Test Case TC49 Historical data time domain verification in long run

Belongs to Plan(s): TP6 dashboard_tactics...

Belongs to Suite(s): TS19 Fast cruising w/o ...

Case Type: Functionality

Label(s): *click to add Label(s)*

Test Quality: **EXCELLENT** Defects Closed Fixed

Assign To: Petri Makijarvi

Case Priority: Medium

Estimate: 21600

Is Automated

Precondition

VDR-plugin superior or equal v0.4 activated.

Please reserve minimum six hours to run this test. Make sure to turn off all the power saving features of your computer.

Steps

Click "Tab" or "Shift + Tab" to navigate grid. "Double click" on step sequence to change them.

1	Make this long term recording available for VDR playback: tc49_longplay.zip

2

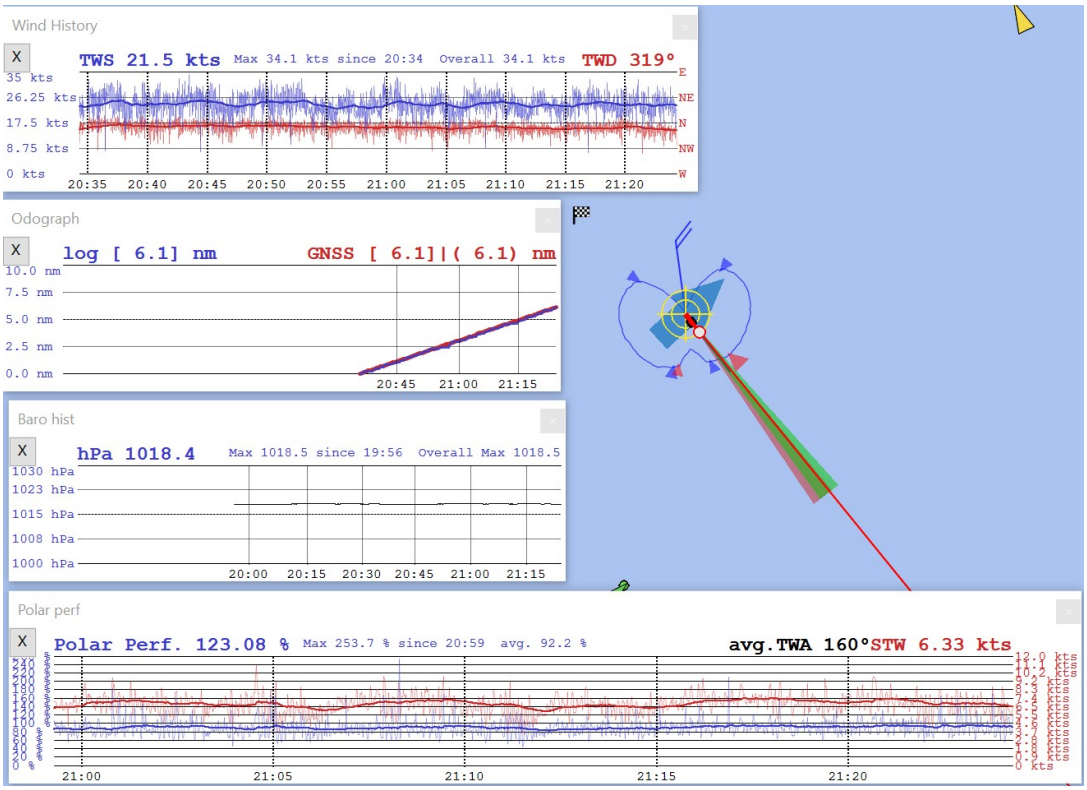
Start playing the recording with approximately 1/2 of the available maximum speed of VDR.

Place a Tactics WP (waypoint) somewhere but at least 50 nm ahead of the boat which appears moving south east.

See the step 3 for the suggested screen arrangments. Prepare the arrangement and when you satisfied stop the application, restart and return back to point 3.

3

The four historical data displays shall be organized as depicted below:



Observe that the Polar performance data STW value is not starting with negative values.

Start shortly playing the above data file. Stop it almost immediately, after the boat has moved into its start position.

Drop a marker at that position. It will be used later to verify the distance.

Please note that the registeed data contains slow (> 1s) barometric data (from Bohlken Westerland) which is only appearing after some moment after the start of the test.

PASS or FAIL

4

Select for each of the four history instrument the following export data files and frequencies:

1. Wind history - tw.csv - 1 second (is averaging)
2. Odograph - odograph.csv - the config file default 30 seconds - **Reset** trip and total distance counters.
3. Polar Performance - polar.csv - 1 second (is averaging)
4. Barometer - baro.csv - 60 seconds (is registering the last value received at the interval)

5

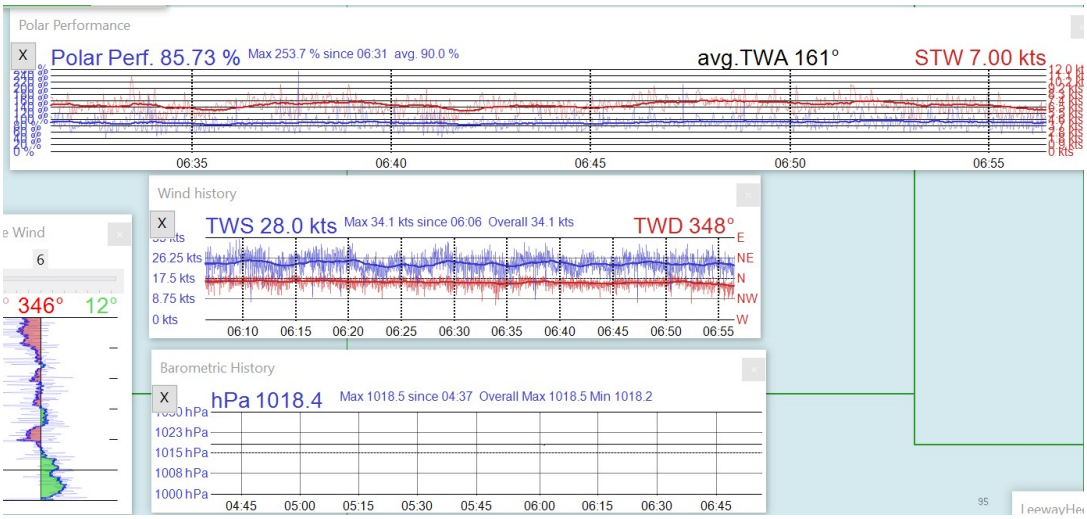
Using an appropriate tool for your platform (such as Task Manager in Windows, top(1) on Linux) observe and register the maximum CPU load and memory usage before the test - to be compared to the situation at the end of test.

6

Make sure that power saving options of the computer have been turned off and leave the program to run for minimum six hours, for example overnight.

7

At the end of the test period, do not stop the system yet. Observe that the "the floating timestamps" of the local time domain do correspond the corresponding requirements #RQ20, #RQ21 and #RQ22 and that the overall arrangement of the and appearance of the data plots corresponds to the screenshot illustrated below (wind history is not part of this test) - give special attention to check that the plots do not overflow to the legend areas on the left and on the right:



PASS or FAIL

8

Verify that all data is stored in four different and distinct file and that the timestamps are continuous. Here's an example run for comparison:

tc49_csv_output_example.zip

PASS or FAIL

9

Using an appropriate tool for your platform (such as Task Manager in Windows, top(1) on Linux) observe and compare to the registered values before the test the maximum CPU load and memory usage. There shall not be increase greater than 2 percent in each of the parameter.

PASS or FAIL

10

Do not stop the VDR-player. Click on the upper right corner window button (X) to close the application. This shall complete and close the three registered files.

Verify that you can open them all three with a spreadsheet application.

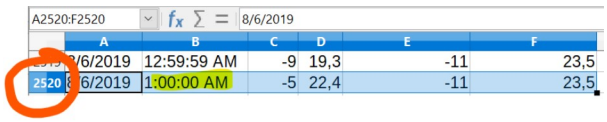
Scroll down to all three files and verify that the last timestamps corresponds the time when you closed the application.

PASS or FAIL

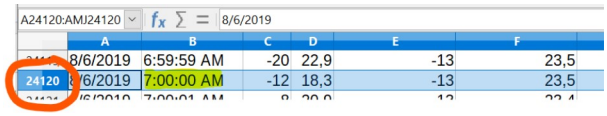
11

Check both tw.csv and polar.csv for not having missing timestamps in the following way:

Select the first full hour starting point and note down its data (row) index:



Scroll down to the similar row but minimum six hours apart from the first one.



Calculate the expected number of units between the two points. For example six hours at 1 second interval is 6 x 60 x 60 = 21600 seconds and thus 21600 averaged samples.

Make the subtraction of the above row numbers and verify that you get the expected result.

PASS or FAIL

12

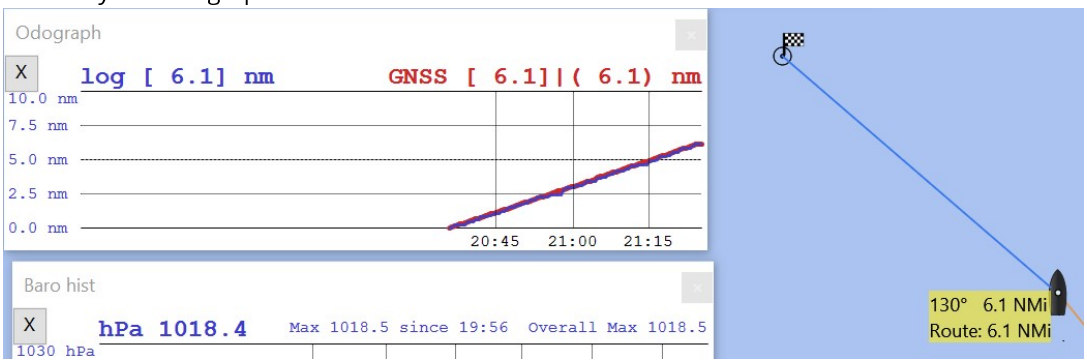
Check the baro.csv file for the consistency of the timestamps, they shall always be at full minutes (criteria) - but not necessarily every minute (thus not criteria)

> *Explanation*: this is because in the real life the barometer of this sample is sending every minute the value but with the VDR-player playback there is a possibility that during a 60 period there is no barometric data and thus the value saving is skipped

PASS or FAIL

13

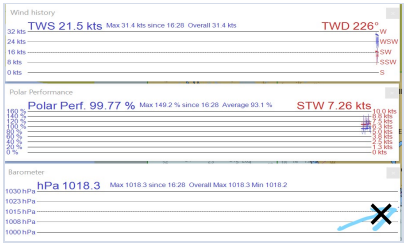
Once the VDR-player is stopped, verify that the distance using OpenCPN's Measure tool between dropped mark in piont 4 and the position where the boat stopped corresponds to the value shown by the Odograph:

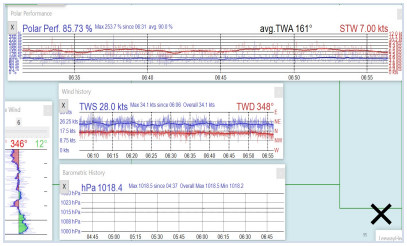


Add Steps

Attachments

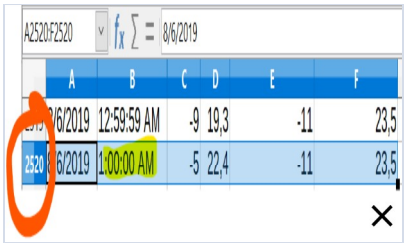
tp49_longplay.zip





tc49_longplay.zip

tc49_csv_output_exam...



« ‹ 1 2 › »

Add Attachments

RESULTS | DEFECTS | REQUIREMENTS

Status	Test Plan Run	Assigned To	Updated At↑	Actions
✔ Pass	TPR33 dashboard_tactics_p...	Petri Makijarvi	about a year ago	
⏩ Skip	TPR38 dashboard_tactics_p...	Petri Makijarvi	about a year ago	
⏩ Skip	TPR39 dashboard_tactics_p...	Petri Makijarvi	about a year ago	
✔ Pass	TPR46 dashboard_tactics_p...	Petri Makijarvi	about a year ago	

▶▶ Skip	TPR78 dashboard_tactics_p...	Petri Makijarvi	about a year ago	

« ‹ 1 2 › »

ACTIVITY **HISTORY** **COMMENTS**