

ScanNav Documentation

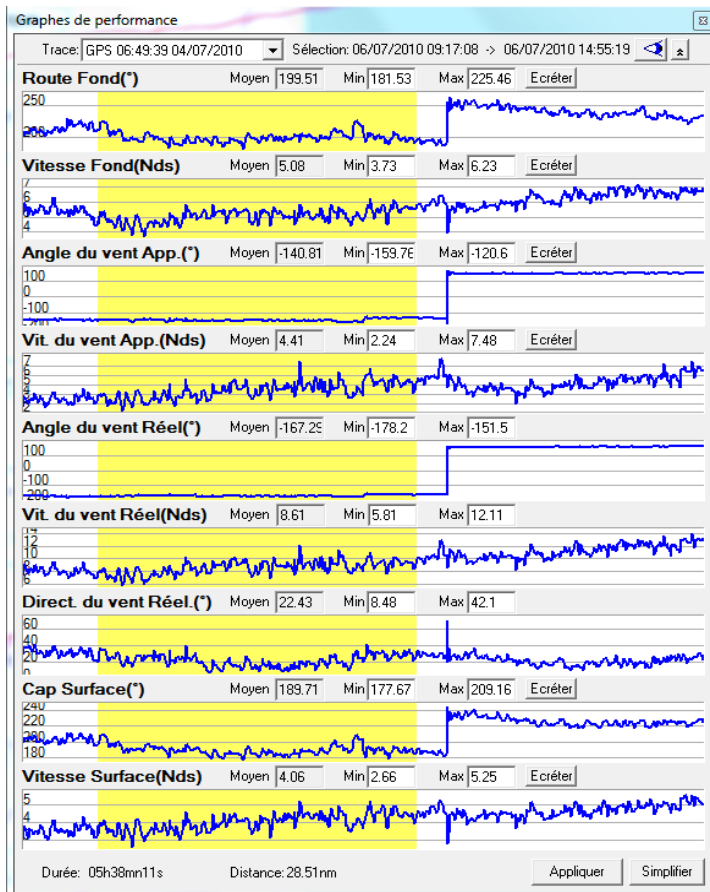
Track Analysis

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Introduction


Starting from version 12.0 of ScanNav, Graphs let you analyze the different navigation parameters captured during your trip (according to the interfaced instruments). They put in evidence your boat's performances according different weather and navigation conditions, you can also view depths variations, analyze and correct errors, etc...




The following graphs can be activated:


- Ground Heading
- Ground Speed
- Apparent Wind Angle
- Apparent Wind Speed
- Real Wind Angle
- Real Wind Speed
- Real Wind Direction
- Surface Heading
- Surface Speed
- Sound (not represented in this sample screen-shot)

The window can be resized by dragging its edges, so as to have a larger view.

See also the usage of button  later in this document, and refer to the “Preferences” paragraph to show or hide different graphs.

Operation

To open the tracks analysis window, click on button  in the main toolbar, or right-click on a track in the map, and choose the menu entry “Analyze”. You will then be able to:

- Either choose a track in the top-left list (click on  reveal the elements in the list)
- Or click on a track in the map to select it.

The full track will be represented in the different graphs. For each graph, the Mean, Minimum, and Maximum values are indicated for the selected segment (highlighted in yellow). Start and End dates of the selected segment are given at the top of the window and the duration and total distance at the bottom of the window.

To analyze a specific portion of the track, left-click at a given position on the track in the map, or on one of the graphs, then, without releasing the button, drag the mouse to select the desired segment. The selection will then be represented highlighted in the graphs and on the map, and Mean/Minimum/Maximum values will be recalculated for this segment.

You can zoom on the graphs to have a more detailed view, and/or scroll to different positions

using the mouse wheel or keyboard arrows.

- To Zoom:
 - Turn the mouse wheel forward or backward
 - Or use the up and down arrows of the keyboard.
- To scroll inside the track :
 - Press the mouse wheel without turning it (or the middle button), and move the mouse to the left or right.
 - Or use the left and right arrows of the keyboard.

The vertical scale of the different graphs will adapt automatically according to the visualized section so as to have the most possible details.



: Press this button to zoom the map to the selected segment.



: Press this button to minimize the window to its minimum header. This lets you mask temporarily the graphs window so as to have a better view on the map. Pressing the button again will restore it to its original size.

Tracks modifications:

Clip:

You can clean the track by removing eventual aberration points, using the “Clip” buttons.

- Select the segment to modify
- Change the Min or Max value in the corresponding graph
- Click on the “Clip” button for this graph.
- All points under “Min” value or above “Max” value will be removed from the track.

All modifications done using the “Clip” buttons stay local to the graphs representations until you press the “Apply” button. You may therefore do tests without affecting the memorized track.

Simplification:

Clicking on the “Simplify” button will open the Tracks simplification window for the selected segment. This is very useful as graphs help you determine the portions of a track that may be simplified without loss of information.

Preferences

Right-click on the analysis window to open the menu on the right.

You can show or hide the different graphs, so as to keep only the ones you are interested in, and therefore optimize the space.

You may choose the thickness of the lines to represent the graphs (“Thick lines” option)

You can also choose the color for highlighting the tracks on the map (“Track highlight color” option)

<input checked="" type="checkbox"/>	Ground Heading(°)
<input checked="" type="checkbox"/>	Ground Speed(Knts)
<input checked="" type="checkbox"/>	Apparent Wind Angle(°)
<input checked="" type="checkbox"/>	Apparent Wind Speed(Knts)
<input checked="" type="checkbox"/>	True Wind Angle(°)
<input checked="" type="checkbox"/>	True Wind Speed(Knts)
<input checked="" type="checkbox"/>	True Wind Direction(°)
<input checked="" type="checkbox"/>	Surface Heading(°)
<input checked="" type="checkbox"/>	Surface Speed(Knts)
	Sound(m)
<input checked="" type="checkbox"/>	Thick lines
	Track highlight color