to the navigation window keeping the focus you had in the zoom window.

8.3.9 Properties

8.3.9.1 Track properties

The different data on a loaded track can be consulted (distance, area it encloses, maximum altitude, etc.) and modify some of its parameters (colour, thickness, description…) from the properties window of the track.



You may enter this window in 3 ways:

- Direct button: brief click on the name of the track on the List and then press the button at the bottom of the list.
- Contextual menu of track in the list
- Contextual menu of the track in the map

Once inside it, you will be able to modify some parameters of the track and consult a great variety of data grouped by sections:

- **General**: Name of file (you may also change the track name from the contextual menu of the tracks list or by 'save as'), User name, Outing name, Notes on track.
- **Date and time**: Day, Departure time (first track point), Arrival time (last track point), Duration, Difference between local time and UTC (more or less hours in regards to GMT), Time stopped, Time moving.
- **Track points**: Number of points, Recording intervals (this value can be set from 'Main Menu > Settings > Off-road > Tracklog'), Extra data fields (additional data that the tracks have besides the coordinates, altitude and time).
- **See**: Thickness, real width of track and colour of the track line.
- **GPS**: GPS model, series number and if the track features a digital signature.

- **Distances**: Projected distance (it is the distance that has been covered on the horizontal, disregards the distance covered in altitude), Distance with altitudes (the real distance covered by outlining the orography of the ground), linear distance (distance on a straight line between the first and the last point of the track), Area (surface enclosed by the track). This last datum is achieved by closing the track with a straight line in case there are no closed tracks).

- **Altitudes**: Track with altitudes (if the track features the altitude datum), Maximum altitude, Minimum altitude, Departure altitude (at the track origin), Arrival altitude (at the last point), Gain from the departure (difference between the departure altitude and the maximum reached), Departure-arrival slope, Maximum slope (difference of altitude between the highest and lowest point of the track), Accumulated climb * (total of the different gains in altitude made during the track, i.e. what we have had to climb in reality), accumulated descent*, (Max. vertical speed (climbing speed), Min. Vertical speed (descent speed), Max. Slope, Min. Slope.

- **Speed**: Medium speed and Maximum speed reached in the track.

- **Energy:** Mass (weight of the person tracking together with the vehicle, bicycle, motorbike, rucksack, etc.), Energy measured in Joules, Average power measured in vats (consumed along the whole track), Average power on climbs measured in vats (consumed during the track climbs).

***** Only altitudes changes over 5 metres will be computed in properties, such as accumulated climb/descent. This is in order to prevent the resulting fluctuations of the GPS error margin from adding non real differences of level.

As a result, a track that begins and ends in the same place may have an ‘accumulated climb’ that does not match the ‘accumulated descent’.

CompeGPS Land lets you modify the “minimum difference to accumulate difference of level” in order to adjust it to your preferences in the track analysis.

8.3.9.2 Properties of a track point

You may enter the properties of a single point in the track from the navigation screen by opening the contextual menu on the point in the map and selecting ‘edit track point’.

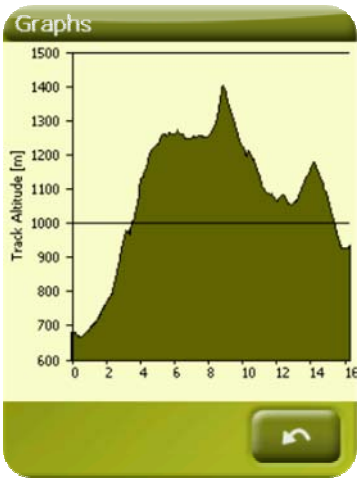
From the window that will open, you may enter:

- **Icon**: Choose the icon with which you wish to mark the position on this point of the track
- **Description**: You may include a note of your choice for this place.
- **Coordinates**: You may consult or modify the coordinates of the point.
- **Day and date**
- **Associations:** it associates image or sound files to your waypoints so they are displayed during navigation when reaching this point.

8.3.10 Track graph

You may visualize a graph of the loaded route in two ways:

- From the tracks list: By selecting the contextual menu option of the route or by selecting the route and pressing the button.



Through the data fields: You may place the 'route graph' file in any position within the data pages, however, it is recommended to use the space of the graph page for this end. (+info).

8.3.11 Activate a track (Navigate)

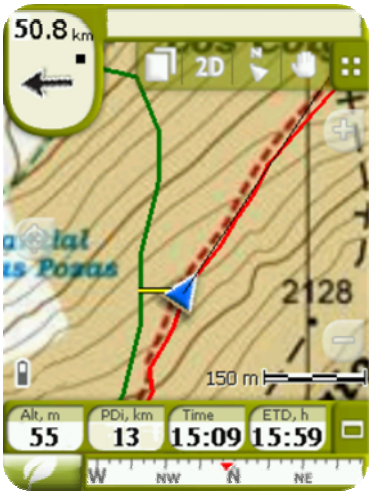
You may activate (navigate) a track in three ways:

- Menu "Navigate…"
- Contextual menu of the track in the tracks list (long click on the track in the tracks lists). The tracks list also features a direct access button to the navigation function.
- Contextual menu of the track on the map (long click on the track on the map).
- Navigate' button is also available in properties window.

Once activated, TwoNav will guide you along the track by using two tools:

- **GOTO arrow**: In the 'next event' space, an arrow will be displayed to indicate a direction tangent to the track. It means you can take the direction of this arrow as a reference to keep going your way.

  Note: If you are over 50 metres far from the track, the GOTO arrow will indicate the perpendicular to the track instead of the tangent. At this distance it will be considered that you are off the way that you should be following and that you must go back to it in the most direct possible way, i.e. perpendicularly.



Guide line: Your position will be joined to the track by means a perpendicular line between them. When you are over 50 metres from the track, this line will turn red.

Note: If the track you are following has over 100 points, the guide line will indicate the point closest to the track instead of the perpendicular.

8.3.12 **Tracks contextual menu**

To open the contextual menu on an element, keep the pressure on it for 1 second.

1. Contextual menu of a track inside the tracks list:
    - Track properties (+info)
    - Close Track (+info)
    - Delete file (+info)
    - Close all except this one
    - Save Track as… (+info)
    - Rename file (+info)
    - Graph window (+info)
    - Play (+info)
    - Zoom here (+info)
    - Edit the track (+info)
    - Send to
    - Tools (+info)
    - Activate (+info)

2. Contextual menu of a track on the map:
    - New…
        - Waypoint here (+ info)
        - Begin route here (+ info)
        - Begin track here (+ info)
    - Track properties (+info)
    - Save Track (+info)
    - Close Track (+info)
    - Edit Track (+info)
    - Edit Track point (+info)
    - Activate (+info)
    - Legs (+info)
        - Leg properties
        - Change leg here
        - Delete this leg
        - Save leg as
    - Play Here (+info)

8.4 Maps

TwoNav lets you manage a great variety of maps in an easy way.

You may get more maps to use with TwoNav in various ways, from buying them directly from our web page, to calibrate paper maps with CompeGPS Land.

For further information go to www.compegps.com or www.twonav.com.

8.4.1 Supported formats

TwoNav can open directly next map formats:

- *.RMAP (CompeGPS Raster map format)
- *.ECW (Raster map format)
- *.VMAP/*MPVF (CompeGPS vector map format)
- *.IMP (calibration file requiring image file)
- *.MAP (calibration file requiring image file)
- *.CDEM (3D relief)
- *.NV2 (Navionics Marine charts)

More map formats can be imported and converted to these ones from CompeGPS Land/Air.

8.4.2 Types of maps

There are different basic types of maps:

- Vmap: **Road** maps with which the On-road* works.
- Topo: **Topographic** maps from CompeGPS.
- **CDEM** relieves: **Elevations** maps whose only information is the altitude of the grounds. When having a relief loaded we may enter the 3D+ and give altitude to the created waypoints, routes and tracks.
- **Marine charts**

Besides these three types of CompeGPS own ones, you may use other types of maps that you may get by other means (air images, topographic maps from other sources, scanned and calibrated paper maps, etc.).

* If the TwoNav memory does not contain any other road map, the On-road mode won't be activated. Enter the Map Shop in www.twonav.com.

8.4.2.1 Marine charts

Marine charts have specific information for nautical activities.

TwoNav Ultra and TwoNav Ultra+ are fully compatible with Navionics marine charts (*.NV2 files). The user only needs to update the operative system of the device, At FAQs section of www.compegps.com you will more information on how to update the operative system.

These kind of map will enable several special functions related with nautical activities (POI info, depth data fields and alarms...).

8.4.3 Maps lists

Management of the maps is centralized in the maps list, however, it is also possible to carry out many other actions directly from the navigation screen by means of the contextual menu.

See the Data section to learn the general operation of the lists.

By entering the maps list you will be able to see all the maps available in the 'TwoNavData/Maps' folder for your present position.

If you wish to see the complete list of maps (not just the ones of the present position), activate the 'see all' button. 

Each map has an icon to indicate which type of map it is:

 Vectorial

 Raster

 Relief (CDEM)

 If a map is present in maps folder but it is not activated (license required), a padlock will be added to the icon.

If you have selected a map, the buttons at the bottom of the screen will let you enter the most important functionalities this element has:

From left to right:

- See all/See available ones for present position
- Properties
- Zoom here
- Name search

8.4.4 Open and close

8.4.4.1 Automaps

By activating this position, TwoNav will try to load the best map in each moment.

- In **On-road** mode, the V-map (road map) of the area will be loaded and the rest will be closed.
- In **Off-road** mode, the map with the best resolution (not a V-map) will be loaded and any other Vmap will close.

If you want to keep the loaded maps when changing from one mode to another, deactivate the 'Automaps' function.

8.4.4.2 Open map

From the maps list, by pressing on the name of one of the available files, it will open. You will know it is open because it will be placed on the top of the list with the left square marked ☑.

8.4.4.3 Close map

Press on the left check mark ☑ of the open map for closing it.

The file will leave its position on the first places of the list and will return to its alphabetical position among the other unloaded files.

You may also enter this function from the contextual menu (in the maps list or on the navigation window) and pressing the 'close' (X) button from the bottom of the list.

8.4.5 Search a loaded map on screen

To centre a map on the screen:

1. Enter the Main Menu by pressing 
2. Select '**Main Menu** > **Data** > **Maps**
3. Click on the map and choose between:
    a. Press the  button
    b. Enter the Contextual Menu of the map (long click on the name or on the 'Menu' button) and click on 'Zoom here'.

A window display in the track on the screen will open with the possibility of zooming in or out.

4. To exit the window you may choose between:
   - Press  and it will return to the tracks list.
   - Press  and return to the navigation window keeping the focus you had in the zoom window.

8.4.6 Properties

You can check different data of a loaded map (description, map type, resolution, extension, etc.) from the properties window of the map.

You may enter this window in three ways:

- Direct button  : brief click on the name of the map in the list and press the button at the bottom of the list.
- Contextual Menu of the map in the list
- Contextual Menu of the map in the navigation window

8.4.7 Multi-Maps

TwoNav lets you load more than one map at the same time. If you have two maps for the same area (e.g. an orthophoto and a topographic map) and load them at the same time, one of them will hide the other. The 'Multi-Maps' function lets you set this maps superposition by selecting the map you wish to be placed below or above the other.

To enter this tool, choose the '**Multi-Maps'** from the Contextual Menu of the map you wish to manage ('Main Menu > Data > Maps') and select 'Bring to the front' or 'Send back' as you prefer.

8.4.8 Contextual menu of the map

To open the contextual menu on an element, all you have to do is keep the pressure on it for 1 second.

1. Contextual menu of the map on the navigation screen:
   - New…
     - Waypoint here (+ info)
     - Begin route here (+ info)
     - Begin track here (+ info)
   - Stop Nav.: You may stop your present navigation at any moment by this direct access alternative to 'menu > navigate to > Stop nav.'.
   - Navigate here (+ info)
   - Properties of the map (+ info)
   - Close map (name of map) (+ info)
   - Multi-map, Advanced...: (+ info).

2. Contextual menu of the map in the maps list:

- Properties of the map (+ info)
- Close map (+ info)
- Zoom here (+ info)
- Multi-Maps, Advanced (+ info)

9 Other functions

9.1 Simulation

TwoNav lets you see a representation of the itinerary you are going to follow. It will be displayed with the position icon in green to distinguish it from the 'present position' icon in red.

It features two kinds of simulations:

- A->B (only in 'On-road' mode): From 'Main menu > Discover > Simulate', you may choose two points (POIs, addresses, favourites…) so it shows you the proposed route to go from point A to point B.

- Reproduce track: Open the Contextual Menu in the tracks list or with the track on the map and select '**Play'**. An animation of the itinerary will be displayed. During the animation, the simulated position will be shown with a green arrow and will become the prevailing one, so the position will be centred on it and the movement statistics will be related to it.

When simulation is running, some tools to manage it will appear in the tool bar:

- Pause: click on it to pause and again to resume
- FF/RW: click on it again to accelerate and again to return to normal speed
- FF to next/RW to prev: Jump to next event (waypoint or On-Road manoeuver)

To stop the simulation, you may go to 'Main menu > Discover > Stop sim.' 

9.2 Zoom to…

The option 'Zoom to…' allows you to carry out a quick pre-visualization of the element you wish to see on the map*****. There are a great number of elements to visualize:

- **Address:** if you have loaded a routable map, with this tool you will be able to see the address chosen by you and it will appear centred on the screen.
- **POI:** if you have loaded a routable map, you will be able to carry out a quick visualization of the Points of Interest (POIs), such as petrol stations theatres, etc.
- **Favourites:** you may establish places on the map as favourite points, as for example your home. If you have saved places as favourites, you will be able to zoom on them in order to see them centred on the map.
- **Data: You will also be able to see** waypoints, routes and tracks on the map. Although you do not need to have loaded the map on which this data was created, as pre-

visualization is based on the geographical coordinates, it is interesting to 'zoom to…' these element on the map for you to see the details of the ground where they were made.

- **Coordinates:** TwoNav allows you to quickly visualize concrete coordinates introduced by you. **Remember** that to visualize what these coordinates correspond to, you must have loaded a map of that area.

***Note:** the option 'Zoom to' shows you the element that you want to see in a window solely for this purpose that is not the same as the navigation window. However, when you carry out a 'Zoom to…' an element, when returning to the navigation window, the focus will still be on this element. To re-centre the focus on its present position you may use the 'Re-centre' tools.

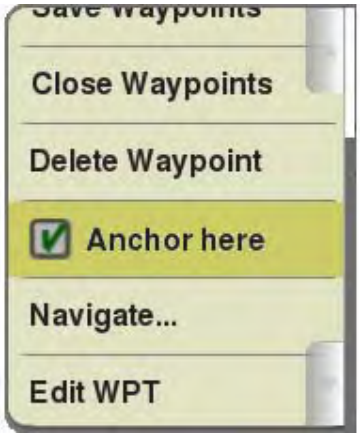
9.3 Anchor here

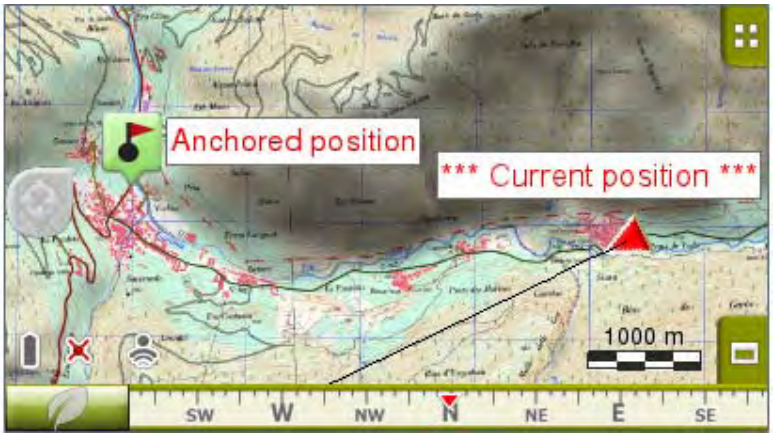
Fix a virtual position somewhere is to virtually replace the current position of the user for a new position in the map. In order to anchor a position apply any of these options:

- 'Main Window > Contextual menu > Anchor here'
- 'Main Menu > Data > Item > Contextual menu of a waypoint > Anchor here'

Once fixed, information displayed on data fields (e.g: proximity) is based according to the new anchored position, and not on the real position of the user. Moreover, if 'Anchor here' is pinned, options such as 'Recenter map' are applied to the anchored waypoint instead of the current position of the user.

In order to restore the current position as the default one, apply the same option to unpin the fixation.





9.4 Bluetooth

Open the GPS bluetooth,you an use the mobile phone find "TwoNav".and entry the password 1234,

display matching success!

The bluetooth can be used for telephone.

10 Geocaching

TwoNav provides all the necessary tools to practice 'paperless' Geocaching, from reading GPX files with Groundspeak extensions to the generation of field notes which can be uploaded to Geocaching.com.

Geocaching tools are centralized in 'Menu > Discover > Geocaching'. Here you can find easy and quick access to the most important functions. In addition to this, you can also work with geocaching files like as any other waypoints file.

10.1 Compatible Geocaching files

In order to be fully compatible with paperless Geocaching, a waypoints' file needs to have 'geocaching extensions' which provide information about geocache (description, difficulty, terrain, etc.).

These files are typically available in GPX format from Geocaching.com. TwoNav can read directly these GPX files, but they can also be converted to WPT or BWPT format keeping their 'geocaching extensions'.

LOC files will also be listed when choosing a 'geocaching' destination, but these files cannot be considered as fully compatible with Geocaching because they don't include 'geocaching extensions', so extra information as description or field notes will not be available.

Files with geocaching extensions are read differently to other waypoint files to optimize time and memory. Due to this, they can not be edited in TwoNav. Geocaching files are currently 'read only'.

10.2 Geocaching menu

Geocaching tools are centralized in 'Menu > Discover > Geocaching', from where you can control all the stages of geocache hunting:

1. Select a geocache to hunt -> 'Navigate...'
2. Access all of its information -> 'General', 'Description', 'Encoded hints', Associated'
3. Check field notes from other users and generate your own ones -> 'Field notes'

Note: Geocaching menu is not available in On-Road mode for 2.2 version.

10.3 Setting a geocache as destination

You can set a geocache as destination in 3 different ways:

1. 'Menu > Navigate... > Geocache'*
2. 'Menu > Discover > Geocaching > Navigate...'*
3. Like any other waypointFrom waypoint properties or context menu.

***** Not present in On-Road mode

Waypoints can be ordered in different ways. Open context menu on waypoints file name and select 'Sort by' to choose the rule to order waypoints (name, proximity, etc).

10.4 Geocache's specific properties

Geocaches normally include extra information comparing to normal waypoints.

When looking at properties of a geocache, specific information will be found in 3 sections:

- General: Next properties can be found in addition to standard waypoint properties:
  - Difficulty

- Terrain
- Type
- Container
- Country
- State
- Placed by
- Owner
- Link: Not specific of geocaches, but normally used as reference to find geocache info in the web.

- Descriptions
  - Short description
  - Long description
  - Encoded hints
  - Travel bugs

- Field notes: You can see notes from other users or create your own notes.
  - Logs: Check the field notes from users who previously attempted that geocache.
  - Status: The current state of that geocache for you.
  - Comment: Extending information about status.
  - Date: Of the latest field note for that geocache.

Most of this specific information can also be accessed from 'menu > Discover > Geocaching' for geocache which is currently set as destination.

10.5 Generating field notes

In addition to see field notes of other users, TwoNav allows to create your own field notes regarding to any geocache which of a compatible file.

- You can generate fields notes for the geocache which is **currently set as destination** from 'menu > Discover > Geocaching > Field notes'.
- You can generate field notes for **any geocache** from 'menu > data > Waypoints'. Just select the geocache and access its 'properties', 'Field notes' section.

Once in 'Field notes' window, choose a 'Status' for that geocache. You can also add a comment. Press 'OK' and field note will be saved in 'geocache_visits.txt' file.

'geocache_visits.txt' file can used to easily upload your field notes to www.geocaching.com.

Note: While this document is written, there aren't specific instructions to upload TwoNav's field notes. Instructions for other GPS devices like Garmin Colorado or Oregon are applicable to TwoNav. Just find 'geocache_visits.txt' file in TwoNavData/Data folder and upload it.

10.6 Geocaches with associated files

TwoNav allows to work with waypoints which have associated files, like images, sounds or texts. Waypoints of a geocache can also have associated files (images, sounds and texts). See 'Associated files' at 'Waypoints' section.

Files which are associated to a waypoint can be played manually (by waypoints list, context menu or infocurrent) or automatically when entering radius of that waypoint (+info). Autoplay can be configured from 'menu > Settings > Navigation > WPT alert'.

If a Geocaching file has associated files, they can also be reproduced from 'menu > Discover > Geocaching', after setting geocache as destination.

10.6.1 Add associated files to a geocache

It is not possible to edit Geocaching files from TwoNav.

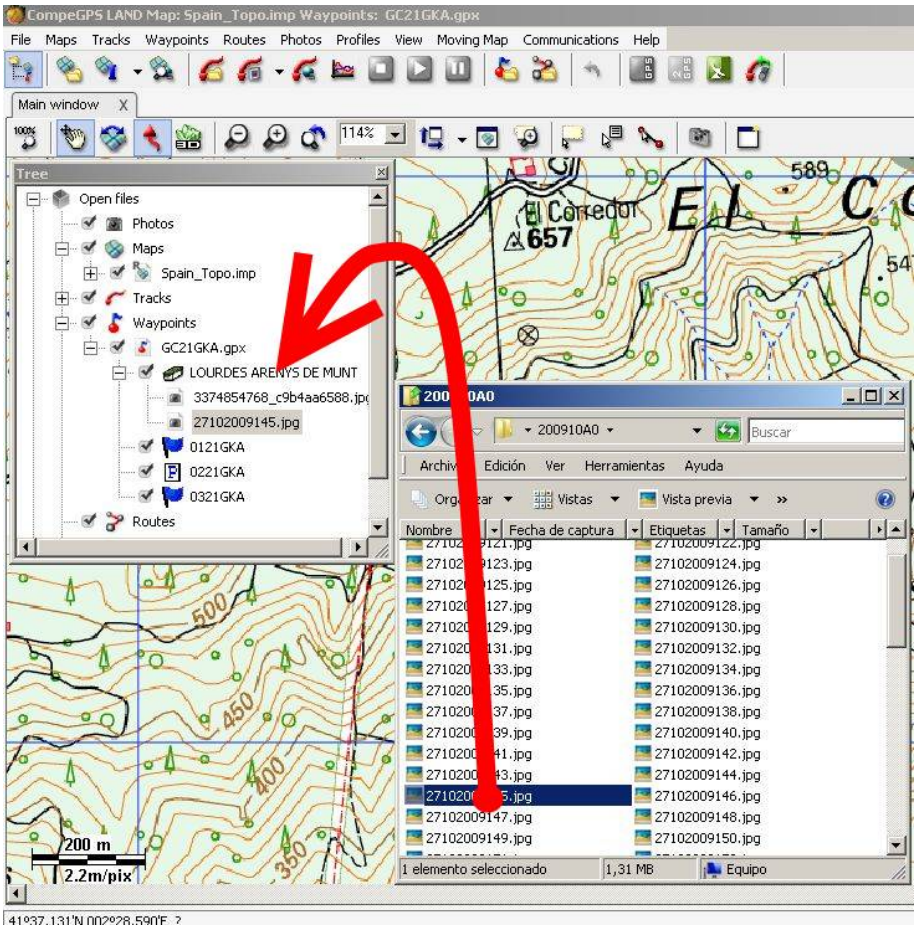
Edition has to be done from CompeGPS Land 7.1* or higher.

Follow next steps to associate files to a geocaching file from CompeGPS Land:

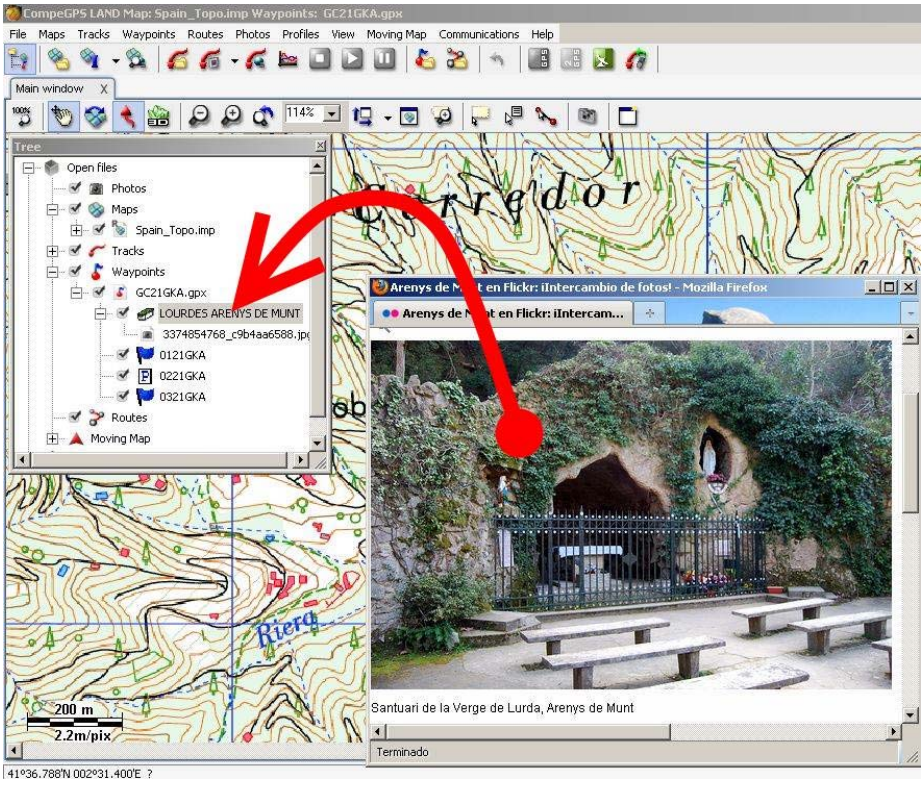
1. Start CompeGPS Land and open geocaching file (normally *.GPX file). Geocaches will appear in 'Waypoints' section of data bar.

2. Add files to geocache by one of the next methods:

   a. Drag files from Windows explorer: Keep left mouse button pressed on the file and drag to the waypoint to associate.



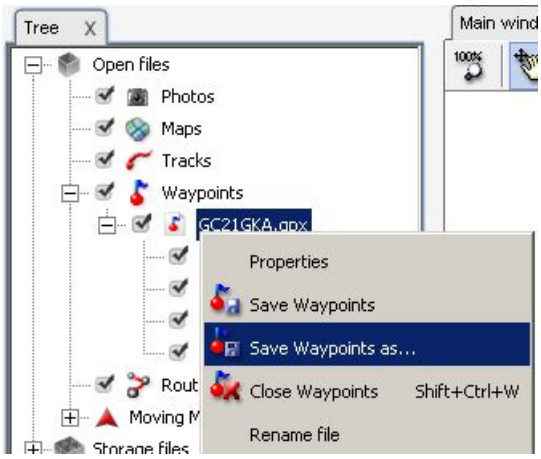
   b. Drag files from Internet browser: Dragging can be also done directly from browser. Just drag the image to waypoint at the tree.



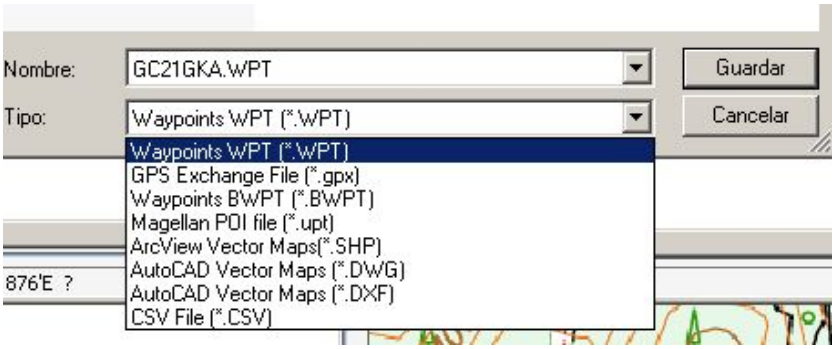
c. From waypoint properties, ‘associated’ section.

3. Save file in *.WPT format:

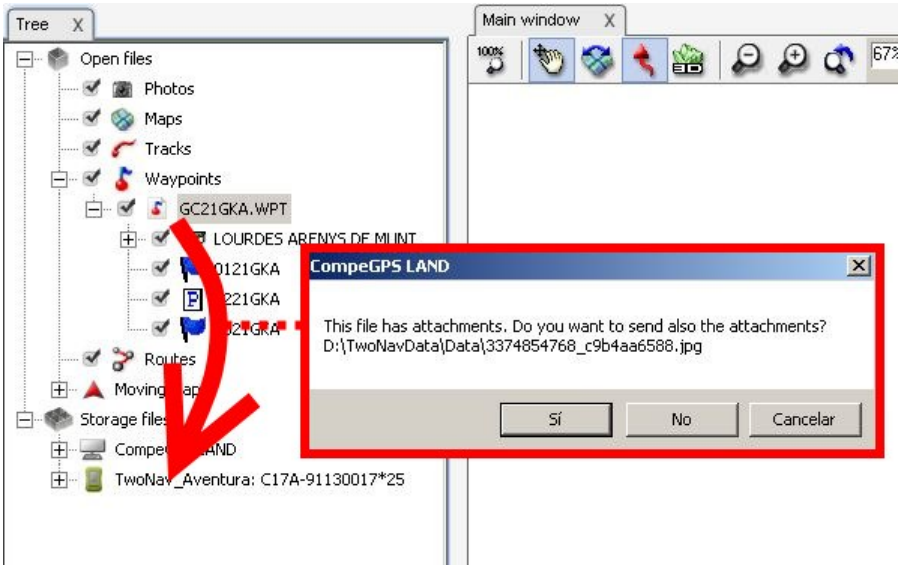
a. Open context menu on waypoints file and select ‘Save waypoints as...’



b. Choose ‘type’ *.WPT.



4. Resulting file will be compatible with geocaching (keeping geocaching extensions) and will include links to associated files. When sending to TwoNav (see 'communication' section), CompeGPS Land will ask to send associated files besides waypoints file. Answer yes, so associated files will be available in TwoNav so they can be reproduced.



* CompeGPS Land 7.1 is still not released while this document is written. Check current availability of official or beta versions at www.compegps.com .

10.7 **Geocache status**

At 'Settings > Display > Geocaching', the user will be able to show or hide geocaches.

Geocaches which have been labelled as 'found geocache', won't appear in the list. By doing this, the user won't need to see geocaches that were previously found.

11 Communitacion with CompeGPS Land (PC software)

CompeGPS Land is the perfect software to manage all your data comfortably from your PC.

You can get the latest version of CompeGPS Land/Air from www.compegps.com . You can also download full manual in several languages.

After installing it, just connect the portable device to PC and CompeGPS Land will automatically detect the device and display it on the 'Storage files' branch in the data tree.

Under the name of the device you can view its contents classified by type of item (tracks, routes, waypoints, maps).

In the data tree will also appear, as one device more, CompeGPS Land, showing the data stored in the default folders.

Once connected, you can perform various operations with the device:

- Open files
- Transfer flies
- Activate protected contents
- Update the software of the device

11.1 Open files of a device

Open a file from a connected device is as easy as double clicking its name in the tree data.

Once opened, the file appears in the branch 'open files' of the data tree and you will be able to work with it as with any open item.

Remember that the file is still stored in the memory of the device. If you want to save it on the PC, you should do 'right click> Save as' or transfer as shown in the following paragraph.

11.2 Transfer files between PC and device

File transfer "PC <-> Device" can be done basically in 2 ways: with the context menu or by dragging the file directly in the data tree.

If a file is protected (requires license), when transferring it will ask for the register code to activate the target device. If the activation is not done, you will not be able to use that file in the device.

Note: You can transfer more than one file at a time. Simply hold down the CTRL key while selecting. You can also use the SHIFT key to select multiple files that are listed consecutively.

11.2.1 Transfer by the context menu

You can open the context menu for an element, either in the data tree or on the map, by right-clicking on it.

To transfer the file to another location just select the option **'Send to**...' and choose the destination.

You will find the available devices as destination options.

In addition there is the option 'Select Folder' to place the file anywhere in the system via Windows explorer.

11.2.2 Transfer by dragging through the data tree

You can move files from the data tree by holding left mouse button and moving the file from its origin to its destination.

For example, if you want to move a track from the memory of an Aventura GPS to the PC, locate it and drag it from the tracks folder of the device to the branch 'CompeGPS Land'. Release the element on the name of the target device and it will be automatically placed in the default folder for that kind of files.

You can also drag files you have open (listed in the branch 'open files' of data tree) to devices listed in 'storage files'.

11.2.3 Transfer protected files

Some files (usually maps) are protected to prevent illegal copying.

When you try to transfer a protected file to a new device, it will alert you of its condition and will ask you a register code (license) to activate the file on the target device.

If you transfer more than one protected file at a time (using the CTRL or SHIFT key), it will ask successively the necessary codes.You can also transfer protected files without activating them and then activate them using any of the available methods (see section Activation).

11.3 Activate maps in a device

You can activate maps in a device in different ways. The easiest way is right clicking on the map in the data tree and select 'Activate for this device' (+ Info).

You can also activate the map when transferring from PC to the device (+ info).

11.4 Update the software of a device

CompeGPS Land can automatically update the software on different TwoNav platforms (Aventura, Ultra, Ultra+, Delta, Evadeo…).

To access to the updates:

1. Connect the device through direct communication (USB plug and check that appears in the data tree)
2. Do right click on its label in 'storage files' and select 'Update TwoNav Software‘.

3. If there is a more recent version than the one installed in the device, it will offer a download. Accept it.

   The download and installation process will take several minutes.

4. When finished, you can boot the device normally.

12 Support

If you have any kind of doubt or problem with the system, you may check the support sections of the CompeGPS (www.compegps.com) or TwoNav (www.twonav.com) pages.

To make personalized enquiries you may use the 'on-line' CompeGPS support system by entering the http://support.compegps.com space.

13 Limited warranty

CompeGPS Team SL guarantees that this product is free from defects in material or workmanship for two years from the date of purchase.

During warranty period, CompeGPS Team SL commits to repair any defective product or replace it for a functional one, without guarantee about preservation of any data that may be stored in it.

CompeGPS Team SL does not guarantee the quality of the included maps, being free of any responsibility that may be derived from them.

Wear and tear effects that may happen in some elements (like screen, buttons, rubber caps or moving parts) are out of guarantee.

Present warranty will be cancelled if any of the next circumstances happen:

1- Rough handling in any form: strong hits, pricks, torsions, compressions, vibrations etc.

Re-charging battery while driving a motorbike or any other vehicle which is causing vibrations is highlighted as a specific case of rough handling.

2- Inappropriate exposure to water (i.e. any type of exposition if rubber caps are incorrectly adjusted or immersions even with caps correctly placed), dust, extreme thermal conditions, corrosion, oxidation or chemical substances

3- Manipulation of the product by non-allowed devices or applications, particularly if trying to install any other software than the authorized (supplied exclusively in CompeGPS Team SL web spaces www.compegps.com and www.twonav.com) or using illegal activation keys not provided by CompeGPS Team SL.

4- Disassembling, modifying or repairing when not performed by CompeGPS Team SL technical service.

CompeGPS Team SL will not be liable for any damage derived from the use or bad use of the product, being free of any obligation if any accident occurs when the device is used in any mean of transport.

Any demand must be performed contacting with CompeGPS Team SL by one of these ways:

1- Through the reseller that made the sale of the product.

2- By the CompeGPS' on-line free support service, accessing from http://support.compegps.com web page.

Once the contact has been confirmed, next steps to execute your guaranty will be communicated to the client.

Any demand must come with its correspondent original receipt, where vendor name and address, date and place of purchase and type of product must be specified.

Any shipping costs are the sole responsibility of the customer.

14 Appendix 1 – Data fields

Next is a list of the items that you can find in the Data page or in the Data bar if it has been set.

By default, only fields of frequent use will be shown, alphabetically ordered. If 'infinite'  button is pressed, full list of data fields will be shown.

More frequent:

- **Accumulated Climb:** Total amount climbed from departure to the present position
- **Altitude:** Altitude over the sea level
- **Ascent to destination:** Difference between the altitude of destination and present altitude
- **Ascent to next:** Difference between the altitude of the next waypoint and the present one
- **Bearing**
- **Bearing to the next:** Course towards which the next waypoint is
- **Chronometer**
- **City:** Exact location where you are at the moment (Vectorial map required).
- **Compass:** Address that is followed on the horizontal level (0 = N, 90 =E, 180 = S, 270 = O)
- **Coordinates**
- **Deviation from route:** Distance to active route
- **Dist. to destination:** Distance to destination (last waypoint of the route)
- **Distance to the next:** Distance to the to the next waypoint
- **Est. Hour at Dest. :** Estimated time of arrival to destination (last waypoint of the route) at present speed
- **Est. Hour at Next :** Estimated time of arrival to the next waypoint (at present speed)
- **E.T. Dest:** Estimated time to reach destination (last waypoint of the route) (at current speed)

- **E.T. Next:** Estimated time to reach next waypoint (at current speed)
- **E.T. Dest (cruise):** Estimated time to reach destination (last waypoint of the route) (at cruise speed).
- **E.T. Next (cruise):** Estimated time to reach next waypoint (at cruise speed).
- **Goto arrow:** Arrow that indicates the direction to the next waypoint
- **Max. sp.:** Maximum speed in current flight
- **Mean moving speed:** average of all speeds above the minimum speed movement.
- **Mean speed:** average of all speeds.
- **Odometer Total 1:** Accumulated distance of all your outings. It is not automatically reset when turning off the device**.**
- **Pace:** speed in minute/kilometer.
- **Partial CO_2 emission:** CO_2 emission from departure. It is reset every time the device is turned off
- **Partial distance:** Counter of distance covered from the beginning of departure. It is reset every time the device is turned off
- **Route percentage:** % of the route that has been already done.
- **Route graph:** Shows the graph of the route as it is being covered
- **Speed:** Present speed
- **Slope:** Slope of our present movement
- **Slope in next kilometer:** slope from now in 1 kilometer.
- **Slope to next waypoint:** slope from now to the next waypoint
- **Slope to destination:** remaining slope till destination
- **Time:** Present time according to the selected time zone
- **Time stopped:** Time gone without advancing
- **Time moving:** Time gone while moving
- **Track graph:** Shows the track from the data page

Less frequent:

- **Accumulated Descent:** Total of the descents made from departure to the present position
- **AGL(Air)**: Altitude from Ground Level.
- **Alt. at next (Air)**: Predicted altitude in next waypoint, if current trajectory is maintained.
- **Atmospheric pressure:** It shows the present atmospheric pressure by means of the barometric altimeter
- **Barometric altitude:** Present altitude that the barometric altimeter captures by atmospheric pressure
- **Battery**: Remaining energy in PC/PDA
- **Current power**

- **Differential GPS**: GPS gives differential signal (submetric accuracy)
- **Partial energy:** Odometer energy (partial)
- **Total energy:** Odometer energy (total)
- **Free Memory:** It shows the free memory of the system
- **GPS Altitude:** Present altitude that the GPS perceives via satellites
- **GPS Bearing:** Direction followed according to the GPS system
- **%HRR:** Heart Rate Reserve.
- **HRZone (%Max.):** *Predefined heart rate intensity zones.*
  Zone 5 (90%-100% Maximum Cardiac Frequency): High-intensity athlete
  Zone 4 (80%-90% Maximum Cardiac Frequency): High-level athlete
  Zone 3 (70%-80% Maximum Cardiac Frequency): Aerobic capacity
  Zone 2 (60%-70% Maximum Cardiac Frequency): General Population
  Zone 1 (50%-60% Maximum Cardiac Frequency): Totally untrained
- **HRZone (%Max-Rest):** *Predefined heart rate intensity zones (Cardiac frequency in reserve).*
  Zone 5 (90%-100% Maximum Cardiac Frequency): High-intensity athlete
  Zone 4 (80%-90% Maximum Cardiac Frequency): High-level athlete
  Zone 3 (70%-80% Maximum Cardiac Frequency): Aerobic capacity
  Zone 2 (60%-70% Maximum Cardiac Frequency): General Population
  Zone 1 (50%-60% Maximum Cardiac Frequency): Totally untrained
- **HDOP**: Horizontal Dilution Of Precision (estimated current accuracy of the GPS)
- **VDOP:** Vertical Dilution Of Precision (estimated current vertical accuracy of the GPS).
- **PDOP:** Position Dilution Of Precision (estimated current position accuracy of the GPS).
- **L. Alt. (Air)**: Altitude of the land looking at the loaded DEM file
- **L/D Goal (Air)**: Minimum glide ratio required to reach the Goal (going through all intermediate waypoints) (distance to goal divided by goal's altitude over ground level).
- **L/D Req. (Air)**: Minimum glide ratio required to reach next waypoint (distance to waypoint divided by waypoint's altitude over ground level).
- **L/D (glide ratio) (Air)**: Glide ratio, dividing horizontal distance by vertical (descending). A high glide ratio means a good gliding, while a low one means a fast descent.
- **Magnetic bearing:** Direction followed according to the inner compass
- **Maximum power**
- **Mean power**
- **Maximum altitude:** Reached in this outing
- **Name of the track file**
- **Next WPT**: Name of the waypoint you are going to
- **Norm. Acc**: Normal acceleration (perpendicular to movement, in circular movements)
- **Number of points**: Track points saved up to this moment
- **Number of satellites in use:** Satellites fixed in that moment

- **Place**: When a vector map is loaded with information about the zone, this will show the name of the element which fits with our current position
- **Precision:** GPS error margin
- **Speed limit:** It shows the speed limit established for the road
- **Sunrise:** Indicates the time of sunrise, considering parameters such as time zone and season of the year
- **Sunset:** It tells the time it will get dark considering parameters such as time zone and season of the year
- **Tangential acceleration**
- **Total CO_2 emission:** CO_2 emission of all your outings. It does not automatically reset when he device is turned off
- **Total Odom.2**: Secondary counter of aggregate distance of all your trips. It is not reseted automatically when device is shutdown
- **Turning radius**
- **Velocity made good (VMG):** That's the right direction's velocity component of a ship to the following mark.
- **Vertical speed**

15 Appendix 2 – Equivalences of peculiar signs

When having to introduce an address into the TwoNav system for searching cities and streets, you may find that you have to introduce signs that do not appear in the system keypad.

Next follows a table of equivalences for you to know which sign to introduce to be considered as the 'peculiar' sign.

'A'	'À', 'Á', 'Ä', 'Â', 'Å', 'Ã', 'Æ'
'C'	'Ç'
'D'	'Ð'
'E'	'É', 'È', 'Ë', 'Ê'
'I'	'Í', 'Ì', 'Ï', 'Î'
'N'	'Ñ'
'O'	'Ó', 'Ò', 'Ö', 'Ô', 'Ø', 'Õ', 'Œ'
'S'	'Š', 'ß'
'T'	'Þ'
'U'	'Ú', 'Ù', 'Ü', 'Û'

'Y'	'Ý', 'Ÿ'
'Z'	'Ž'
'-', '_', '\'	' ' (space)

Therefore, if you have to introduce 'LidlStraße' you will have to press 'S' instead of ß.

IMPORTANT REGULATORY INFORMATION

FCC ID: OR5TWONAV

This device complies with Part 15 of the FCC Rules: Operation is subject to the following two conditions:

1. This device may not cause harmful interference and
2. This device must accept any interference that is received, including any interference that may cause undesired operation.

WARNING:

Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.

—Increase the separation between the equipment and receiver.

—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

—Consult the dealer or an experienced radio/TV technician for help.