Oceasoft™

USER GUIDE

OCEAView 2.1

Mobile application for smartphones and tablets

www.oceasoft.com

Notices and safety

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December 2018 Ref: ING-INS-170-EN Rev. 05

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1 Getting started

Congratulations and thank you for choosing OCEAView™. This mobile application enables you to manage and monitor OCEASOFT sensor modules equipped with Bluetooth wireless technology:

- Atlas and Emerald dataloggers (first and second-generation devices, all OCEAView features)
- Cobalt ML3 (Watch Mode feature only, as described in section 7.3.3 **Watch Mode with Cobalt ML3 modules**, page 50)

1.1 Related product user guides

1.1.1 Atlas and Emerald devices

You will find complete user guides for OCEASOFT Atlas and Emerald modules on our website: http://www.oceasoft.com/obt.

1.1.2 Cobalt ML3 devices

Documentation is provided with your Cobalt ML3 product.

1.2 About iOS® and Android® versions

This User Guide describes the OCEAView mobile application for both iOS® and Android® platforms. All software features are identical, regardless of the operating system. Icon design and minor graphical aspects may vary slightly from one platform to another, without any effect on functionality.

1.3 OCEAView highlights

OCEAView™ enables you to visualize sensor status and data on supported OCEASOFT sensor devices, with a complete management interface for configuration and monitoring for Emerald and Atlas products (Cobalt ML3 modules are supported for Watch Mode only).

1.3.1 Main features

- An easy solution for monitoring temperature in packages, refrigerated trucks, laboratories, storage facilities, and more
- Monitoring temperature-sensitive goods during shipment and view temperature readings made on your OCEASOFT modules within wireless range

- Uses your iOS or Android device's Bluetooth Smart (Bluetooth Low Energy), with a wireless range up to 50 meters (approximately 160 feet)

1.3.2 Features specific to Atlas and Emerald products

- Programmable high/low temperature limits, read intervals, and alarm delays
- Data replicated on OCEACloud, for viewing with the OCEAView web application (requires Cloud access subscription)
- PDF reports (requires Cloud access subscription)
- .CSV file export and send by e-mail
- Location mapping where missions are stopped, read, and started, using your device's location services
- Flight Mode management for airline transportation

1.3.3 Watch Mode

- Live data monitoring for Atlas, Emerald, and Cobalt ML3 data loggers

1.4 Installing OCEAView on your smartphone or tablet

You may download and upgrade OCEAView using your iOS or Android smartphone or tablet directly. After installing the application, you will be notified automatically when upgrades are made available. There are two ways to proceed with installation.

Option 1: Use QR code to access the OCEASOFT site

1. To open the OCEASOFT web site directly with your smartphone or tablet, you may scan the QR code provided on the back of your Emerald module or on your Emerald or Atlas packaging. This opens the page:

   www.oceasoft.com/library/oceaview

Figure 1 – Scan QR code to open OCEASOFT web site

2. Scroll down to the OCEAView application link and tap to proceed with the download via the appropriate online store.

Option 2: Access online stores directly

iOS	Android
For **iOS** devices, tap on the **App Store** icon on your device:	For **Android** devices, tap on the **Play Store** icon on your device:
	Alternatively, you may install the application via Google Play web site.

1. Search for OCEASOFT "OCEAView" on the appropriate store page.
2. Select the application to proceed with installation.
3. Login to your account (or create one) if necessary and follow the installation instructions.
4. When installation is complete, tap on the OCEAView icon to open the application on your smartphone or tablet.

Figure 2 – OCEAView application icon

2 Using OCEAView

2.1 Overview

Once you have installed OCEAView™, the start screen below opens by default when you start the application.

The start screen consists of the following elements:

Figure 3 – Overview of OCEAView™

2.2 Main menu

The main menu of OCEAView™ is located on the left-hand side of the screen.

Hidden by default, this menu is displayed when you swipe the left edge of the screen towards the right.

This opens the main menu for direct access to the main OCEAView™ features.

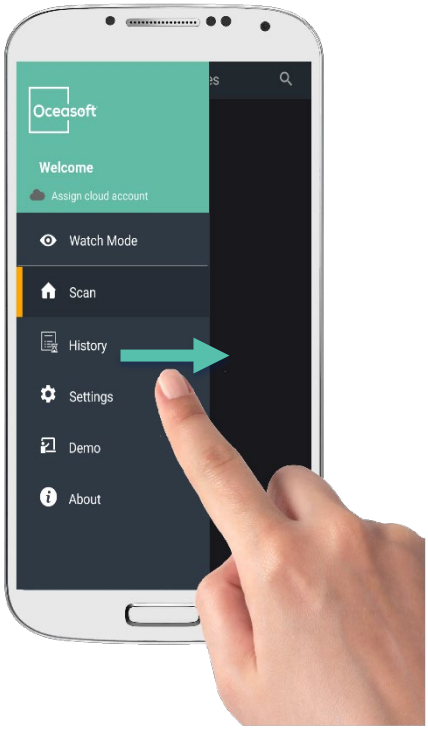


Figure 4 – Swiping the screen to show the main menu

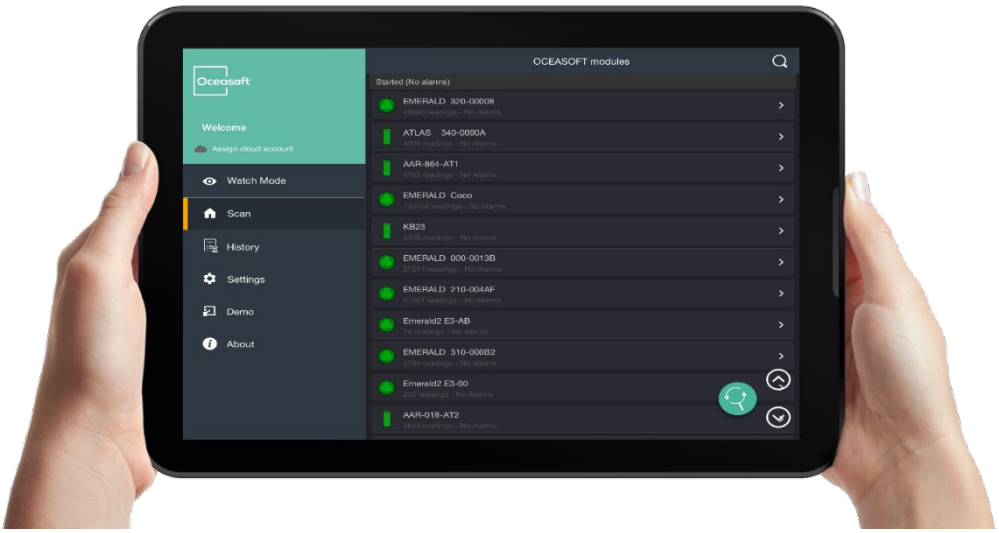


Figure 5 – OCEAView layout on a tablet

Tap on the left side menu links to access OCEAView™ features:

	Description
	Access Watch Mode.
	Scan to discover and list the OCEASOFT modules within range. Use this option to configure a module or access further details about a mission.
	Show the last 5 missions saved locally on your mobile device, and the latest events for the selected module.
	Access OCEAView settings.
	Run OCEAView in Demonstration mode without actually connecting to any modules.
	Access OCEAView user guide and various information on OCEASOFT products.

Simply swipe the menu to the left to save space visually.

2.3 Navigation principles

OCEAView shows a tab bar at the top of your screen. You can always see which tab you are on when opening a feature.

Touch and swipe the screen left or right to navigate between views 1.

Small squares at the bottom represent the number of tabs for the feature being used. The colored symbol indicates the current tab 2.

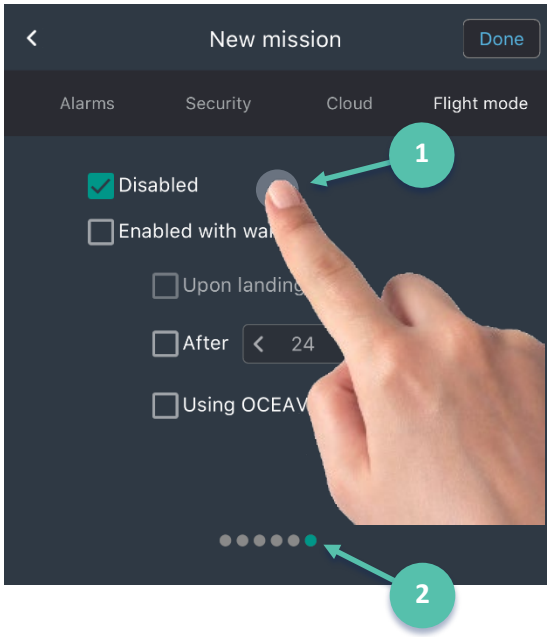


Figure 6 – Swipe the tab bar to access the desired feature

2.4 Demonstration mode

You may run the application in demonstration mode without connecting to any modules. This enables you to explore most OCEAView features.

1. On the main menu, tap on **Demo** to enter demonstration mode.
2. To return to the main menu, tap on the menu icon in the top left-hand corner of the screen or swipe your finger across the screen from left to right.

3 Scanning for nearby OCEASOFT modules

On the main menu, tap on **Scan** to discover and list the OCEASOFT modules within wireless range. Bluetooth must be activated on your mobile device; if Bluetooth is not activated, you will be prompted to turn it on.

By default, modules are sorted and organized into 4 distinct categories:

- **Mission not defined**: module not currently programmed or with unknown status.
- **Alarms**: programmed module on which one or more alarms have been detected during the current mission.
- **Started (no alarms)**: programmed module, with datalogging started, and which is currently not in an alarm state.
- **Mission not started**: programmed module with datalogging not yet started (i.e. configured for delayed start).

When within range, modules are automatically sorted according to their status. As soon as a module's status changes, the module is dynamically moved to the corresponding category.

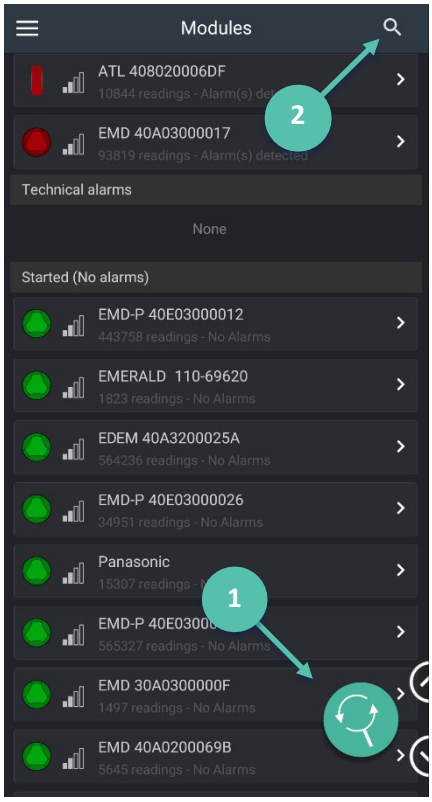


Figure 7 – Module list after scanning

At any time, you can change how modules appear in the **Scan** view. If you want to view modules in a list, tap on **Sort module List** in the **Settings** screen (described in section **Application** settings, page **37**).

Tap the refresh icon 1 to discover and list the OCEASOFT modules within range. You may slide this icon to the left and use the up / down icons to switch between categories.

The icons in the scan list are displayed in different colors to indicate their current status.

Icon color correspondence for Emerald, Atlas, and ML3 devices

Icon	Description
	Green, programmed module that has not exceeded its limit values during the current mission (no alarms).
	Red, programmed module on which one or more alarms have been detected during the current mission.
	Gray, idle module (not currently programmed, ready).
	Orange, module indicating a technical alarm: sensor fail or low battery
	White, programmed module on which datalogging has not yet started (not applicable for Cobalt ML3 modules).

Note: by default, the **Enable modules with weak signal** option is disabled in the **Settings** screen. Consequently, modules with low signal strength will be grayed out in the **Scan** view and you will not be able to select them. See **Application** settings section, page **37** for further details.

3.1 Searching the list for a specific module

You may use the Search function to sort or filter the module list according to specific criteria such as:

- Sensor serial number
- Module or Mission name
- Barcode number

Press the magnifying glass icon 2 (Fig. 6 in previous section) to open the search screen as shown here.

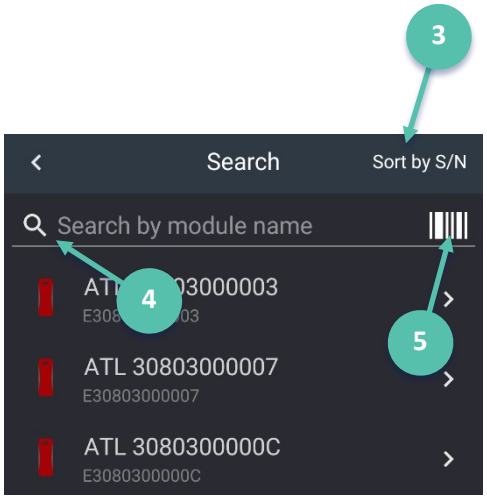


Figure 8 – Search screen

Searching for a module by entering its name or serial number

- Tap on the toggle button 3 to switch between **Sort by name** or **Sort by S/N**.
- Tap in the input field 4 to open the device's keyboard, then enter the serial number or the name of the mission or module you are searching for. As you type numbers or letters in the Search field, the module list adjusts automatically on-the-fly.

Searching for a module using a barcode

Make sure that the barcode is large enough (4-5 cm / 1.5 - 2 inches wide) to be scanned successfully by your device.

1. Press the barcode icon (5) to scan the barcode.
2. A rectangular scanning area appears on your smartphone's screen. Note that the flashlight may turn on automatically on some Android devices. On iOS devices, the flashlight switches on depending on the ambient light level.
3. Aim your smartphone's camera at the barcode you want to scan. It is important for the barcode to fit entirely within the scanning rectangle on screen (6).
4. Wait for your smartphone to focus on the barcode. When the barcode is decoded, the scanning area closes and the **Module name** is filled-in automatically. You may edit the name if necessary.

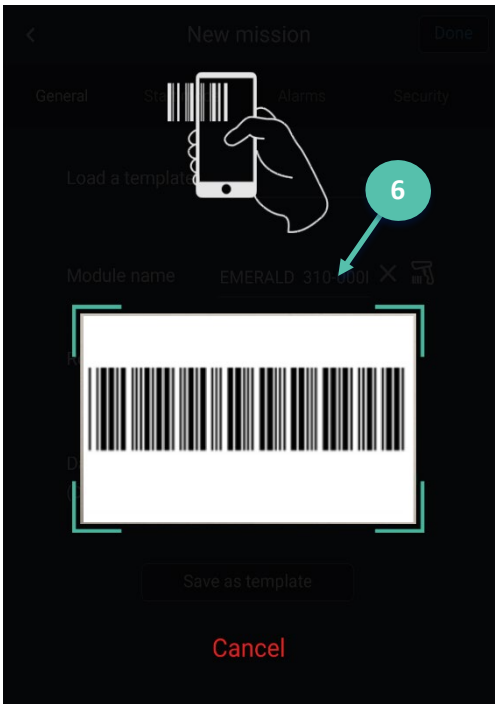


Figure 9 – Scanning a barcode

You may also click on **Cancel** at any time to cancel the operation.

Note: if your Android device switches to sleep mode when scanning the barcode, the scan area will close automatically, and you must start the process again.

3.2 Selecting and configuring a module

The features in this section apply to Atlas and Emerald modules. Cobalt ML3 products are configured exclusively with the CobaltView web application as of this writing.

Tap anywhere on one of these lines to manage the selected module, and to access further details or configure a new mission. The features on this screen are identical for Atlas and Emerald modules, though the image changes.

The available actions on this screen are:

Return to the home screen

Press the **Back** button (1) if you want to return to the previous screen.

Set up new mission

Tap here to configure a new mission for your module.

Show last recorded mission

Tap to see the data from the last mission recorded in module memory.

Blink LED to identify module

Tap here to blink the LED on your module. This may be useful to identify a specific module, for example, if you are working with several modules at the same time. The LED blinks according to the module's status (as described in the Emerald and Atlas user guide).

Read current temperature

Tap on the text or the module image to display the module's current sensor reading.

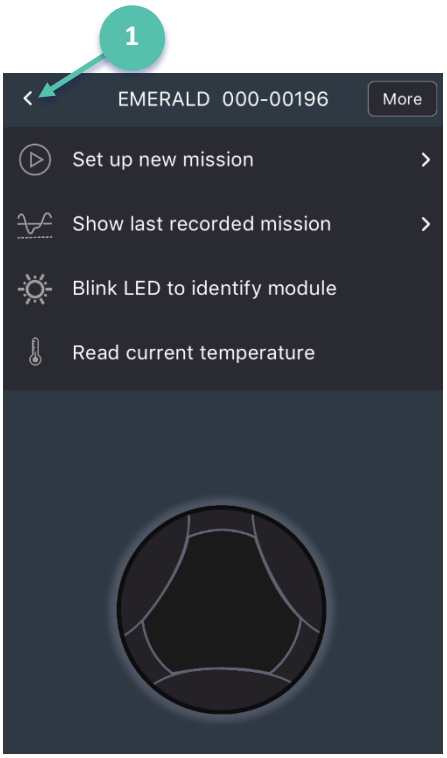


Figure 10 – Accessing and configuring your module

Synchronize mission with Cloud

This feature appears in the menu (2) when the selected module is on a mission and linked to the Cloud (*if the **Use Cloud for this mission** option was activated for the mission*).

Tap to push module data to the Cloud.

Note: For second-generation Atlas and Emerald modules, only missing readings will be synchronized.

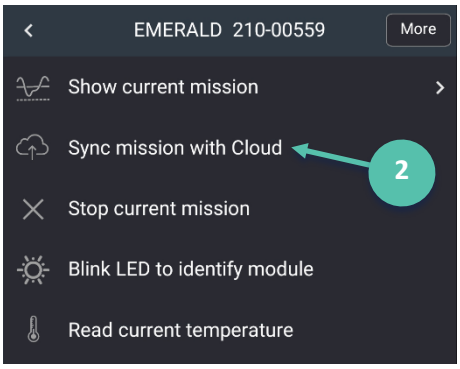


Figure 11 – Synchronizing mission with Cloud

4 Configuring new Atlas and Emerald missions

To use your Atlas or Emerald module for data logging, you must activate a mission using OCEAView.

4.1 What is a mission?

A mission refers to a datalogging session of any duration. The mission is comprised of a set of configuration options that are used to manage your module, including:

1. A name for the module
2. How often temperature is read
3. How and when the module should begin tracking data (the startup mode)
4. High and low alarm limits
5. Whether data should be pushed to the Cloud
6. Whether to use a password to prevent unwanted stopping or reprogramming of a mission

4.2 Setting up OCEACloud access

4.2.1 How does it work?

Mission data can be pushed by your smartphone or tablet from your Atlas or Emerald module to the OCEASOFT Cloud service, using your regular Internet connection (i.e. cellular or Wi-Fi). The data can then be accessed anywhere via the OCEAView web application (www.oceaview.com).

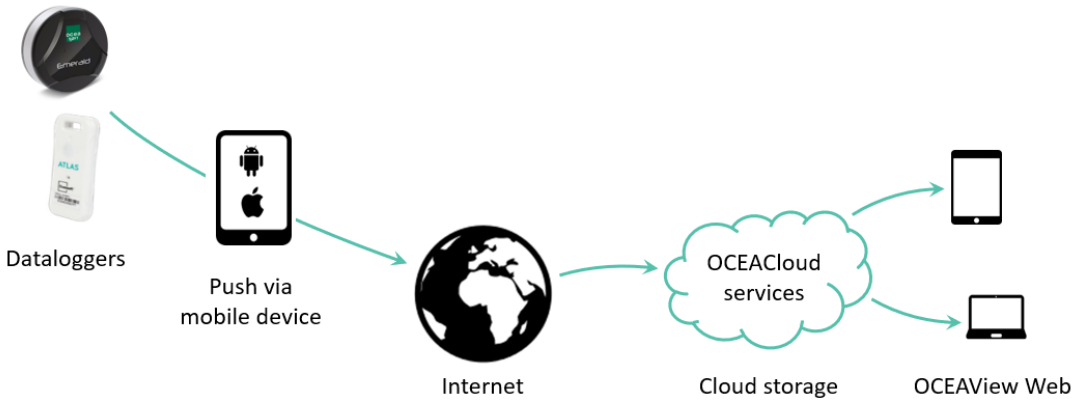


Figure 12 – Mission data can be pushed to the Cloud by your smartphone or tablet

To access OCEACloud, you must connect to the OCEAView web application, which enables you to create your company account and associated user accounts. The OCEAView web application is accessible free-of-charge on www.oceaview.com.

For Emerald modules, you must enter a voucher number (activation key) authorizing a specific number of modules for a specific period of time. Atlas modules are, by default, authorized to access OCEACloud, so you do not have to enter a voucher number (activation key).

Please contact your sales representative for more information on OCEACloud access.

Good to know:

- **Assign Cloud ID to push data**

  For a given mission to be pushed to OCEACloud, the person programming the mission must provide a Cloud user account name in OCEAView mobile, on the smartphone or tablet that is used to program the module (**Settings ➔ Cloud account**). This user account must be valid and listed for your company account.

- **Pushing data anonymously**

  When the module is on a mission, other users with OCEAView mobile installed on their mobile device can read your datalogger module, for example at intermediary locations during the mission. Those users do not have to configure anything in their smartphones or tablets. They simply remain “anonymous,” yet they can also push mission data to OCEACloud, if that is part of the mission configuration.

- **Stopping a Cloud-enabled mission**

  As with programming, only mobile devices configured with a user account linked to your company account are allowed to stop a mission that is configured to push data to OCEACloud.

These points are all covered in the following sections.

4.2.2 Assigning your OCEACloud account in OCEAView

Assign the OCEACloud account to your mobile device (one account per device) as follows:

1. In the main menu, tap on **Settings** ➔ **Cloud account**.
2. Enter the same Email address and Password that were configured using the OCEAView web application for your Cloud account.
3. Tap on **Assign**.
4. Proceed with **Starting a new mission** (next page).

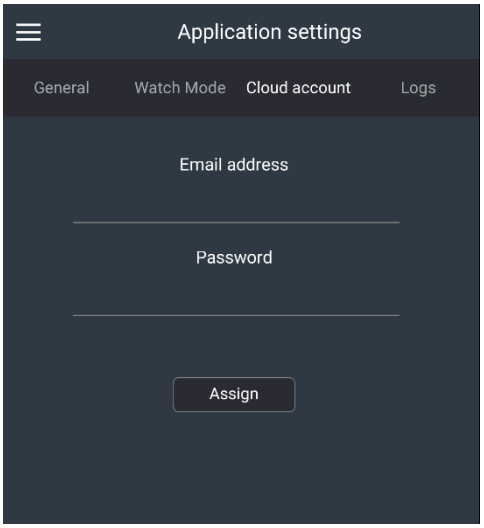


Figure 13 – Assigning your OCEACloud account

This step allows you to configure missions for which data can be uploaded to the Cloud.

4.3 Defining general mission settings

In the **Scan** screen, tap the refresh icon at the bottom of the screen to update the list of visible OCEASOFT modules. You may define and start a mission for modules with a gray icon or . The other color icons indicate that the module is already on a mission.

Note: Emerald modules are visible (Bluetooth is activated) as soon as you insert the battery. To activate an Atlas module, press the push-button on the front of the module (short press). The module remains active for 1 minute and then Bluetooth is deactivated if you do not connect to it.

1. Tap to select the module you want to configure ➔ **Set up new mission**
2. Fill in or assign the necessary information on the **General** tab 1.
3. You may load a previously-saved mission template (if there are any) by tapping in the **Load a template** field and choosing a name from the pull-down list.
4. Enter a name to use for the module during this mission (up to 18 characters) in the **Module name** field. This name is displayed throughout the application when referring to the module.

   You can also input information using the built-in barcode scanning feature of your mobile device as described below.

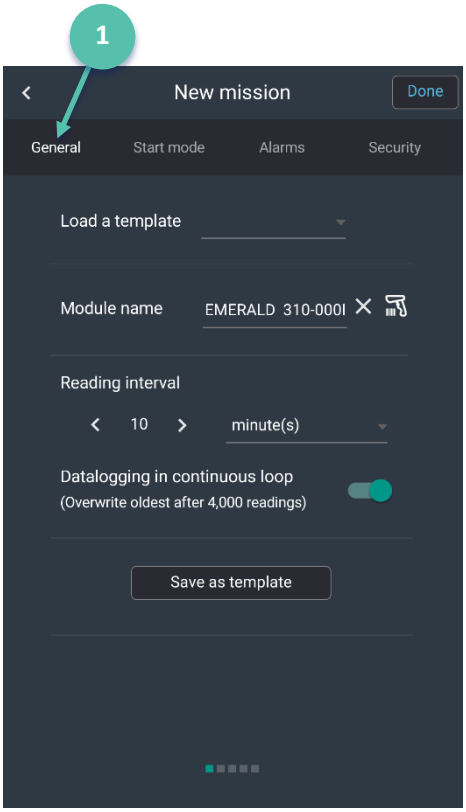


Figure 14 – General mission settings

To scan a barcode:

- Press the button to the right of the **Module name** field.
  A rectangular scanning area appears on your smartphone's screen.
- Point your smartphone's camera at the barcode you want to scan. It is important for the barcode to fit entirely within the scanning rectangle on screen. Make sure that the barcode is large enough (4-5cms / 1.5 - 2 inches wide) to be successfully scanned

- Wait for your smartphone to focus on the barcode. When the barcode is decoded, the scanning area closes and the **Module name** is filled-in automatically. You may edit the name if necessary.

- You may also click on **Cancel** at any time to cancel the operation.

  Note: if your Android device switches to sleep mode when scanning the barcode, the scan area will close automatically and you must start the process again.

Reading interval

Set the frequency with which the module reads and records temperature from its sensor. Choose values in minutes or seconds by tapping on the minutes or seconds field.

Note: To activate **Low/High delays** in the **Alarms** tab, **Reading interval** must be set in minutes (see below).

Datalogging in continuous loop

Up to 16,000[1] readings can be stored in module memory. To continue datalogging after this limit is reached, the oldest readings can be overwritten by new readings if you select **Datalogging in continuous loop**. Otherwise, datalogging stops when the limit of 16,000 readings is reached.

Save as template

When you are done adjusting the settings, you may tap on **Save as template** at the bottom of the screen if you want to save the current mission as a template for future use.

[1] 16,000 readings on second-generation Atlas and Emerald products. 4,000 readings on first-generation Atlas and Emerald products.

4.4 Selecting the start mode

There are several ways to start datalogging on your Atlas or Emerald module.

Adjust the following options in the **Start mode** tab (1) to meet your needs. Some options (other than **Immediately**) may be combined for use together:

Immediately: Datalogging begins when module programming is complete.

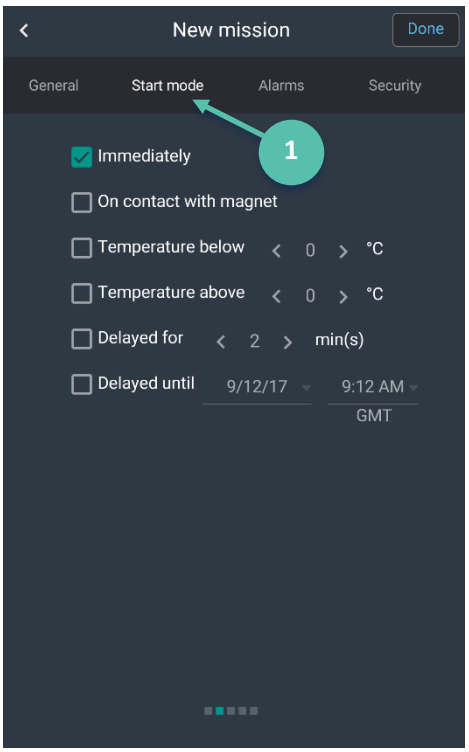


Figure 15 – Mission start options

<u>Depending on your module:</u>

- **Emerald: On contact with magnet**

  Datalogging will begin when the Emerald module comes into contact with its magnet.

- **Atlas: On button-press & hold**

  Datalogging will begin when you press and hold the Atlas button for 3 seconds).

Temperature below or **Temperature above**: Datalogging will begin when module exceeds the specified temperature (high or low). This is useful for automatically starting datalogging when the module is to be placed subsequently in the environment to be monitored, such as in a cooler when it is ready for transportation.

Delayed for: Datalogging will begin after the number of minutes you indicate.

Delayed until: Datalogging will begin at the exact time and date you indicate.

4.5 Setting high and low limits

You may set high and low limits in the **Alarms** tab (1) to ensure that the temperature in the monitored environment remains within a specific range.

The default values in the fields show the module's available temperature range. Tap on the checkboxes to enable options, and in the fields to adjust settings.

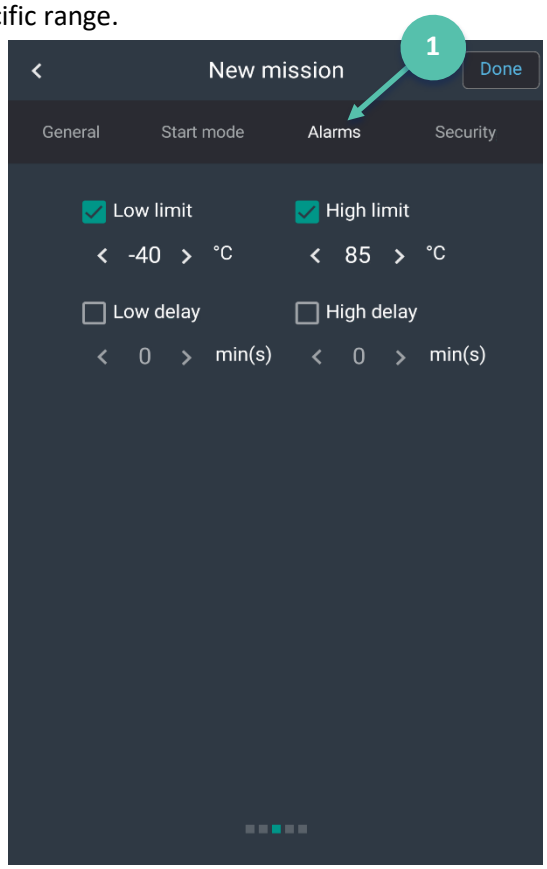


Figure 16 – High and low temperature range limits

Low limit: the lowest acceptable temperature reading.

High limit: the highest acceptable temperature reading.

Low delay: how long the reading is lower than the Low limit (must be a multiple of the reading interval, in minutes only).

High delay: How long the reading is higher than the High limit before triggering an alarm (must be a multiple of the reading interval, in minutes only).

If an alarm occurs at any point after the mission starts, the module icon changes color to show an alarm in the **Scan** list (unless Watch Mode is activated, as described in **Monitoring modules with Watch Mode** page **39**).

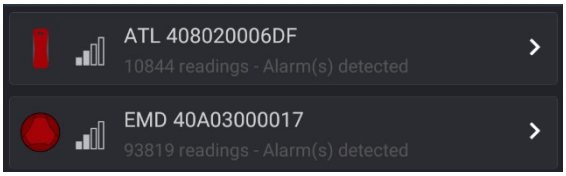


Figure 17 – Alarm condition indicated by red icon

4.6 Password-protection

On the **Security** tab (1), you may assign a password to prevent other users from stopping a module that is currently on a mission.

Password required to stop mission: requires a user to enter the same password entered here to stop this mission after it has been started.

Important: If you forget your password, please contact OCEASOFT technical support.

Tap in the **Password** field (2) to enter the password. The checkbox below the field shows or hides the password characters.

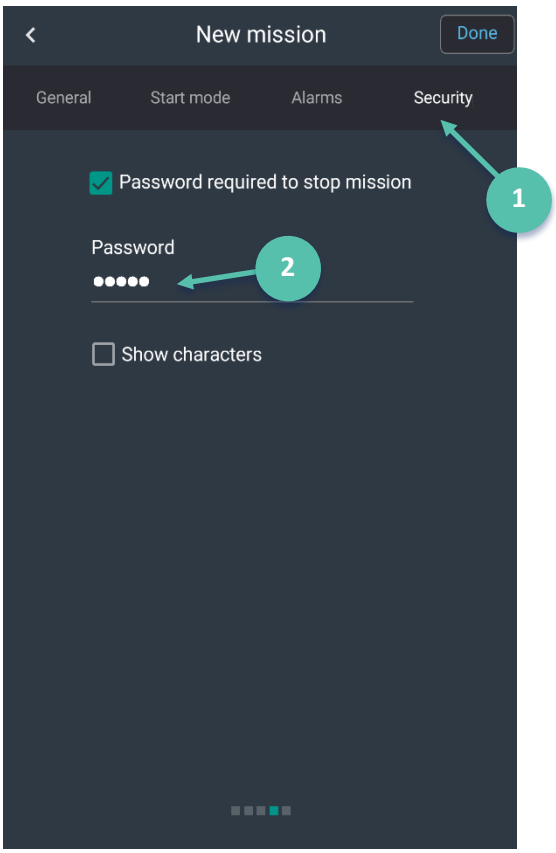


Figure 18 – Protecting module mission with a password

4.7 Pushing mission data to OCEACloud

To push module data to the Cloud during its mission, you must do two things:

1. Assign your OCEASOFT Cloud ID and password in **Settings** ➔ **Cloud account** tab or using the **Assign account cloud** link in the main menu.
2. Select **Use Cloud for this mission** as described below.

Supported services are described in the section **Saving and sending data from the current mission**.

To push data to OCEACloud for this mission, or any mission programmed using this mission as a template, via your smartphone or tablet:

1. Tap on the **Cloud account** tab.
2. Select **Use Cloud for this mission**

Data is pushed by your mobile device at several points in the mission, namely when the:

- Module is programmed
- Module is read during the mission
- Mission ends

Use the OCEAView web application (www.oceaview.com) to configure OCEACloud access and view module data using a web browser on your computer.

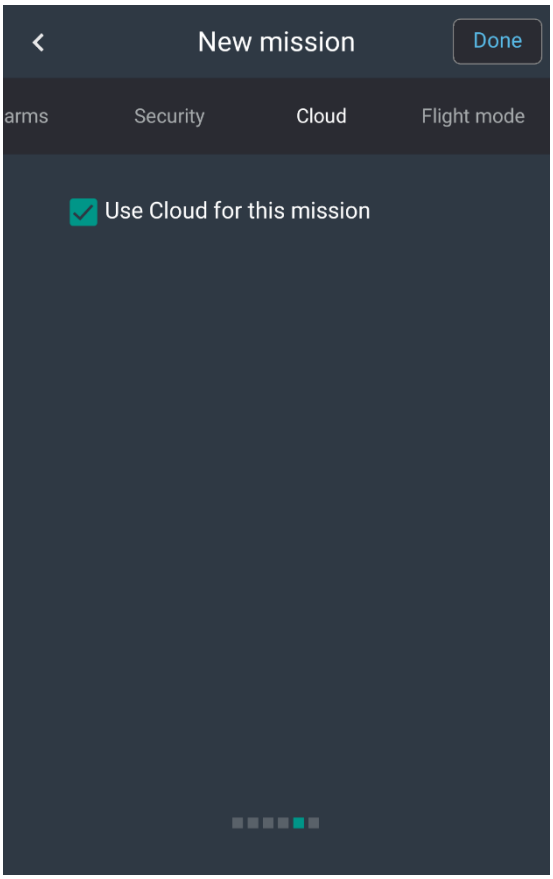


Figure 19 – Protecting module mission with a password

4.8 Using Flight Mode

In order to be compatible with airline transportation requirements, your modules' Bluetooth radio may be set to a special standby mode, in which wireless transmission deactivated temporarily.

This is referred to as **Flight Mode**, a mode in which Bluetooth advertisement frames are not emitted.

> Flight mode is available in module firmware versions 1.2 and later. The firmware version of your module can be seen on **More ➔ Radio tools**.

Flight Mode is enabled by default in second-generation Atlas and Emerald modules.

If you do not wish to use Flight mode, make sure **Disabled** is selected.

Tap on **Enabled with wake-up** to use this feature. Flight mode offers several options to reactivate normal Bluetooth operation. Some (options other than **Disabled**) may be combined for use together:

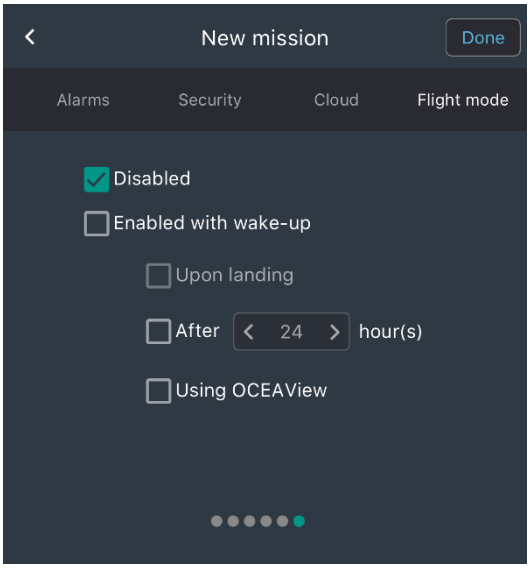


Figure 20 – Enabling Flight mode

Upon landing: your datalogger detects take-off and landing phases during flight. This feature is only available with second-generation Atlas and Emerald modules (see FAQ section in this guide for further details).

After [*number*] hours: the Bluetooth radio will resume emission after the number of hours that you specify. This method is the most effective in terms of battery consumption: datalogging is activated and Bluetooth is simply deactivated for the specified period of time.

Note: You may combine both **Upon landing** and **After [*number*] hours** options. With that configuration, when flight mode is enabled with wake-up, your datalogger may switch to **Upon landing** mode during air flight but the Bluetooth radio follow these rules:

- If the wake-up period you specified has not yet elapsed, the Bluetooth radio will not resume emission upon landing. Normal Bluetooth operation will be reactivated after the number of hours that you specified.
- Additionally, if the wake-up period you specified has elapsed but your module is still on the aircraft, the Bluetooth radio will be reactivated only after landing.

Using OCEAView: the module is "woken up" for 5 minutes when communication is established with the OCEAView application. That is, Bluetooth remains in listening mode until OCEAView attempts to connect to it. This mode consumes more battery power than regular Bluetooth operation.

To activate modules within wireless range that are in the "Wake up with OCEAView" Flight mode:

1. Press and hold the scan button on the module list screen.
2. A message asks you to confirm wake-up, which acts on all modules within wireless range that are in Flight mode. Click on **Yes** to wake up modules, or on **No** to leave them in Flight mode.

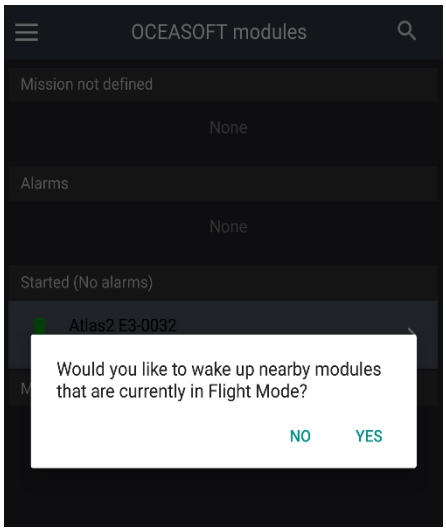


Figure 21 – Exiting Flight mode

The Bluetooth "listening" function in Flight mode consumes more battery power than regular operating mode. It is thus not recommended to use this mode for extended periods of time, but it useful to ensure travel compatibility for the first days or weeks of operation.

4.8.1 Deactivating Flight mode manually

With either Flight mode option, you may reactivate Bluetooth at any time as follows, for:

- Emerald: pass the magnet over the module as described in the datalogger user manual.
- Atlas: press the button on the front of the module.

See also: **More ➔ Flight mode** in Appendix 1 – Advanced module settings.

4.9 Saving changes, template, and starting the mission

When you are done defining the various mission settings, you may save the current configuration as a template for future use (return to the **General** tab for this and tap on **Save as template**).

Then tap on **Done** to transmit your settings to the module. A confirmation message is displayed in OCEAView and the module is displayed with a green  icon if everything is OK; red  icon if the module already has an alarm; or white icon  if the mission is programmed but not yet started.

5 Viewing a currently-running mission

5.1 Recap (general Information)

When a module is activated and configured for a mission, you may view various details, save reports, or send information by e-mail or store information on OCEACloud.

1. On the **Scan** screen, tap on the module name ➔ **Show current mission**
2. General information about the mission is displayed on the **Recap** screen.

Atlas and Emerald data

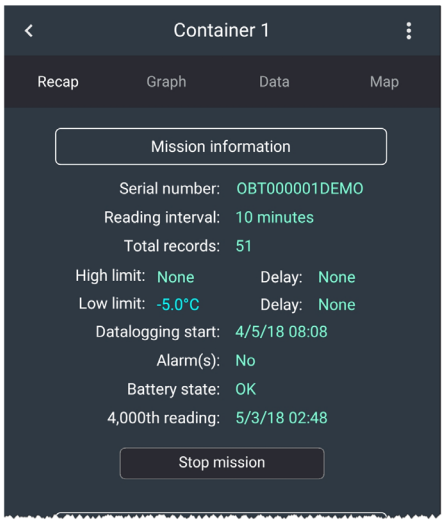
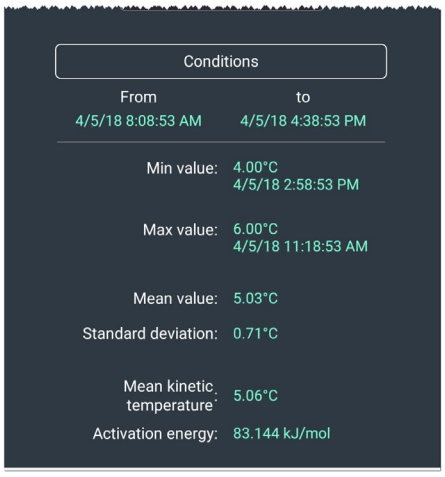
Recap. section	Description
	**Mission information:** Includes general module and configuration information, namely: the serial number, configured sensor reading interval, the number of readings recorded, high/low limits and alarm delays, when the mission began, whether any alarms have occurred, battery status, and when memory capacity was reached or cycled (4,000th reading for first-generation modules, 16,000th reading for second-generation modules). *Note: you may use the **Stop mission** button to terminate the mission, as appropriate.*
	**Conditions:** Includes information based on sensor readings, namely: minimum / maximum observed values and when they occurred, as well as mean value, standard deviation, mean kinetic temperature, and activation energy. *Note: This information only applies to the current period (**From… to**).*

Figure 22 – Summary of current mission

5.2 Automatic Cloud connections

If the **Use Cloud for this mission** option was activated for the mission:

1. When you tap on **Show current mission**, data is read by your smartphone or tablet and pushed to the Cloud before refreshing the screen. Any user, at any location, can push data to the Cloud in this manner, even if no Cloud account is assigned in that particular user's OCEAView application. The **Sync mission with Cloud** option just syncs the data without entering into the details screens.

   This "anonymous" push enables people reading the module at remote locations to update the data on the Cloud without having to configure their application at all.

2. If you tap on **Stop mission**, the mobile application connects to the Cloud. The module must be linked to the same company account as your user Cloud account, and your Cloud account login and password must be configured in the application.

If the smartphone or tablet is not connected to the Cloud when the **Stop mission** button is pressed (in **Recap**), the mission will not be stopped.

5.3 Mission graph, data and map

Graph

Tap on the **Graph** tab to see a summary graph of the readings in the current mission.

Zoom in by swiping diagonally (left to right) with your finger anywhere in the graph. Zoom out by swiping diagonally right to left.

Data

For a list of all the readings, events, and alarms related to the mission, tap on **Data**.

Map

If the option **Location Services** is enabled on your smartphone or tablet (under **Settings**), the location is stored when OCEAView reads the module.

Tap on **Map** to view a Google® Map showing the locations at which the module was programmed, read, and stopped.

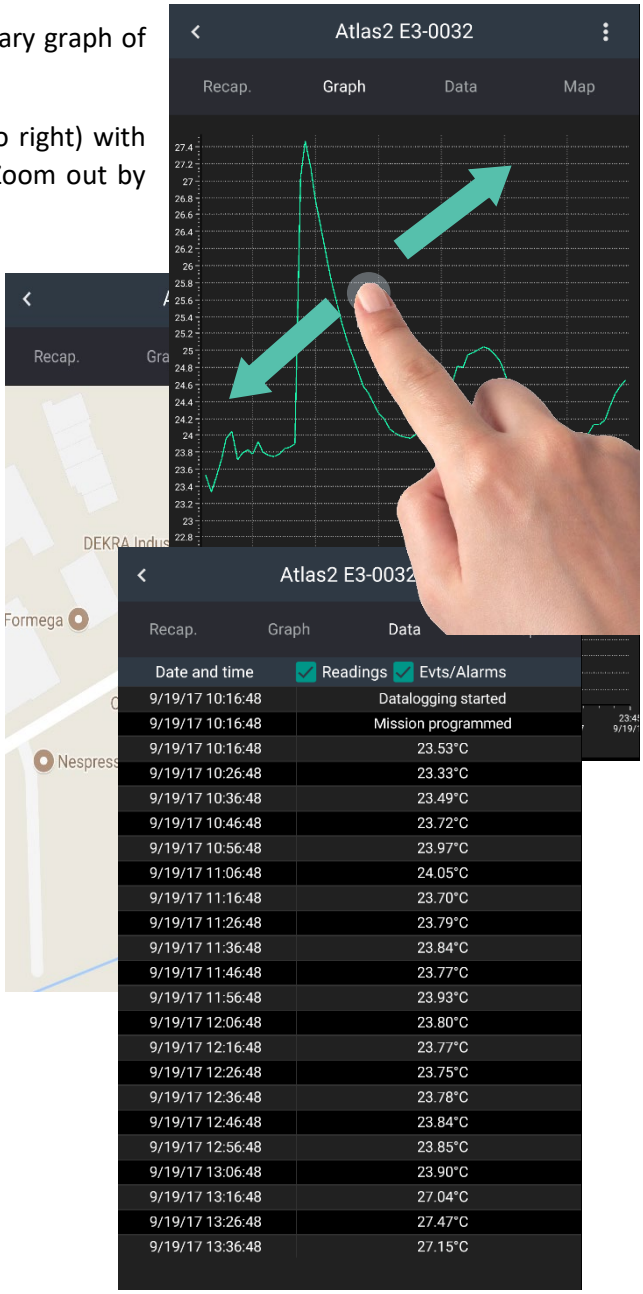


Figure 23 – Viewing current mission data

5.4 Saving and sending data from the current mission

You may save or store data at any time during a mission by tapping on the icon 1.

Save on device Saves up to five missions in your mobile device's memory, which you may access via the **History** tab. If you save the current mission more than once, it is saved as a new file each time.

Send by email Sends all stored readings in .CSV format, along with a separate JPG image of graph from the current mission, to an email address that you specify. This action requires your mobile device's email functionality and Internet (cellular or Wi-Fi) access to be operational on your mobile device.

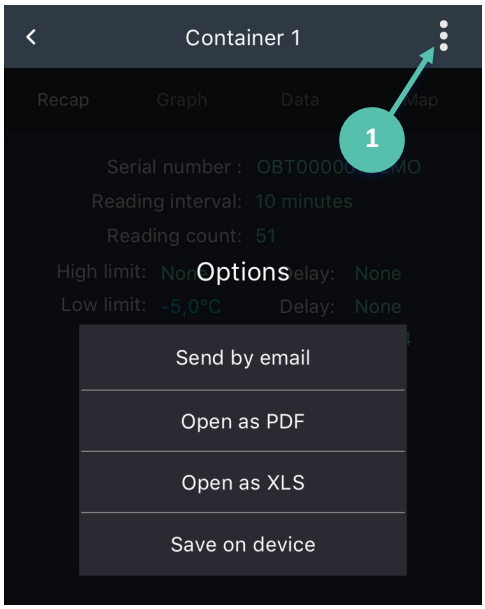


Figure 24 – Saving and sending data from the current mission

Open in Excel format *Note: The mission must be Cloud-enabled for this feature to work and you must be connected to the Internet. Also, a spreadsheet application must be installed on your mobile device so that you can open the Excel file.*

Tap on **Open in Excel format** to view mission information and data in MS Excel® format, using your mobile device's spreadsheet. You may use the app's native features to save, send, print, or otherwise share this file.

Open as PDF

Note: The mission must be Cloud-enabled for this feature to work and you must be connected to the Internet. Tap on **Open as PDF** to view mission information and data in PDF format, using your mobile device's PDF viewer. You may use the viewer's native features to save, send, print, or otherwise share this PDF file.

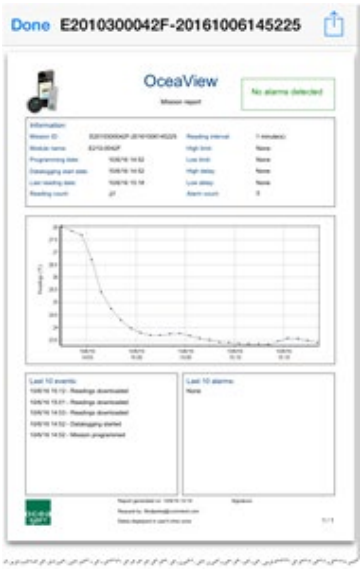


Figure 25 – Viewing mission as PDF

Note: This report is generated by the Cloud service, and it includes all the data transferred from the beginning of the mission, and not just the data recently downloaded from the module. An Internet connection is required for this function.

5.5 Looking up and sending data from previous missions

On the main menu, tap on **History** to see stored information from Atlas and Emerald module missions.

Tap on the desired mission to see complete details regarding that mission.

The Cloud icon indicates that the mission was Cloud-enabled (data synchronization with the Cloud).

The mobile device icon indicates that the mission was not Cloud-enabled.

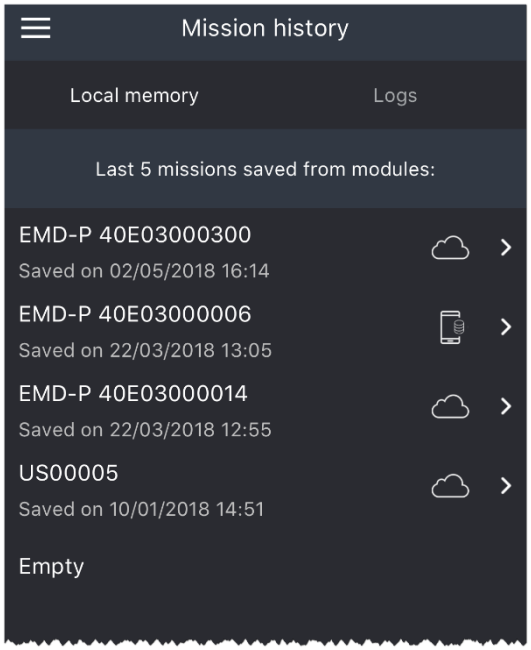


Figure 26 – Displaying data from previous missions

After opening a saved mission, you may select Mission Details, then press the ⋮ button (menu icon in the upper right-hand corner, which may vary depending on your operating system) to:

Send by mail Sends all stored readings in .CSV format, along with a separate JPG image of graph from the current mission, to an email address that you specify. This action requires your mobile device's email functionality and Internet (cellular or Wi-Fi) access to be operational on your mobile device.

Push to Cloud This option pushes the stored readings to Cloud. The button is activated if the mission was programmed and cloud-enabled. It is not displayed if the mission was not cloud-enabled when the data was saved.

To see the mission event log, tap on **Logs**. The buttons, in the top right-hand corner of the screen (1) allow you to send the list of logs by email or copy the list of events and use that information later in an email or in a document.

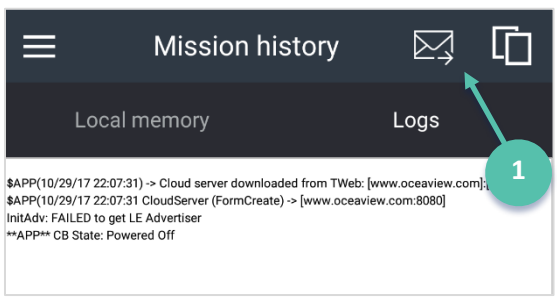


Figure 27 – Mission event logs

6 Application settings

To access application parameters, tap on **Settings** in the main menu

The Settings view contains various options for configuring OCEAView behavior.

Temperature unit: choose to display values in Celsius (°C) or Fahrenheit (°F).

Enable module with weak signal: disabled by default, this feature prevents from connecting to modules whose signal strength is too weak to ensure reliable transmission. Modules with low signal strength are greyed out in the **Scan** view and cannot be selected. Enabled: modules with low signal strength will be accessible in the **Scan** view and you will be able to select them.

Show data in GMT format: data is always *stored* using GMT time. This option lets you *display* the data with GMT time or the mobile device's current local time.

Prompt to save after viewing mission details: when viewing mission details (tap module in home screen ➔ **Show current mission** ➔ **Mission details**), current data is downloaded temporarily to your mobile device for display purposes. This option simply serves to ask whether you want to save mission data when you exit the **Mission details** screen.

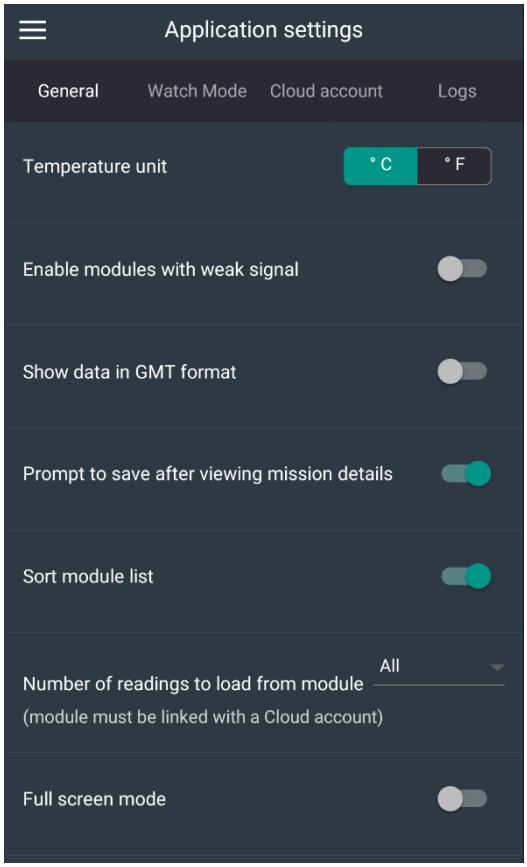


Figure 28 – Configuring OCEAView behavior

Sort module list: filters and groups modules per categories in the **Scan** view. Enabled by default, this option allows you to find your modules quickly and easily according to their status. Slide the button to the left to disable this feature.

Disabled: modules will be randomly sorted and displayed in a list in the **Scan** view.

Full screen mode: slide the button to the right to activate "Full screen mode". When enabled, this option hides the virtual menu bar at the bottom of the screen, and the information bar at the top of the screen, on your Android device to display OCEAView's features using the screen's maximum display area. A swipe movement from the bottom edge of your screen brings the virtual menu bar back for a couple of seconds.

Number of readings to load from module: Tap on the field to select the number of readings to be loaded from your module (the module must have been linked to a Cloud account).

In any case, missing readings are pushed to the Cloud if a mission is Cloud-enabled. For instance, if you have selected 500 readings but 700 readings are missing on the Cloud, the 700 measures will all be pushed from the module.

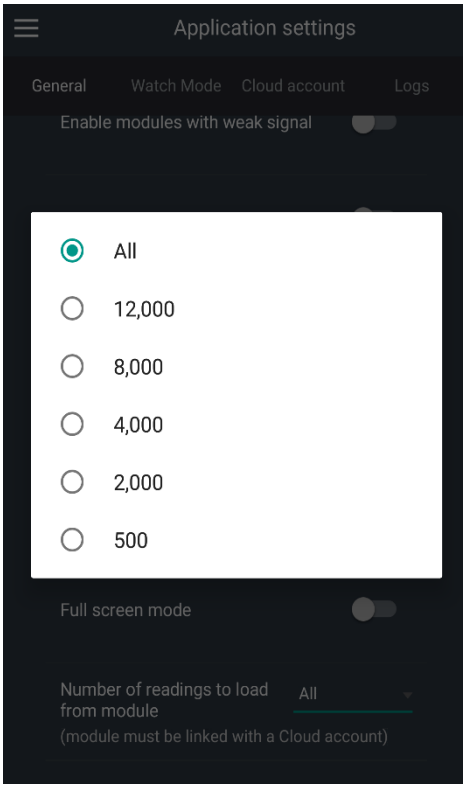


Figure 30 – Selecting the number of measures to be loaded to the Cloud

7 Monitoring modules with Watch Mode

OCEAView's Watch Mode enables you to visually monitor Atlas, Emerald, and Cobalt ML3 modules on an ongoing basis. For Atlas and Emerald devices, the feature also uploads live data to OCEACloud in real-time. Users may then log into their account on the OCEAView Web application to view this information in the **Live data** section.

When activated, **Watch Mode** captures Bluetooth advertising frames with key module information, and displays the latest reading and status either for selected modules (Stationary) or for all modules that come within wireless range (Mobile), as described in the next section.

From your smartphone or tablet, you can easily monitor whether limits are exceeded, and access further details for any given module, or view and download reports.

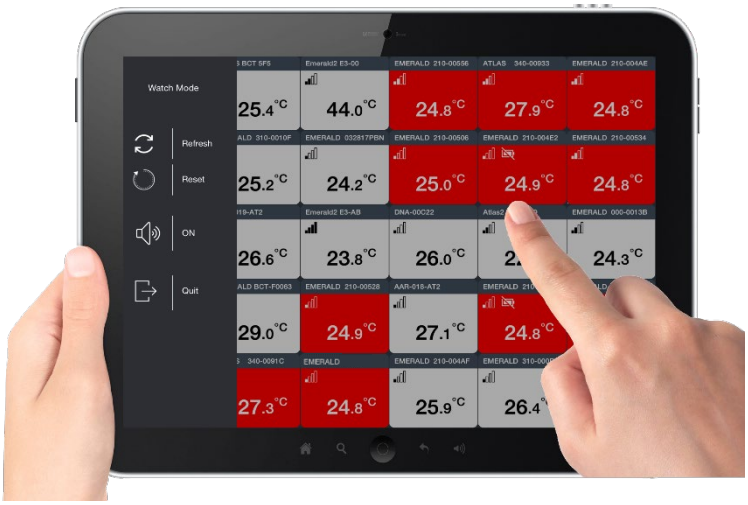


Figure 31 –Watch Mode enabled on tablet

7.1 Prerequisite for using Watch Mode

When using Watch Mode, the OCEAView application must remain in the foreground on your smartphone or tablet (it must be the active application). As the application remains on, it is recommended to connect your device to its power source for any extended periods of use.

7.2 Watch Mode settings

On the main menu, tap on **Settings** ➔ **Watch Mode** to adjust the following options as necessary:

Monitoring environment

Tap on a checkbox to select the type of environment to be monitored:

- **Stationary**: you may choose which modules to monitor from a list of modules within wireless range
- **Mobile**: all programmed modules that come within wireless range are picked up automatically by Watch Mode monitoring. After OCEASOFT modules are discovered, OCEAView shows a report with the number of modules on a mission and in alarm state (limits exceeded and low battery). Note: the **Show report message at startup** option must be enabled for this feature to work.

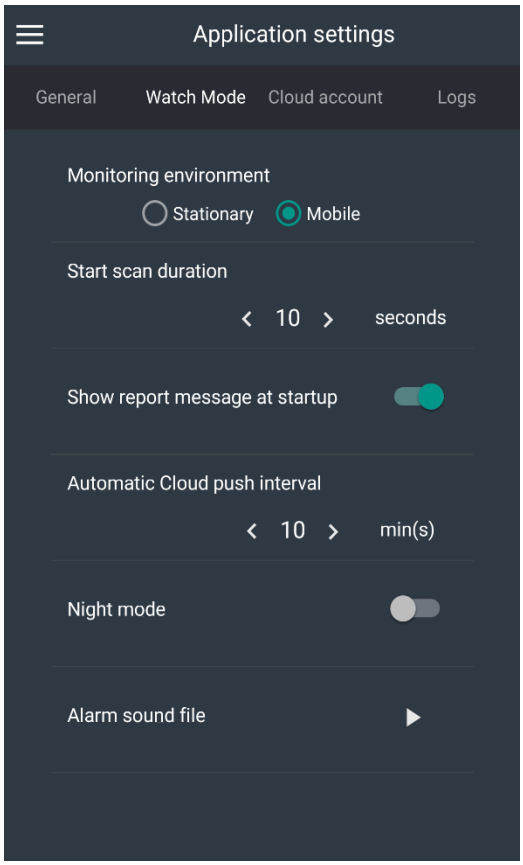


Figure 32 – Watch Mode settings

Start scan duration — Enter the period of time (in seconds) during which OCEAView will scan modules within range when starting Watch Mode. Default values are in the range of 10 to 120 seconds.

Show report message at startup — When enabled, OCEAView shows a report with the number of modules on a mission and in an alarm state (limits exceeded and low battery) for the scan just completed ("**Mobile**" monitoring environment only).

Automatic Cloud push interval — This option sets the frequency (in minutes) with which live information on alarm status and temperature

readings is pushed to the Cloud. Only Atlas and Emerald can be pushed to the Cloud.

Night mode

Slide the button to the right to activate "Night mode". When enabled, this option changes the background of the tiles to a darker color palette. This display adapts Watch Mode to make it easier to use OCEAView in a dark environment.

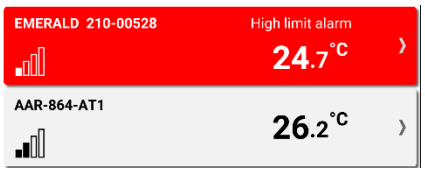


Figure 33 – Default color contrast

Figure 34 – Night mode

Alarm sound file

You may test the alarm sound by tapping on the ▶ icon. The alarm sounds for approximately 8 seconds, enabling you to adjust volume as desired.

7.3 Activating Watch Mode manually

By default, Watch Mode is not enabled. To activate the feature, tap on **Watch Mode** in the main menu.

When Watch Mode is enabled, you may access more commands from the slide-out menu on the left-hand side of the screen.

You may swipe the screen from left to right to reveal the slide-out menu at any time. Commands are context-sensitive and vary depending on the screen.

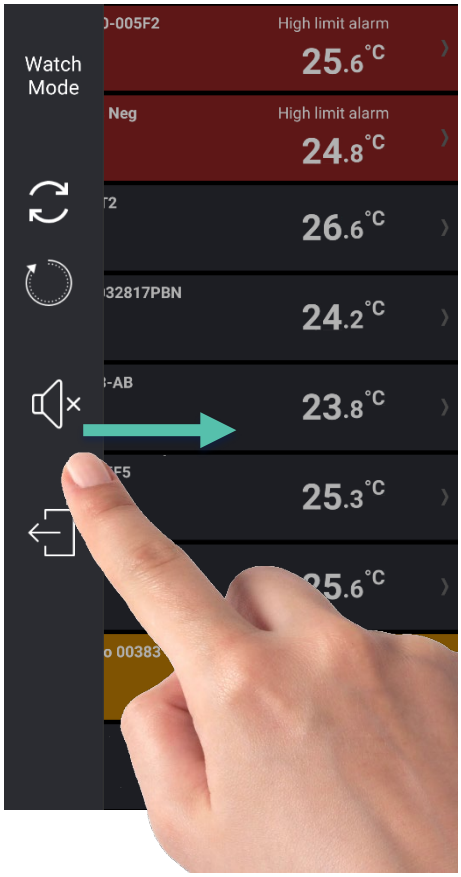


Figure 35 – Watch Mode menu

Command description:

Refreshes the current list of modules and starts the scanning process to discover additional modules within range.

Resets the current Watch Mode session. This feature clears the module list and acknowledged alarms, and then scans to discover nearby Atlas and Emerald modules for the period of time you specified in the **Start scan duration** option, in **Watch Mode** settings. This feature can be useful, for example, if you move modules around your site, or add new modules.

Alarm sound is active. When a module is in an alarm state, OCEAView emits an audio alarm for a few seconds every minute. Tap on the speaker icon to temporarily mute the alarm sound for 1 hour. After that time, alarm sound will automatically turn back on.

Alarm sound is in silent mode. You may tap on this icon to turn on audio alarms at any time.

Exits Watch Mode and returns to the module selection screen (in **Stationary mode** only).

Exits Watch Mode and returns to the **Scan** screen.

7.3.1 Discovering modules

When starting Watch Mode, OCEAView runs a Bluetooth scan to discover and list the OCEASOFT modules within range.

Wait until the scanning phase is complete. A time counter at the bottom of the pop-up window (1) indicates the scan progress, for the period of time you specified in the **Start scan duration** option, in the **Watch Mode** settings screen (see section **Application** settings page **37**).

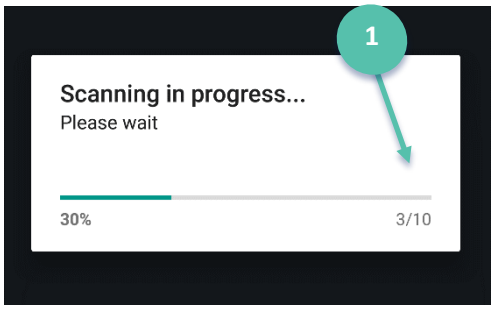


Figure 36 – Module discovery in progress

<u>"Stationary" monitoring environment</u>

With this mode, the module list appears on screen, and you may use the **Search** function to filter the module list according to specific criteria such as a module's serial number, module name or mission name, barcode.

1. Tap to select the modules you wish to assign to Watch Mode (2).
2. A counter in the lower part of the screen shows the number of selected modules (3).
3. Tap on **Start** in the upper right-hand corner to activate Watch Mode (4).

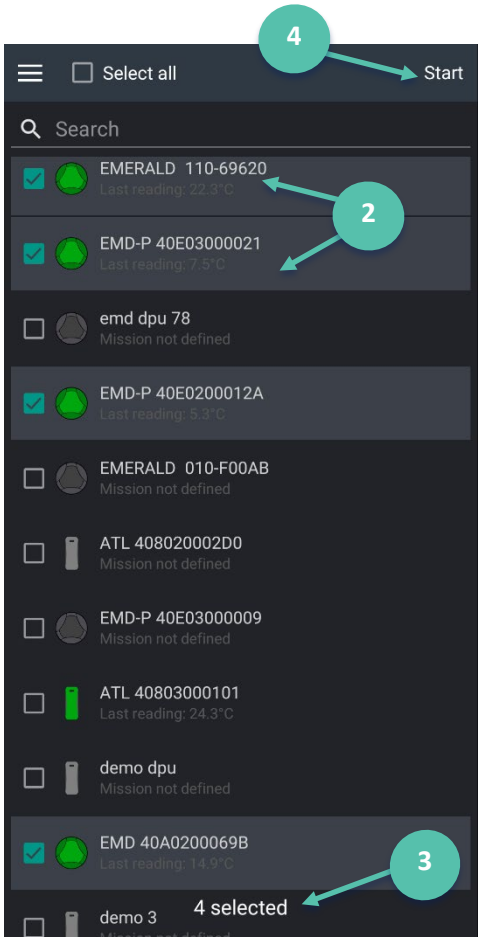


Figure 37 – Selecting modules to be assigned to Watch Mode (Stationary profile)

“Mobile” monitoring environment

With this mode, all modules within range are automatically shown in Watch Mode. This includes modules that are within range when Watch Mode is started, and also modules that come within range while it is running.

After modules are discovered when Watch Mode is started, OCEAView shows a summary report 5 with the number of modules on a mission and in an alarm state (limits exceeded and low battery).

Note: the **Show report message at startup** option must be enabled for this feature to work.

Tap on **OK** to continue.

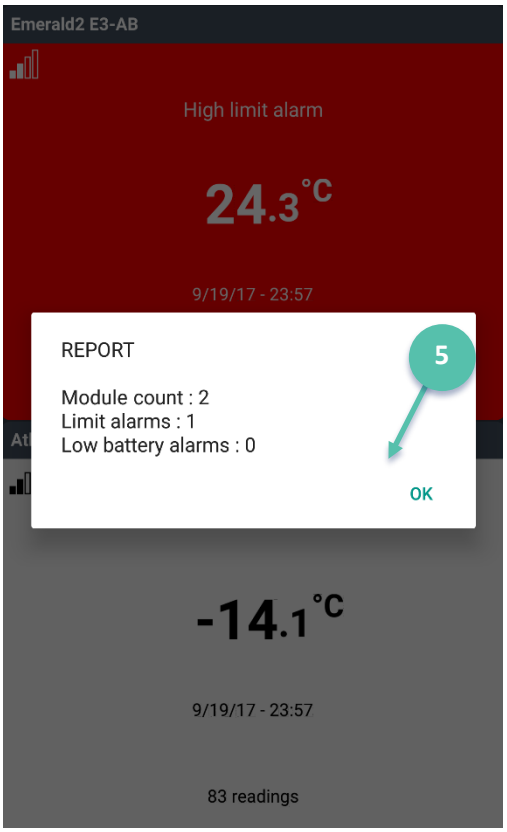


Figure 38 – Summary of modules within range when starting Watch Mode with mobile profile

Depending on the monitoring environment option you selected in the Watch Mode settings screen (**Stationary** or **Mobile**), data is presented as a thumbnail 5 or as a list 6 if more than 8 modules are selected (on smartphones only):

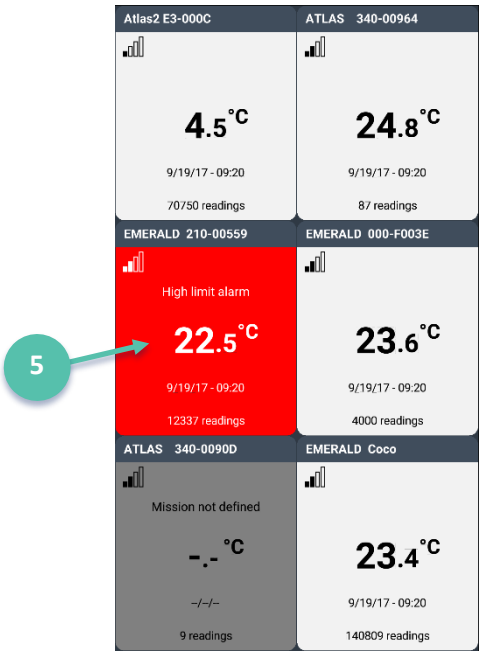


Figure 40 – Module thumbnails (up to 8 modules)

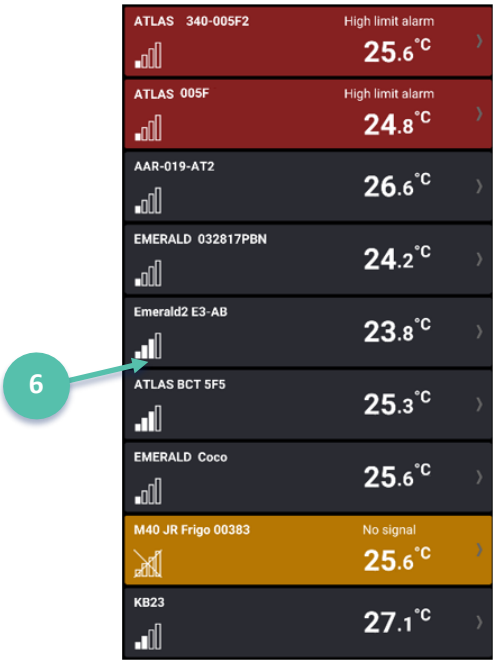


Figure 39 – Module list (more than 8 modules)

When Watch Mode is activated, the colored icons on the Scan tab have a slightly different meaning than that described earlier when modules are discovered on the **Scan** screen:

- **White** indicates a programmed module, datalogging started or not, whose last-read value has not exceeded its limit value (that is, currently not in an alarm state).
- **Red** indicates a programmed module, currently in an alarm state, whose last-read value has exceeded its high limit value. If a delay was configured, it has been reached. OCEAView plays an alarm sound once a minute, for several seconds, if the latest reading on one or more modules has exceeded an alarm limit.
- **Blue** indicates a programmed module, currently in an alarm state, whose last-read value has exceeded its low limit value. If a delay was configured, it has been reached. OCEAView plays an alarm sound once a minute, for several seconds, if the latest reading on one or more modules has exceeded an alarm limit.
- **Grey** indicates either a non-programmed module or one on which there was an error reading the sensor (i.e. the current reading is not available). The text beneath the module name shows the status “Mission not defined”.

- **Orange** indicates a programmed module, currently in an alarm state that is encountering wireless transmission issues. The module signal is not being received (connection is not possible).
- **Yellow** indicates a programmed module whose battery level is low.

Each module shows the latest reading (color coded), plus various other information:

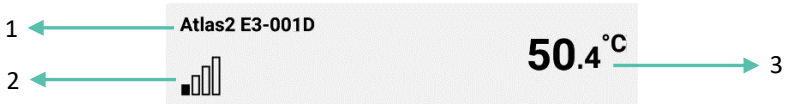


Figure 41 – Module information (list mode)

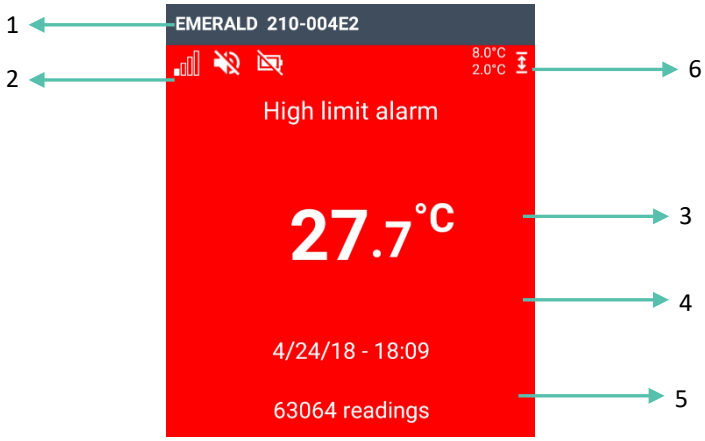


Figure 42 – Module information (thumbnail mode)

1. Module name
2. Status icons:
   - Wireless signal strength from 0 to 4
   - No wireless signal
   - Low battery
   - Silenced alarm
3. Latest reading with color coding showing the sensor status
4. Date and time of latest reading
5. Number of readings since the beginning of this mission
6. High and low alarm limits*

* If configured, upper and lower limit values appear on the module thumbnail after you have connected to the module one time. If high and low alarm limits are not shown, make sure they are defined in the **Alarms** tab.

7.3.2 Atlas or Emerald module details

You may click on a tile to access more information about a particular module. The module is displayed as a thumbnail in the foreground of your screen 1.

This thumbnail closes automatically after about 8 seconds of inactivity.

You may tap on **Details** 2 to connect to the module and access further details. Wait until the process is complete.

General information about Atlas and Emerald modules is displayed as described earlier in section **5 Viewing a currently-running mission**, page **31** (with Recap, Graph, Data, and Map screens).

If the module for which you wish to see data is not programmed, you will get access to the last mission recorded in module memory.

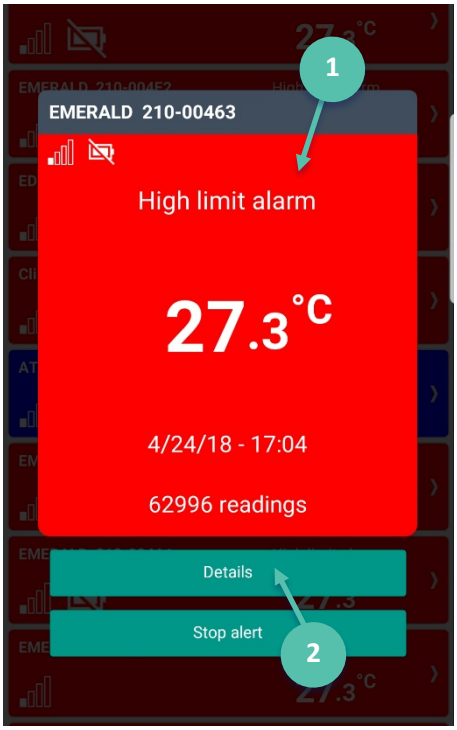


Figure 43 – Module details

Tap on the **Recap**, **Graph**, **Data**, or **Map** tabs to see complete details regarding the Atlas or Emerald mission.

To return to the previous page, tap on the **<** icon in the upper left-hand corner of the screen. Note that a tap on the Back button on your Android device will show the Watch Mode slide-out menu.

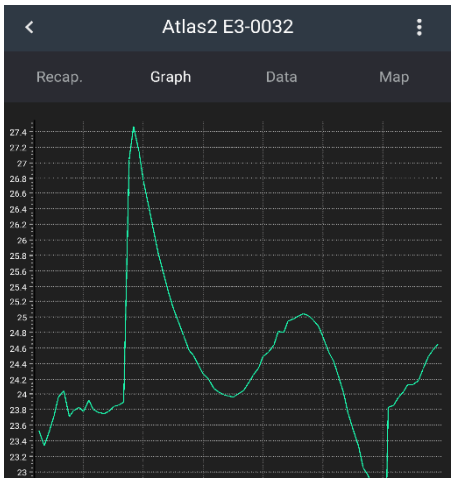


Figure 44 – Viewing mission data

7.3.3 Watch Mode with Cobalt ML3 modules

You may use Watch Mode with Cobalt ML3, even at the same time as Atlas and Emerald modules.

Their operation is identical to that described previously, except:

1. Data is not pushed to OCEACloud (Cobalt ML3 data is uploaded to the CobaltView platform as part of its own configuration).
2. The mission details screen is limited to basic information regarding:
    - Mission status (started or not started)
    - The module serial number
    - How many readings are stored in memory
    - Current alarm status (Yes or No, indicated in appropriate colors)
    - Battery state

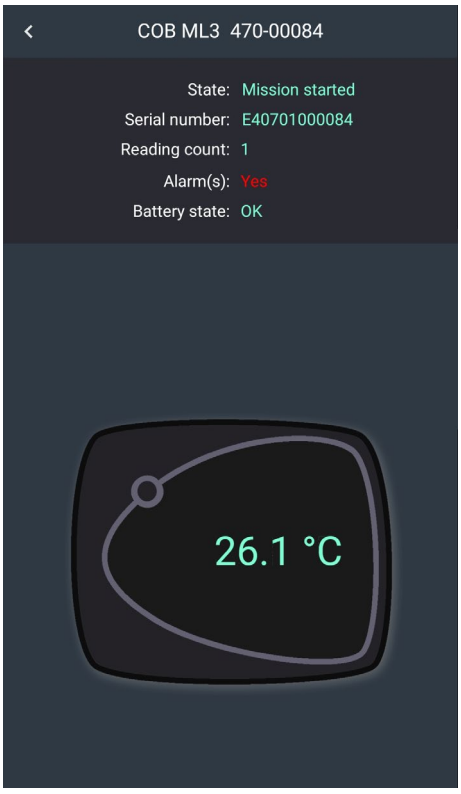


Figure 45 – Viewing Cobalt ML3 mission data

7.3.4 Silencing individual alarms

When a module has an alarm, you may turn off the audio alarm by tapping on the **Stop alert** button in the module thumbnail.

You will be prompted to confirm whether you want to silence the alarm. Click on **Yes** to silence alarm, or on **No** not to change anything.

The speaker icon  4 on the module thumbnail and the greyed-out **Stop alert** button 5 indicate that the sound alarm is turned off for the module.

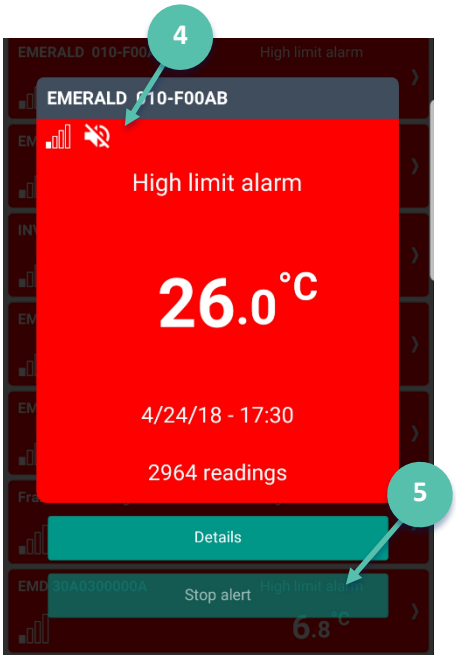


Figure 46 – Acknowledged alarm

The audio alarm remains disabled for the duration of the current watch mode session. Note that silencing the alarm in OCEAView does not actually fix any physical or technical problem encountered by the module and the module could still be in an alarm state.

7.3.5 Exiting Watch Mode

To return to the module selection screen and exit Watch Mode, tap on your mobile device's **Back** button or pull out the side menu.

Tap on the **Exit** icon (1) to exit Watch Mode.

Figure 47 – Exiting watch mode

8 Opening a .CSV file with Excel

As mentioned earlier, OCEAView can send reports in a .CSV format for use in MS Excel or other compatible spreadsheet software. The instructions provided here are valid for the latest version of MS Excel as of this writing. The exact behavior of your software may vary slightly.

8.1 Opening the file

To open the file: simply double-click on the .CSV file with your mouse. The file should open directly.

8.2 File contents

The .CSV file exported by OCEAView is a “tab-delimited” format, in which data is separated by the “tab” character. This should enable most software to open the file directly, without any other actions on your part.

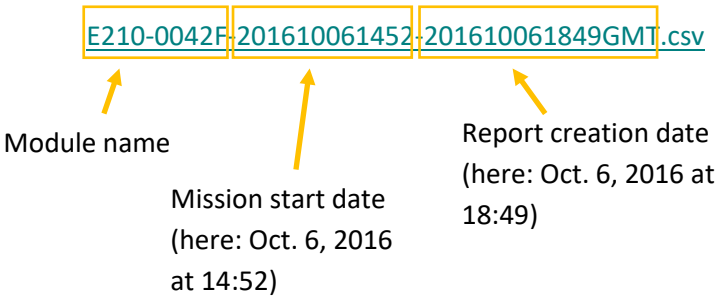
8.2.1 Region-dependent values

Several values contained in the .CSV file are dependent on your regional settings. The current settings on your mobile device are used for the following:

- Decimal value (i.e. 24.5 or 24,5)
- Date format

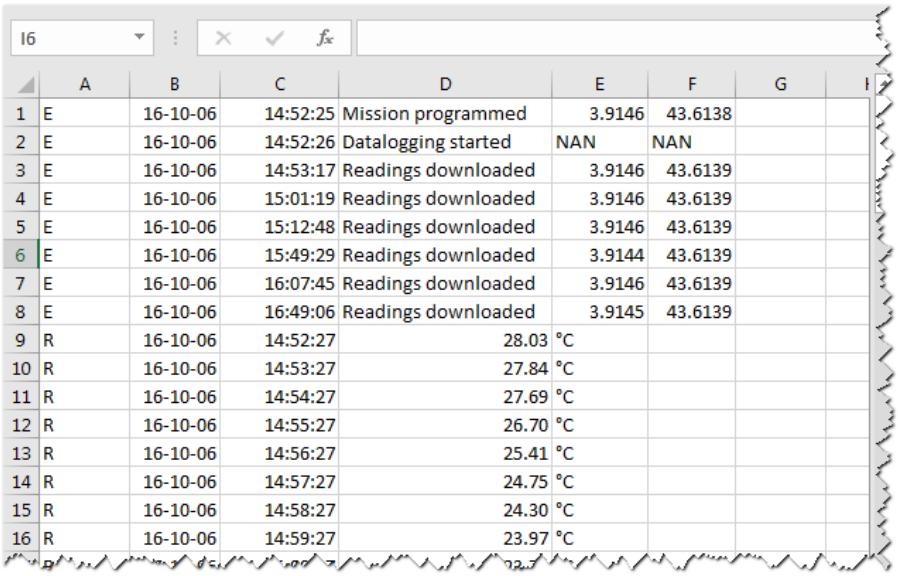
8.2.2 File name

The diagram below shows the composition of the exported file name:



8.2.3 File contents

When opened in MS Excel®, the report looks like this:



	A	B	C	D	E	F	G
1	E	16-10-06	14:52:25	Mission programmed	3.9146	43.6138	
2	E	16-10-06	14:52:26	Datalogging started	NAN	NAN	
3	E	16-10-06	14:53:17	Readings downloaded	3.9146	43.6139	
4	E	16-10-06	15:01:19	Readings downloaded	3.9146	43.6139	
5	E	16-10-06	15:12:48	Readings downloaded	3.9146	43.6139	
6	E	16-10-06	15:49:29	Readings downloaded	3.9144	43.6139	
7	E	16-10-06	16:07:45	Readings downloaded	3.9146	43.6139	
8	E	16-10-06	16:49:06	Readings downloaded	3.9145	43.6139	
9	R	16-10-06	14:52:27	28.03 °C			
10	R	16-10-06	14:53:27	27.84 °C			
11	R	16-10-06	14:54:27	27.69 °C			
12	R	16-10-06	14:55:27	26.70 °C			
13	R	16-10-06	14:56:27	25.41 °C			
14	R	16-10-06	14:57:27	24.75 °C			
15	R	16-10-06	14:58:27	24.30 °C			
16	R	16-10-06	14:59:27	23.97 °C			

The columns in this file are:

A E: Events
A: Alarms
R: Readings

B Date

C Time

D Description / Value

E Longitude

F Latitude

Note: “NAN” indicates that no value is available, or not applicable to a particular case. For example, “NAN” is indicated for the “Datalogging started” event, as the OCEAView software does not know the module’s location in cases of delayed datalogging start.

9 Appendix 1 – Advanced module settings

Several advanced options are available from the Module details screen by tapping on the **More** button.

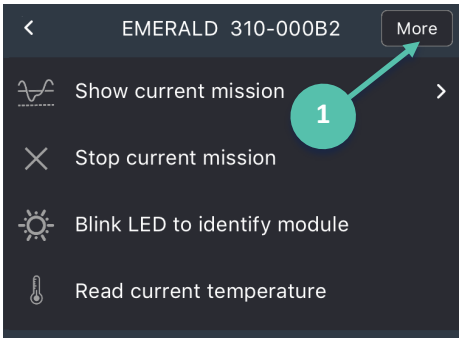


Figure 48 – Advanced module settings

9.1 Radio tools

To see the module's battery level, tap on **Get Current**.

To reset the counter to 100% (only after replacing the battery in an Emerald module with a new one), tap on **Reset**. Do not reset the battery counter without installing a fresh battery, and do not reset the battery counter in an Atlas module.

To see wireless signal strength or the module's firmware version, tap on the **Get Current** buttons.

If a more recent firmware version is available for your module, an option to update is offered on this screen after you press **Get current** for **Module firmware**.

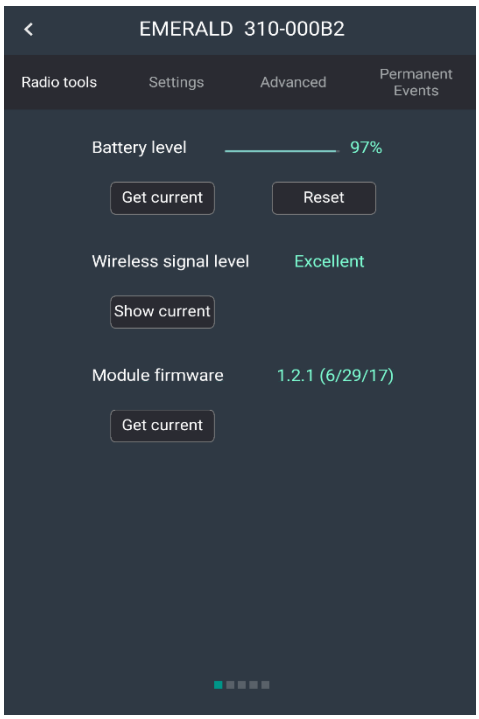


Figure 49 – Radio tools

9.2 Settings

9.2.1 Calibration parameters

This tab enables you to manage the calibration parameters (a.k.a. “correction parameters”) for your module.

Get current
Displays the A and B calibration parameters currently present on your module.

Download
If your module was calibrated by OCEASOFT, the A and B parameters are downloaded from the OCEASOFT calibration database and entered into the A and B fields (without updating the module itself). This requires an Internet connection.

Update
To update the module with the parameters contained in the A and B fields, tap on **Update**. This enables you to enter your own calibration parameters. Note: the value for A must be between 0.001 and 2.

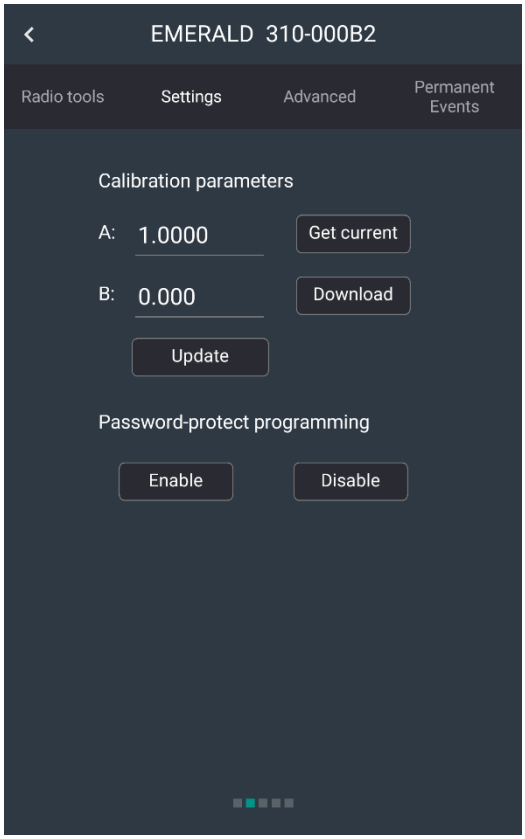


Figure 50 – Managing calibration parameters

9.2.2 Password-protect programming

To lock the module against unwanted programming, you may protect it with a password.

1. Tap on **Enable** to enter a password.
2. Tap on **Disable** to remove the password.

9.3 Advanced

You must contact technical support to use these options. They enable you to unblock and/or completely reset your Emerald/Atlas module.

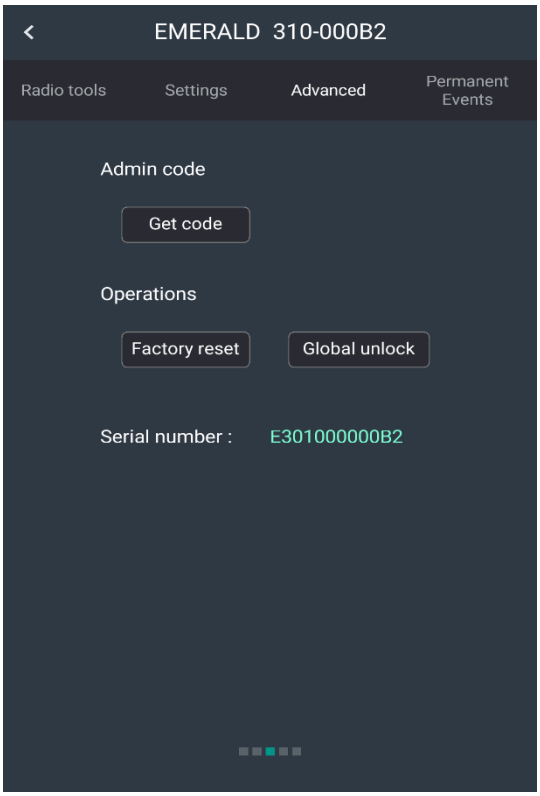


Figure 51 – Unblocking / resetting your module

9.4 Permanent Events

The **Permanent Events** tab shows the latest events for the selected module.

Tap on the **Refresh to load permanent events from module** button to update the list of events.

Events display in chronological order with the most recent ones listed first.

You may tap on the **Copy** button, in the top right-hand corner of the screen to copy the list of events and use that information later in an email or in a document.

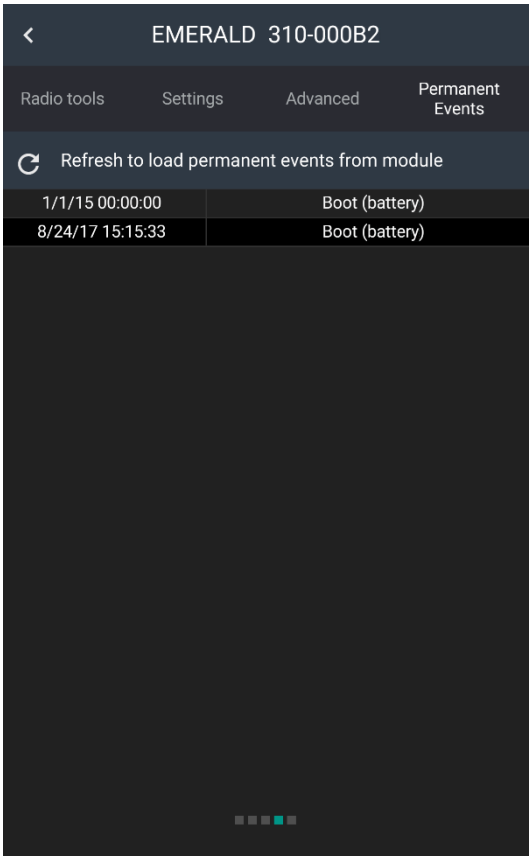


Figure 52 – List of permanent events

The **Permanent Events** tab is available on Emerald sensors equipped with firmware 1.2 or higher and on Atlas sensors equipped with firmware 1.1.4 or higher.

9.5 Permanently deactivating Flight mode (current module only)

This feature deactivates Flight mode permanently, only for the module you are currently using.

As mentioned earlier, deactivating Flight mode by pressing and holding the refresh button on the **Scan** tab only deactivates Flight Mode for 5 minutes. Bluetooth then returns to listen-only mode.

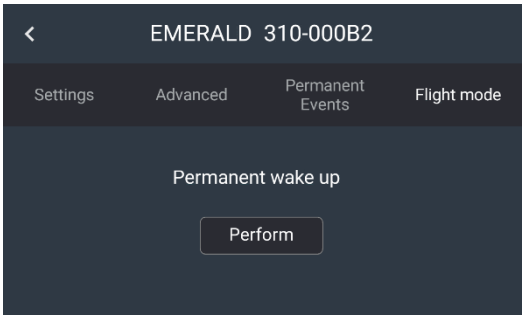


Figure 53 – Permanently deactivating Flight mode (for current module only)

10 Appendix - Troubleshooting

If you are having difficulties with your configuration, look at these frequently asked questions before contacting technical support.

The Upon landing option in the Flight Mode screen is grayed-out in my OCEAView application. Why can't I access that feature?

There are two generations of Atlas and Emerald modules. Flight Mode with smart environment detection is supported starting with the second generation. Flight Mode can still be controlled manually with the first-generation modules.

When I set up a mission, the application shows that my module only supports datalogging for 4,000 readings, not 16,000.

The first-generation Atlas and Emerald products have on-board memory to store 4,000 readings. The second-generation products have more memory and can store 16,000 readings.

How can I tell the difference between first- and second-generation Atlas and Emerald modules?

The 3rd and 4th digits of the product serial number can be used to identify your modules.

- Emerald 1st generation M40: ##**01**...
- Atlas 1st generation: ##**04**...
- Atlas 2nd generation: ##**08**...
- Emerald 2nd generation: ##**0A**...

Where can I find user manuals and technical specifications for my Atlas and Emerald modules?

Complete information on Atlas and Emerald modules is available on our website: www.oceasoft.com/obt

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