

5 NMEA-0183 HDG

Make sure that the World's Magnetic Variation Plugin is turned OFF.

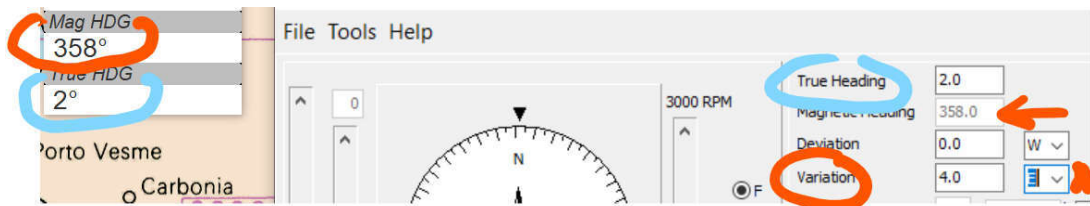
Check the following condition:



Change the variation to East:



Test the two use cases around the 360 degrees:



♂ All four tests PASS or any of them FAIL

6 NMEA-0183 HDM

There is no HDM-sentence in the NMEA-simulator. Turn it off (or just un-tick 'Run').

Instead we're going to give Signal K serve a test file. Load this file in your \$HOME/.signalk :

tc107_HDM.zip

Tell Signal K to read that file and stream it out:

Input Type FileStream

Enabled

YES

ID

cagliari

Data Type

NMEA 0183

File Name

tc107_HDM.txt

Apply

Cancel

Note that you need to restart the signalk-server, most probably. You can detect if the file has been read from the main dashboard:

Connection activity (deltas/second)



With a browser on <http://localhost:8375> you should see this:

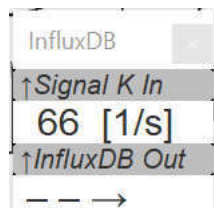
```
{
  "self": "urn:mrn:imo:mmsi:227346650",
  "timestamp": "2019-09-15T20:13:46.084Z",
  "version": "0.0.1"
}
{
  "updates": [
    {
      "source": {
        "sentence": "HDM",
        "talker": "II",
        "type": "NMEA0183",
        "label": "cagliari"
      },
      "timestamp": "2019-09-15T20:13:46.101Z",
      "values": [
        {
          "path": "navigation.headingMagnetic",
          "value": 4.502949471173527
        }
      ]
    }
  ],
  "context": "vessels.urn:mrn:imo:mmsi:227346650"
}
{
  "updates": [
    {
      "source": {
        "sentence": "HDM",
        "talker": "II",
        "type": "NMEA0183",
        "label": "cagliari"
      },
      "timestamp": "2019-09-15T20:13:46.111Z",
      "values": [
        {
          "path": "navigation.headingMagnetic",
          "value": 4.502949471173527
        }
      ]
    }
  ],
  "context": "vessels.urn:mrn:imo:mmsi:227346650"
}
```

Stop the browser window and launch OpenCPN with the above HDG test instruments.



You should see the magnetic heading varying as in the test file, now with add-on "mag" in the unit, which is an indicator that it is indeed coming from HDM-sentence and not from HDG-sentence in which this add-on is not used in Dashboard. Also, there is no True heading calculated as with HDG-sentence.

Finally, verify that the number of sentences treated is matching also in the plug-in's instrument end (see above the rate on the Signal K server):



While streaming, verify that the user interface of **O** remains responsive and that its CPU load does not exceed 5 %. (with max 5 instruments defined)

♂ PASS or FAIL