

# User Manual

## ScanBas 365



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# 1 Introduction

This manual explains how to understand and operate the ScanBas 365 graphical user interface (hereafter *CCWin*).

A great amount of effort has been put in to make this application as user friendly as possible. The application is mostly self-explanatory. However, this manual should serve as a supplement when somethings are unclear.

Simple principles are implemented to give the user a consistent look and feel throughout various aspects of *CCWin*. Graphical elements are moved around by means of drag-and-drop, and by right-clicking on an element, you'll get additional options.

This manual is divided into chapters which each goes through certain aspects of the application usage. Each chapter will only refer to explanations given in an earlier chapter, or if otherwise, an explicit reference will be given to the referred chapter.

## 2 Overview

*CCWin* is always operating in one of two modes. In *edit mode* you can arrange the graphical elements that composes a screen view and select the sensor data of interest. *Normal operation mode* is where you monitor all measurements and data.

The currently active mode can be seen in the *CCWin* toolbar. See *Figure 1* and *Figure 2*.

Below follows a brief overview of what the toolbar looks like and the actions available in either mode. Detailed explanations will be found in later chapters.

### 2.1 CCWin Toolbars

The topmost part of the *CCWin* window always has a simple horizontal toolbar visible. The toolbar takes on two different looks, depending on the current operation mode. See *Figure 1* and *Figure 2*.

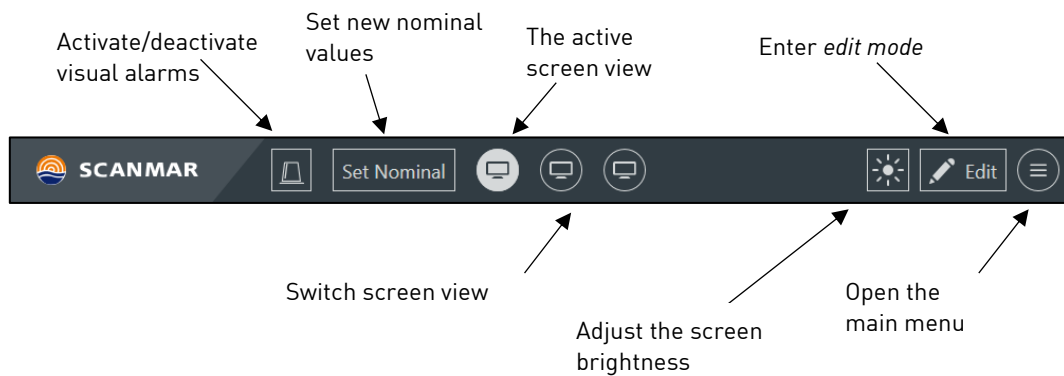


Figure 1 – *CCWin* toolbar in *normal operation mode*

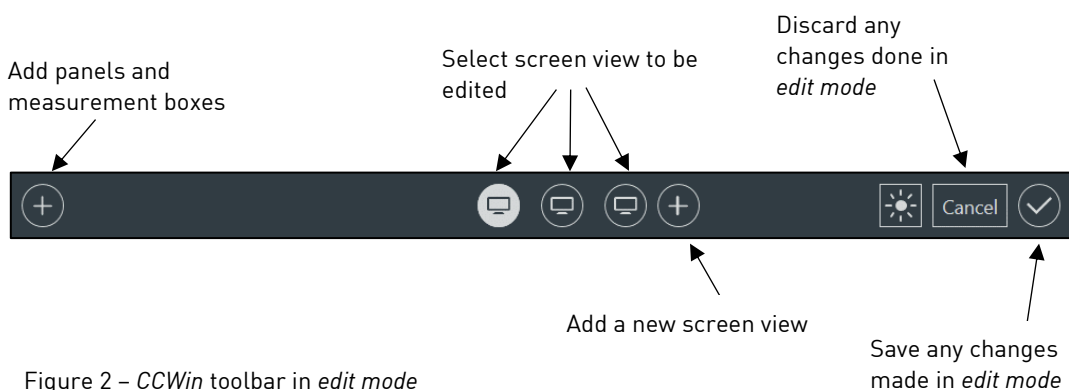


Figure 2 – *CCWin* toolbar in *edit mode*

## 2.2 System status bar

If the system is not working correctly, an alarm notification will be displayed at the leftmost side of the system status bar. E.g. two or more sensors being configured to use the same FIDs would raise such an alarm.

Click on the orange bell in the status bar to see a list of all the current alarms. To get more detailed information about a specific alarm, click the corresponding alarm. To close the alarm list, simply click outside of the dialogue box.

While an alarm is active, it will show up in the list. Active alarms cannot be removed from the list.

In addition to the system alarms mentioned above, the system status bar displays the current user, as well as the local date and time.

**Note:** The system alarms mentioned here are not the same as the alarm system explained in Chapter 4 – The alarm system. That system is for alerting the user when measurements are deviating too much.

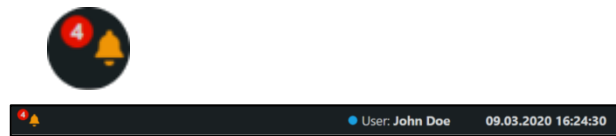


Figure 3 – System status bar with four system alarms



Figure 4 – Listing of current system alarms

## 3 Main menu

This chapter describes the entries available under the main menu.

The main menu is only accessible when in *normal operation mode* (see *Figure 1*). The menu items are described below in the order they appear in the menu.

### 3.1 Users and profiles

This is for handling and organizing users and their profiles. Each user has a name and a preferred language, along with one or more profiles. Profiles enables the user to store more than one layout of graphical elements. When the user enters the *edit mode* and changes the layout, these changes are stored in the currently selected profile.

When creating a new user or a new profile, one can base in on the Scanmar default, or you can base it on already existing users and profiles.

The active user is marked with a white border. Click on a user to switch to it or click on the plus icon to create a new one. See *Figure 6*.

To switch profile, click on the drop-down list under the user icon and select the desired profile.

**Note:** This menu item will always display the name of the currently selected user, NOT the text "Users and profiles".

### 3.2 Alarm settings

An alarm threshold value may be set and enabled/disabled for most sensor measurements. The threshold value represents a maximum deviation from a nominal value before an alarm is raised. See chapter 4 – *The alarm system*.

### 3.3 Gear configurator

Select this menu item to start the *Gear Configurator*. With the *Gear Configurator* you can configure which sensors to currently use, and where these sensors are mounted. When monitoring values during normal operation mode, these mounting positions are easily recognized by abbreviations and icons, making it easy for the user to see which sensor a measurement corresponds to.

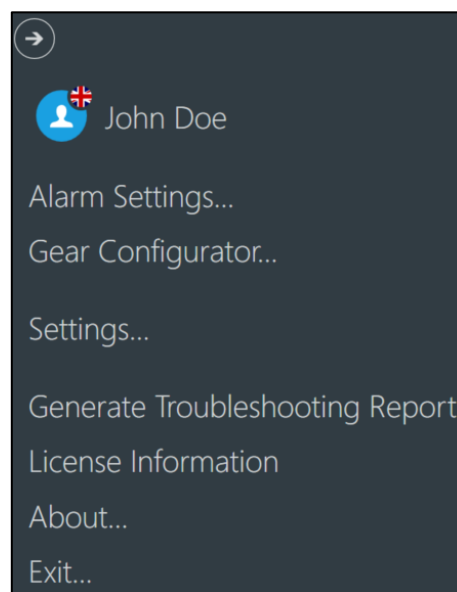


Figure 5 – Main menu

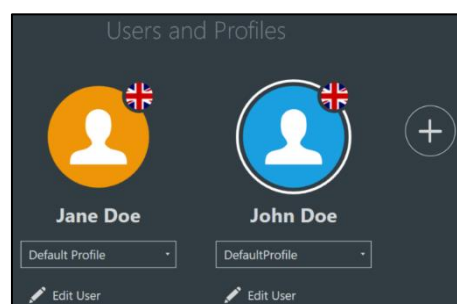


Figure 6 – Select user and profile. Create a new user by clicking "+"

The *Gear Configurator* is a stand-alone application with its own window and toolbar. It starts in full screen. Move or minimize this window if you are looking for the *CCWin* Toolbar. The *Gear Configurator* may also be started independently from *CCWin*. Look for *Configurator.exe* under the *ScanBas 365* installation folder.

The usage of the *Gear Configurator* is covered in chapter 8 – *Gear Configurator*.

**Note:** When the *Gear Configurator* is launched by starting *Configurator.exe*, as opposed to selecting it from the menu in *CCWin*, the toolbar has a slightly different appearance.

## 3.4 Settings

### 3.4.1 Gear Server

*CCWin* has a counterpart called *Gear Server*. The *Gear Server* is responsible for processing all sensor data displayed in *CCWin*.

Exactly one *Gear Server* should be available. See example in *Figure 7*.

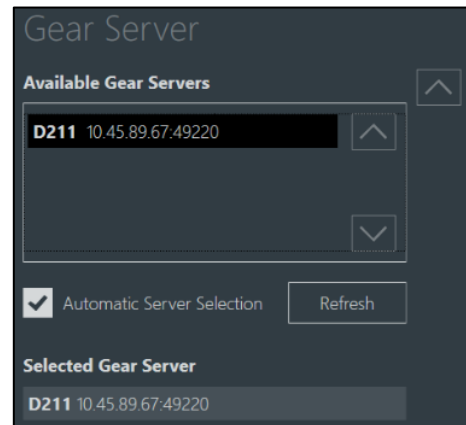


Figure 7 – Ensure a gear server has been selected

### 3.4.2 Units

Configure the preferred units to be used throughout the application. Note that this is considered a user preference, meaning all profiles for a specific user use the same units.

### 3.4.3 Gear Setting

If the warp length is known, you may enter it manually here. Use the checkbox to activate or deactivate.

### 3.4.4 Workstation settings

*CCWin* automatically detects how many physical monitors are connected to the PC and starts several *CCWin* windows according to the license. The user can limit the number of windows by checking *Limit number of windows*. In this case, the explicitly entered number of windows will be used.

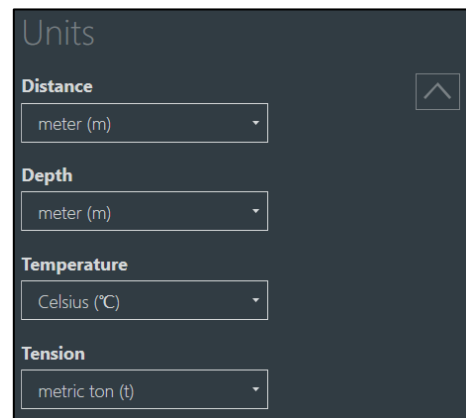


Figure 8 – Select units to be used

### 3.4.5 Receiver settings

This is used to set the hydrophone sensitivity.

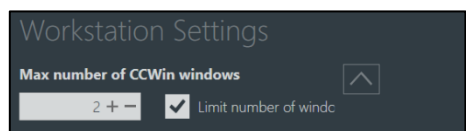


Figure 9 – Restrict number of windows



### **3.5 Generate troubleshooting report**

When selecting this menu item, *CCWin* generates a troubleshooting report containing setup files, log files, and other items created while *ScanBas 365* is running. This report can be helpful when diagnosing possible operational issues or sorting out gear and sensor configuration problems.

### **3.6 License information**

This views your current license information.

### **3.7 About**

Displays information about the *CCWin* version along with facilitated third party sub systems and libraries.

## 4 The alarm system

The alarm system is not a conventional alarm system, but rather a method of monitoring how measured parameters deviate from a set ideal value (also called nominal value).

The alarm itself is shown with red numbers wherever the monitored value is displayed.

Some measurement boxes have a horizontal deviation bar displaying current deviation. See *Figure 37*.

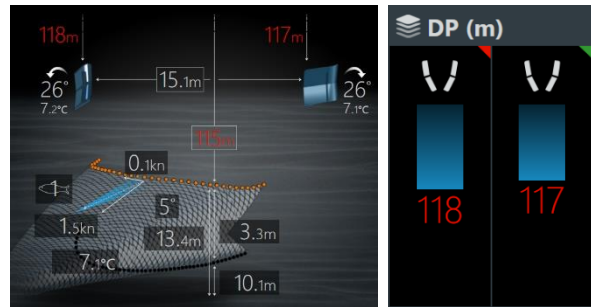


Figure 10 – Left: Alarms in the symmetry panel  
Right: Alarm in a measurement box

### 4.1 Setting the allowed deviation

Select *Alarm Settings* from the main menu to get a complete list of all measurements available for alarm settings.

To access the alarm settings for a specific measurement box, right click on the measurement box and select *Alarm Settings* from the drop-down menu.

Every measurement has its default deviation value set to ten. Change this value to match your requirement. Deviation can be set in number of units or as a percentage of the nominal value.

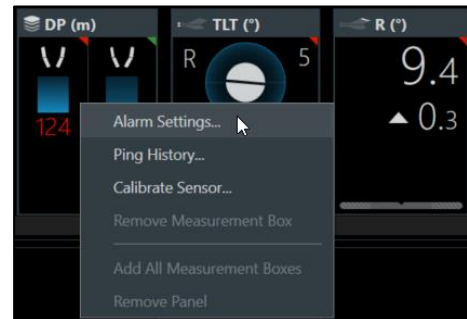


Figure 11 – Enter *Alarm Settings* by right-clicking the measurement box

### 4.2 Enable alarm setting

When you activate visual alarms, only those checked under *Alarm Settings Enabled* will raise an alarm, regardless of the values given for allowed deviation. See *Figure 12*.

Alarm Settings				
Type	Position	Allowed Deviation	Unit	Alarm Settings Enabled
Depth (DP)	Door	5 + -	<input checked="" type="radio"/> meter (m) <input type="radio"/> percent (%)	<input checked="" type="checkbox"/>
Depth (DP)	Door	5 + -	<input checked="" type="radio"/> meter (m) <input type="radio"/> percent (%)	<input checked="" type="checkbox"/>

Figure 12 – Setting allowed deviation for both doors to 5 meters

### 4.3 Set nominal values

The deviation is calculated with respect to a nominal value which must be set by the user. This can be done in two ways:

- Click *Set Nominal* in the main horizontal toolbar. This will set the nominal value of all measurements to their current value. See *Figure 13*.
- When altering the alarm settings for one or more measurements, those measurements will automatically have their nominal value set to the current value.

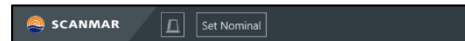


Figure 13 – *Set Nominal* resets nominal values for all deviations

### 4.4 Activating the visual alarm

The user can activate or deactivate the visualization of the alarms by clicking the icon in the main horizontal toolbar when in normal operation mode.

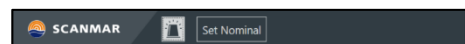


Figure 14 – Activating visual alarms

### 4.5 Examples

With the alarm settings enabled for instance on the port door depth, you have:

*Example 1:*

If the nominal value for the depth is set to 200 meters and the allowed deviation is **5 meters**, an alarm is raised whenever the measured value reads below 195 or above 205 meters.

*Example 2:*

If the nominal value for the depth is set to 200 meters and the allowed deviation is **5 percent**, an alarm is raised whenever the measured value reads below 190 or above 210 meters.

## 5 Edit mode

### 5.1 Overview

In *CCWin* the user can create multiple screen views. Each screen view consumes a whole window and contains a custom arrangement of panels. Panels can display measurements or be a container for measurement boxes. All panels can also contain other panels.

This chapter explains how to create screen views, where you find the panels and how to arrange them within the screen view. Chapter 6 – *Measurement boxes* and chapter 7 – *Panels* are dealing with the specifics regarding measurement boxes and the different types of panels.

### 5.2 Enter edit mode

Altering the graphical layout is only possible when in *edit mode*. You can enter *edit mode* via the main horizontal toolbar, see *Figure 15*.

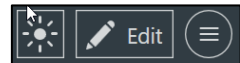


Figure 15 – Enter edit mode

### 5.3 Creating and deleting screen views

When in *edit mode*, you are editing the screen view that is currently selected. If you have more than one physical screen, they can have different screen views selected, and all can be edited simultaneously.



Figure 16 – Create or select screen view

Click the “*plus*” icon to create a new screen view (see *Figure 16*). By default, the newly created screen view becomes selected.

You can delete a screen view by right-clicking the screen view icon.

### 5.4 The panel toolbox

Open the panel toolbox by clicking the leftmost “*plus*” icon in the main horizontal toolbar and select *Panels* in the heading (see *Figure 17*). This will list all available panel types.

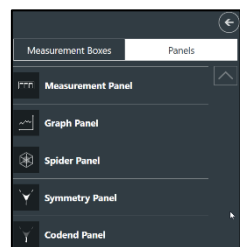


Figure 17 – The panel toolbox

## 5.5 Arranging panels

### 5.5.1 Placing a panel onto an empty screen view

Arranging panels is done by means of drag-and-drop. Hover the mouse over a panel in the panel toolbox. While pressing and holding left mouse button, drag the panel onto the screen view. Release the button while pointing the mouse at one of the offered drop zones. While pointing at the drop zone, a blue region will be shown as a visual feedback to indicate where the new panel will be placed. For an empty screen view, it will fill the whole screen view regardless of where it is dropped. See *Figure 18*.

**Note:** When dropping a graph panel or a spider panel you will be prompted to add measurements. This has no effect on the placement and can be changed later.

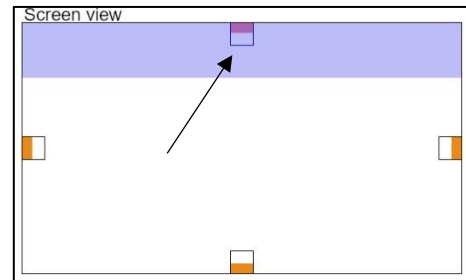


Figure 18 – An empty screen view with four drop zones. Blue area indicates where the new panel normally would be placed. However, with a single panel, it will still fill the whole screen view

### 5.5.2 Placing a panel when the screen view has exactly one existing panel

When dropping a new panel onto a screen with exactly one panel, you will be offered panel drop zones instead of those of the screen view. As long as the screen view has only one panel, the effect of dropping the new panel at one of the edges of the panel drop zone will be the same as dropping it on the screen view edges as described above.

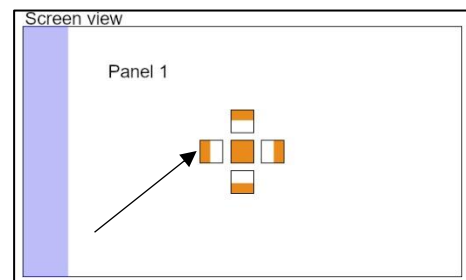


Figure 19 – Drop zones when screen view has exactly one panel

However, with the panel drop zones, you'll get the additional option of dropping the new panel on top of the existing one. See 5.5.4 – *Placing a panel on top of another panel*.

Dropping the new panel at the left edge will split the screen view vertically, with the new panel on the left side (see *Figure 19*). Similarly dropping the panel above or below will split the screen view horizontally.

### 5.5.3 Placing a panel when the screen view has two or more existing panels

Having a screen view with three panels may look something like *Figure 20*. In this case you have two options. Drop the new panel at one edge of an existing panel or drop it at one of the screen view edges, see *Figure 21*.

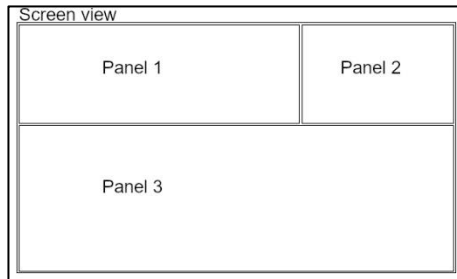


Figure 20 – Screen view with three panels

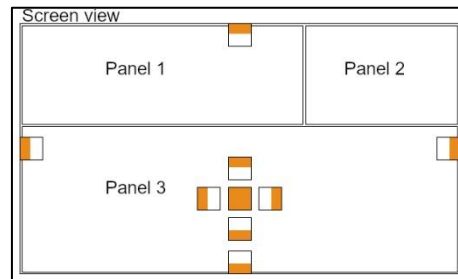


Figure 21 – Drop zones when the screen view has more than one panel. Here hovering inside panel 3

#### **Drop panel within an existing panel**

To split panel 3 horizontally, drag the new panel to the drop zone as shown in *Figure 22*. Release the mouse button and the panel docks itself to the right-hand side, see *Figure 23*.

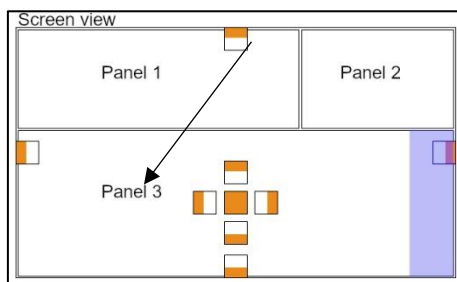


Figure 22 – Indicates where the new panel will be placed while hovering over drop zone pointed to by arrow

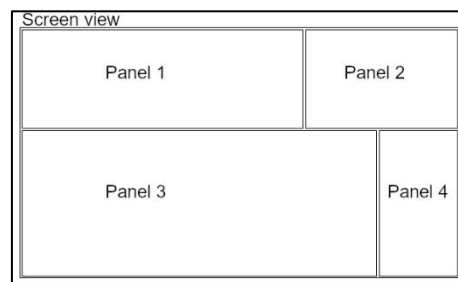


Figure 23 – Panel 3 has been split horizontally with the new panel to the right

#### **Drop panel outside an existing panel**

To place a panel along the whole edge of the screen view, drag the new panel to the screen view drop zone as shown in *Figure 24*. Release the mouse button and the panel docks itself to the left edge of the screen view, see *Figure 25*.

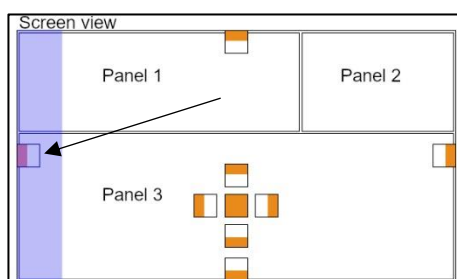


Figure 24 – Indicates where the new panel will be placed while hovering over the drop zone pointed to by the arrow

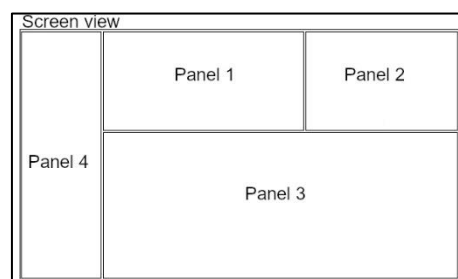


Figure 25 – Panel arrangement after the 4th panel was dropped to left edge of the screen view

### 5.5.4 Placing a panel on top of another panel

Two or more panels can occupy the same space within the screen view by stacking them on top of each other. Drag the new panel to the drop zone as shown in *Figure 26*. Release the mouse button and note that you've got a panel selector, see *Figure 27*.

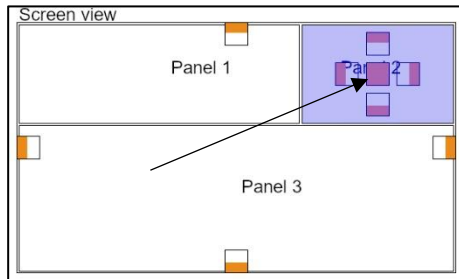


Figure 26 – Indication that new panel will be stacked on top of the other. In this case on top of panel 2

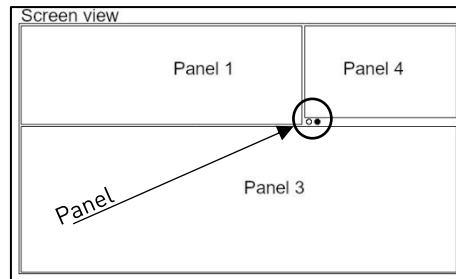


Figure 27 – Panel 4 visible

Use the panel selector to switch between panels that are stacked, see *Figure 28*.

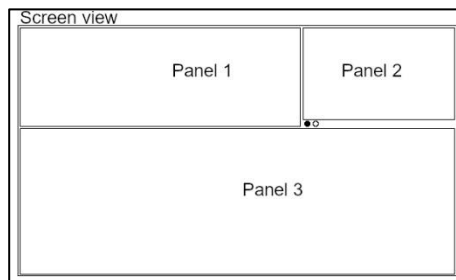


Figure 28 – Panel 2 visible

### 5.5.5 Noteworthy

- To cancel a drag-and-drop action, simply drop the panel to anywhere outside of a drop zone.
- Any panel type may be added more than once to the available screen views. This is particularly handy for graph panels where different size and axis scaling may be useful.

## 5.6 Performance

The number of panels that can be added is limited by available memory and computer performance in general. All panels created consume computer resources. Therefore, having an excessive number of panels created, but normally hidden from being viewed, i.e. stacked in same screen view area, is not recommended. Naturally, this is even more of an issue when two or more physical screens are used.

**Create as many views as you need, but not more than you need.**

## 5.7 Resizing panels

Panels can be resized by moving the mouse over the border between two panels. When the mouse pointer takes the form of a double arrow, grab the border and move up-down or left-right for resizing.

## 5.8 Moving and deleting panels

Each panel has a title bar visible when in *edit mode*. This title bar is partially collapsed when not hovered over by the mouse, see *Figure 29*.

Moving the mouse over the title bar will expand it displaying the type of panel and an "X" on the right-hand side, see *Figure 30*.

### 5.8.1 Moving panels

Click and grab (keep mouse button pressed) the expanded tool bar. Move it around and place it like explained in chapter 5.5 – *Arranging panels*.

If desired, a panel may even be moved between two different screen views displayed on separate physical monitors.

### 5.8.2 Deleting panels

There are two ways to delete a panel:

- Delete a panel by clicking the "X" on the right-hand side of the expanded title bar. The panel is removed from the screen view but is still available from the panel toolbox.
- Right-click inside a panel and select *Remove Panel*.

## 5.9 Save or cancel changes

- Cancel changes by clicking *Cancel*.
- Save changes by clicking the check mark, see *Figure 31*.

## 5.10 Exit edit mode

To exit the edit mode, you'll have to either cancel or save the changes.

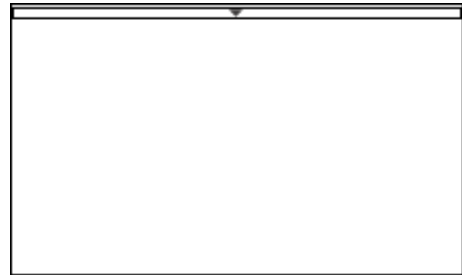


Figure 29 – Panel with partially collapsed title bar indicated by a small arrowhead in the center

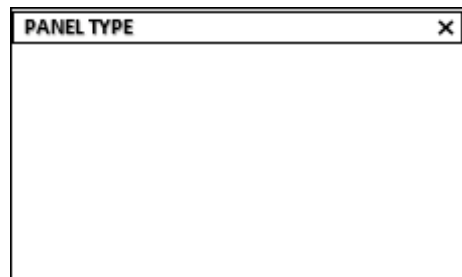


Figure 30 – Panel with title bar expanded

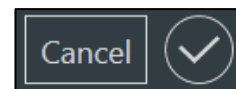


Figure 31 – Cancel changes or save them by clicking the check mark



## 6 Measurement boxes

Measurement boxes are displaying data measured or in other ways derived from Scanmar sensors. They can also display some external non-Scanmar data, such as GPS information and winch data. Contact Scanmar for more information about external data sources.

Many of them, in addition to displaying numbers, also have some form of graphical visualizations. They are placed inside a measurement panel as explained in chapter 7.1 – *Measurement panel*.

### 6.1 Icons and abbreviations

All measurement boxes have a title bar with an abbreviation for the measurement and an icon indicating the sensors mounting position.

When it is necessary to clarify whether the mounting position is on the port, center or starboard side, (e.g. for the doors or when using more than one trawl), a red, yellow or green triangle is displayed in the upper right corner. See *Figure 32* and *Figure 33*.

For further information about the multi measurement box used in *Figure 33*, see 6.2 – *Multi measurement box*.

Abbreviation	Explanation
Catch	Catch
DP	Depth
DST	Distance
FLW	Flow
FSH	Fish
GRD	Grid
HOC	Height Opening Clearance
HYD	Hydrophone
P	Pitch
R	Roll
TLT	Tilt
TMP	Temperature

Mounting pos.	Icon
Headrope	
Wing end	
Footrope	
Tunnel	
Grid	
Cod end	
Clump	
Clump warp	
Door	
Warp	
Vessel	
Please double check mounting	

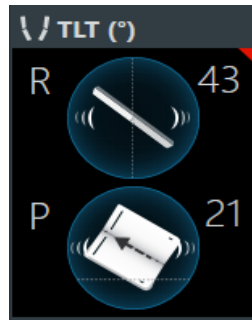


Figure 32 – Measurement box for tilt angles port-side door

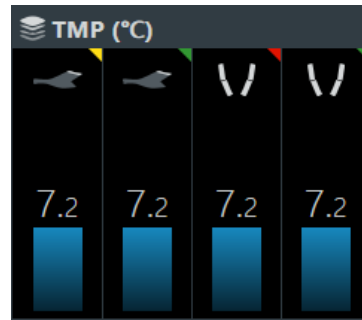


Figure 33 – Multi measurement box with temperatures for center headrope, starboard-side headrope, port-side door and starboard-side door

## 6.2 Multi measurement box

A multi measurement box can contain the same kind of measurement, from different sensors. Currently this is available for depths and temperatures. For obvious reasons the title bar cannot have an icon for one specific mounting position. Instead it has an icon resembling a stack. The mounting positions are found above each measurement within the box, see *Figure 34*.

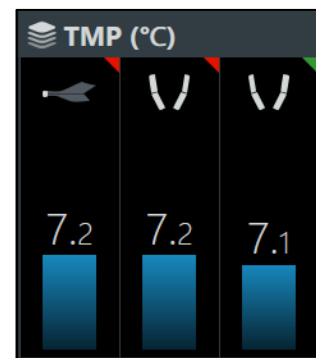


Figure 34 – Multi measurement box with three different temperature measurements

### 6.3 Hydrophone measurement box

This measurement box is currently the only interactive one. For each hydrophone mounting position there is a clickable checkbox allowing it to be activated or deactivated. If a hydrophone stops working, e.g. due to a short circuit, the corresponding checkbox will show a small warning of orange color, see *Figure 35*.

Any one or two hydrophones from the set of hydrophones installed and without a warning, may be selected. The hydrophone check boxes act as toggle-buttons with a maximum of two simultaneous selections. Only one hydrophone at a time is used for measurements decoding. Whenever two is selected, these act as a pair with auto-select between the two, meaning that the decoder uses the one providing the best reception.

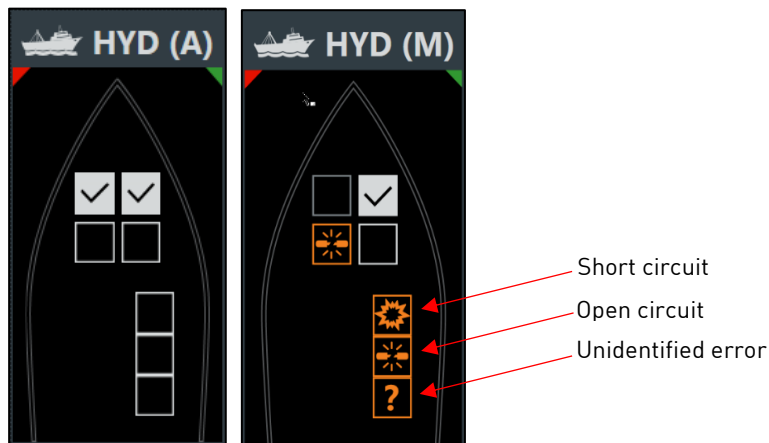


Figure 35 – Hydrophone measurement box, with and without warnings

### 6.4 Catch measurement box

A catch measurement box is displaying catch data from catch sensors. The catch indicator bar is split into as many sections as there are catch sensors mounted on the net. The sensor order is vital. Counting from the cod end tip, the first sensor is displayed at the bottom section of the indicator bar.

**Note:** The arrangement of the catch sensors must match exactly the gear configurator and the physical arrangement on the net, see chapter 8.6 – Multiple catch sensors mounted on cod end (important).

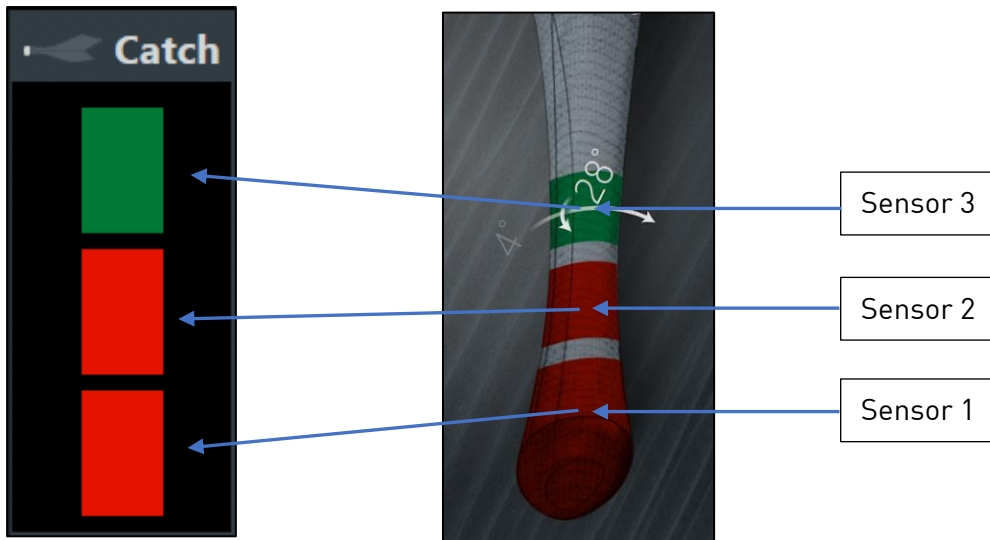


Figure 36 – Catch measurement box when the net has three sensors. Red color indicates catch

### 6.5 Deviation progression bar

If the measurement box has a deviation progression bar and the alarm visualization is activated, a deviation indicator will show how far the current reading has drifted away from the nominal. The hatched area corresponds to values outside of the allowed deviation, see Figure 37.

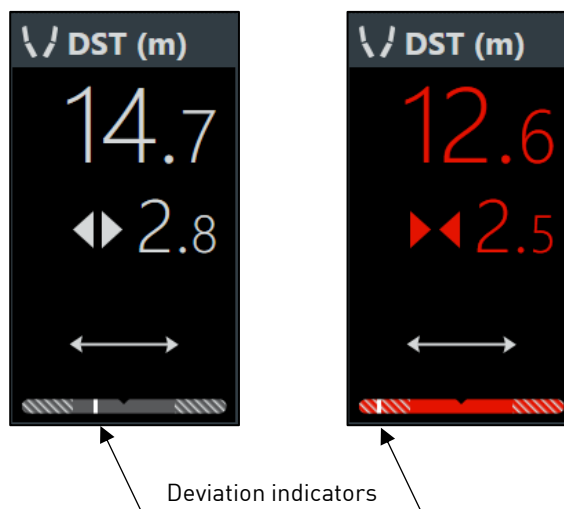


Figure 37 – Door distance. To the left within, and to the right outside of the allowed deviation

## 7 Panels

This chapter describes the usage of the different panels and their menus. You can open a menu by right-clicking anywhere inside a panel. In *edit mode*, all menu options are enabled. In *normal operation mode*, while still visible, some or even all options may be disabled (grayed out).

### 7.1 Measurement panel

This panel contains measurement boxes side by side in a single row. If the width of the panel is too small to view all the boxes simultaneously, a scrollbar will be displayed at the bottom. See *Figure 38*.

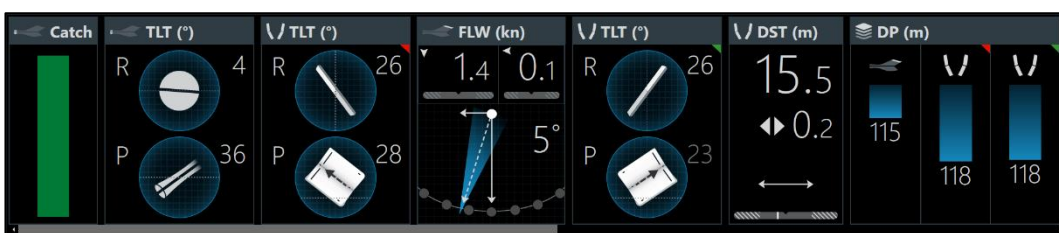


Figure 38 – Measurement panel with measurement boxes and scrollbar

#### 7.1.1 The measurement panels menu

The menu is made up of three sections (see *Figure 39*). The different sections, and when they are available are described below.

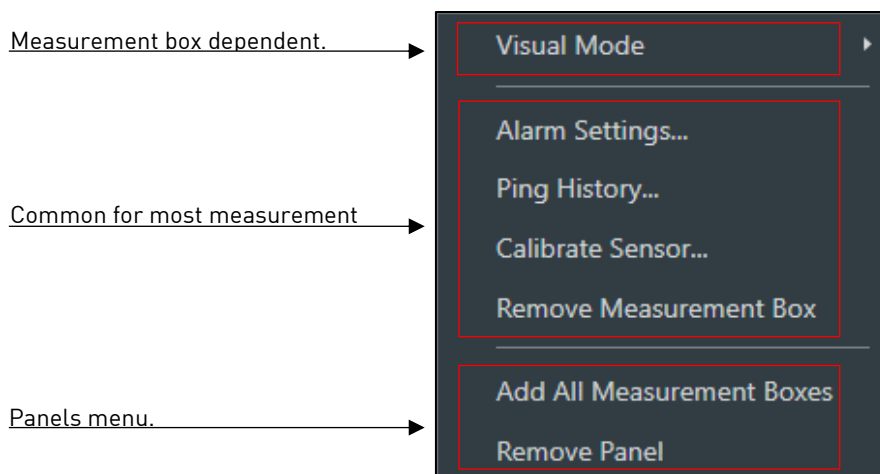


Figure 39 – Example shows how the panels menu looks like when opened from within a flow measurement box

#### **Panels menu**

This menu section is always visible. When opening the menu outside any measurement boxes, it is the only menu section visible. It allows you to remove all measurements at once or remove the whole panel.

### **Common for most measurement boxes**

This menu section is visible when the menu is opened from within a measurement box.

For some measurements, such as the hydrophone measurement box and boxes displaying measurements from other sources than a Scanmar sensor, some of the menu items in this group are not visible.

- Alarm settings, see chapter 4 – *The alarm system*.
- Ping history, to see the quality of the sensor reception.
- Calibrate sensor, for adding an offset to the measured value.
- Remove Measurement box, removes the measurement box from the panel.

### **Measurement box dependent**

This menu section is visible when the menu is opened from within a measurement box which has more to offer than what's common. E.g. different ways of displaying the same data.

## **7.1.2 Adding measurement boxes.**

The measurement boxes are found next to the panel toolbox (see *Figure 40*). They are placed into the panel by drag-and-drop in a similar fashion to how panels are placed into the screen view.

A visual feedback is given, in the form of a white bar, to indicate where you are placing the measurement box (see *Figure 41*). If you are moving a measurement box and hovering over a place where it cannot be dropped, the mouse pointer turns into a stop-sign.

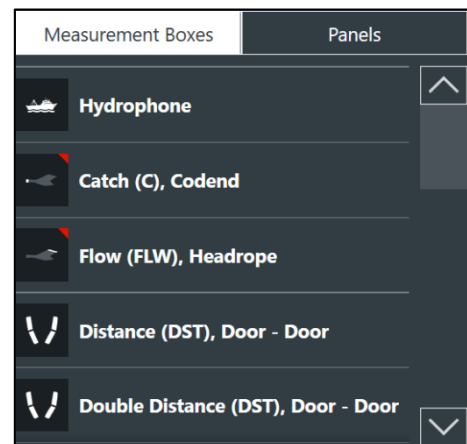


Figure 40 – Measurement boxes

## **7.1.3 Moving a measurement box**

The measurement box can be moved by clicking the title bar and drag-and-dropping it to the desired location. It can be placed somewhere else within the same panel, or even into a second measurement panel if you have more than one.



Figure 41 – Adding a measurement box to the panel. A white bar indicates where the box will be placed

## **7.1.4 Removing a measurement box**

You can remove a measurement box by clicking the "X" on the right-hand side of the title bar. You can also use the menu, see section 7.1.1 – *The measurement panels menu*.

## 7.2 Graph panel

A graph panel displays one or more values as they change over time. Both single measurements as well as echograms can be displayed in a graph panel. See Figure 42.

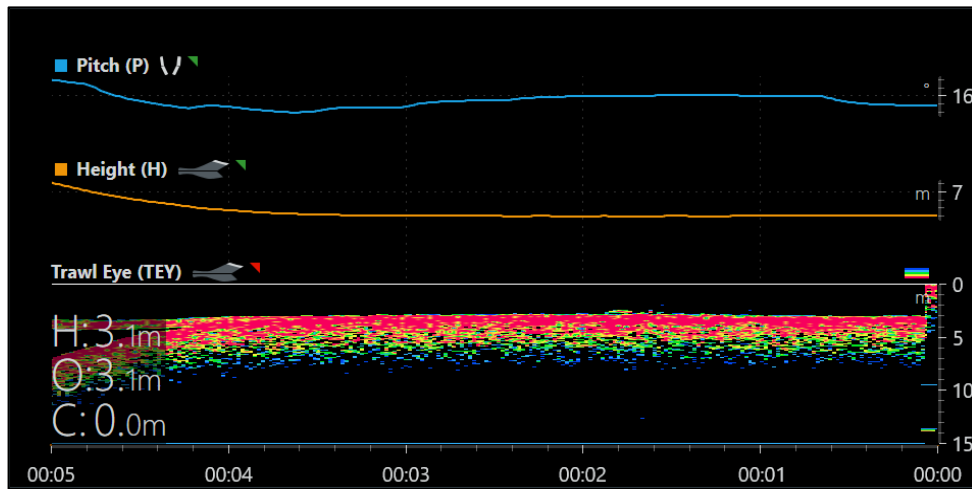


Figure 42 – A graph panel showing progression over time for the pitch angle of the starboard door, the headrope height of the starboard trawl and the echogram from a *TrawlEye* mounted on the headrope of the port trawl

### 7.2.1 Segments

All values added to a graph panel are displayed in a segment. A segment has a time ruler displaying the time frame at the bottom, and a data ruler displaying the data range to the right (see Figure 43). Note that you never add segments manually, they are added by the graph panel as needed.

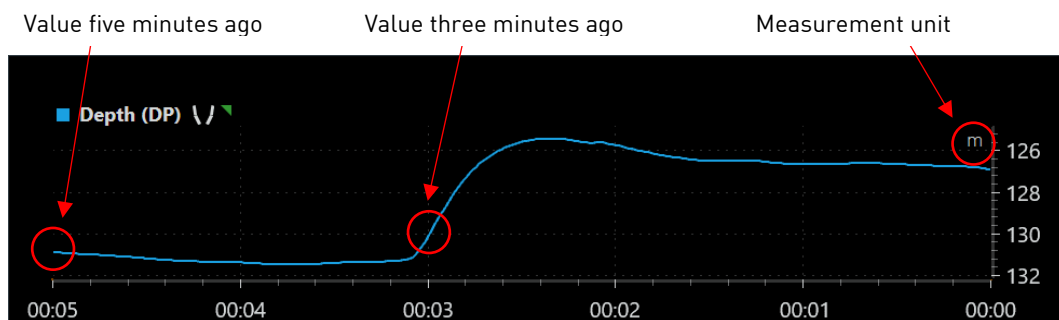


Figure 43 – A segment displaying the depth of the starboard door. The unit is meters, and the time frame is five minutes. Current depth is approximately 127 meters and it was roughly 131 meters five minutes ago

**Altering the time frame**

Hovering the mouse pointer anywhere over the time ruler displays a set of buttons to change the time frame, see *Figure 44*.

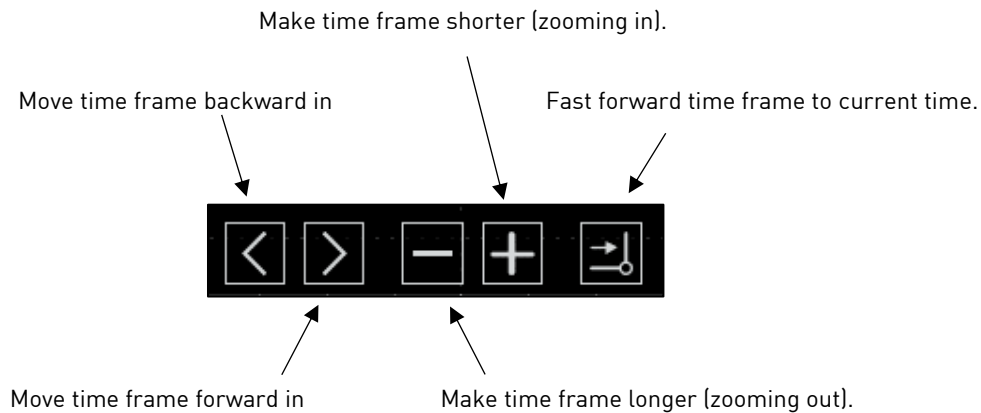


Figure 44 – Buttons to alter the time frame

**Note:** The time ruler has two different label formats for the time; HH:MM and HH:MM:SS (H=Hours, M=Minutes, S=Seconds).

**Altering the data range**

The default behavior for the vertical scale is to automatically scale to include all values in the current time frame.

Hovering the mouse pointer anywhere over the data ruler displays a set of buttons to overrule this default behavior. When the *Auto* button is selected (white), the automatic scaling is in effect.

To access the other buttons and overrule, first uncheck the auto button, see *Figure 45*.

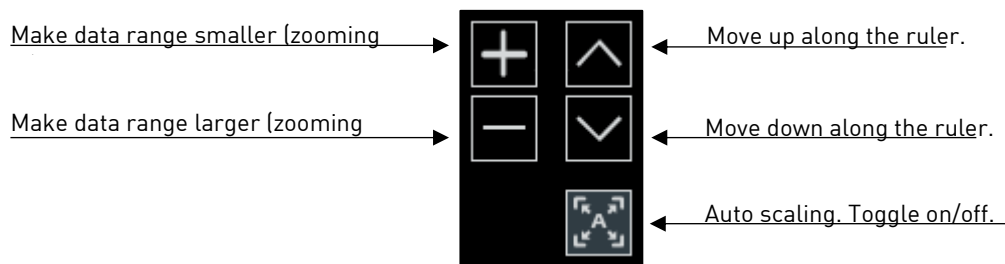


Figure 45 – Buttons to toggle auto scaling, alter data span and move along the ruler

**Note:** The spatial orientation of the buttons may vary.



### Box zooming

Box zooming is possible by simply selecting a region within a segment (see *Figure 46*). There is no "returning back" after box zooming. To return to a wider view, scale manually or use the Auto scaling button as described above.

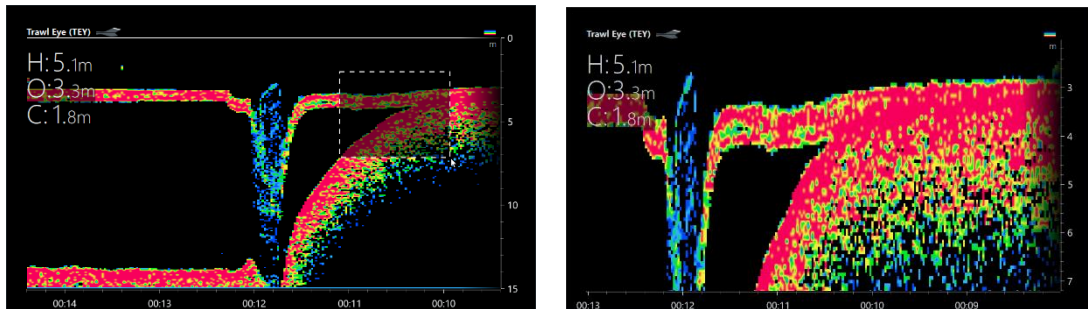


Figure 46 – Select region to zoom into. Time ruler and the vertical scale automatically adjust to fit in the selected region

### Horizontal marker lines

In *edit mode*, you can add a marker line by hovering the mouse pointer at the height of the measurement unit and drag and slide down a marker line (see *Figure 47*). You can add as many horizontal marker lines as you want.

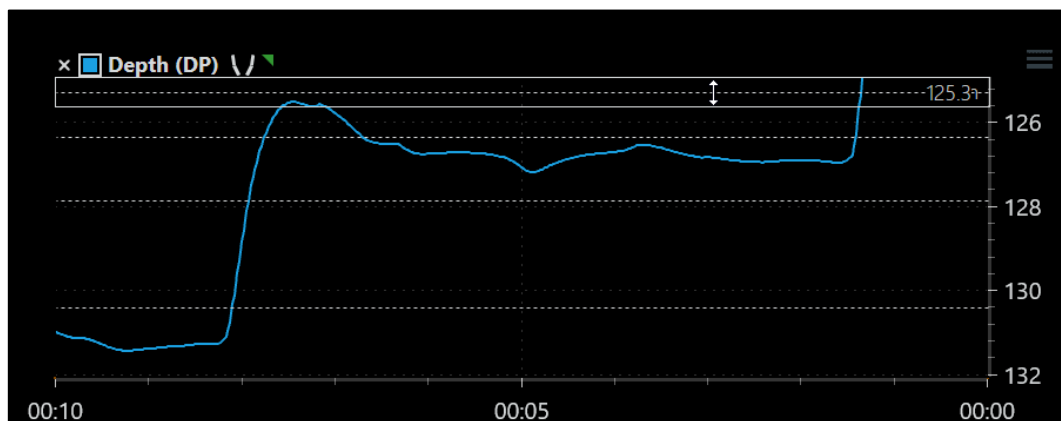


Figure 47 – Three marker lines and hovering over a fourth to be moved down

The vertical position of the existing marker lines can be adjusted. To remove an existing marker line slide it back up to the top.

### Segment with multiple values

Values originating from equal types of measurement, e.g. depth, will automatically be placed within the same segment, see *Figure 48*.

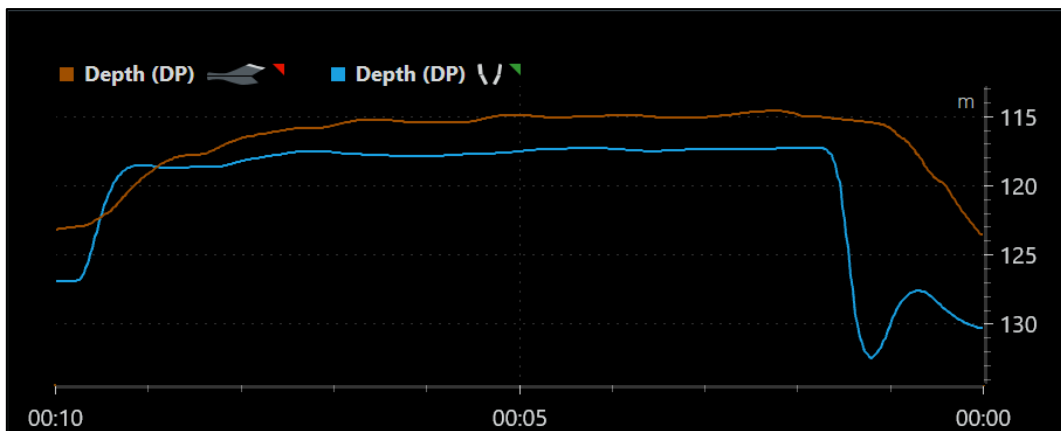


Figure 48 – One segment with multiple values

### Multiple segments

When adding a value from a new measurement type, the graph panel automatically inserts a new segment. All segments are sharing a common time frame and time ruler, see *Figure 49*.

The vertical space occupied by two adjacent segments can be adjusted by dragging the resize handle at the border between them.

You can shift segments up and down to customize their order within the graph panel. Grab the icon in the top right corner of the segment (see *Figure 50*) and slide the segment until a white marker appears.

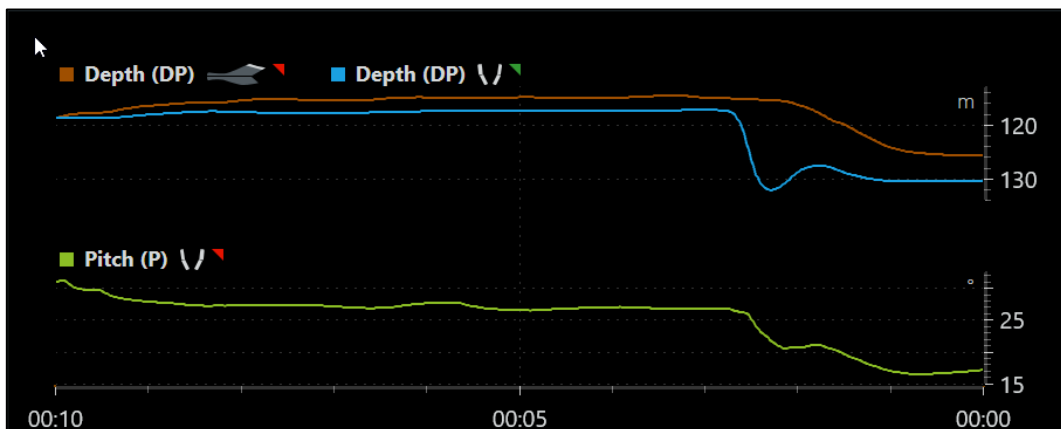


Figure 49 – Graph panel with two segments. One for depth and one for pitch measurements

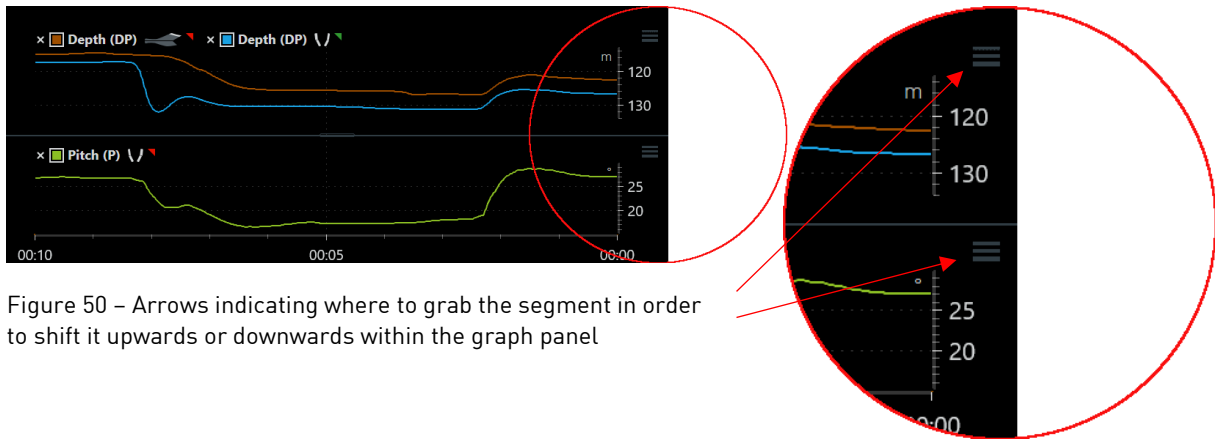


Figure 50 – Arrows indicating where to grab the segment in order to shift it upwards or downwards within the graph panel

## 7.2.2 Adding a measurement to the graph panel

### By drag-and-drop

A measurement box from a measurement panel may be dragged and dropped onto a graph panel. Any measurement from the box not already in the graph is then made available for selection. This will not remove it from the measurement panel.

### By menu

See chapter 7.2.3 – *The graph panels menu* below.

## 7.2.3 The graph panels menu

The graph panels menu is made up of three sections (see *Figure 51*). The different sections, and when they are available are described below.

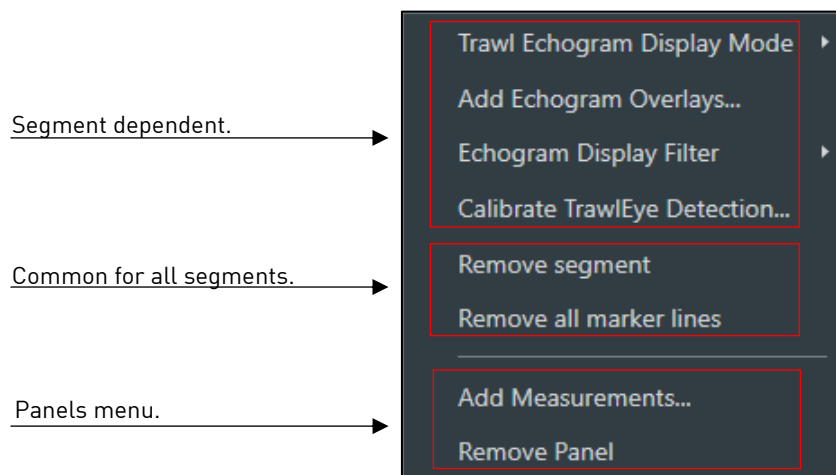


Figure 51 – Example shows how the panels menu looks like when opened from within a segment displaying a *TrawlEye* echogram

### Panels menu

This menu section is always visible. When opening the menu outside any segments, this is the only visible menu section.

*Remove Panel* – Remove the selected panel.

*Add Measurement* – Shows a list of all available measurements and the option to give the measurement a custom color (see *Figure 52*).

### Common for all segments.

This menu section is visible when the menu is opened from within a segment and allows you to remove the segment, and any marker lines present.

### Segment dependent

Whether this menu section is present depends on the segment itself.

The example in *Figure 51* is from a segment displaying an echogram from a *TrawlEye*. This is currently the only segment which adds a segment dependent menu section.

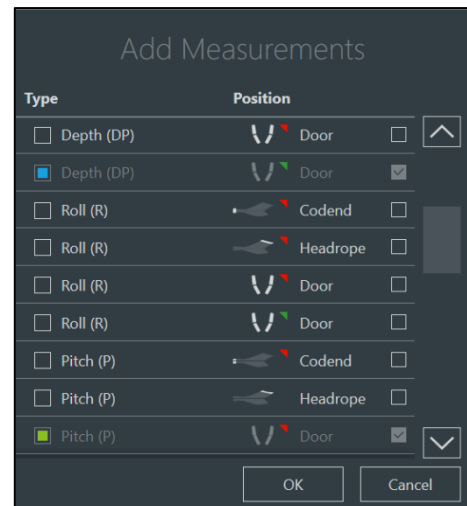


Figure 52 – Available measurements to the graph panel

## 7.2.4 TrawlEye segment menu section

*Fixed Headrope* – The data ruler shows depth relative to the headrope, i.e. headrope is at zero meters.

*True Motion* – The data ruler is showing true depth data, marking the headrope with a solid white horizontal bar. This requires depth data from a sensor mounted on the net. Preferably in the same position as the *TrawlEye*.

*Add Echogram Overlays* – Pick from a list of measurement values that are suitable for being displayed in the same segment as the *TrawlEye* echogram.

*Echogram Display Filter* – choose between three filter options.

*Calibrate TrawlEye Detection* – Opens a dialog where the parameters controlling the footrope and bottom detection algorithms can be adjusted.

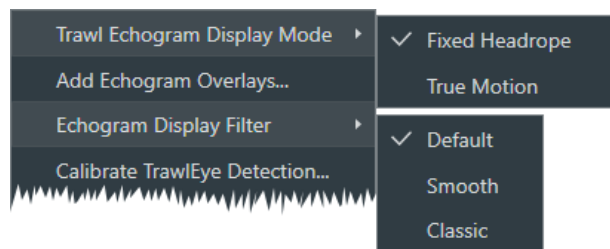


Figure 53 – The menu when opened from within a *TrawlEye* segment. For simplicity, the segment specific menu sections are cut out and all submenus are shown simultaneously

**Note:** To remove an overlay, click the "X" in the top of the segment, see *Figure 54*.

### 7.2.5 TrawlEye segment specifics

By default, the segment for *TrawlEye* ecogram displays Height, Opening and Clearance on the left-hand side. They can be removed or added back as shown in *Figure 54*.

You can filter the echogram based on signal strength (remove low intensity colors) by clicking the rainbow icon in the top right of the segment.

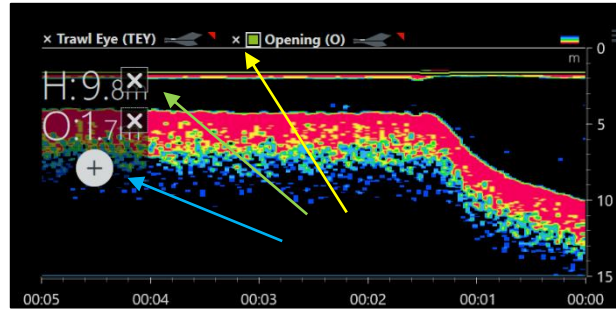


Figure 54 – Yellow: Remove overlay  
Green: Remove Height value Blue: Add back Clearance

### 7.3 Spider panel

A spider panel offers a compact way of monitoring multiple measurements deviation. The panel displays a spider chart and adds a new axis to the chart for each measurement added to the panel. The deviation marker moves away from the center as the deviation increases. The dashed line represents the maximum allowed deviation, (much like the deviation for measurement boxes described in *Figure 37*).

The marker is a plus sign when the measured value is higher than the nominal value and a negative when it is lower. The marker is green if the deviation is within allowed limits and turns red when the deviation exceeds the limit.

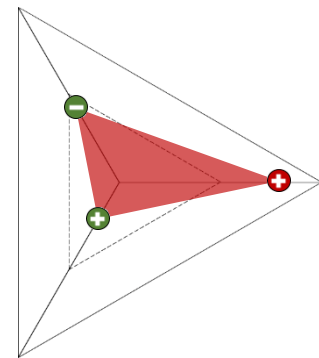


Figure 55 – Spider panel measuring three deviations

The web between the markers is green when all deviations are within their limits. As soon as one marker turns red, the entire web turns red.

The spider chart in the spider panel has markings at the end of each axis making the corresponding measurement easy to identify, see *Figure 59*.

You may add as many measurements as you like to the spider panel. The examples only use three for simplicity.

#### Examples

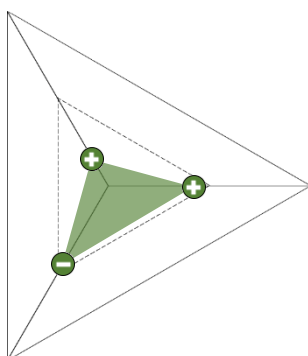


Figure 56 – Spider panel with all deviations within limits

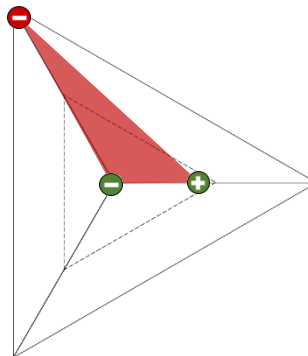


Figure 57 – Spider panel with one deviation outside its limits

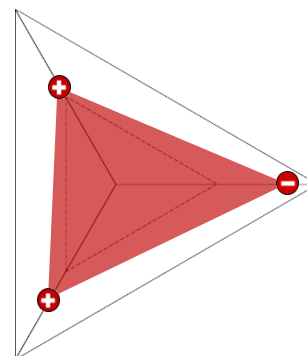


Figure 58 – Spider panel with all deviation outside their allowed limits

### 7.3.1 The spider panels menu

The spider panels menu contains only three entries. See *Figure 60*.

*Add Measurements* – Displays a list of measurements you can add to the spider panel.

*Alarm Settings* – See chapter 4 – *The alarm system*.

*Remove Panel* – Removes the selected spider panel.

#### **Adding measurement by drag and drop.**

In addition to using the menu, there is another way to add measurements to the spider panel. From a measurement panel you can drag a measurement box and drop it on the spider panel. This will not remove it from the measurement panel.

#### **Reorganize the spider chart.**

You can reorganize the order of the measurements by dragging the axis' label to the desired location.

#### **Deleting measurements**

Click the "X" in upper-left corner of an axis' label to remove the measurement from the spider panel.

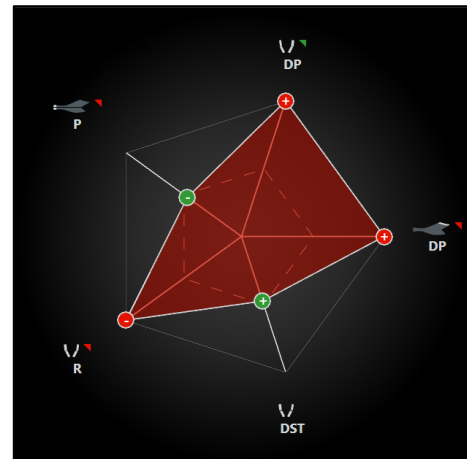


Figure 59 – Spider panel with five deviations. Axis labeled with icons and abbreviations

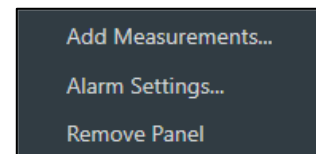


Figure 60 – Spider panels menu

## 7.4 Symmetry panel

The symmetry panel is displaying a graphical representation of the doors and trawl opening with superimposed measurements of depths, temperatures, distances, flow etc. See example in *Figure 61*.

While in edit mode, click the "X" to remove a superimposed measurement. Click the "+" to add it back in.

The only menu option available in the symmetry panel is *Remove Panel*.

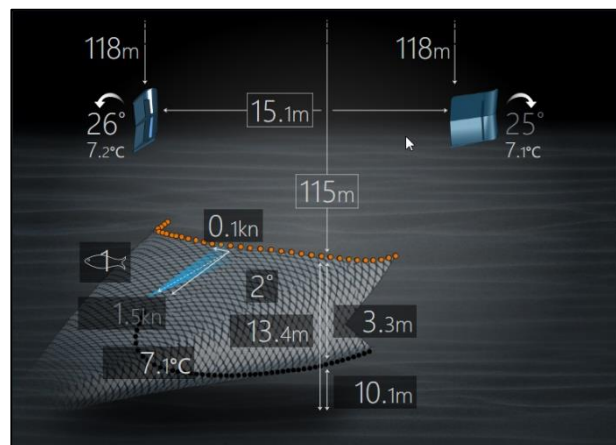


Figure 61 – Example of a symmetry panel for a single trawl configuration

## 7.5 Cod end panel

The cod end panel displays a graphical representation of the cod end, with superimposed measurements of catch, temperature, twist and pitch. See example in *Figure 62*.

While in edit mode, click the "X" to remove a superimposed measurement. Click the "+" to add it back in.

The only menu option available in the symmetry panel is *Remove Panel*.

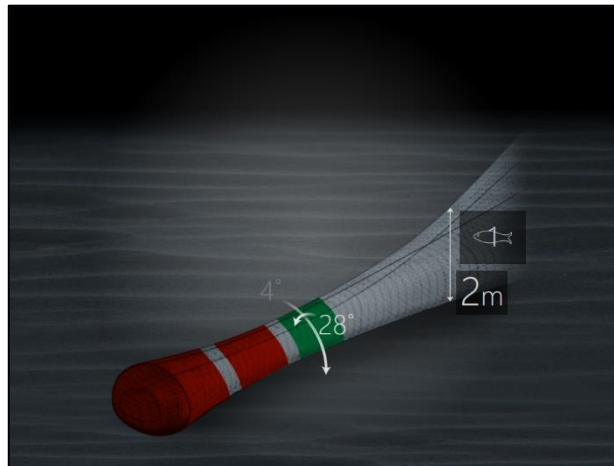


Figure 62 – Example of a cod end panel for a single trawl configuration. There are three catch sensors mounted, with the two first having triggered the catch measurement

## 8 Gear Configurator

The *Gear Configurator* is a stand-alone program for adding new sensors, to configure which sensors are currently in use and where those sensors are mounted on the gear.

The *Gear Configurator* can be started by selecting *Gear Configurator* from the main menu, or by locating the *ScanBas 365* installation folder and launch the Configurator.exe application. When using the latter, a small menu is available on the right-hand side of the toolbar. This menu offers a small subset of what's already covered in chapter 3 – *Main menu*.

The *Gear Configurator* opens in full screen but can be moved or minimized to uncover hidden applications, e.g. *CCWin*.

### 8.1 The gear configurators toolbar

The *Gear Configurator* has a simple toolbar as shown in *Figure 63*. The buttons for saving and undoing changes remain disabled until any changes occur. For adding sensors see chapter 8.3 – *Adding sensors*.

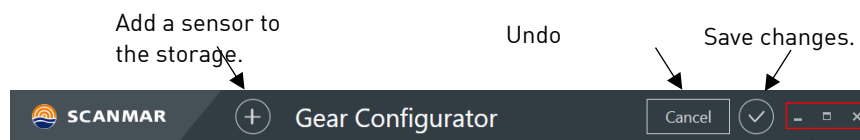


Figure 63 – The gear configurators

Minimize, maximize or close window.

### 8.2 The working panels

The *Gear Configurator* has two working panels. One is named *Your Storage* and lists all your available sensors which are not yet mounted onto the gear. The other one is the configuration panel. Here you do the actual work of placing available sensor onto doors, clumps and nets of the current gear. The configuration panel displays all the gear you are licensed to put sensors on, and may differ according to your licenses.

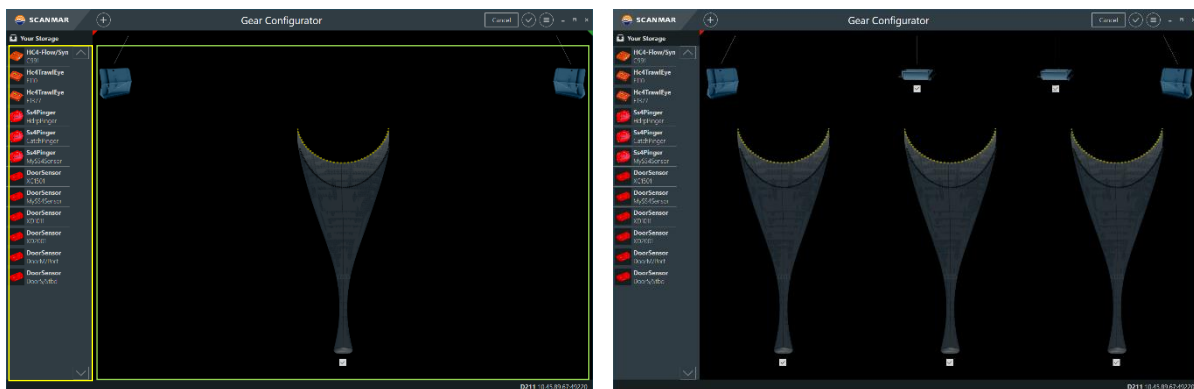


Figure 64 – Two examples of how the configuration panel may look like. Licensed for a single trawl to the left. Licensed for triple trawl with clumps to the right. Left image illustrating *Your Storage* area in yellow and configuration panel in green



## 8.3 Adding sensors

Before you can make use of a sensor and place it onto the gear, it must be made known to the *ScanBas 365* system. Once known by the system, it appears in *Your Storage* and can then be placed onto the available gear.

### 8.3.1 SS4 Sensors and HC4 TrawlEye

SS4 type sensors, and HC4 TrawlEye should automatically be added to *Your Storage* with the correct configuration (telegram, FID, S/N etc.) when connected to a *Sensor Configuration Unit*.

For SS4 sensors connect the four wires (plus, minus, signal and SWD) from the *Sensor Configuration Unit* to the sensor. For HC4 TrawlEye sensors, remove the battery, and connect the watertight connector from the *Sensor Configuration Unit* to the battery connector on the HC4 TrawlEye.

After a short time, it should appear in *Your Storage* ready for use.

### 8.3.2 Sensor types other than SS4 sensors and HC4 TrawlEye

Other sensors than those of type SS4 and the HC4 TrawlEye must be added manually. Click the "+" icon in the toolbar (see *Figure 63*) and choose the type of sensor you'd like to add, see *Figure 65*.

Fill in the custom label (optional), correct serial number and all the combinations of telegrams and FIDs (see *Figure 66*).

This information should be visible on a label on the sensor.

**Note:** It is vital that this information is correct. If not, the measurements will be incorrect or not received at all.

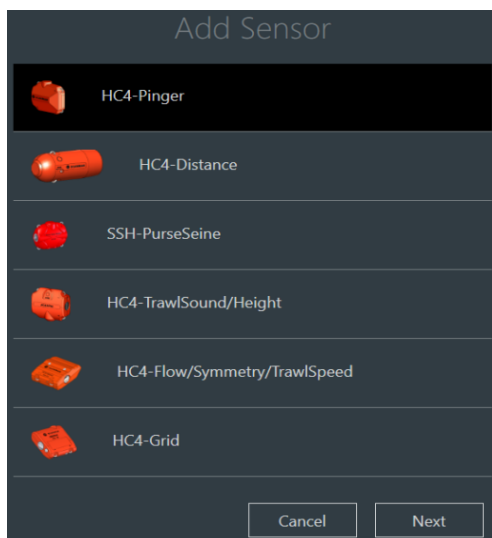


Figure 65 – Sensors to choose from when adding manually

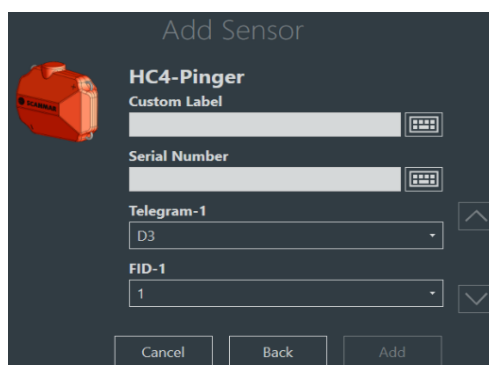


Figure 66 – Example of the fields to configure for a HC4-Pinger sensor

**Note:** You will need a license to add sensors of this type to the system. If you do not have this, an error message will appear. If this happens contact Scanmar.

## 8.4 Sensor menu

Right-clicking on a sensor in either *Your Storage* or in the configuration panel brings up a small menu, see *Figure 67*.

*Sensor Information* – Lists the sensor configuration.

*Edit Sensor Configuration* – Displays the same dialog as when adding a sensor (see *Figure 66*), but only telegrams and FIDs can be changed.

*Delete Sensor* – Deletes the sensor completely from *Your Storage*.

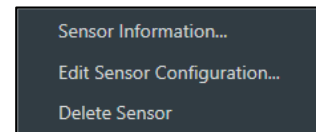


Figure 67 – Right-click on a sensor to see the menu

## 8.5 Placing a sensor on the gear

Sensors are placed on the gear by means of drag-and-drop. Grabbing a sensor and moving it will cause the configuration panel to display all possible mounting positions (see *Figure 68*). You can either grab a sensor from *Your Storage* or grab one that has already been placed elsewhere on the gear.

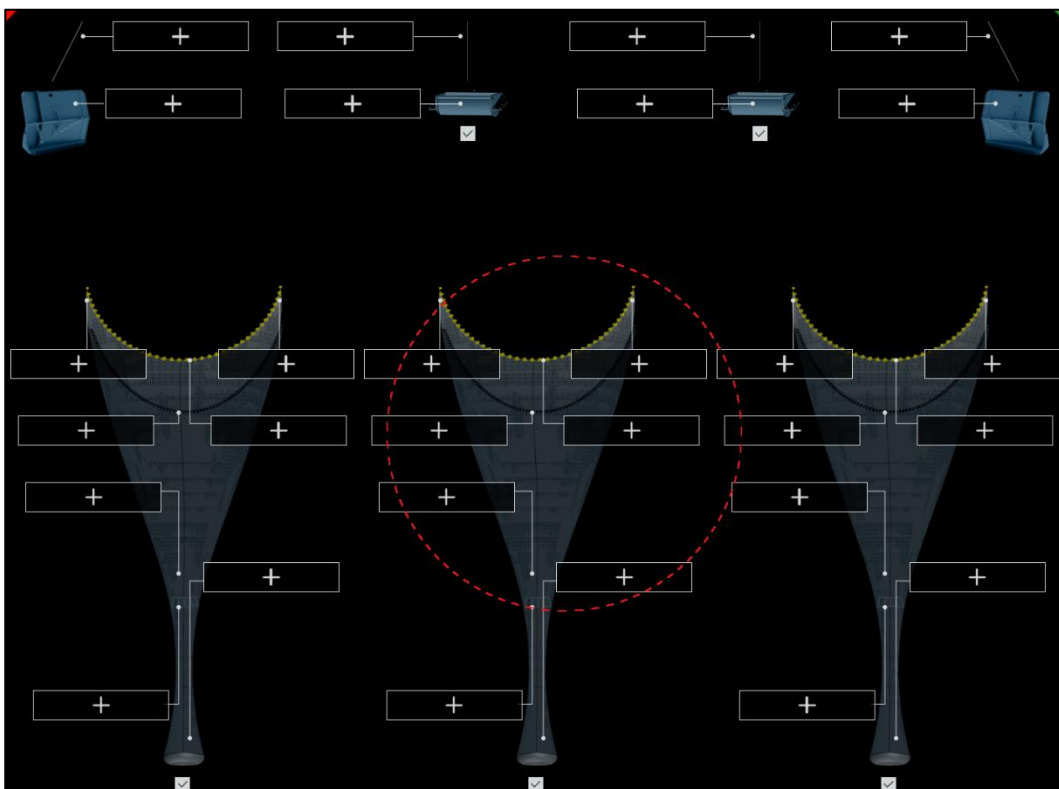


Figure 68 – All possible mounting position when licensed for a triple trawl

Grab and move to the desired position and drop the sensor when the corresponding drop box frame becomes a dashed line (see *Figure 69*). Dropping while outside of the dropping boxes causes the sensor to snap back to where it was picked up from.

Multiple sensors can occupy the same slot. You can simply drop one on top of another (see *Figure 70*). Rearrange a sensors individual position among those occupying the same slot by dragging it up or down.

To remove a sensor from the gear, simply drag and drop it back to *Your Storage*.

**Note:** When adding several catch sensors to the cod end, the order they are added corresponds to the position on the cod end starting from the far end.

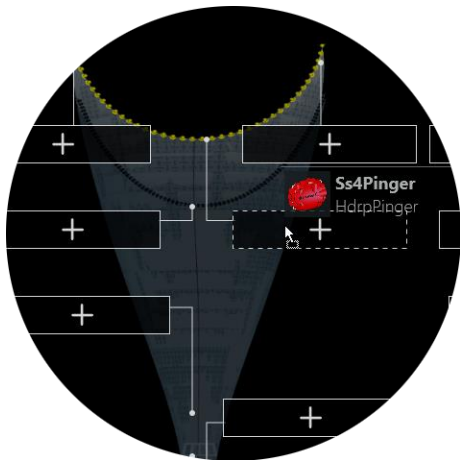


Figure 69 – Dashed line indicates that the sensor can be dropped in place

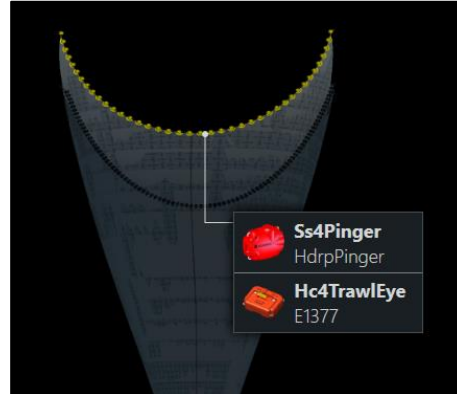


Figure 70 – Multiple sensors can be placed on the same place

## 8.6 Multiple catch sensors mounted on cod end (important)

Cod end mount position sequence is significant when it comes to correlating actual physical position to the screen representation. When mounting multiple catch sensors onto the cod end, please make sure the *Gear Configurator* is reflecting the physical mounting in a correct manner, see *Figure 71*.

In the configuration panel, sensors in the same location may be reordered by dragging within the list in order to achieve the desired sequence.

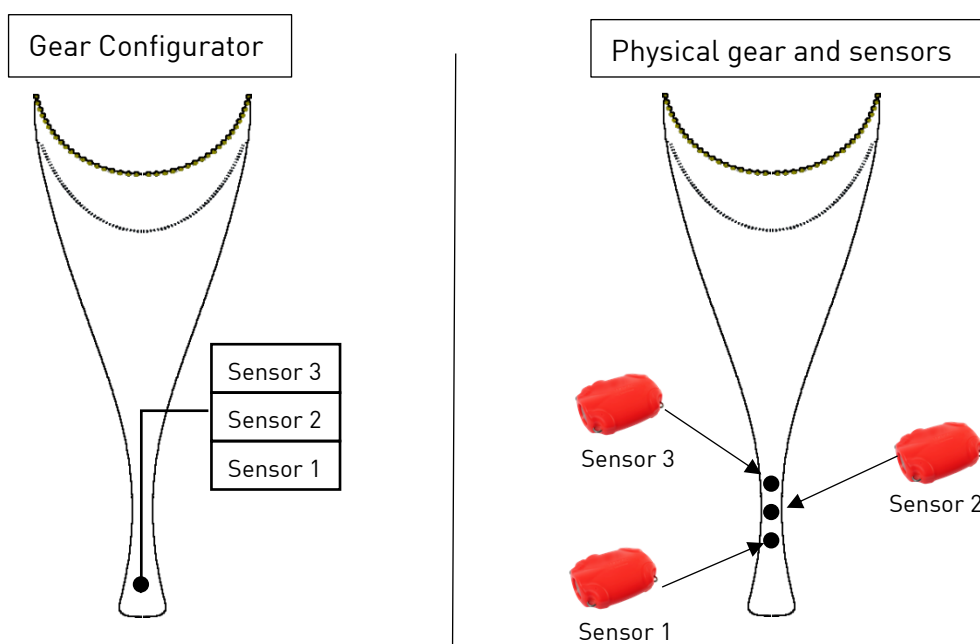


Figure 71 – Physical mounting of cod end catch sensors **must** match configuration in Gear Configurator.

## 8.7 Conflict alarms

Whenever two or more sensors on the active gear are configured to use the same FIDs, you will get an alarm.

The conflicting sensors will have an orange bell to the right and their frames will be solid orange (see *Figure 72*). Click on the bell to get detailed information about the conflict, see *Figure 73*.

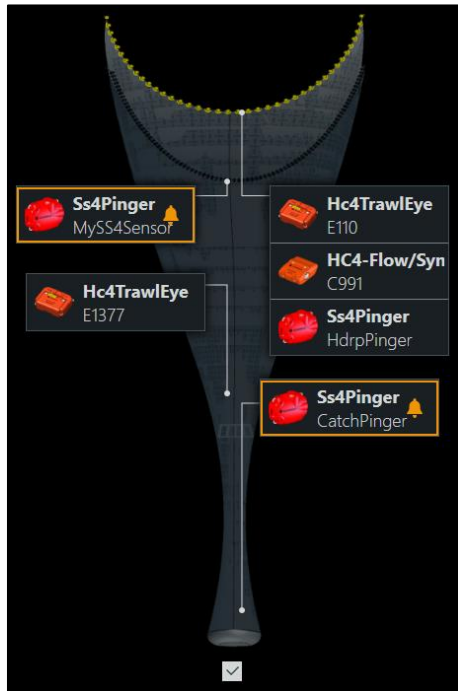


Figure 72 – Indication that two sensors are in conflict. Press either bell to get detailed information

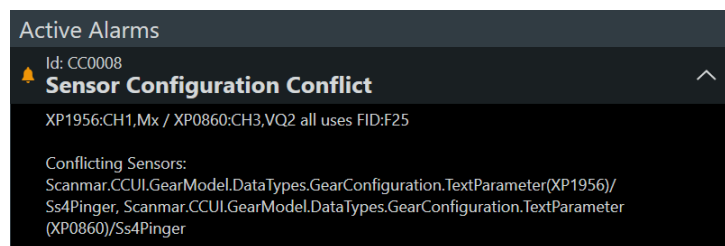


Figure 73 – Detailed information about a conflict between sensors

## 8.8 Enabling and disabling nets and clumps

The gear configurator always displays the maximum number of nets and clumps that your license allows. You can at any time enable or disable nets and clumps for single/double/triple trawling by using checkboxes on each net and each clump, see *Figure 74*.

By selecting or deselecting these, you can quickly change between full and reduced gear.

**Note:** Double and triple trawl requires a license to be enabled. If you don't have the correct license contact Scanmar.

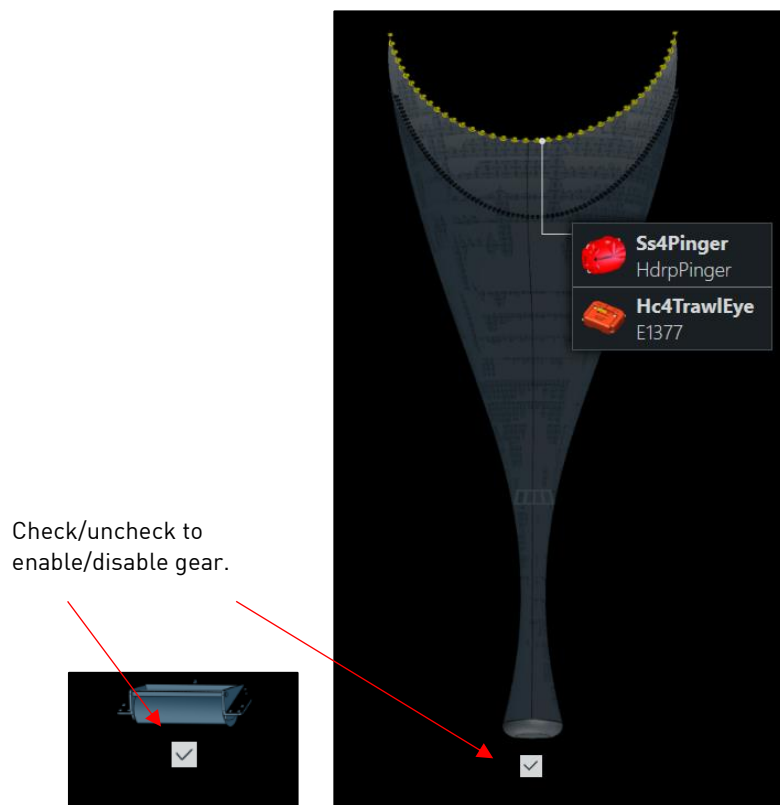


Figure 74 – Use the checkboxes to enable or disable some of the gear

# User Manual

## ScanBas 365

Date: 30.03.2020

Art no. 111525

Change notification no. EM1521

Revision: 1.0