

GPS Map

The Newton based Navigation System

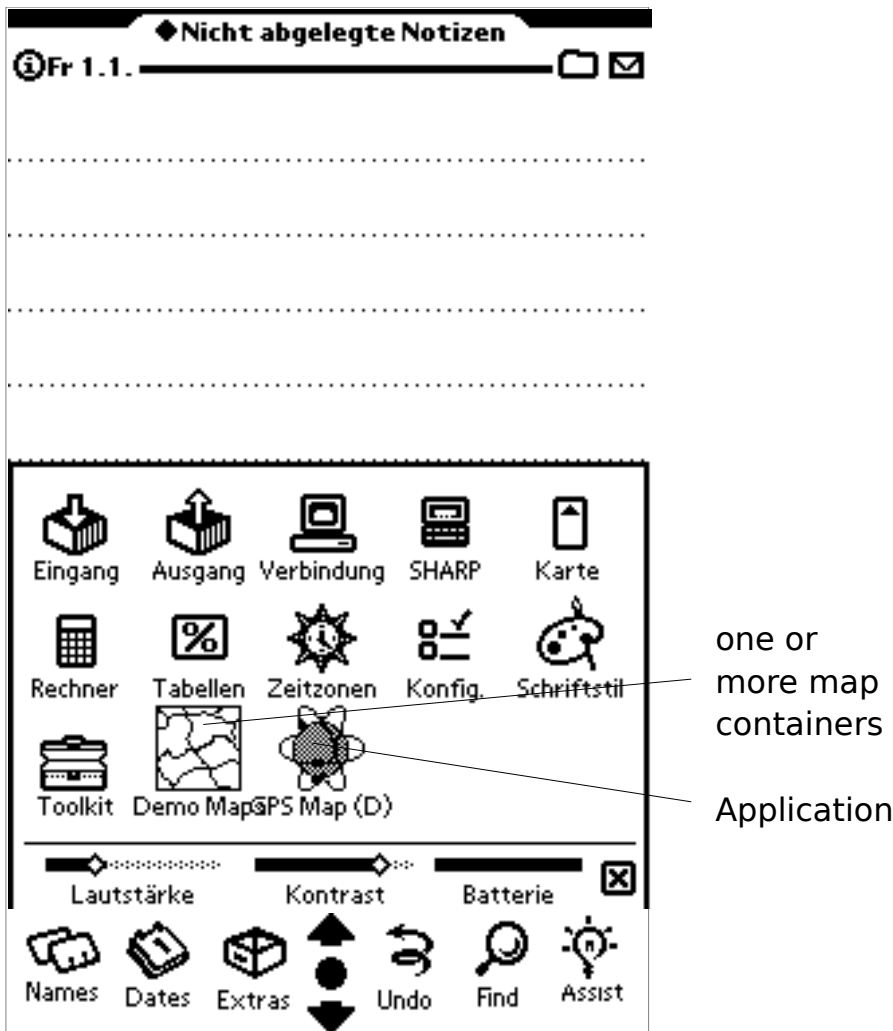
Preliminary Quick Reference Guide for demo version

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1. Organisation in Extras folder



2. Starting up GPS Map

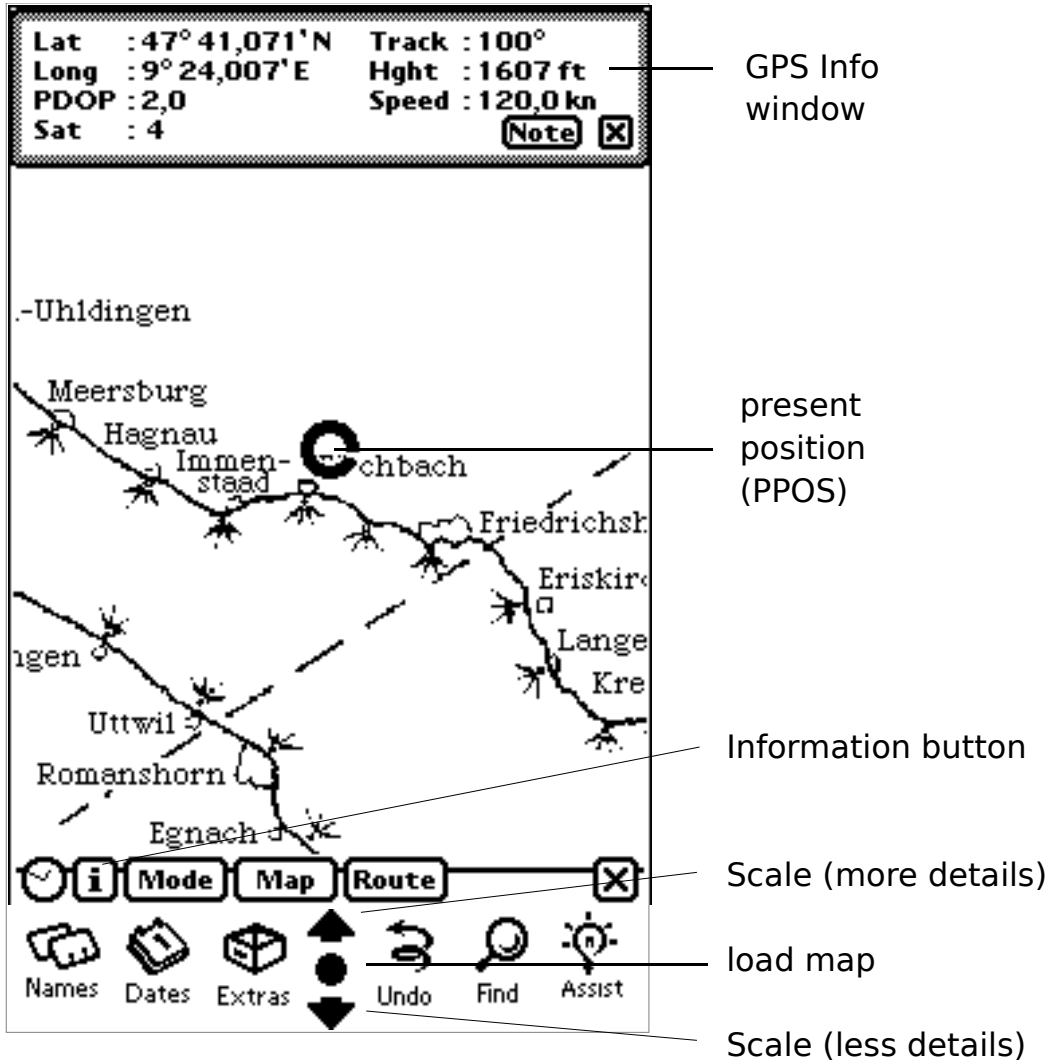
Tap onto the application symbol.

a) First start after installation or PCMCIA card removal:

GPS Map starts up in NAV mode, waits for GPS data and loads a suitable map for positioning to the present position. The GPS information window opens automatically to show GPS state.

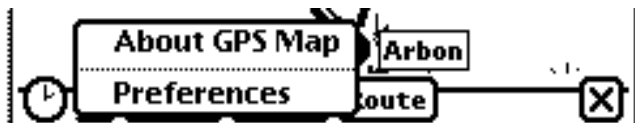
b) Restart:

GPS Map starts up in the mode last selected. If a route was loaded before, it will be loaded again if available.



3. Changing preferences

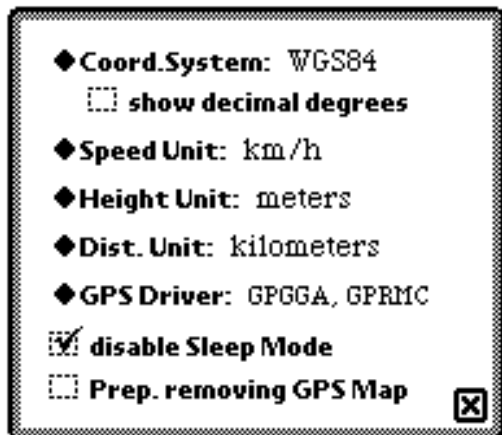
Pressing the Information button shows up a popup menu to select either the "About" box or the "Preferences" window.



Select your preferred units for displayed data. You can temporary prevent the Newton from going into sleep mode while GPS Map is running. For the real application select a GPS driver supporting the message types sent by your GPS receiver.

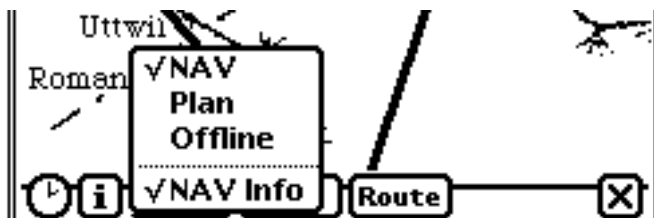
If you intend to remove the GPS Map package then first tap onto “remove all Soups” for deleting all GPS Map related items from Newton’s stores during exiting.

CAUTION: This option permanently deletes all routes and NAV points stored both on internal RAM and PCMCIA card!!!



4. Selecting an operation mode

Tapping the Mode button shows up a popup menu to select one of the possible operation modes or to show or to hide the GPS information window.

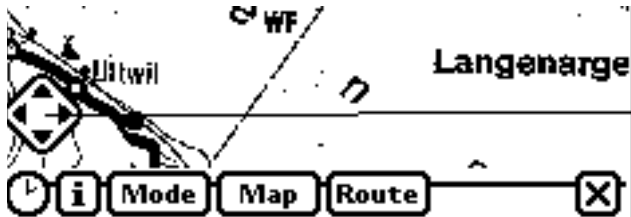


The NAV mode always shows the PPOS symbol at the centre of the screen and moves the map according to incoming GPS data. In NAV mode the map cannot be tapped or manually scrolled. Therefore many menu items like making waypoints or using NAV points are disabled.

The PLAN mode does not move the map. Instead it moves the PPOS symbol. In PLAN mode the map can be tapped and manually scrolled by use of the

scroll compass.

The OFFLINE mode is thought for use without GPS receiver and for maximum performance while defining routes. It is nearly identical to PLAN mode but the GPS receiving functions are disabled.



Scroll compass for manual scrolling in PLAN or OFFLINE mode

5. Dealing with maps

5.1 Changing the map scale

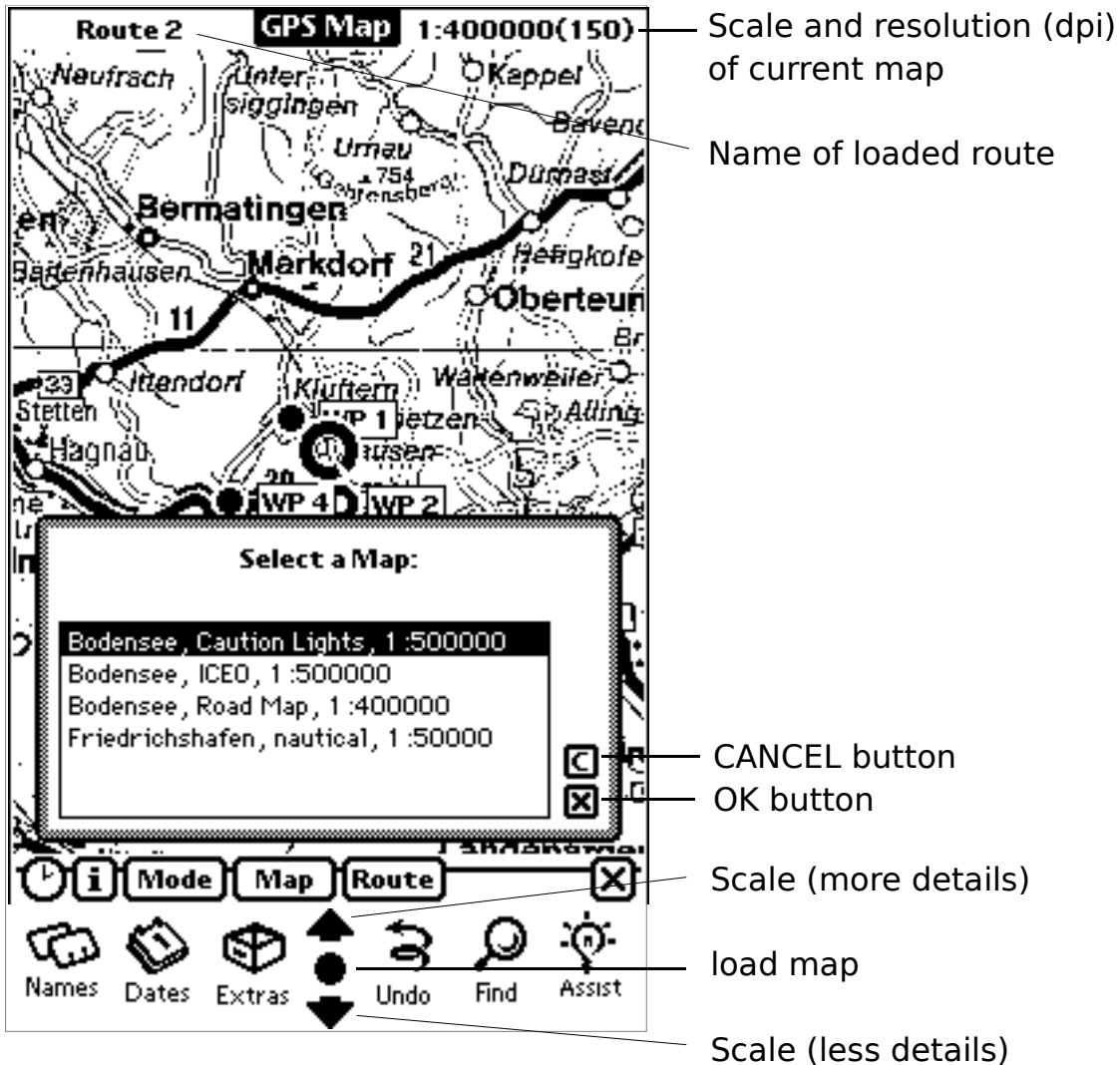
For changing the scale tap onto the up and down arrows or the overview button in Newton's button area. The up arrow loads a map with more details, the down arrow one with less details (if available). The overview button presents a selection box for direct loading of a specific map. If in NAV mode this box only shows maps which contain the present position!

a) NAV mode

The new map is always positioned to get PPOS into the centre of the screen.

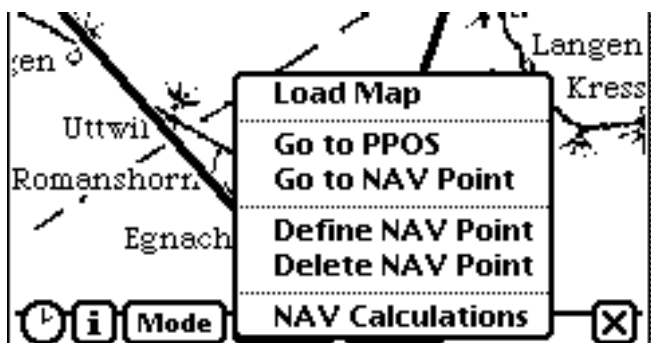
b) PLAN and OFFLINE modes

The new map is loaded with the last tapped position in the centre of the screen. If no last tapped position is available the map is loaded so that the centre of the map area fits into the centre of the screen.



5.2 Map positioning and NAV points

Pressing the “Map” button shows up a popup menu with options for maps and NAV points.



5.2.1 Loading a map

Tap onto the “Load Map” item to load a map. It is the same function like tapping onto the overview button in the Newton’s button area.

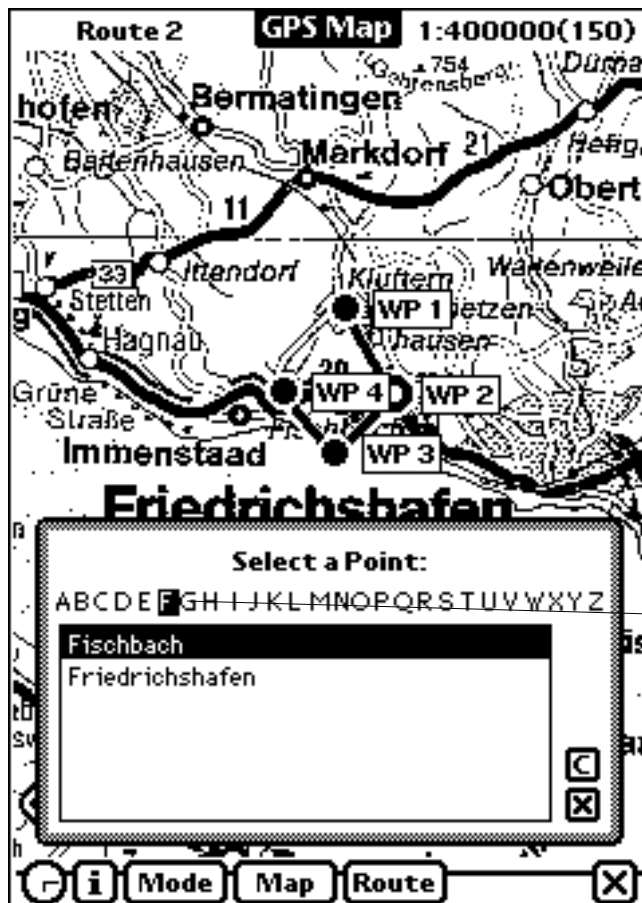
5.2.2 Finding the present position (PPOS)

Tap onto the “Go to PPOS” item to quickly position the map to PPOS. Works only in PLAN mode!

5.2.3 Finding a NAV point

NAV points are freely definable points defined by a name and a geographic position. They are used for quickly positioning any map to a desired point. NAV points are not available in NAV mode!

Tap onto the “Go to NAV point” item to get a selection box and to position the map to a selected NAV point. The last tapped position will be set to the position of the NAV point.

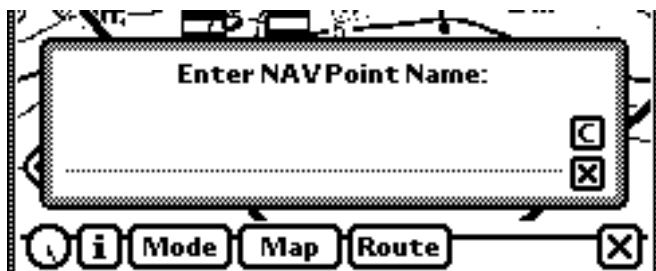


Click onto first character of NAV point name

Instead of scrolling through a large base of NAV point names the entries are sorted to their first character. The list field shows only the names which start with the character selected in the indexer field. If the names don't fit into the selection field two scroll arrows will appear at the right side.

5.2.4 Defining a new NAV point

First tap the desired map location, then tap onto the "Define NAV Point" item to get the definition box. NAV point names must be unique and may be up to 25 characters in length.



5.2.5 Deleting an existing NAV point

Tap onto the "Delete NAV point" item to get a selection box and to select the NAV point for deletion.

5.2.6 Calculating distance and angle between map locations

Tap onto the "Map Calculations" item to get the calculator window.

Tap onto the first map location and then onto the upper "Set" button. If the first location should be PPOS and the system is in PLAN mode you can tap onto the "PPOS" button.

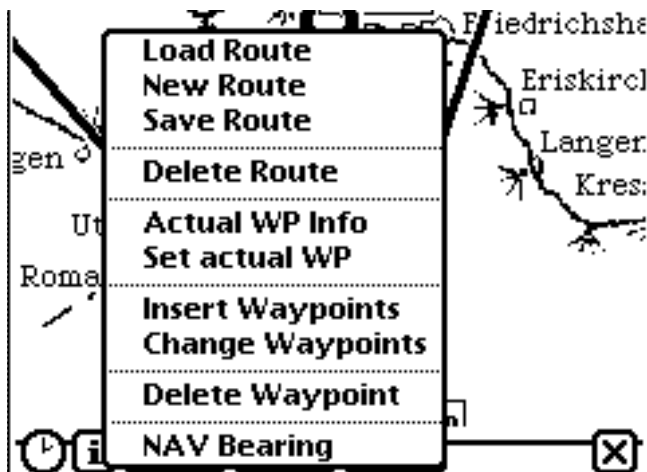
Now tap onto the second map location and then onto the lower "Set" button. Distance and angle will be computed and displayed.

NOTE: To find a map location without scrolling you can use the "Go to NAV Point" function!



6. Working with routes

Tapping the “Route” button shows up a popup menu with options for routes and waypoints.



6.1 Loading a existing route

Tap onto the “Load Route” item to load an existing route



Click onto first character of route name

Instead of scrolling through a large base of route names the route entries are sorted to their first character. The list field shows only the names which start with the character selected in the indexer field. If the names don't fit into the selection field two scroll arrows will appear at the right side.

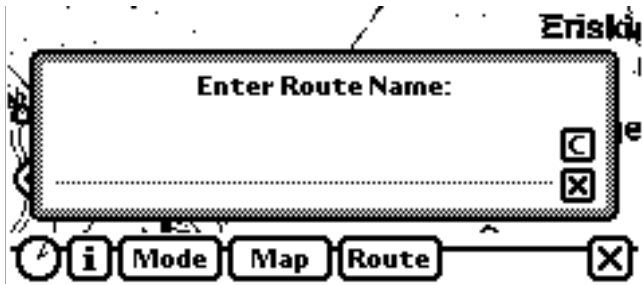
After a route is loaded the first waypoint of the new route is defined to be the actual waypoint and the waypoint information window is displayed.

6.2 Preparing a new route

Tap onto the “New Route” item to remove a previously load route from screen and prepare for insertion of waypoints for a new route

6.3 Saving a new route

Tap onto the “Save Route” item to save a copy of an existing route or a newly defined route. Route names must be unique and may be up to 25 characters in length.



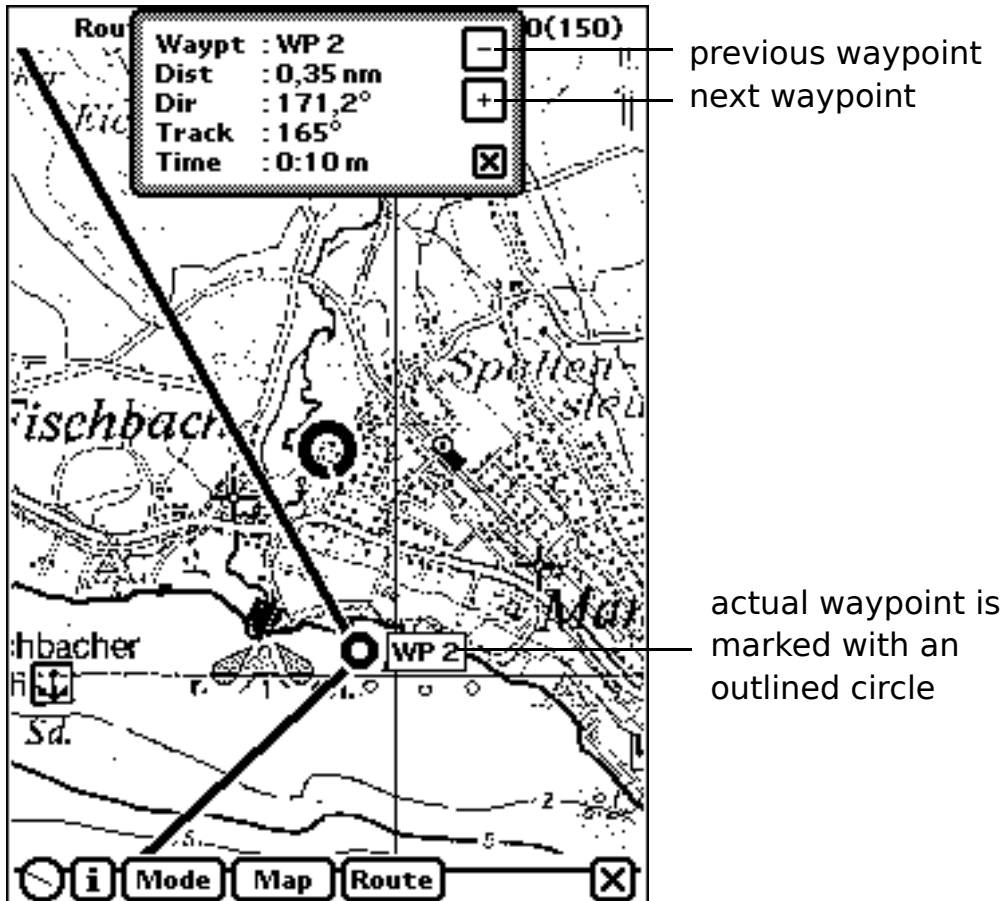
6.4 Deleting a route

Tap onto the “Delete Route” item to select a route by selection box for permanent removing from Newton’s memory.

6.7 Info window for actual waypoint

Tap onto the “Actual WP Info” item to show information about the actual waypoint. If the GPS information window is currently visible it will be hidden before showing the waypoint information window.

The window shows the name of the actual waypoint, the distance from PPOS, the direction we should have to reach, our real direction (track) and the remaining time until arrival. The time is normally displayed as hours and minutes. If less than one hour minutes and seconds will be displayed. The time is calculated with respect to the course difference to support cruising (for sailors). Use the buttons for changing the actual waypoint.



6.8 Setting the actual waypoint

Tap onto the “Set actual WP” item to select a waypoint as the actual waypoint (also possible in waypoint information window).

6.9 Inserting new waypoints

Tap onto the “Insert Waypoints” item to add or insert new waypoints. First select the waypoint in the list after which you want to add or insert a new one, then scroll the map to make the position of the new waypoint visible, then tap onto the map at the desired location, then change the name if you don’t want the default name and finally tap the “Set” button to define the waypoint. Waypoint names may be up to 8 characters in length. If you want to see another waypoint for orientation then select it in the list and tap onto the “Find” button. After definition of the last waypoint tap onto the close button to discard the window.

NOTE: To find a map location without scrolling you can use the “Go to NAV Point” function!



6.10 Changing existing waypoints

Tap onto the “Change Waypoints” item to change existing waypoints. The same window like used for adding waypoints will appear.

First select the waypoint to change, then tap onto the new location, then change its name if desired and finally tap onto the “Set” button to do the change.

6.11 Deleting existing waypoints

Tap onto the “Delete Waypoint” item to delete an existing waypoint.

The selection box will appear with a list of all waypoints belonging to the current route.

6.12 Using the NAV bearing function

The NAV bearing function makes an elastic ribbon between any map point and the PPOS symbol. It is thought as an orientation aid.

First tap onto a map location, then tap onto the “NAV Bearing” item to make the bearing active.

If the bearing is not needed any longer tap onto “NAV Bearing” again.

7. Miscellaneous

All windows are movable by tapping and dragging the border.

The “Note” buttons in the GPS information and map calculation windows may be used to store their contents together with a label to the notepad.