QTVLM COMPANION

Version 1.4

Contents

Introduction

qtVlm Companion is an application designed to work together with a qtVlm installation acting as a server. It cannot work without being connected to qtVlm, either via TCP (WIFI) or Bluetooth.

It is primarily designed to work on an Android Wear device but can also be installed on a phone or a tablet.

It can display around 30 data coming from qtVlm, and has also 4 special functions: Map, Anchor, WP and Race Start.

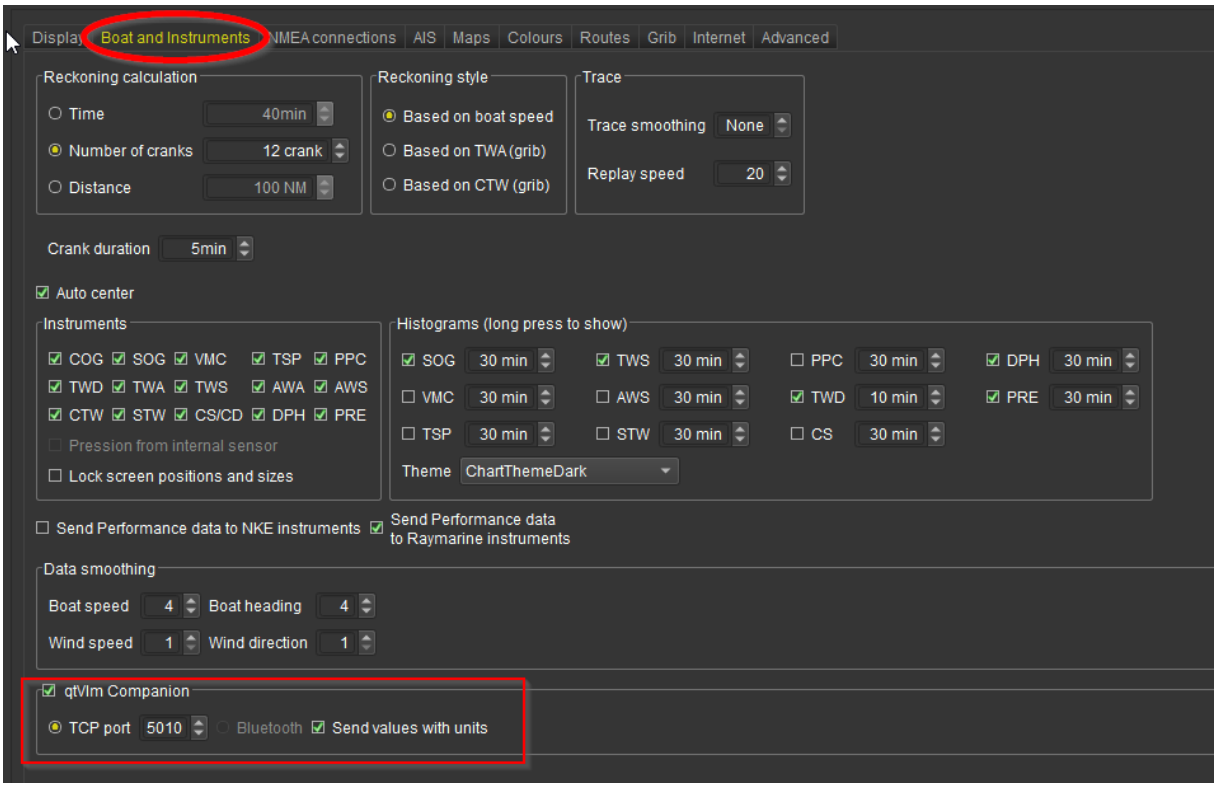
Once a successful connection has been established with qtVlm, all the features will be available for 10 minutes. After this grace period the application needs to be purchased to be able to continue using it. Once purchased, the application is available on all your Android devices.

Installation and connection

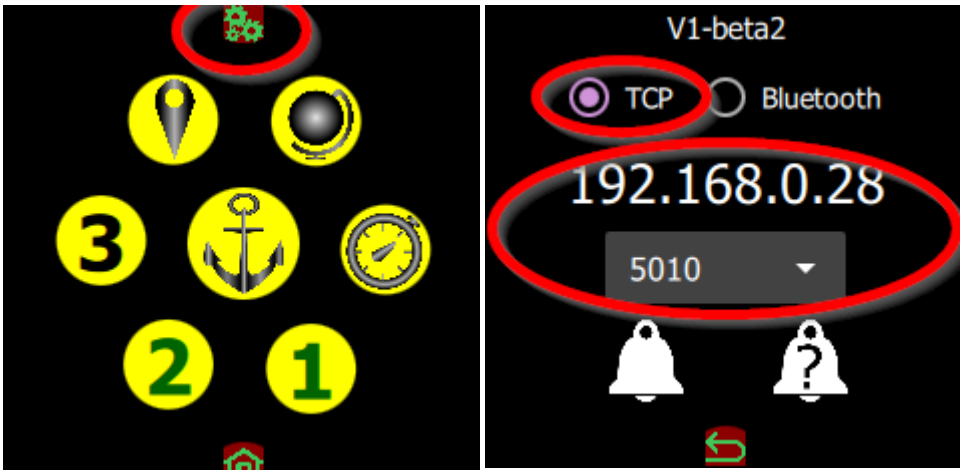
Once installed on a device, the user must define the kind of connection used to communicate with qtVlm. **Communication between qtVlm and Companion starts only when NMEA acquisition is started on qtVlm (or Simulation Mode).** The option "qtVlm Companion" must be checked in qtVlm to receive data in the Companion. **If units are not sent there will be more space to display values on the Companion screen and therefore numbers will be shown bigger.**

TCP connection

This type of connection is available for all qtVlm platform. On qtVlm the setting "qtVlm companion" must be on and a port should be selected. The default port is 5010.



On the Companion the IP address of qtVlm machine should be specified in the settings, with the same port number:

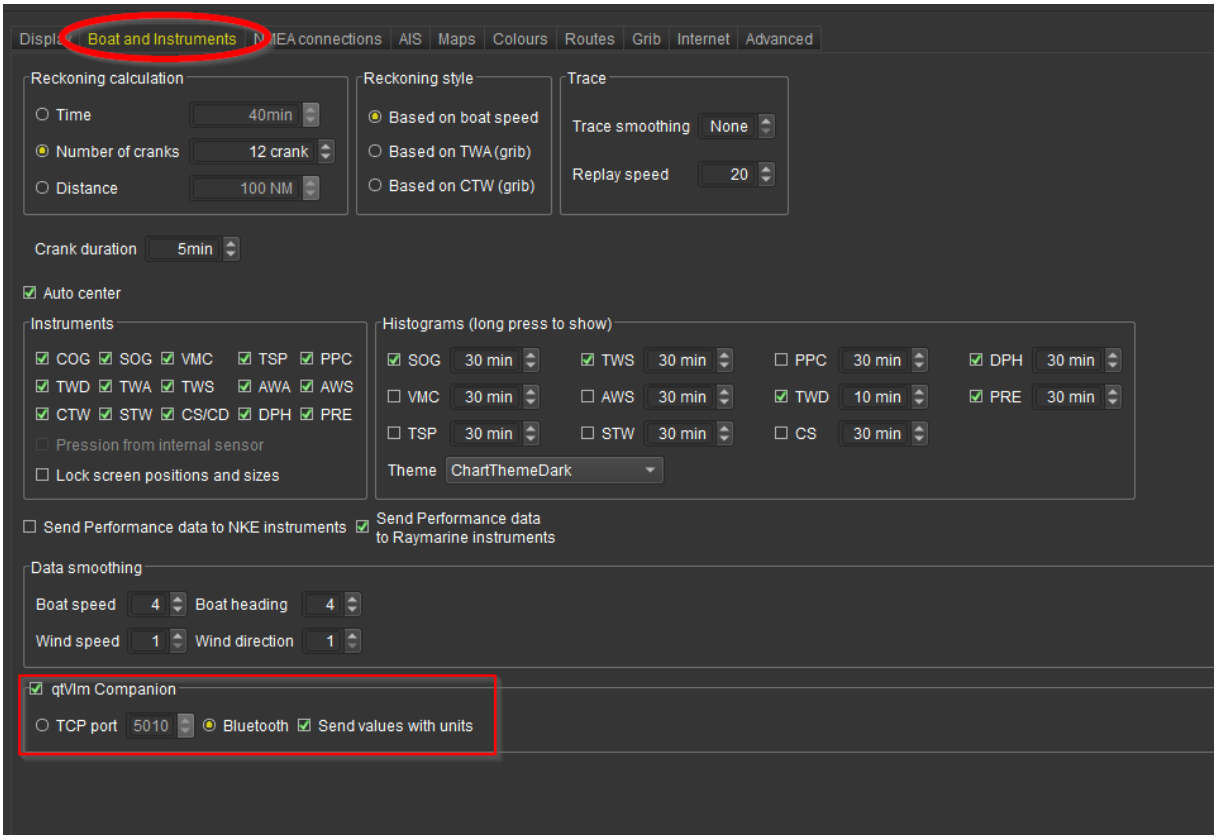


Bluetooth connection

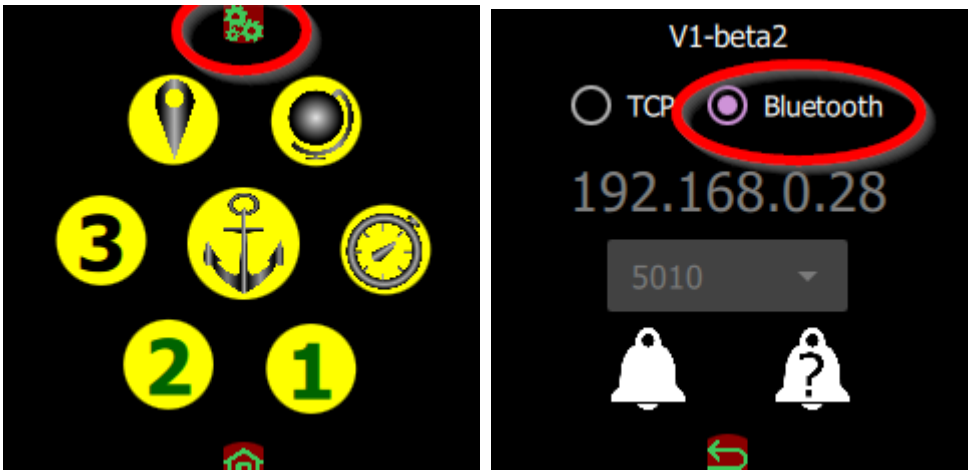
It is also possible to connect the Companion to qtVlm via Bluetooth. **Bluetooth communication is not supported if qtVlm is running on Windows or iOS.**

The devices (i.e. the machine running qtVlm and the machine running the companion) must be paired via their Bluetooth settings before the connection can take place. On MacOS it is necessary to leave the Bluetooth settings screen on so that the MacOS machine is discoverable.

On qtVlm side in the instruments settings the Companion checkbox must be checked and the communication type should be set to "Bluetooth".

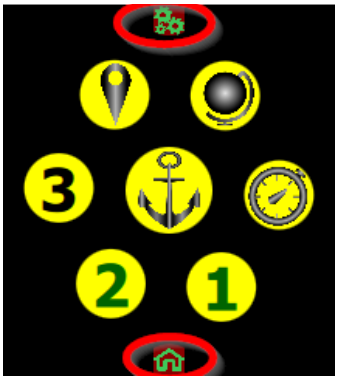


On the Companion side the communication settings should be set to Bluetooth.



Checking the connection

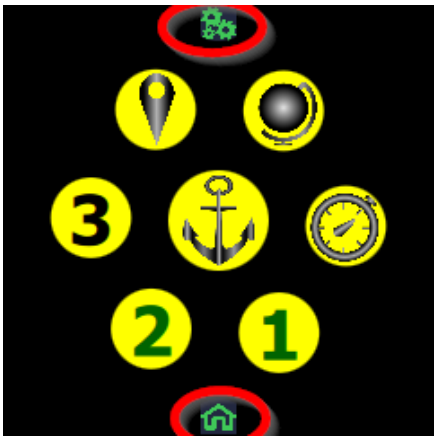
If the Companion cannot connect to qtVlm, the 2 icons at the top and bottom of the screen are red.



In that case you should check that:

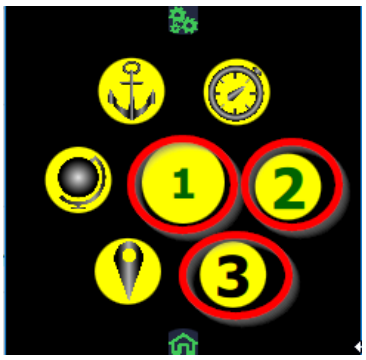
- qtVlm is running and has NMEA acquisition started (or is in Simulation Mode).
- If TCP communication has been chosen, verify that IP address and port number are OK.
- If Bluetooth communication has been chosen, check that the 2 devices are paired and connected. On MacOS leave the Bluetooth configuration dialog opened.

Once communication between qtVlm and the Companion has been successfully established, the icons on top and bottom turn green.



Configurable boards

You can configure up to 3 different boards, as seen in this screenshot:



If a board is not configured, its number appear in black, otherwise it appears in green. To activate or configure a board, tap on it so it moves to the center, then tap on it again.

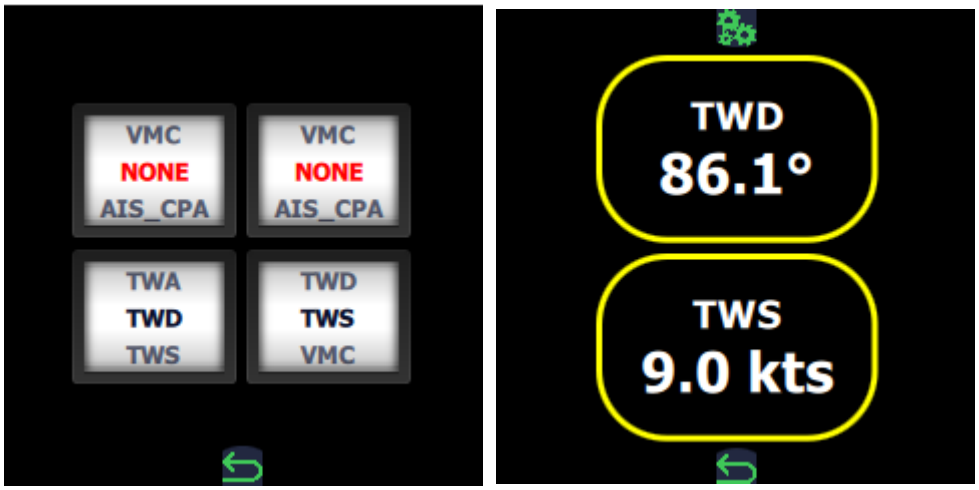
Let's configure the number 3:

Here we have the Companion running on a watch, so the screen is small and only 4 data can be configured for each board. The number of configurable data depends on the screen size.

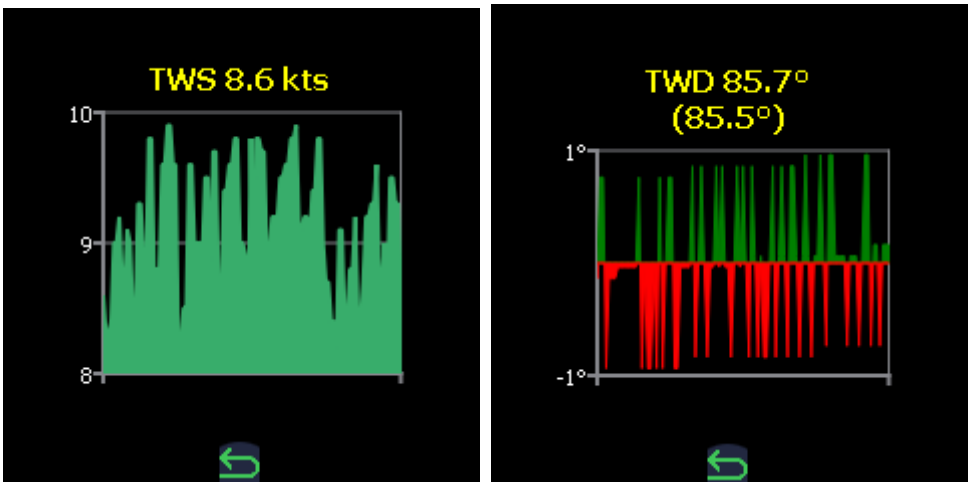
Here is for instance the configuration screen for a large tablet:

Once configured, the data chosen is displayed whenever you call this configurable board. You can always change which data is displayed by using the configuration button, on the top of the screen.

You are not obliged to set all the data. If you select less data they will appear bigger on the screen



Each data can display a histogram (tap on the value to show it). For instance:



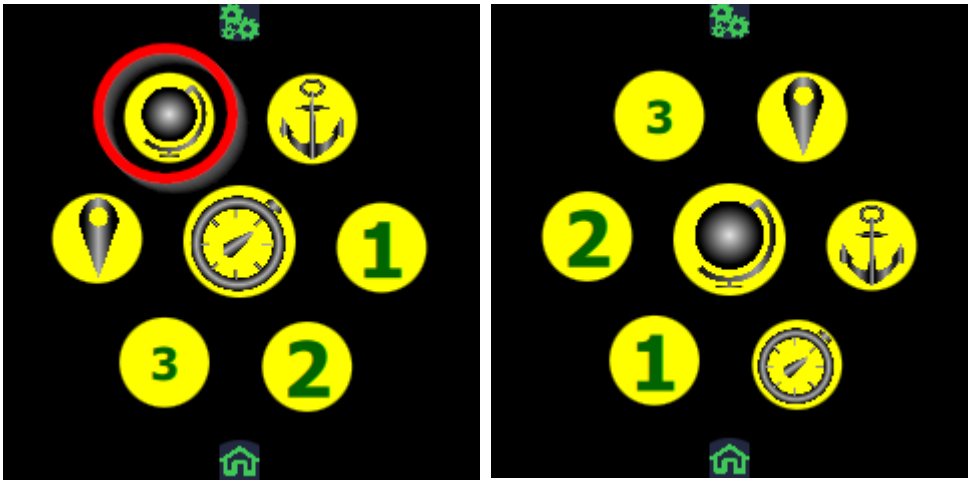
List of available data

There are 32 available data that you can choose to display in the configurable boards:

AIS_CPA	Closest Point of Approach distance for the most critical AIS target
AIS_TCPA	Time to Closest Point of Approach distance for the most critical AIS target
ANC_C	Anchor bearing angle
ANC_D	Anchor distance
ANC_X	Anchor dropped (on/off)
AWA	Apparent Wind Angle
AWS	Apparent Wind Speed
CD	Currents Direction
CNM	Course to Next Mark
COG	Course Over Ground
CS	Currents Speed
CTW	Course Through Water
DNM	Distance to Next Mark
DPH	Depth
PPC	Polar efficiency in %
PRE	Pressure
P_BWA	Best Wind Angle according to polar
P_BWS	Polar speed for P_BWA
P_CHDG	Target heading
P_CTSP	Target speed
P_NTH	Next Track Heading
P_PPC	Target speed as a percentage
P_VHDG	Theoretical VMG Heading
P_VTSP	Theoretical VMG Speed
SOG	Speed On Ground
STW	Speed Through Water
TSP	Target Speed as a percentage
TWA	True Wind Angle
TWD	True Wind Direction
TWS	True Wind Speed
VMC	Velocity Made Course

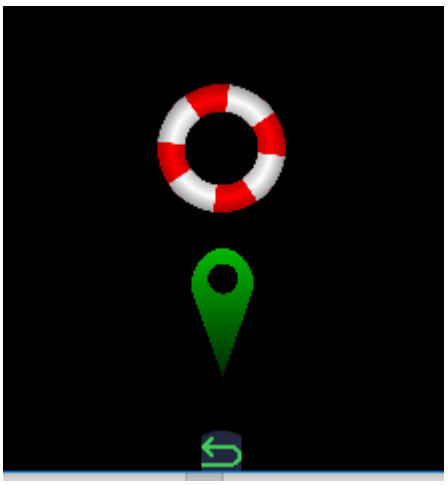
Map screen

By selecting the map screen, you can display what is displayed on qtVlm screen.

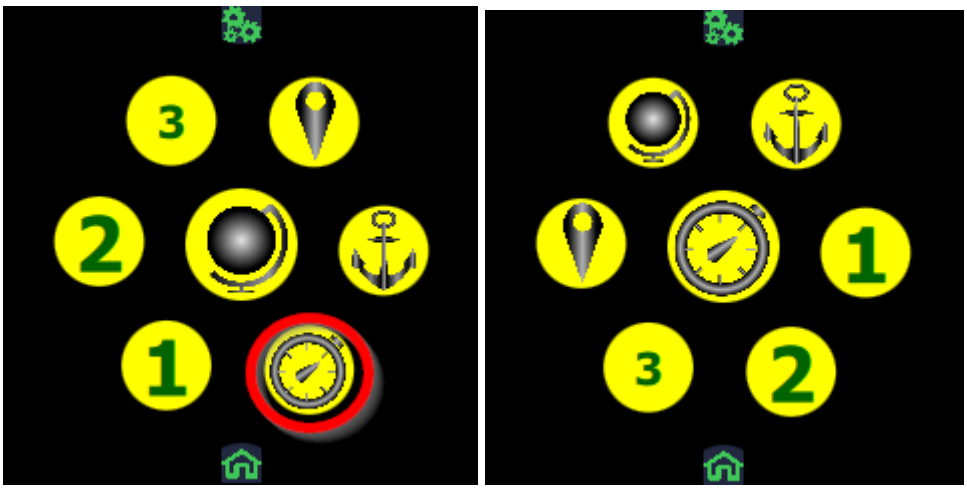


You can use your fingers to move or pinch the map. These actions will also update qtVlm display.

By using the WP button on the top of the screen, you can drop a mark (POI) or a MOB.



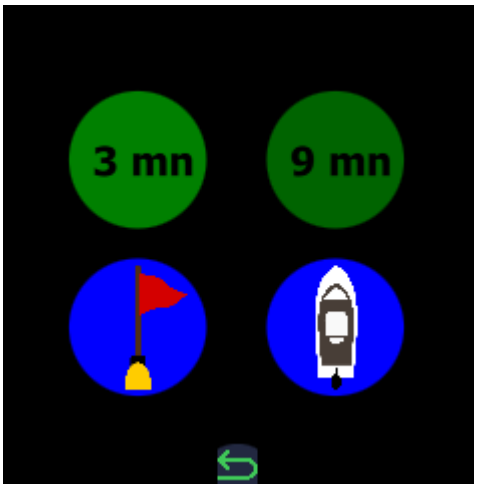
Race screen



To use the race screen in the Companion, the start race mode must be first activated in qtVlm.

If no buoy or committee boat as been defined yet, you will be presented with this screen :

Using the configuration button on the top of the screen, you can set the buoy and/or the committee, or start one of the 2 timers configured in qtVlm.



If you top the buoy or the committee, they will be placed in qtVlm at the boat's bow.

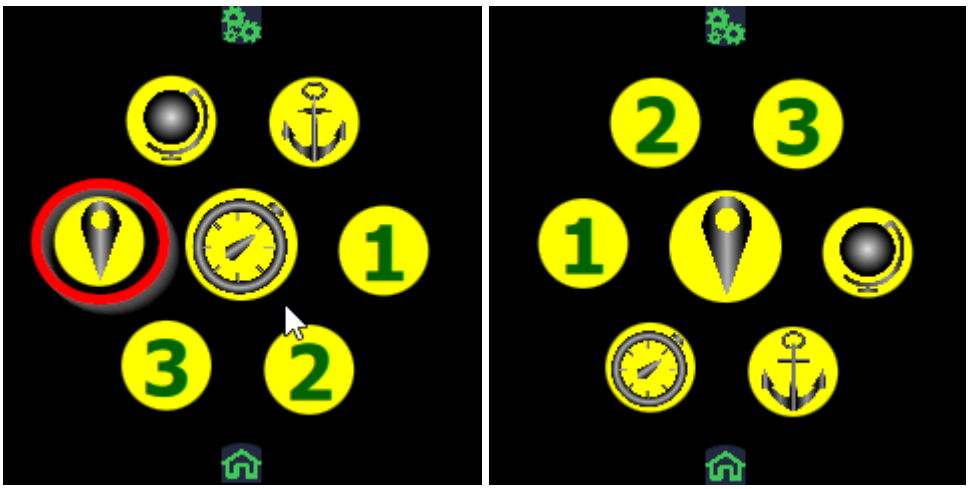
Once the committee and the buoy have been placed (either from the Companion or in qtVlm), and one of the timer started, the race screen will show the time and distance to the line and various other information :

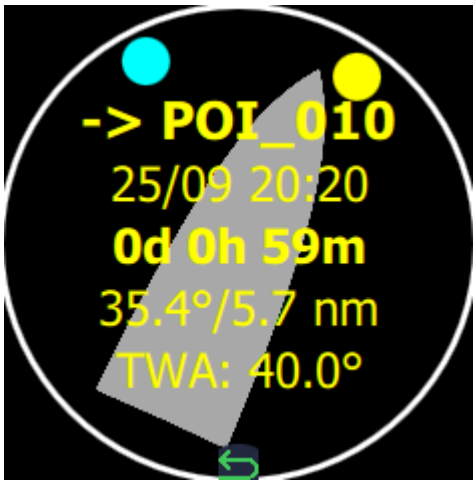
The cyan data represents the closest point on the line, the yellow one is where the boat is going to cross the line with the current heading.

The data in the middle is the Time to Burn, i.e. the difference between the time to go to the yellow point and the remaining time.

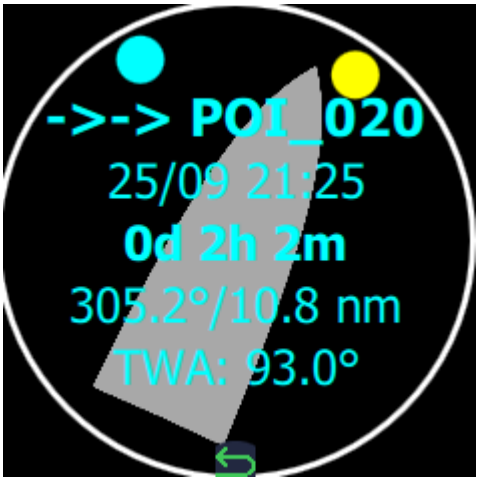
WP screen

The WP screen displays the boat current heading and information concerning current WP and eventually next WP (if the boat is engaged in an activated Route or Pathway).



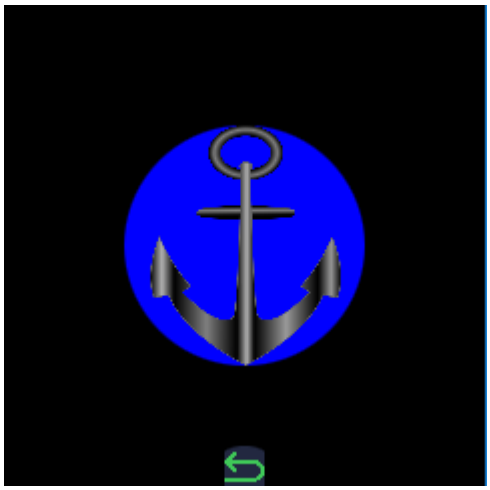


The yellow icon represents the active WP, and the blue one the next WP on the route or pathway. By pressing these icons, the information displayed concerns either the active WP or the next one.

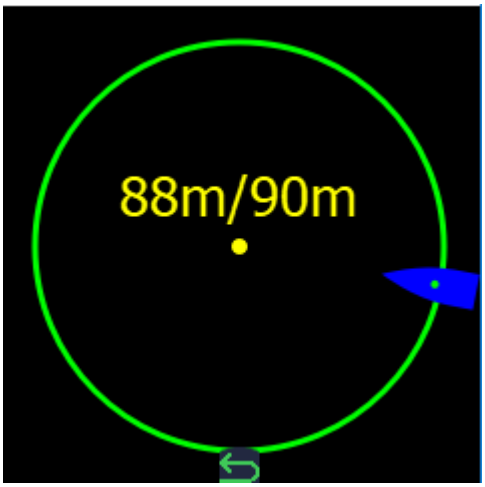


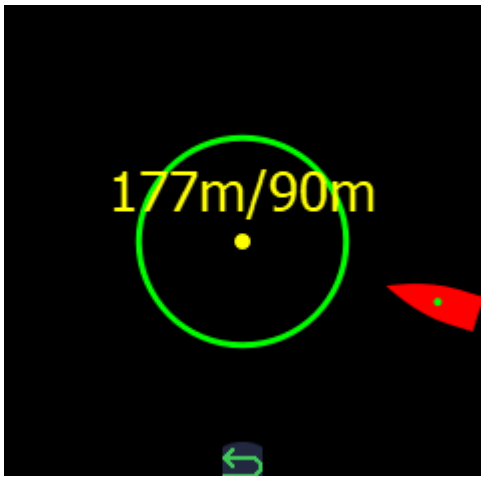
Anchor screen

If the anchor has not been dropped yet in qtVlm, you will be presented with a big anchor button that you can press to drop the anchor in qtVlm. Anchor will be dropped at the boat's bow.



Once the anchor has been dropped, the Companion will display the anchor and the relative boat position. The circle represents the alarm distance as configured in qtVlm.





Alarms

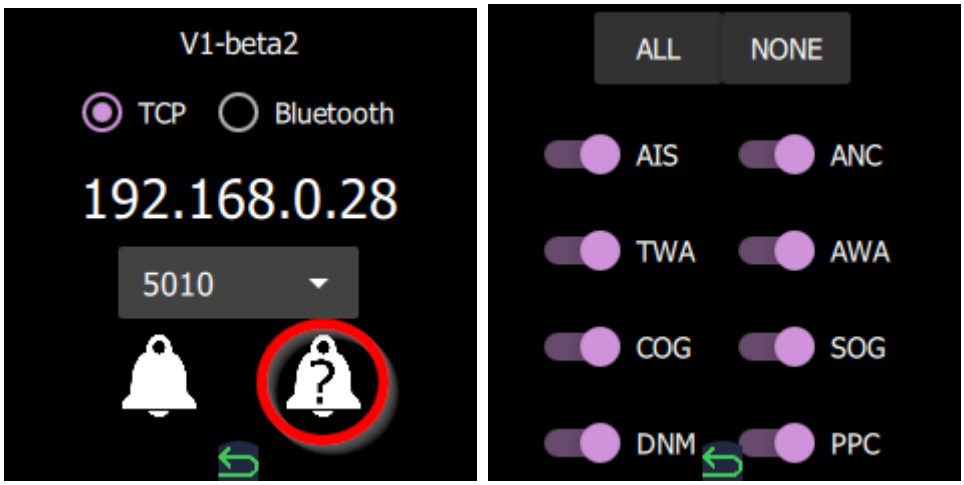
The Companion can receive alarms emitted by qtVlm. It does not calculate alarms by itself, therefore it can receive only alarms that are activated in qtVlm.

List of available alarms

AIS	AIS alarm according to qtVlm settings for CPA and TCPA
ANC	Anchor alarm
TWA	True Wind Angle alarm
AWA	Apparent Wind Angle alarm
COG	Course Over Ground alarm
SOG	Speed Over Ground alarm
DNM	Distance to Next Mark alarm
PPC	Percentage Polar alarm
CS	Currents Speed alarm
PRE	Pressure alarm
DPH	Depth alarm
MMSI	Alarm if one of the MMSI defined in qtVlm appears on the map

Configuration

To configure alarms, you should go to the main configuration screen and use the alarm button with a question mark:

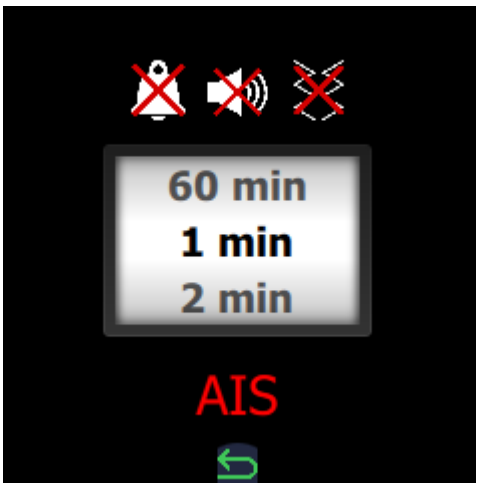


Alarms management and acknowledgment

If an alarm occurs, the bottom icon turns red with a bell symbol

You must acknowledge the alarm by tapping on this button, which will show the alarm screen

You can decide to stop the alarm for a duration (from 1 minute to 60 minutes). You can also stop or start the sound and the vibration.



This alarm screen can also be triggered from the settings dialog, even if no alarm is active.