



# NavView User Guide – 21 Alerts

Document: 4DN\_NVUG\_S21\_01B

Release: 01

Revision: B

Released: 7/10/2024

4D Nav, LLC

REL	REV	ISSUE DESCRIPTION	PREPARED	REVIEWED	APPROVED	DATE
01	B	Updated for alerts acknowledging, Alerts List window and Alert Panel	GAW/SW	SW	GAW	July 10, 2024
01	A	Initial release	SW	GAW	GAW	May 24, 2024

© Copyright 2024 4D Nav LLC

Unless explicitly stated otherwise, all rights including those in copyright in the content of this document are owned or controlled by 4D Nav LLC (4D Nav). Except as otherwise expressly permitted under copyright law or by 4D Nav, the content of this document may not be copied, reproduced, republished, downloaded, posted, broadcast, or transmitted in any way without the written permission of 4D Nav.

# Table of Contents

21.	Alerts .....	1
21.1	Managing Alerts .....	1
21.1.1	Add/Remove an Alert Group .....	1
21.1.2	Configure Alerts in a Group .....	2
21.2	Monitoring Alerts .....	6
21.2.1	Monitoring Alerts Locally .....	6
21.2.1.1	Alerts Service Window .....	6
21.2.1.2	Alerts List Window .....	7
21.2.1.2.1	Alert Audio and Popup Messages .....	9
21.2.1.3	Alert Panel .....	9
21.2.2	Monitoring Alerts – Remotely .....	11
21.3	Acknowledging Alerts .....	12

## 21. ALERTS

The Alerts feature enables a user to create multiple Alerts Groups, each consisting of cascading conditional tests of data against tolerances and if any of the tests fail an alert is generated. This is a very flexible tool and can be used to monitor any published observation. For example, an alert can be setup to warn if a vehicle heading deviates from a required heading.

Alerts configured and triggered on one instance of NavView are published to other NavView clients, licensed and unlicensed, connected to the same network services.

If Roles and Privileges are enabled, the user must be logged in as Online, Supervisor or Administrator to manage the Alerts.

### 21.1 MANAGING ALERTS

Alerts are managed from the Alert Service Configuration window, see Figure 21-2. This is accessed from the Setup ribbon by clicking on Alerts in the Configure section, see Figure 21-1-.

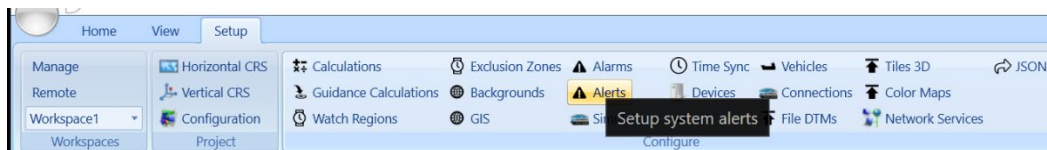


FIGURE 21-1- SETUP RIBBON - ALERTS

#### 21.1.1 ADD/REMOVE AN ALERT GROUP

An Alert Group is added from the Alert service configuration window, see Figure 21-2.

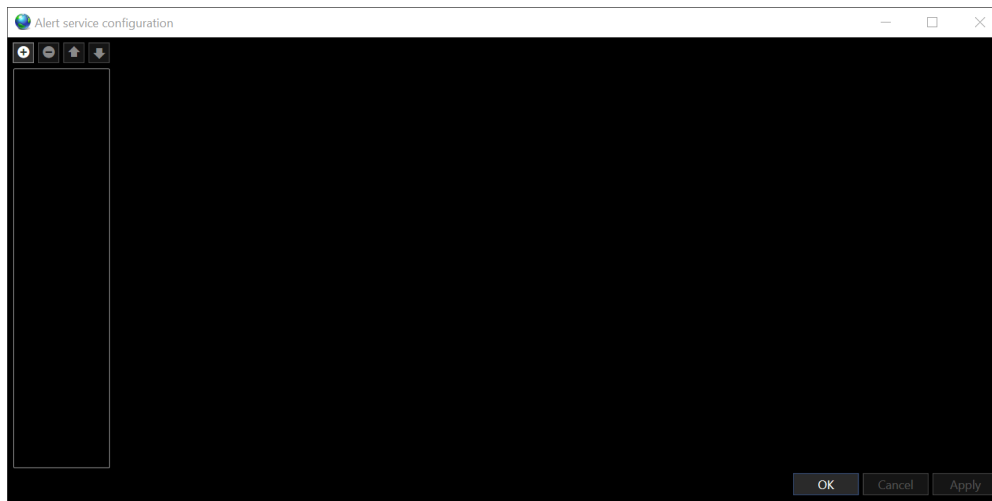


FIGURE 21-2 ALERT SERVICE CONFIGURATION WINDOW


1. Access the Alert service configuration window.
2. Click  to create an Alert Group. This is where individual alerts are grouped together, see FIGURE 21-3.



FIGURE 21-3 ALERT CONFIGURATION - GROUP ADDED

- **Name:** Assign a name to the group

3. Click to remove the selected Alert Group.

### 21.1.2 CONFIGURE ALERTS IN A GROUP

Each Alert is comprised of one or more Conditions in a list. The Conditions are tested in the order they are listed and as soon as one fails, testing stops and an alert is triggered. The test logic is as follows.

Condition 1: WHEN [Observation] [Threshold] [Threshold Logic]

Condition 2: [Logic] [Observation] [Threshold] [Threshold Logic]

Condition n: [Logic] [Observation] [Threshold] [Threshold Logic]

Where:

- **Logic** options are AND and OR
- **Observation** is configured by selecting a data source and then one of the properties of that source and the units to use
- **Threshold** options are IS ABOVE, IS BELOW, IS BETWEEN RANGE and IS OUTSIDE RANGE
- **Threshold Logic** are the values to test the observation/threshold against

1. To add an alert to the group, click under Alerts, see Figure 21-4.



FIGURE 21-4 ADD INDIVIDUAL ALERT

2. Assign a name to the alert.
3. Configure the alert conditions, see Figure 21-5.

**Note:** When an Alert is added, the initial Condition is automatically added with the Logic selection set to WHEN. The first Condition Logic is always WHEN. If the order of Conditions is changed, the Logic is also changed such that the first Condition is set to WHEN and the one that was moved down is changed to AND.



FIGURE 21-5 ALERT - CONDITIONS CONFIGURATION

- **Logic:** WHEN is the only option available for the first Condition in a list. Subsequent Condition Logic options are AND and OR
- **Data Source:** Click in the cell to open the available data sources from the drop-down, see Figure 21-6

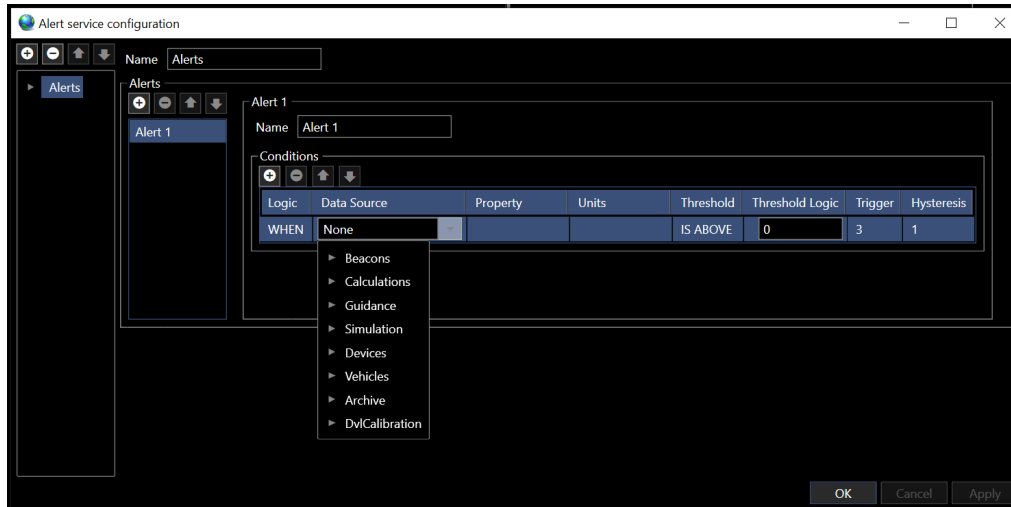


FIGURE 21-6 ALERT - DATA SOURCE SELECTION

- **Property:** Depending on what data source was selected, the available properties can be found by clicking in the property box, see Figure 21-7

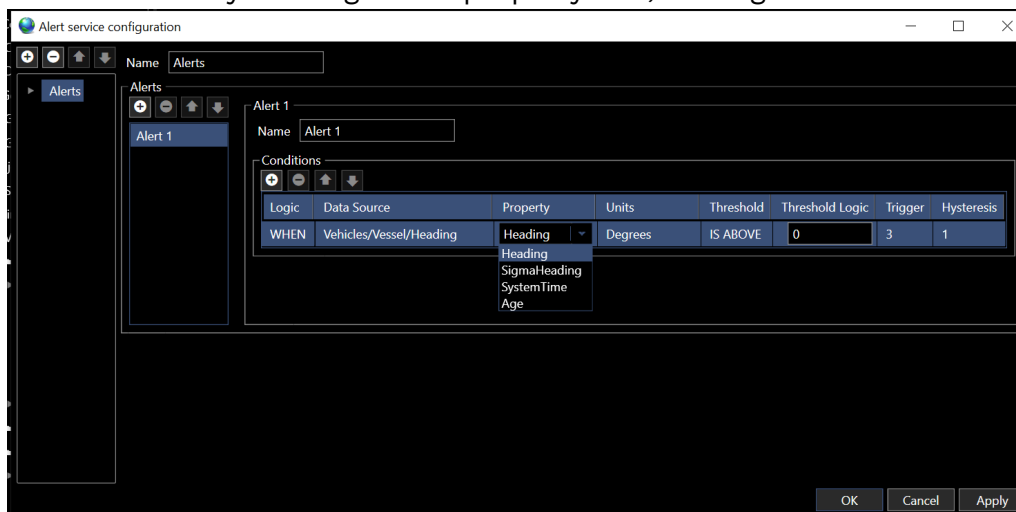


FIGURE 21-7 ALERT – PROPERTY SELECTION

- **Units:** From the drop-down, select the units associated with the selected data source property, see Figure 21-8



FIGURE 21-8 ALERT - UNITS SELECTION

- Threshold:** From the drop-down, select one of the following as a condition for the alert, see Figure 21-9

**Note:** The option IS INSIDE RANGE tests for the value being greater than or equal to the lower threshold and less than or equal to the upper threshold. The option IS OUTSIDE RANGE tests for the value being less than or equal to the lower threshold and greater than or equal to the upper threshold.

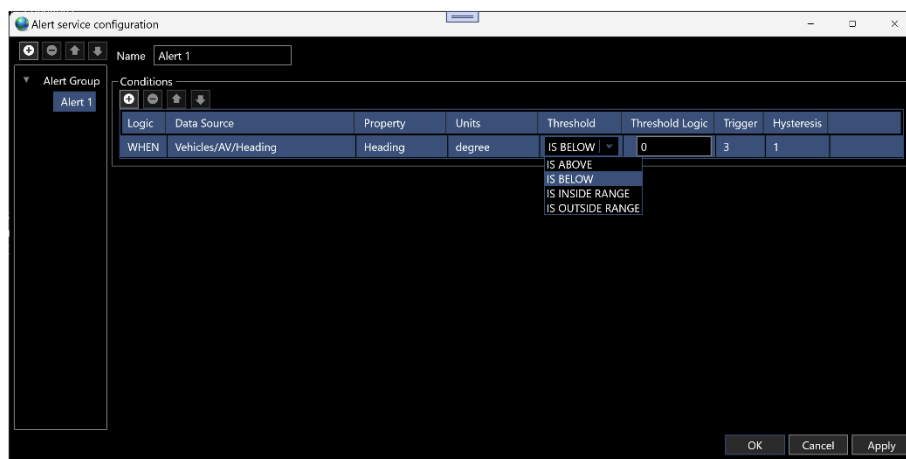


FIGURE 21-9 ALERT – THRESHOLD SELECTION

- Threshold Logic:** Enter value for Threshold condition(s) to trigger alarm
- Trigger:** The number of times the condition needs to evaluate to true before triggering an alert. The lower the number the quicker the alert will respond, the higher the number the less responsive. The condition is evaluated every 5 seconds. The default is 3
- Hysteresis:** The required change from the threshold limit(s) before resetting alert, clearing alert. For example, if the condition if the heading IS ABOVE 45 and an alert has been triggered by the heading going to 47, the alert will not reset and clear until the heading has gone below 44, the default is 1

- If another Condition is to be added, click the button in the Condition panel and repeat steps until all Conditions for this Alert have been added
4. Repeat steps 1 to 3 until all Alerts to be added to the Group are added and configured.

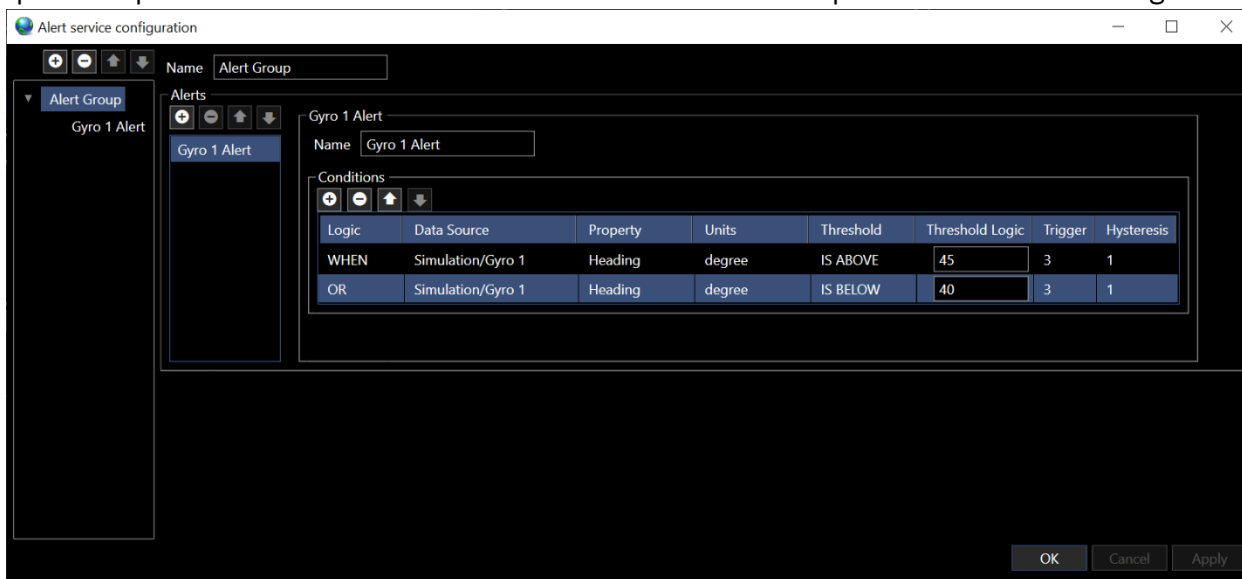


FIGURE 21-10 CONFIGURED ALERTS SERVICE

5. To remove an Alert or a Condition, select the Alert or Condition to remove and click the respective button.
6. To reorder Conditions, select the Condition and click the or button.

**Note:** Alerts in a group can be reordered, as can Alert Groups, the order of these does not impact application.

## 21.2 MONITORING ALERTS

Alerts can be monitored on the NavView instance where they are configured and triggered (locally) and on any other NavView instance connected to the same network services (remotely).

### 21.2.1 MONITORING ALERTS LOCALLY

#### 21.2.1.1 ALERTS SERVICE WINDOW

Local Alerts are monitored from the Alerts Service window. This is accessed from the View ribbon by clicking on Alerts in the Windows section, see Figure 21-11.

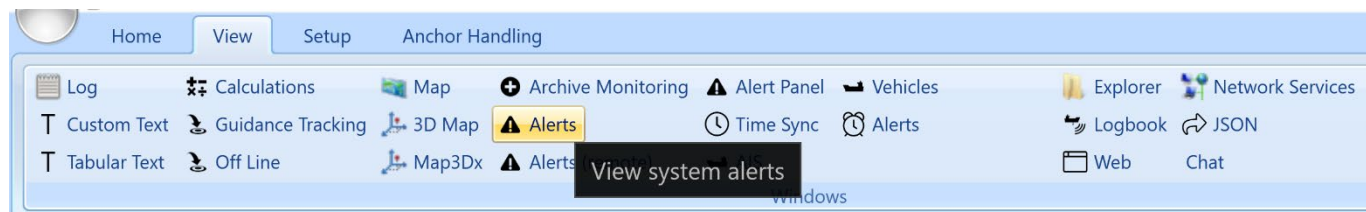


FIGURE 21-11 ALERTS SERVICE WINDOW – VIEW RIBBON



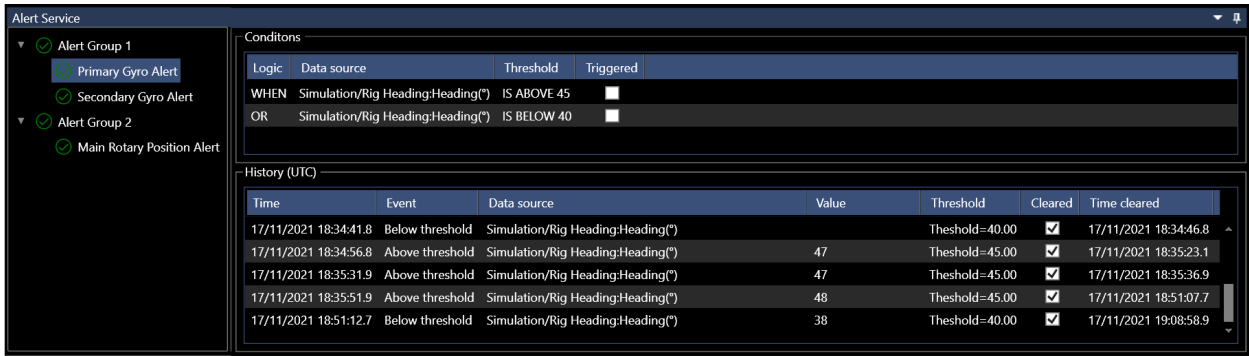


FIGURE 21-12 ALERT SERVICE VIEW WINDOW – ALL ALERTS CLEARED

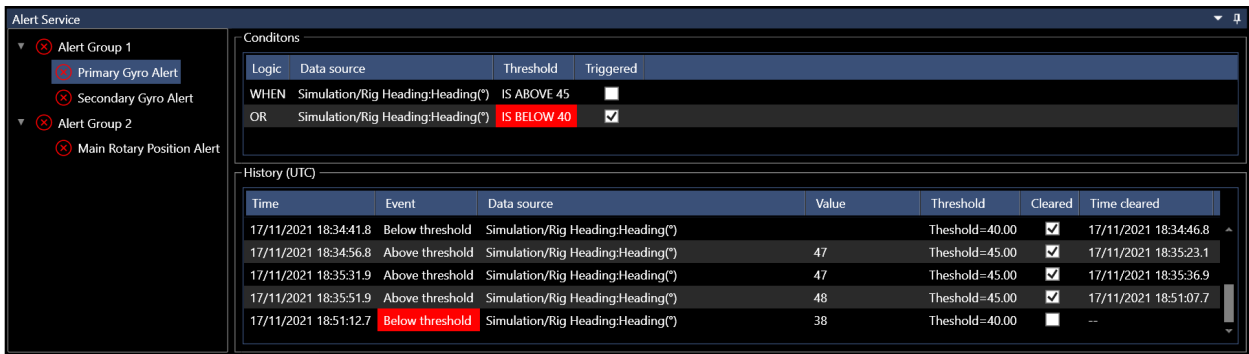


FIGURE 21-13 ALERT SERVICE VIEW WINDOW – CONDITION TRIGGERED

The Alert Service View window lists all configured alerts and the individual alert condition status. There is also a panel with a rolling history of alert conditions. Figure 21-12 shows an alert not triggered, Figure 21-13 shows an alert triggered.

**Note:** When an Alert is triggered, it is published to all stations on the network. It is not exclusive to a specific station.

**Note:** Alerts cannot be acknowledged from the Alert Service view.

### 21.2.1.2 ALERTS LIST WINDOW

Local Alerts can also be monitored from the Alerts List window. This is accessed from the View ribbon by clicking on Alerts in the Windows section, see Figure 21-14.

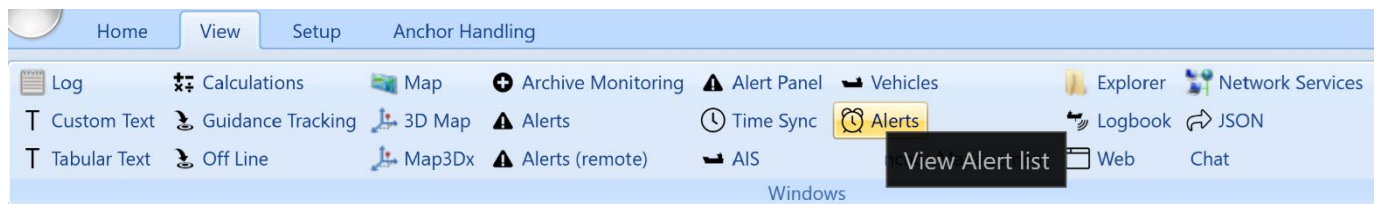


FIGURE 21-14 ALERTS LIST WINDOW – VIEW RIBBON

The Alerts List window displays alerts in the data grid as they occur with the following information:

- **Type:** Alerts are by default always a Warning
- **Time:** Date and time alert was triggered
- **Event:** The event (alert threshold) that was triggered
- **Time Cleared:** Date and time the alert was cleared, i.e., the threshold was no longer exceeded
- **Time Acknowledged:** Date and time the alert was acknowledged
- **State:** The current state of the alert, possibilities are:
  - Triggered
  - Cleared
  - Acknowledged
  - Cleared, Acknowledged
- **Module:** What data source triggered the alert

The Alert types and state to display are controlled by clicking the respective tool bar button. The number of alerts of any one type is shown in the brackets of that button.

- **Errors():** Display alerts triggered as Errors (option to trigger alerts as Errors is not currently implemented)
- **Warnings():** Display alerts triggered as Warnings
- **Info():** Display alerts triggered as Information (option to trigger alerts as Information is not currently implemented)
- **Acknowledged:** Displays alerts that have been cleared and acknowledged

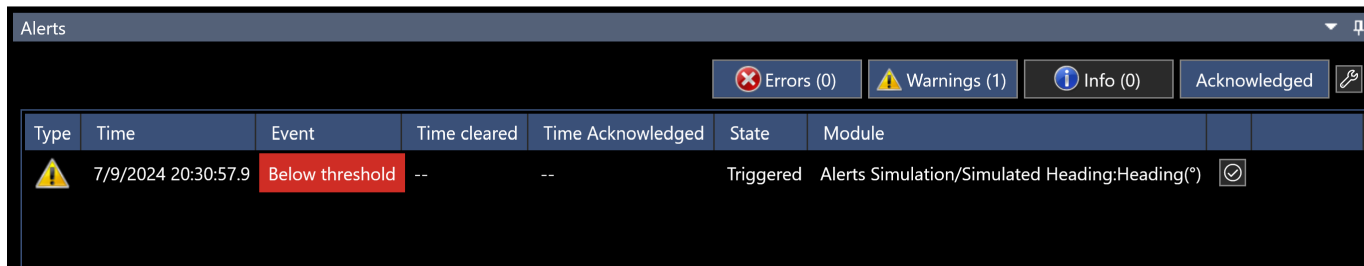


FIGURE 21-15 ALERTS LIST WINDOW - ACTIVE ALERT

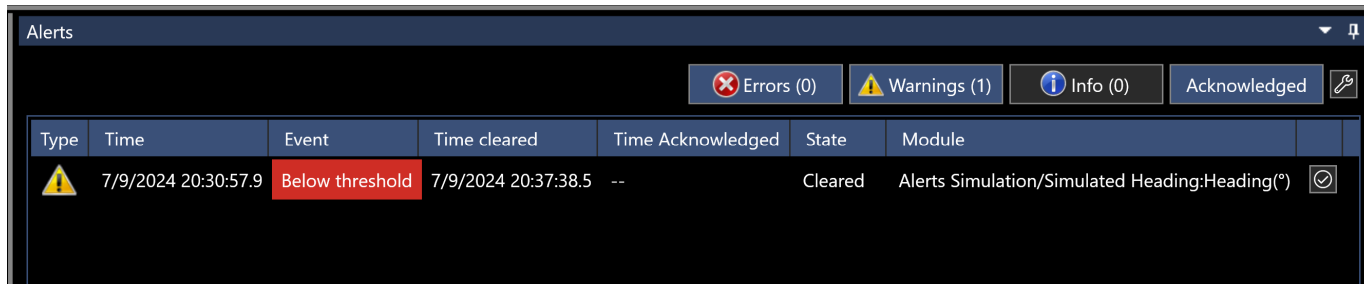


FIGURE 21-16 ALERTS LIST WINDOW - CLEARED ALERT

Type	Time	Event	Time cleared	Time Acknowledged	State	Module
Warning	7/9/2024 20:40:18.7	Below threshold	--	7/9/2024 20:40:25.3	Acknowledged	Alerts Simulation/Simulated Heading:Heading(*)
Warning	7/9/2024 20:30:57.9	Below threshold	7/9/2024 20:37:38.5	7/9/2024 20:39:39.3	Cleared, Acknowledged	Alerts Simulation/Simulated Heading:Heading(*)

FIGURE 21-17 ALERTS LIST WINDOW - ACKNOWLEDGED ALERT

### 21.2.1.2.1 ALERT AUDIO AND POPUP MESSAGES

The sound to play and the popup message to display when an alert is triggered are configured from the Alerts List window. Clicking the button in this window’s tool bar displays the dialog shown in Figure 21-18.



FIGURE 21-18 ALERTS ALERT OPTIONS

Selecting an option from the Play sound dropdown list results in that sound playing when an alert is triggered. Alternatively, None can be selected in which case no sound is played when an alert is triggered.

Checking the box associated with the alert type results in a popup message displaying when that alert type is triggered.

### 21.2.1.3 ALERT PANEL

Alert Panel can be used to display a single Alert that has been added to the Alerts Service. This displays the Alert name and it’s status by color. Green, Alert not triggered. Red, Alert triggered.

**Note:** Multiple Alert Panels can be opened.

Alert Panel is accessed from the View Ribbon as shown in Figure 21-19.

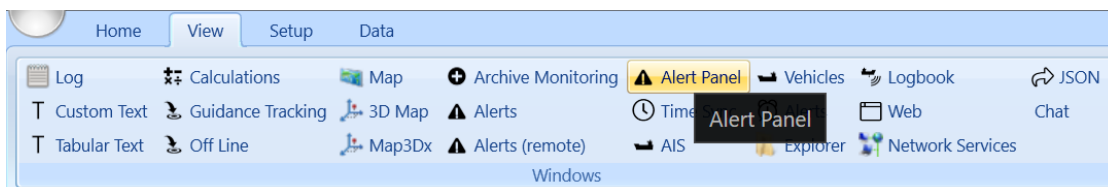


FIGURE 21-19 ALERT PANEL – VIEW RIBBON

1. Select Alert Panel from the View Ribbon. This opens a blank panel see Figure 21-20.

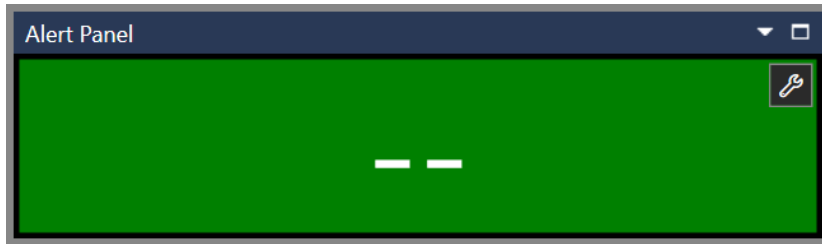



FIGURE 21-20 BLANK ALERT PANEL

2. To select Alert to display, click on the configuration button . This will open the Alert Panel Config dialog.

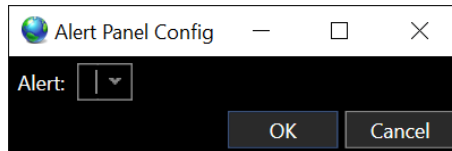


FIGURE 21-21 ALERT PANEL CONFIG

3. From the Alert drop-down select the Alert to display.



FIGURE 21-22 ALERT SELECTION

4. The selected Alert will now be displayed in the panel and the Alert status.



FIGURE 21-23 ALERT DISPLAYED IN PANEL

5. Repeat Steps 1 to 3 for additional Alerts to be displayed.

## 21.2.2 MONITORING ALERTS – REMOTELY

Remote Alerts are monitored from the Remote Alerts window. This is accessed from the View ribbon by clicking on Alerts (remote) in the Windows section, (see Figure 21-24).

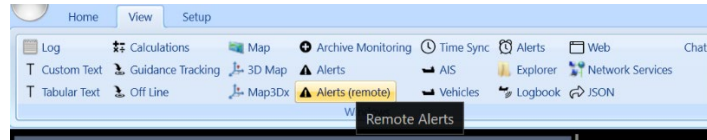


FIGURE 21-24 ALERTS (REMOTE) – VIEW RIBBON

The Remote Alerts window displays the source of the alerts in a tab at the top level of the window with the overall status of the alerts. In Figure 21-25, the source is the station Blackford Dolphin and the alert status is active as indicated by the icon. In Figure 21-26 the alert status is all cleared as indicated by the icon.

In the Active tab, all currently triggered and active alerts are listed. If any alerts are active, this is shown in the tab by the icon, see Figure 21-25. If there are no active alerts, i.e. all alerts have cleared, this is indicated by the icon, see Figure 21-26.

In the Cleared tab, all alerts that have triggered since this instance of NavView was launched and subsequently cleared are listed.

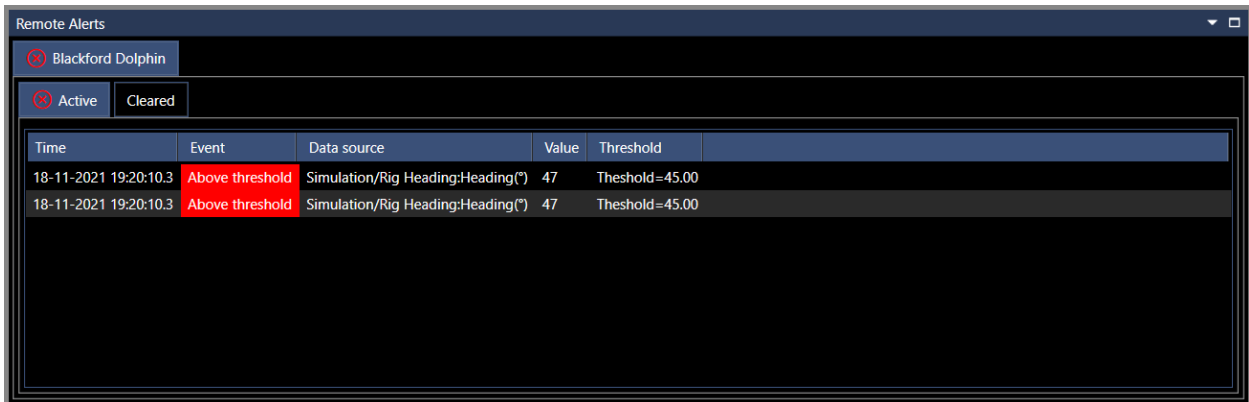


FIGURE 21-25 REMOTE ALERT SERVICE WINDOW - ACTIVE TAB

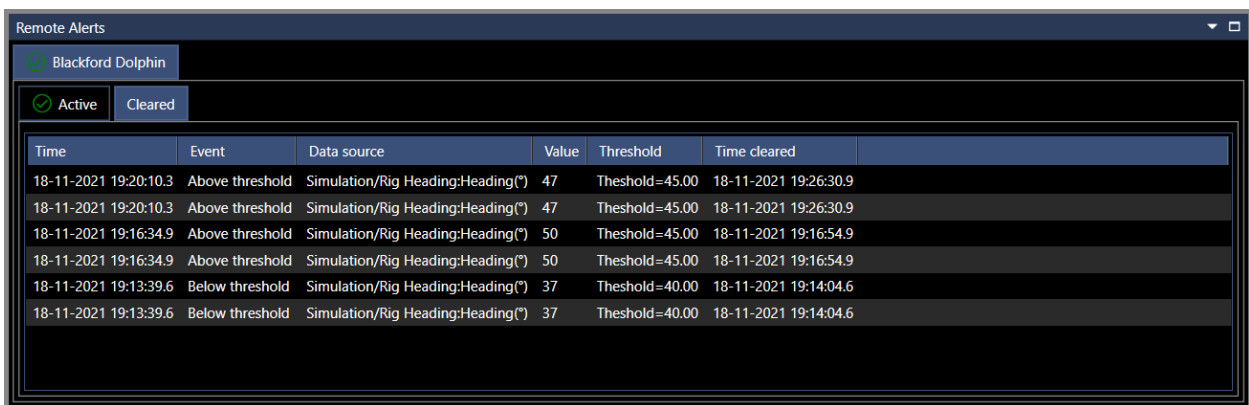


FIGURE 21-26 REMOTE ALERTS SERVICE WINDOW - CLEARED TAB

## 21.3 ACKNOWLEDGING ALERTS

Alerts can only be acknowledged from the Alerts List window. In this window, right mouse click on the alert to be acknowledged and click Acknowledge.