

# INSTRUCTION AND OPERATING MANUAL

## PREDICT PLUS GEN 3.5

**Predict**   **Plus**™

## 1. INSTRUCTION MANUALS

Status and Description of the revisions

Revision Status	Date	Prepared	Checked	Approved	Description of the Revision
A	1/07/2024	M.G.	R.M./K.M		First Initial to release.
B	1/23/2024	M.G.	R.Z.	1/23/2024	For Printing

## 2. About This Guide

This instruction and operation manual explains the Predict-Plus hardware, as well as the setup procedure and device activation to utilize the Predict-Cloud. This guide provides instruction to deploy Predict-Plus into the field and begin viewing and collecting data from your equipment.

## 3. Intended Audience

This guide is intended for DXP personnel and Predict-Plus end users.

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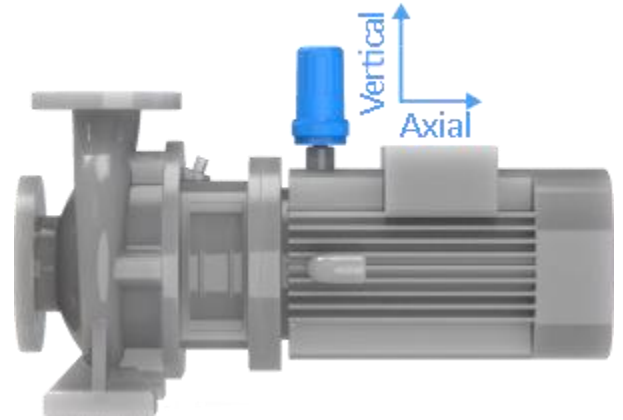
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## 4. Device Mounting Considerations

Predict-Plus shall be mounted as close to the thrust bearings of the equipment as possible to ensure optimal equipment data gathering. Predict-Plus shall be mounted to the equipment via the 1/4" NPT Mounting Stud, a converter stud in the 1/4" x 20 inset tap, and/or an accelerometer mounting accessory. Predict-Plus shall be mounted so that the axes of the devices correspond with the axes of motion from the rotating equipment. The wrench flats (B) on the side of Predict-Plus shall be parallel to the equipment shaft. Predict-Plus shall be mounted on the top face of the equipment whenever possible.



## 5. Power Requirements

Predict-Plus must be powered by 3 Energizer Ultimate Lithium® AA Batteries. Under standard operating conditions of 1-2 Predict-Cloud uploads per day and a sampling frequency of 5 minutes, the rated battery life of Predict-Plus 3.5 is 1 year. Do not use AA batteries other than Energizer Ultimate Lithium® due to potentially inadequate voltage and dramatically shortened battery life and voidance of hazardous location certification.

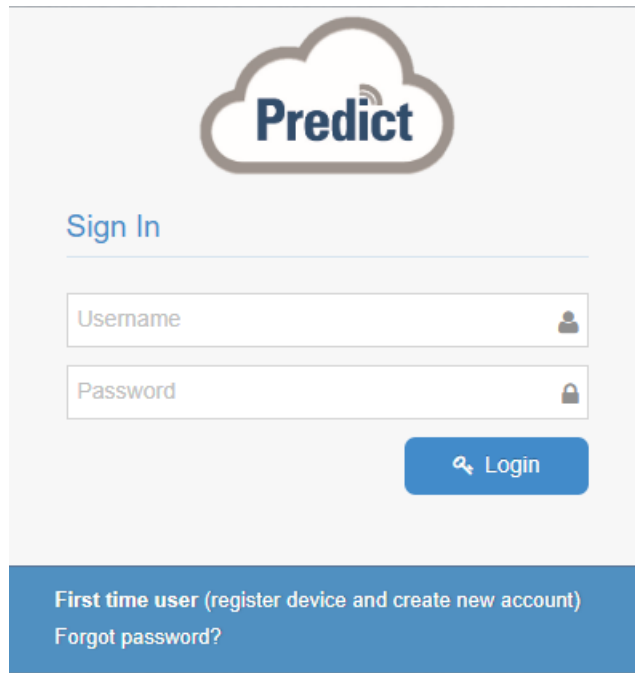
## 6. Device Initiation

Connect Battery. The Blue LED Indicator will flash sharply on and off indicating the device is powered on and attempting to connect to the server. When the LED Indicator begins to flash on and fade off (heartbeat), it has successfully connected to the server, and you can view your device in the Predict Cloud. Please note, all Predict Plus devices ships ready to connect.

## 7. PREDICT-CLOUD.COM

Access: <https://predict-cloud.com/>

By clicking on the link, you will be directed to the platform's home page. Access the platform using your email.



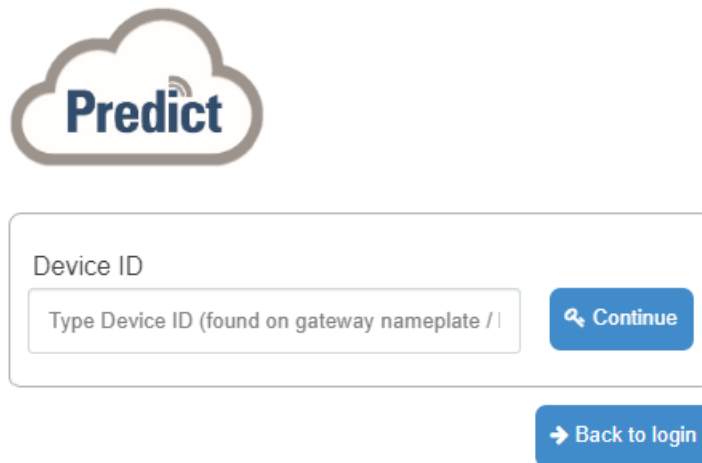
The image shows the Predict Sign In interface. At the top is the Predict logo, which consists of a cloud shape with the word "Predict" inside. Below the logo is the text "Sign In". There are two input fields: "Username" with a user icon on the right, and "Password" with a lock icon on the right. A blue "Login" button with a magnifying glass icon is positioned below the password field. At the bottom of the form, there is a blue bar containing the text "First time user (register device and create new account)" and "Forgot password?".

### 7.1. Device Registration

Is the process to configure and activate devices for customer use. There are two different methods, internal and external. This document will detail how to complete this task using both methods.

### 7.2. Add New Device External Mode

When creating and new device without no account, after clicking on the link "First Time User (Register Device and Create New Account)". A dialog box will appear prompting the user to put in the device ID of the Predict Plus unit they have on hand. Please contact your DXP representative if you cannot find the Device ID of your unit.



The image shows the Predict Device ID dialog box. At the top is the Predict logo. Below it is a "Device ID" label. There is a text input field with the placeholder text "Type Device ID (found on gateway nameplate / |". To the right of the input field is a blue "Continue" button with a magnifying glass icon. Below the input field and button is a blue "Back to login" button with a right-pointing arrow.

7.2.1. The serial number is needed and is input into this dialogue box. This number is normally attached on a label on the device and usually has 6 figures.



7.2.2. After inputting the required Device information and pressing “continue”, the following information needs to be filled.

“Account Name”

“Email address”

“First Name and Last Name”

“Username to login to the server”

“Password”

“Security Question”

“Security Answer”

A screenshot of a web form titled 'Account Setup And User Registration' under the Predict logo. The form contains several input fields: 'Account Name', 'Email', 'First Name', 'Last Name', 'Username' (with 'Login Name' as a placeholder), and 'Password (min. 8 characters)' (with 'Type your password' as a placeholder). At the bottom right, there are two buttons: 'Create' and 'Back to login'.

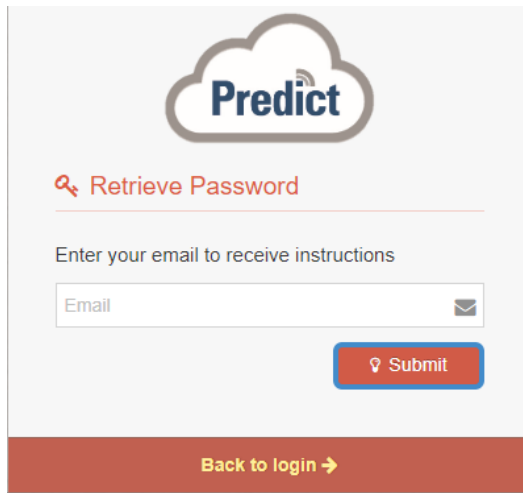
7.2.3. An email will be sent to finalize the new login credentials. To confirm, check the email address you entered in step 7.2.2. and click on the link to continue. After reading the End User License Agreement, and agreeing to the terms, please click OK.

7.2.4. In The following window, there will appear the customer contact and billing information that needs to be set up using the account information.

7.2.5. After all the user data has been entered a confirmation prompt will appear to move forward.

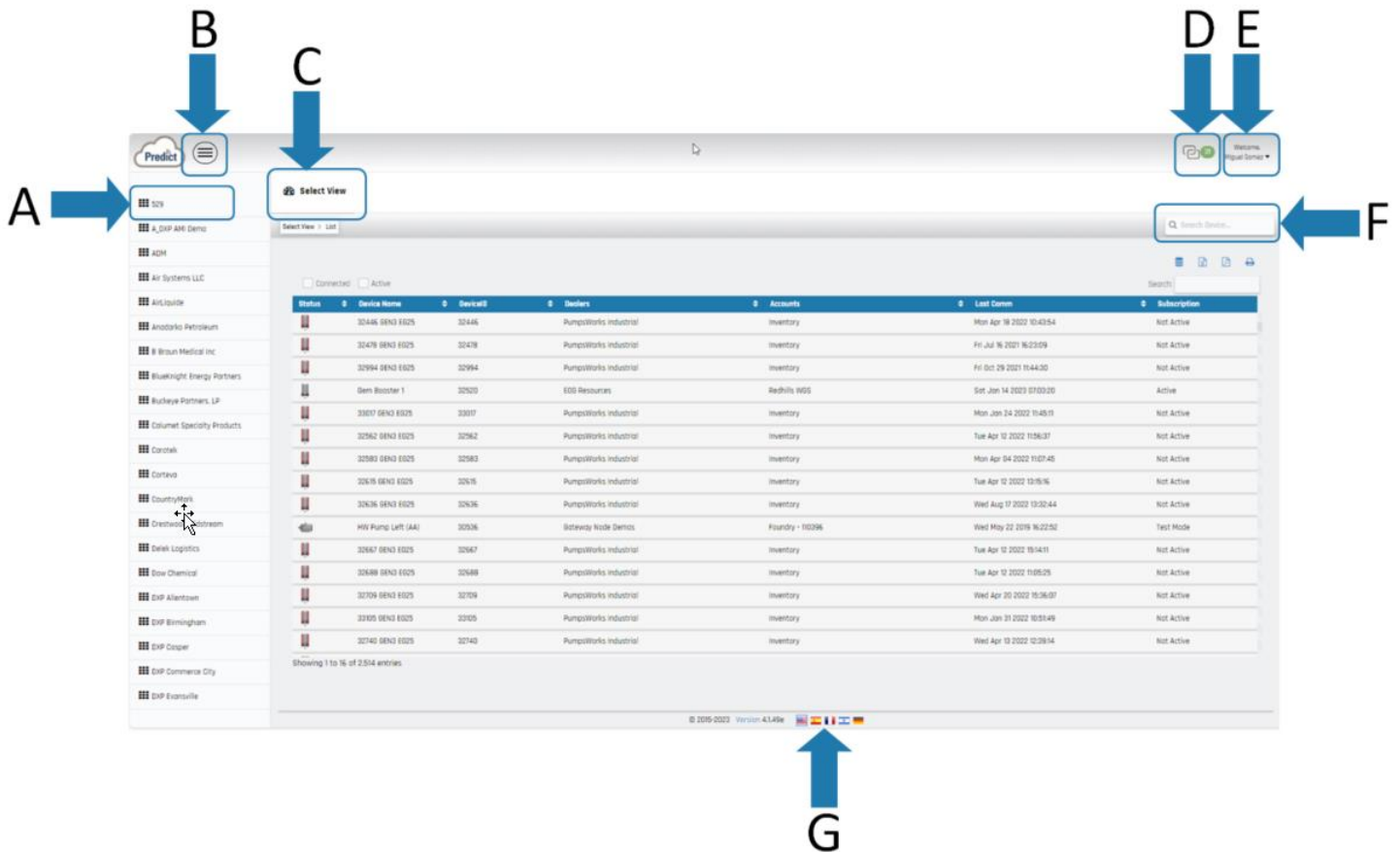
### 7.3. Lost Password

If the password was lost, the following window will appear after, clicking “forgot password.”



Enter your email address in the box given and check the email address provided for further steps on resetting/retrieving your password.

### 7.4. Dashboard Legend

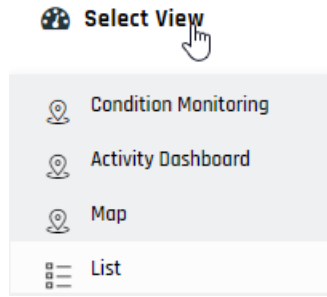


“A” Hierarchy Tree View Left side bar

“B” This button toggles the visibility of the Hierarchy Tree View left side bar

“C” Hovering the mouse in the select view button has below the options of “Condition Monitoring”, “Activity Dashboard”, “Map” and “List”.





“D” Recent devices, will show the latest activity of the devices registered to your account.



“E” Administration Tab, will show the following information.

“New Device Registration”

“Download”

“Dealers”

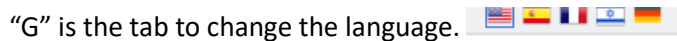
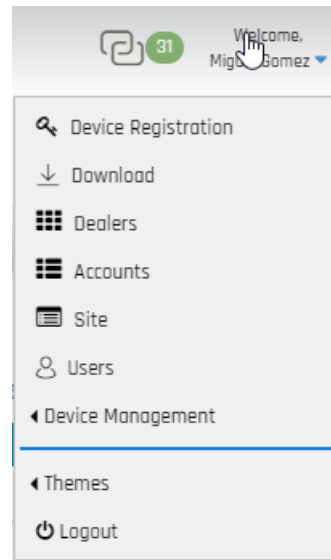
“Accounts”

“Sites”

“Users”

“Device Management”

“Themes”



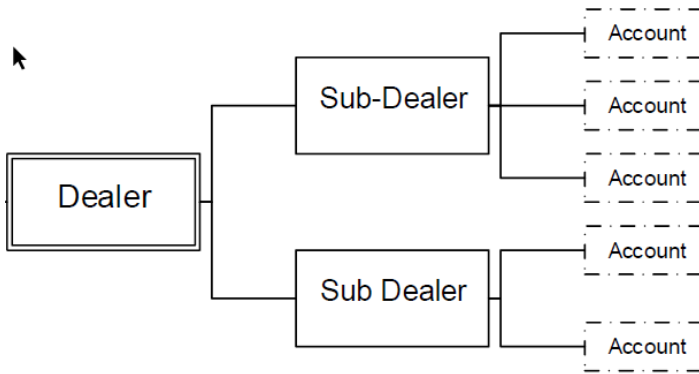
### 7.5. “E” Hierarchy Account Setup

There are five different login levels on the [www.predict-cloud.com](http://www.predict-cloud.com) with the below hierarchy levels:

- 7.5.1.OEM
- 7.5.2.Dealer
- 7.5.3.Sub-Dealer

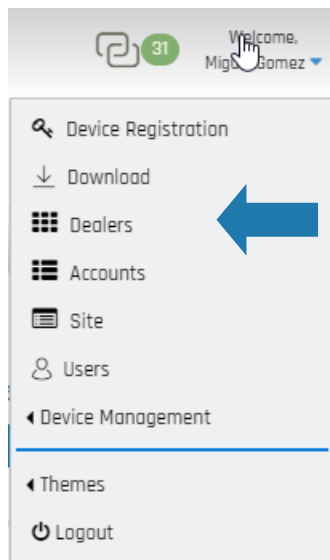
7.5.4.Account

7.5.5.Users

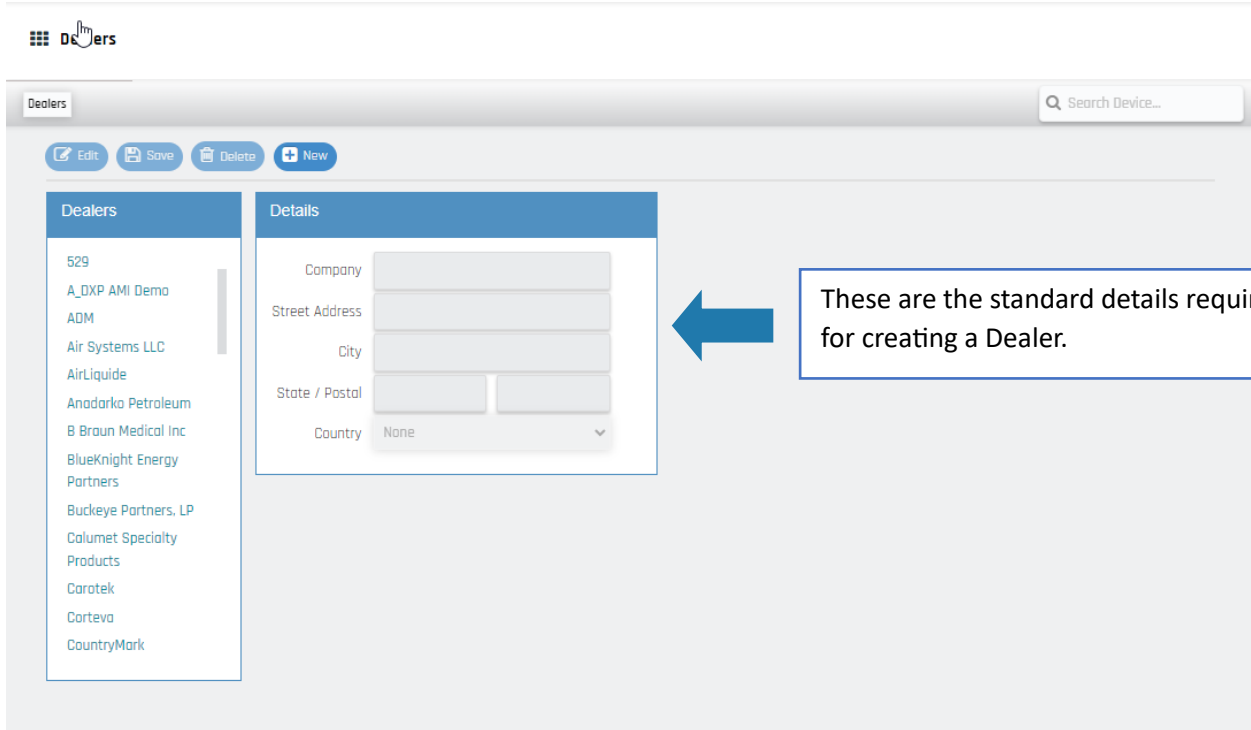


	Create Accounts	Create Dealers	Create Sub-Dealers	Create Account Admins	Create Users	Assign Controllers to	Place Controllers on Map	Configure	Name Controllers	Search Controllers	View Controller Data	Run Reports
OEM	X	X	X	X	X	X	X	X	X	X	X	X
Dealer	X		X	X	X	X	X	X	X	X	X	X
Sub-Dealer	X			X	X	X	X	X	X	X	X	X
Account Admin User					X		X		X	X	X	X

To view your current level status, click on your name in the upper right-hand corner of the screen “E” and select Dealers from the Dropdown



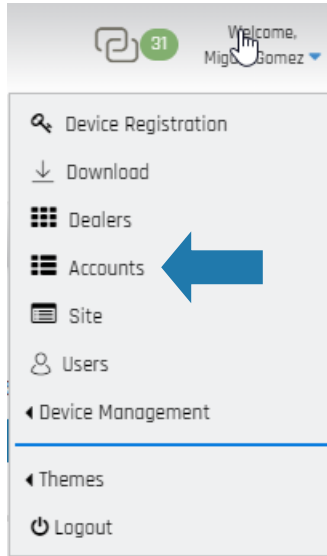
In the following tab, depending on the type of account created there would be the possibility of seeing, edit, deleting and creating new Dealers account.

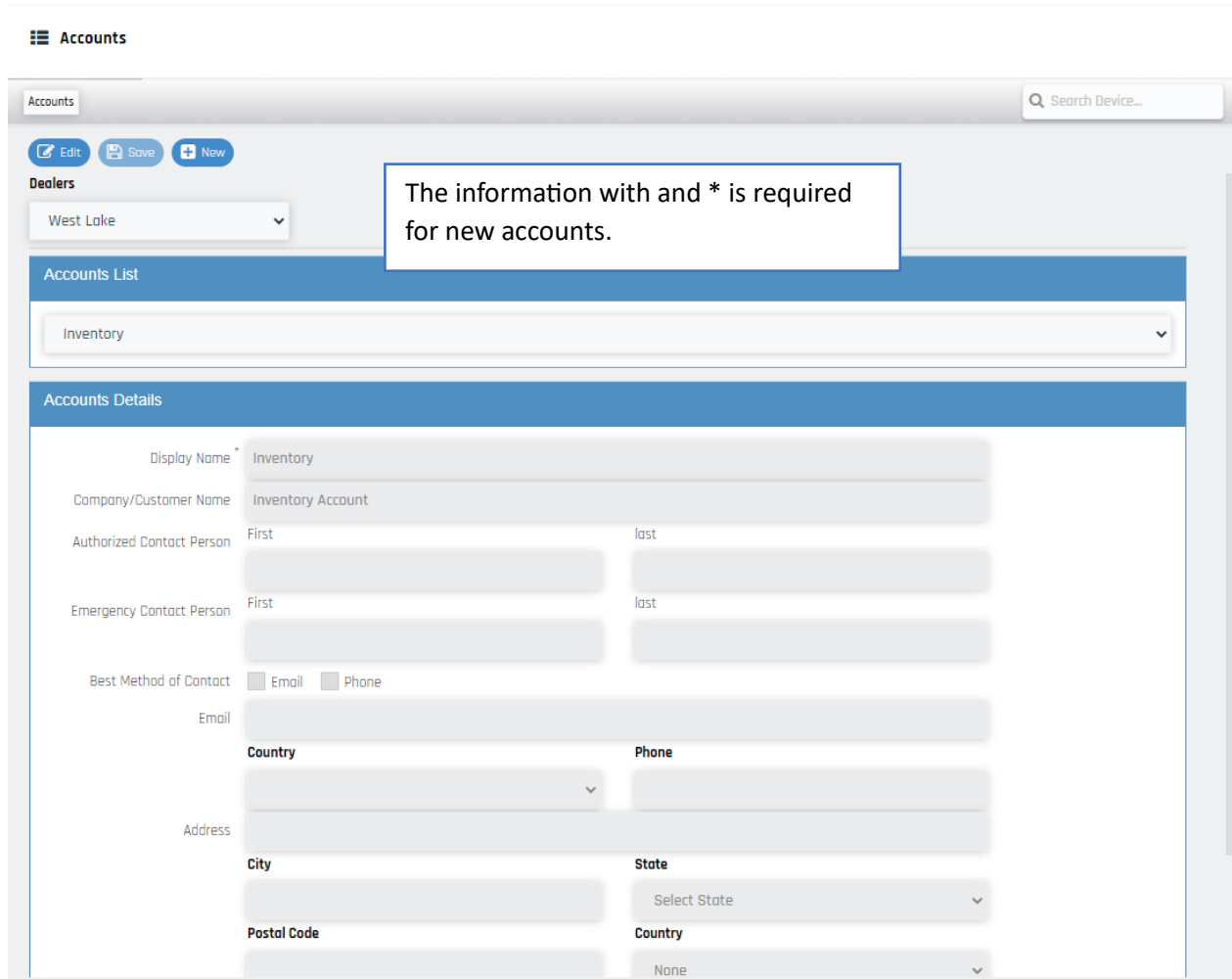


These are the standard details required for creating a Dealer.

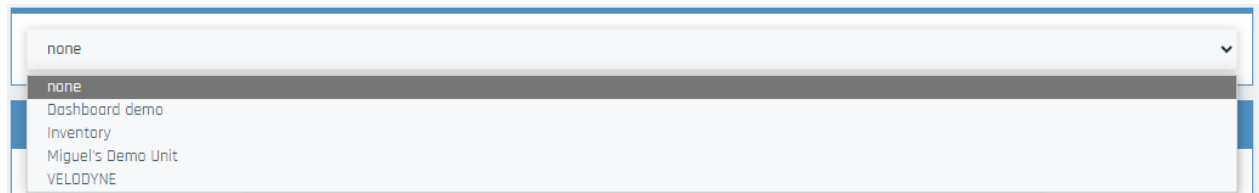
### 7.6. Account Setup

On the account setup, depending on your account level hierarchy, it is possible to edit, and create new accounts, dealers, sites, and users.



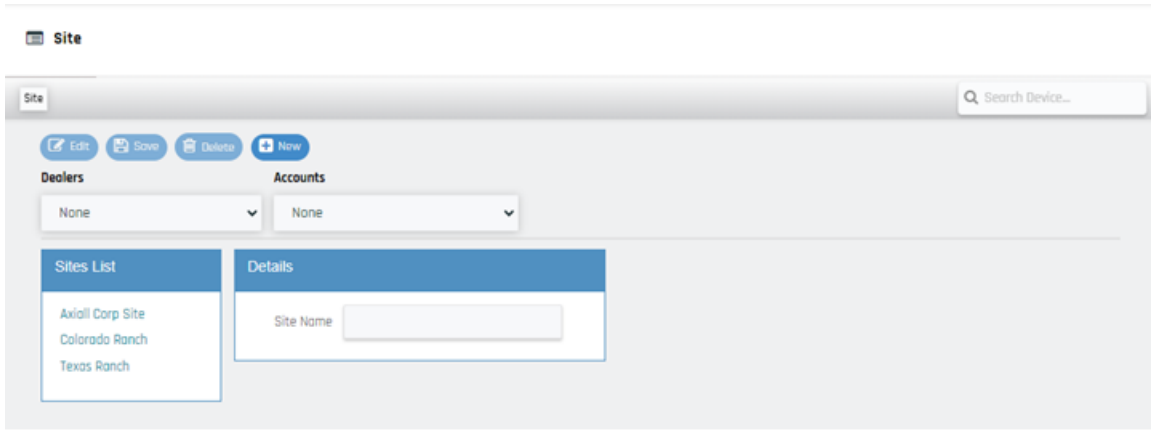


In the account list, there is a dropdown menu with the account details that are created below in the Dealer Hierarchy.



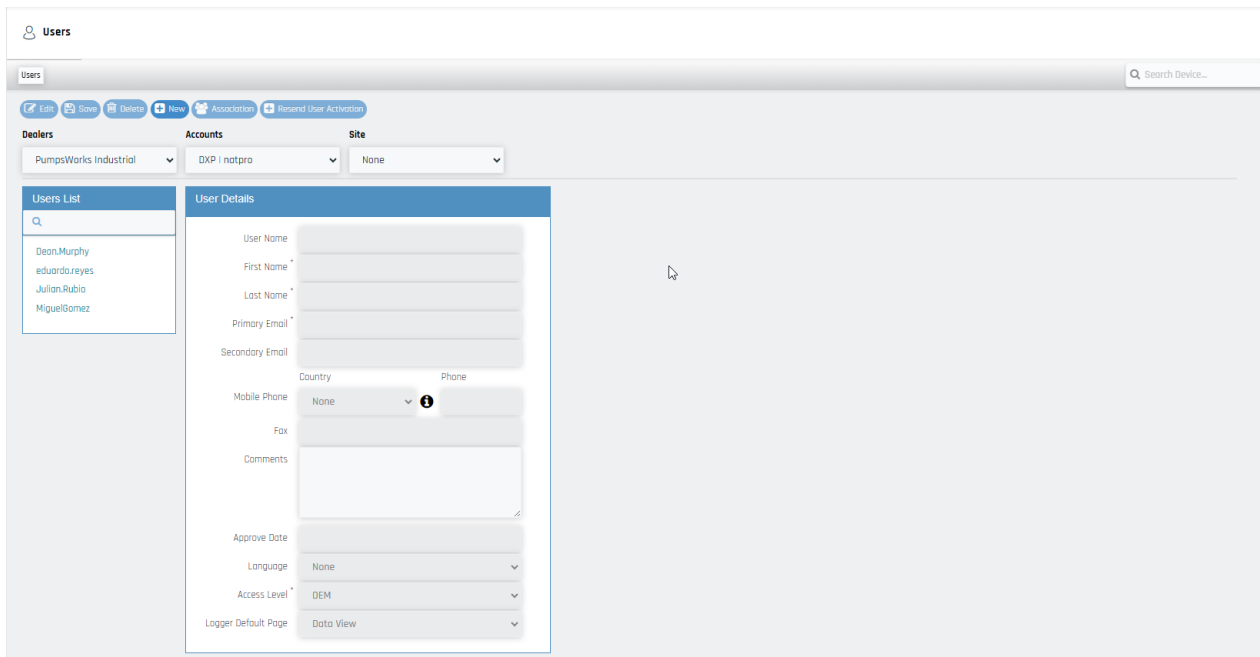
### 7.7. Site Setup

On the site setup, from the available Dealers and Accounts assigned to your predict-cloud.com access level, you will have the possibility of editing, deleting, and creating new “site’s” that are going to hold the Predict-Plus devices so they can be easily mapped and structured depending on geographical or customer required segmentation.

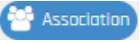


### 7.8. Users Setup

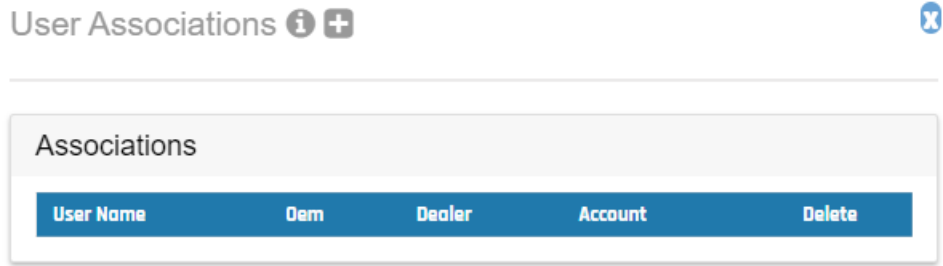
After the accounts has been set up, logins can be created to give access to other dealers, account admins or standard users. On the site setup menu page is the option to, edit, delete, and create new users.



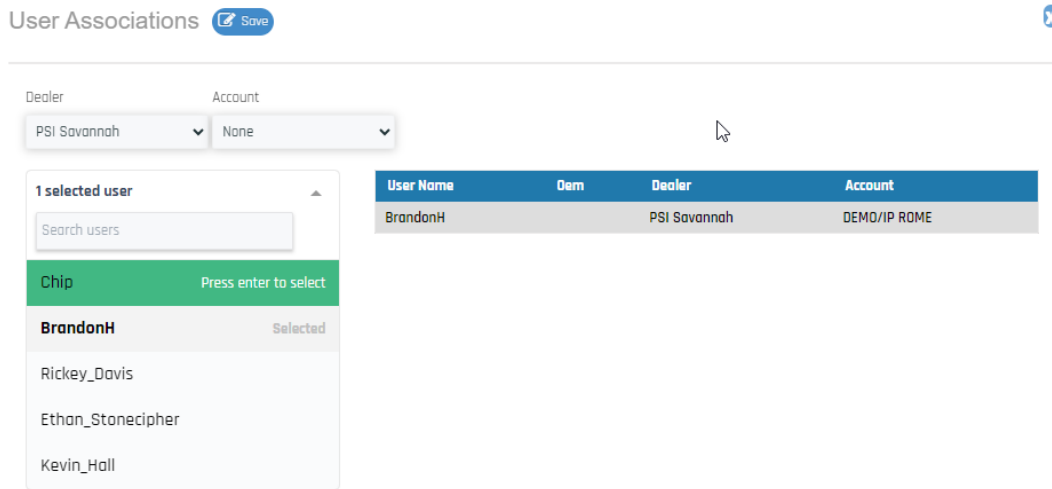
Is important to choose the correct Access Level that the created user will have as the accounts' user rights give specific permissions, including to administer other users, sites, or accounts.

Under the  **Association** button, is the option, to attach a user access level to another Dealer or Account. This is possible only for Dealers and OEM granted levels accounts, so the same email address or logon to the system can be used to oversee multiple accounts or different vendors. It is preferable not to have the same user create multiple accounts for this purpose.

When the Association Button is clicked, the following box will appear and show the actual User Associations created for that account.

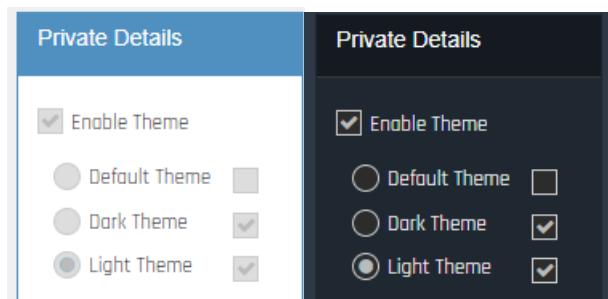


When the **New** button is pressed the following box will appear, asking for the possible Dealers and Accounts the user associations have possible.



It is possible to resend user activation email to any of the user listed under your account. This will re-enable the activation of the associated account in following button **Resend User Activation**

Also is possible to change the theme of the dashboard to be in the following background colors.



### 7.9. Internal Device Registration

Clicking on the **Device Registration** button inside the right menu, will show the following Device Registration Wizard.

### 🔍 Device Registration

Device Registration

[+ Register Device](#)

Device ID

Assign to

7.9.1. After writing the correct device ID of the device, check the possible accounts section to assign the data of the Account/Company where the device it's going to be activated will appear.

Device ID

Assign to

Please verify the account data shown is correct

Account Display Name

Company/Customer Name

7.9.2. After pressing [+ Register Device](#) and popup will appear asking for confirmation.

**i** Device Registration request

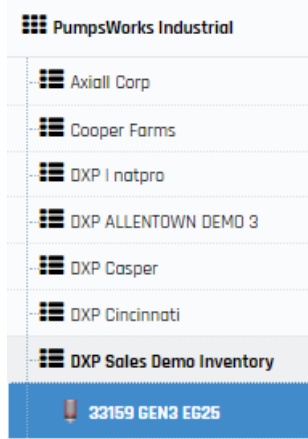
Device 33159 will be registered to DXP Sales Demo Inventory, please confirm.

[Continue](#) [Cancel](#)

7.9.3. After successful approval of the previous step, wait a couple of seconds for the device to populate correctly in the 'Navigation' tree on the left side of the screen. A prompt will also appear confirming that the subscription of the device was completed, with an optional link that can be clicked to go directly to your recently created device.

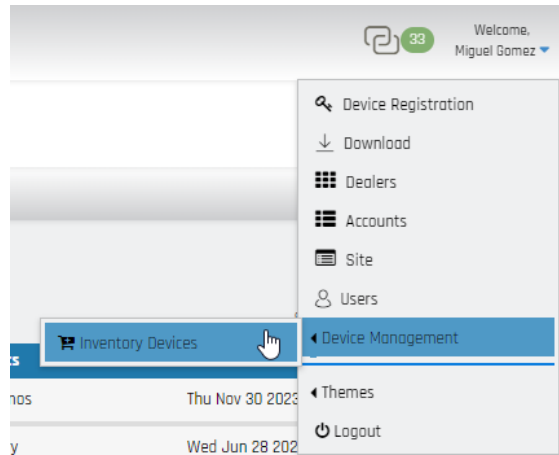
**i** Activating the sim card, please connect the device and wait for connection...

Congratulations. Your device subscription was completed, device 33159 is active now. [Click here to go to your device](#)

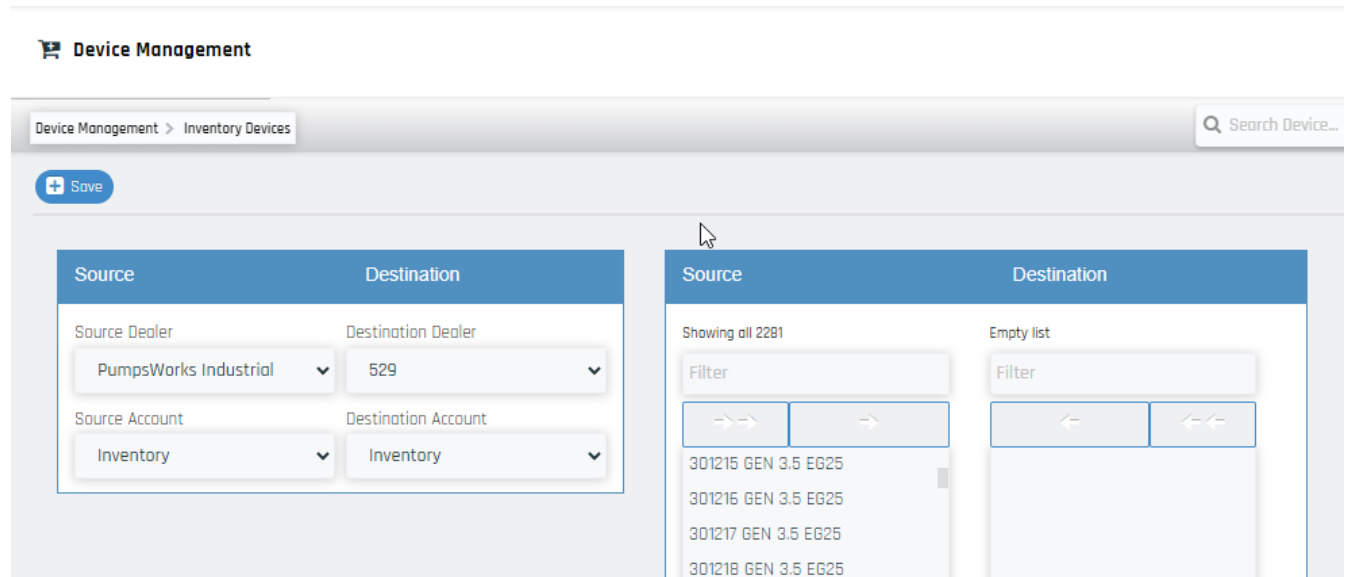


### 7.10. Device Management

Use this feature to move devices to the desired Inventory account so the devices can be registered accordingly. This is an easy tool that can be used to move devices in bulk from one inventory account to another. Only unregistered devices can be moved with this tool.

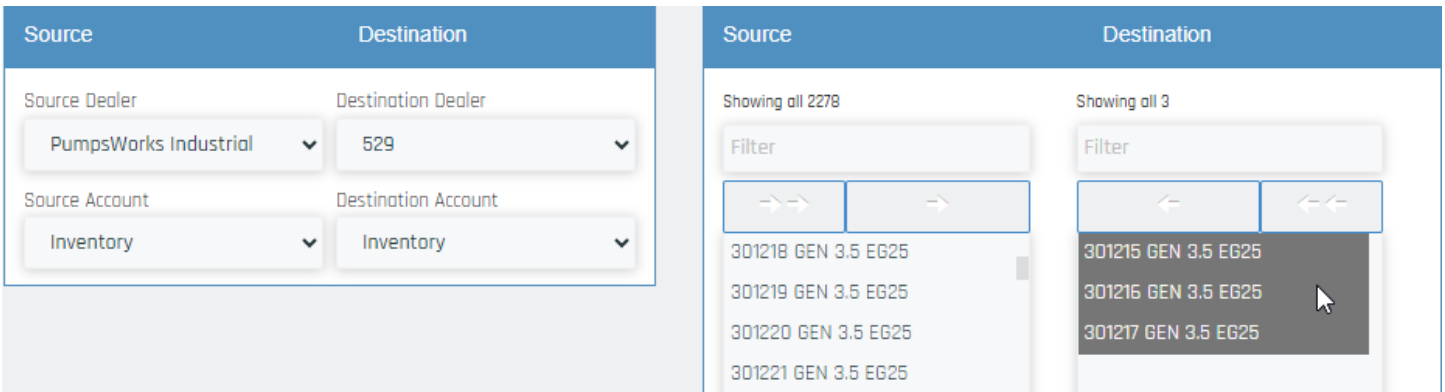



The available devices and inventory accounts will then be shown.



Select the devices you want to move. The double arrow will move ALL devices. The single arrow will move only the selected devices to the desired destination.





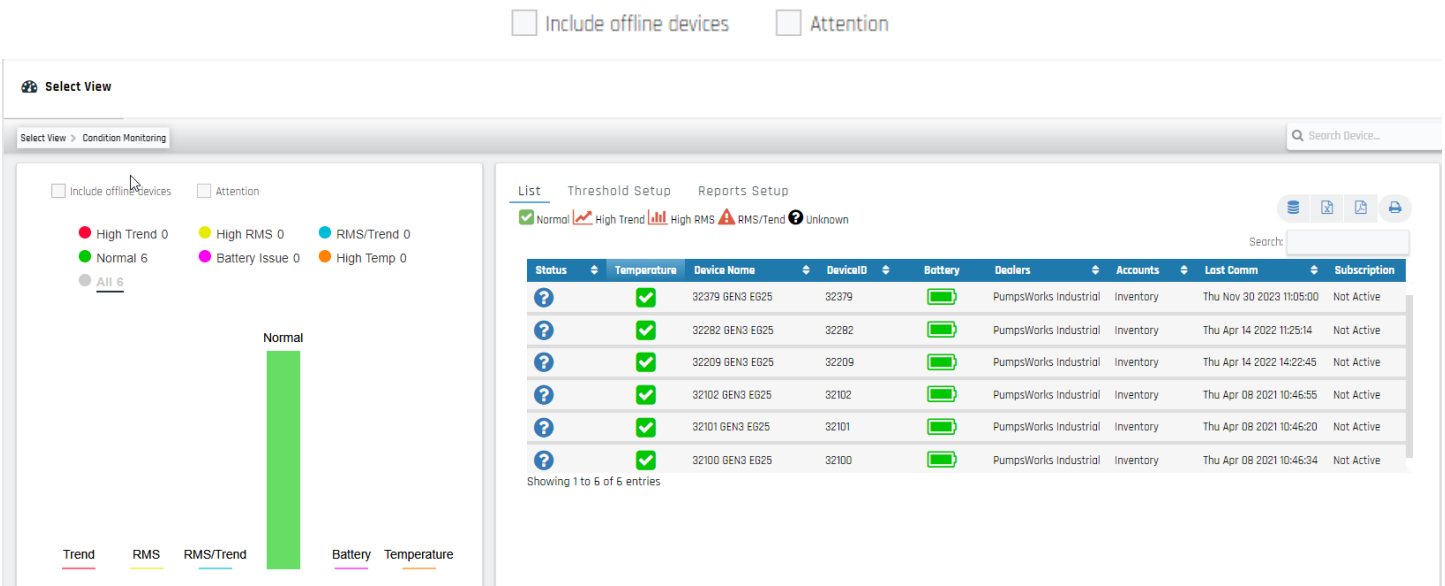
When the devices are in the correct destination, press the  button.

## 8. VIEW/SEARCH FOR DEVICES

There are multiple ways to search for a Device.

- From Condition Monitoring
- From the Map
- From the Activity Dashboard
- From the List
- From the Hierarchy Tree View (Left Side bar)
- By the Controller Name or ID in the search field

**8.1. In this dashboard, information is presented in both bar and graphical way, which summarizes the status of the devices limited by the user's access level. There are checkboxes which can help to filter based on the user's needs.**



8.1.1. In below table, the **List** mode filter can be used to see the status, name of the device, the ID, battery, to which dealers, and type of accounts that the devices are registered to. Also, Last Communication with the server and the status of the subscription is displayed.

Status	Temperature	Device Name	DeviceID	Battery	Dealers	Accounts	Last Comm	Subscription
?	✓	32101 GEN3 EG25	32101	🔋	PumpsWorks Industrial	Inventory	Thu Apr 08 2021 10:46:20	Not Active
?	✓	32100 GEN3 EG25	32100	🔋	PumpsWorks Industrial	Inventory	Thu Apr 08 2021 10:46:34	Not Active
?	✓	32102 GEN3 EG25	32102	🔋	PumpsWorks Industrial	Inventory	Thu Apr 08 2021 10:46:55	Not Active
?	✓	32282 GEN3 EG25	32282	🔋	PumpsWorks Industrial	Inventory	Thu Apr 14 2022 11:25:14	Not Active
?	✓	32209 GEN3 EG25	32209	🔋	PumpsWorks Industrial	Inventory	Thu Apr 14 2022 14:22:45	Not Active
?	✓	32379 GEN3 EG25	32379	🔋	PumpsWorks Industrial	Inventory	Thu Nov 30 2023 11:05:00	Not Active

Showing 1 to 6 of 6 entries

8.1.2. In the Threshold Setup tab it's possible to save the filter configuration and view all the devices selected in the monitoring thresholds. When the device wakes up it will update the Server Based Alerts using this information, and if an anomaly passes the configured thresholds, and alerts will be sent to the contacts people configured in the Reports Setup. These are Server Base alerts.

Save Configuration    ? Help

Search:   Calculate on Save

<input checked="" type="checkbox"/>	Device ID	Device Name
<input checked="" type="checkbox"/>	32100	32100 GEN3 EG25
<input checked="" type="checkbox"/>	32101	32101 GEN3 EG25
<input checked="" type="checkbox"/>	32102	32102 GEN3 EG25
<input checked="" type="checkbox"/>	32209	32209 GEN3 EG25
<input checked="" type="checkbox"/>	32282	32282 GEN3 EG25
<input checked="" type="checkbox"/>	32379	32379 GEN3 EG25

Showing 1 to 6 of 6 entries 6 rows selected

### Trendline Monitoring

Days Back:

Change %:

### RMS Monitoring

X Threshold:

Y Threshold:

Z Threshold:

Readings:

### Battery Monitoring

Days Back:

Change %:

Threshold:

Readings:

### Temperature Monitoring

Days Back:

Threshold:

Readings:

8.1.3. In the Reports Setup it's possible to find users that are already assigned to the specific Alarms, configured as Server Based Alerts with the "Assigned Only" checkbox. In order to save any changes to the users' information the **Save** **MUST** be pressed.

Device Name	Selection
Miguel Gomez	<input checked="" type="checkbox"/>
Brian Dortch	<input type="checkbox"/>
Nick Lindner	<input type="checkbox"/>
Paul True	<input type="checkbox"/>
Richard Manns	<input type="checkbox"/>
Matt Thomas	<input type="checkbox"/>
Brian Gruber	<input type="checkbox"/>
Bryan Gruber	<input type="checkbox"/>
Tim Bacon	<input type="checkbox"/>
Drew Evers	<input type="checkbox"/>
Mike Hendrix	<input type="checkbox"/>
Operator	<input type="checkbox"/>
Daniel Torgerson	<input type="checkbox"/>
DEMO ALLENTOWN	<input type="checkbox"/>
Chris Bond	<input type="checkbox"/>
Bill Dougherty	<input type="checkbox"/>
Dab Lockwood	<input type="checkbox"/>

### 8.2. The Map View.

When you log in, an interactive map appears on the main screen. If your devices have been registered, they will appear here. Hover your mouse over a controller to see the device ID and another pertinent information.

To select a device, click on the device icon.

There is also the possibility of filtering by “Online”, “Offline” and “Sleeping” devices if needed.

### 8.2.1. The Edit Map

Edit/moves the device locations on the map, to do this, the checkbox must be checked.

### 8.2.2. The Save Button



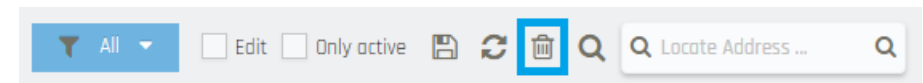
Will save the zoom level on the map. This will set the view you want each time you log in.

### 8.2.3. The Refresh Button.



This will restore the saved map position (zoom)

### 8.2.4. The Delete button.



Clear the saved map position.

### 8.2.5. The Search buttons.



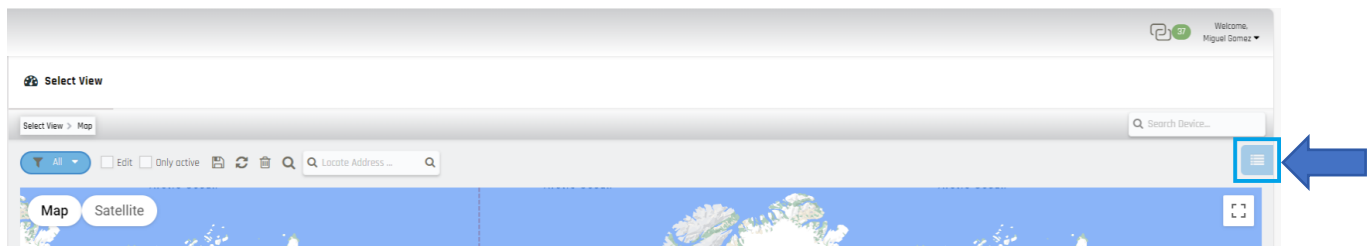
With the search button it is possible to look for the address of the devices, and the view will center in the device.

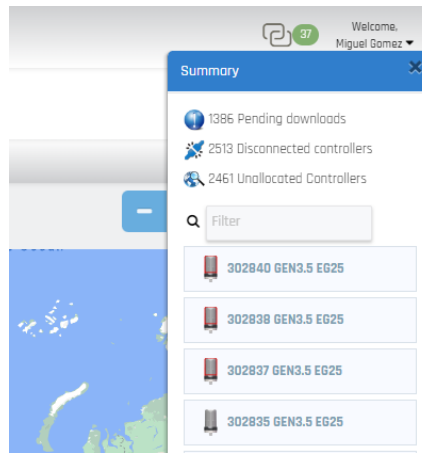
The Map and Satellite buttons will also switch the map views.

## 8.3. Placing Devices on the map.

OEM through Account Admin users can place devices/controllers on the map. To access this feature, click on the list icon below the search window.

From this list you can see devices with pending downloads, disconnected controllers, and unallocated devices.





### 8.4. Pending Downloads

Controller that has pending commands or communications that have not been completed.

### 8.5. Disconnected devices

Controllers that are not connected to the servers.

### 8.6. Unallocated devices

Devices that are not located on the map. A list of unallocated devices will be displayed if they have not been placed on the map.

### 8.7. Unallocated Devices

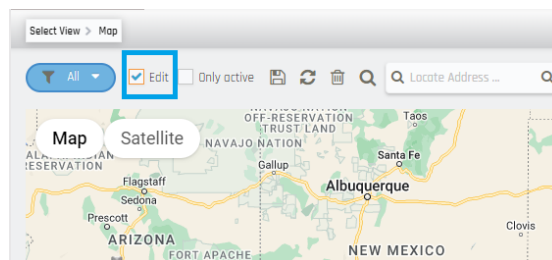
To place devices onto the map, have the map centered on the area that the device will be placed. This will give the most accuracy in the initial placement. The device can be moved after it has been placed.

Select the desired device from the list of unallocated devices (single click). The mouse will now display a plus sign when hovering over the map.

Place the plus sign in the map you want to place the device, then click. The device will now be placed on the map.

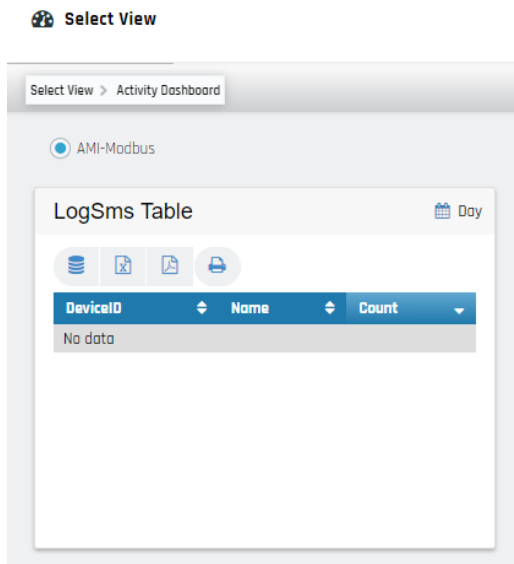
#### 8.7.1. Edition Device/Controller Placement

To edit the device placement, you will need to check the edit box in the map options. Now you can move any device on the map by clicking and dragging the icon to the desired location. Once complete uncheck the edit box.

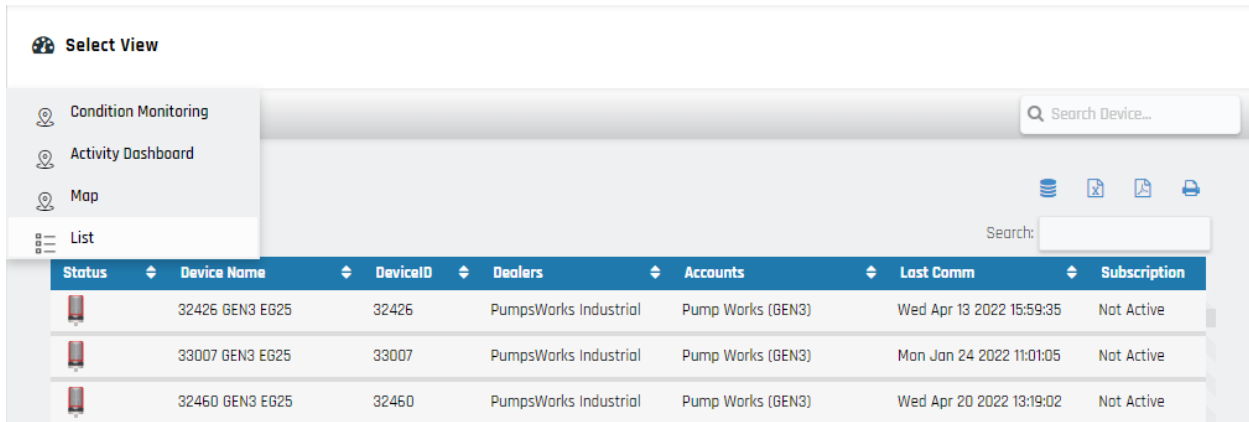


Note: It is best to have the mapped centered on the area where the controllers are located.

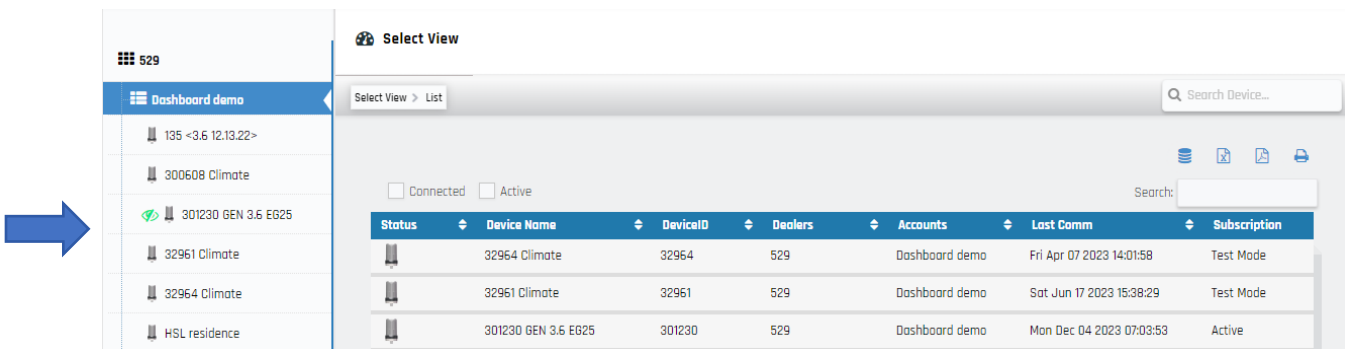
### 8.8. Activity Dashboard.



### 8.9. List View



### 8.10. Hierarchy View

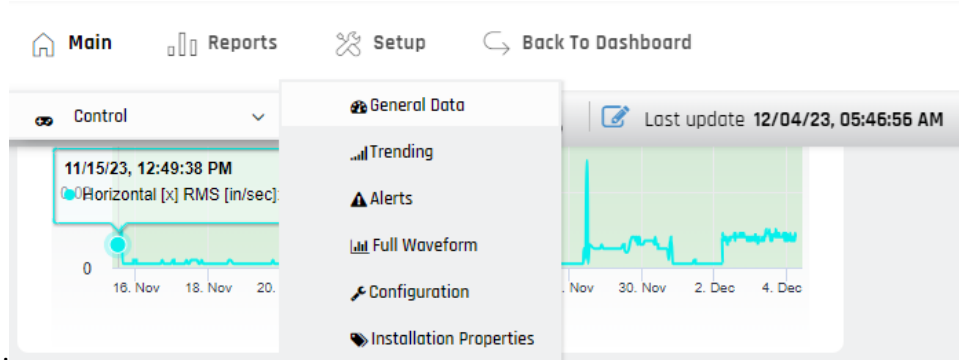


## 9. DEVICE TABS.

Each device contains 3 tabs to access information about the device or specific operational data.

### 9.1. Main

Contains specific content of the application the device is connected to.



The Control Tab has the following options:

- 9.1.1. **Trending**
- 9.1.2. **Alerts**
- 9.1.3. **Full Waveform**
- 9.1.4. **Configuration**
- 9.1.5. **Installation Properties**

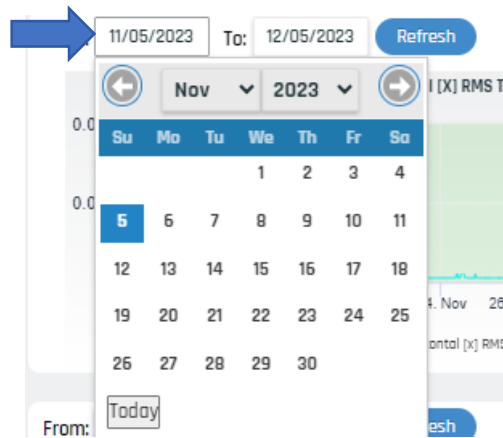
### 9.2. General Data

Is where the main data appears. Pictured below is the dashboard off all the RMS Vibration Monitoring (Tri-Axial) plus the surface temperature.

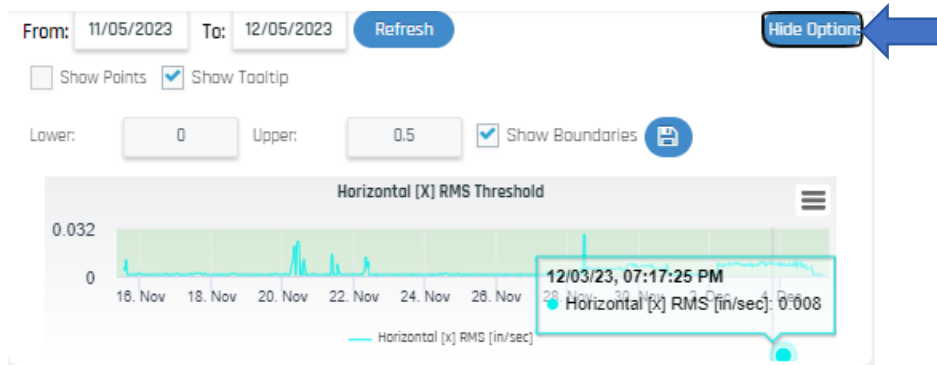




All of the information in this dashboard can be customized. For the date range click in the arrow below and a popup will appear to easily select desired dates.

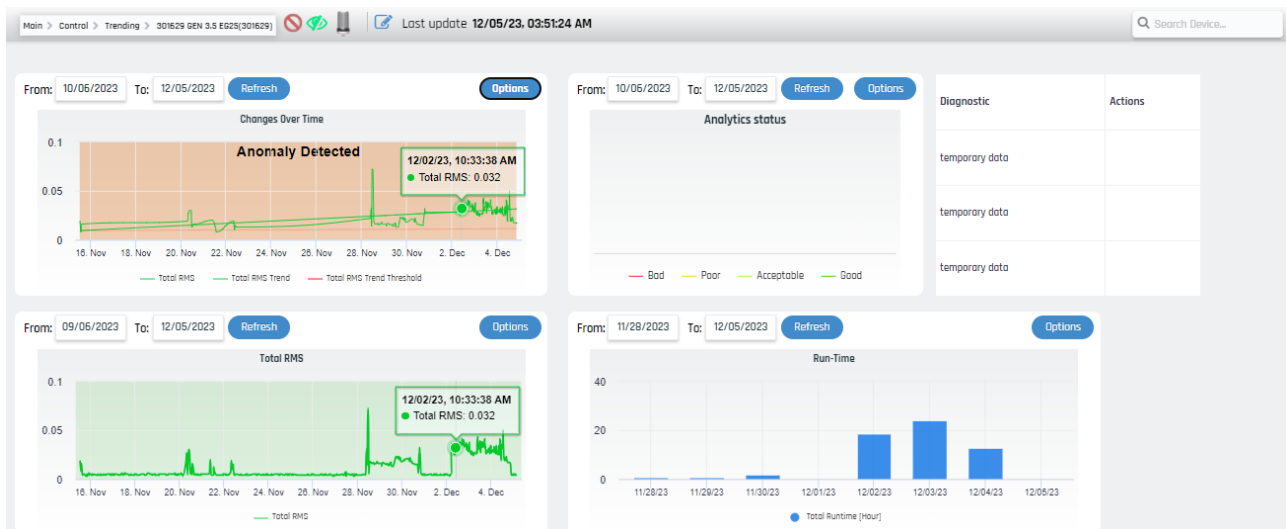


Also, for the plotting area it's possible to change the boundaries for each one of the channels. This is done by pressing the options button in the upper right corner **Options**.



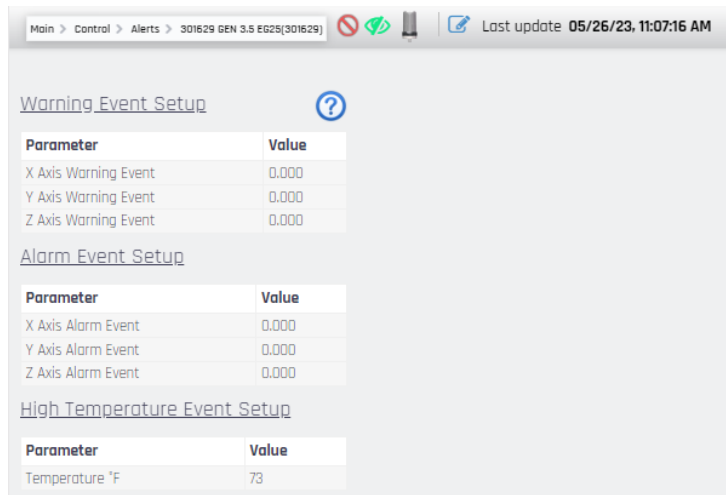
### 9.3. Trending –

Pictured here is the advanced AI of the [www.predict-cloud.com](http://www.predict-cloud.com), analyzes the data present, where the “Anomaly” has been detected has and relationship between the normal operation and the changes over time for the RMS Threshold that has been auto learned.



### 9.4. Alerts – Here is the place to add the Device Type Alert.





### 9.4.1. Warning vs Alarm

The device can be set to send two levels of alerts for each axis and a single temperature alert. Alert levels can be adjusted on each axis based upon your application. The tighter the alerts settings will cause the device to wake-up more often and reduce battery life significantly. **DXP recommend using server alerts to prolong battery life.**

### 9.4.2. Warning

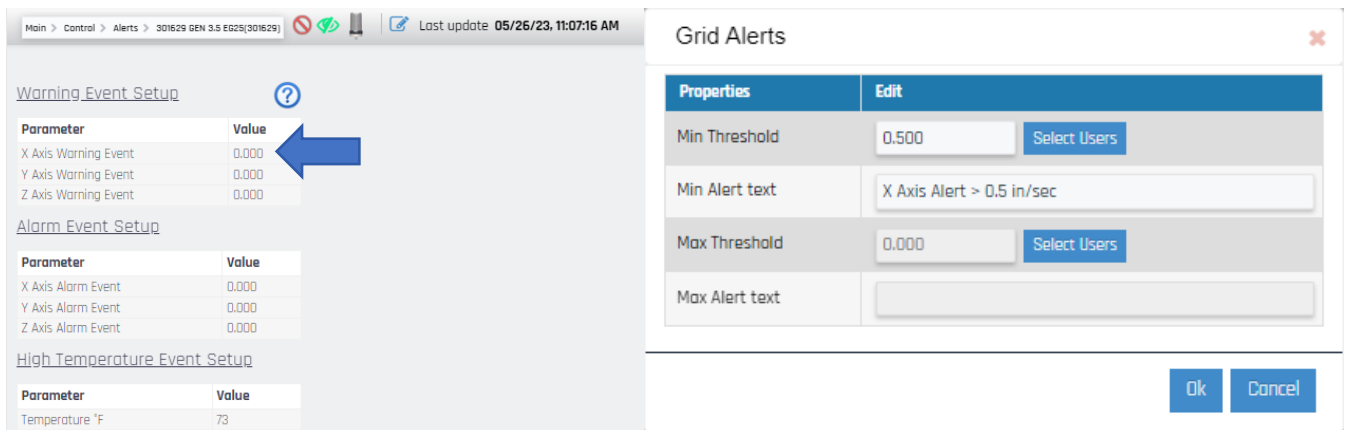
Default level is set to 0.5 in/sec. Vibration is detected as greater than or equal to this level and will create an alert. This alert level should be less than the alarm level.


### 9.4.3. Alarm

Default level set to 0.8 in/sec Vibration detected as greater than or equal to this level and will send an alert. This alert level should be greater than the warning level.

### 9.4.4. How to setup alerts

With your mouse, hover over the line in the grid for the alert level you want to set, then left click. In the pop-up you can change the level of the alert and select the users to receive the alerts. Make your selections and then click OK. The alert levels will be sent to the device on its next scheduled upload.



Make sure that after choosing the Alerts based Threshold, the selected user's checkboxes are listed as seen in the image below and the  button is pressed to save changes.

### Select Users

Only Selected Search:

User	@ 1	@ 2	SMS	Escalation 1	Escalation 2
ahardman@westlake.com	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	None <input type="button" value="v"/>	None <input type="button" value="v"/>
BrianDortch	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	None <input type="button" value="v"/>	None <input type="button" value="v"/>
bryan.white@pumpworks.com	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	None <input type="button" value="v"/>	None <input type="button" value="v"/>
charles.harvey@pumpworks.com	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	None <input type="button" value="v"/>	None <input type="button" value="v"/>
dave.schmitt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	None <input type="button" value="v"/>	None <input type="button" value="v"/>
dchapman2@westlake.com	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	None <input type="button" value="v"/>	None <input type="button" value="v"/>

### 9.5. Full Waveform

Displayed here is the FFT (Fast Fourier Transform) spectrum that the device has uploaded to the cloud.

The Advanced FFT page display the harmonic orders of the equipment’s operating frequency. Because these harmonic orders are tracked over time, a user can examine how vibration in different frequencies are changing, aiding in diagnosing faults as the begin to persist. Each axis is displayed individually for more accurate diagnosis. By default, the harmonic orders plotted are 1X, 2X, 3X, 4X, and 5X the operating frequency of the equipment.

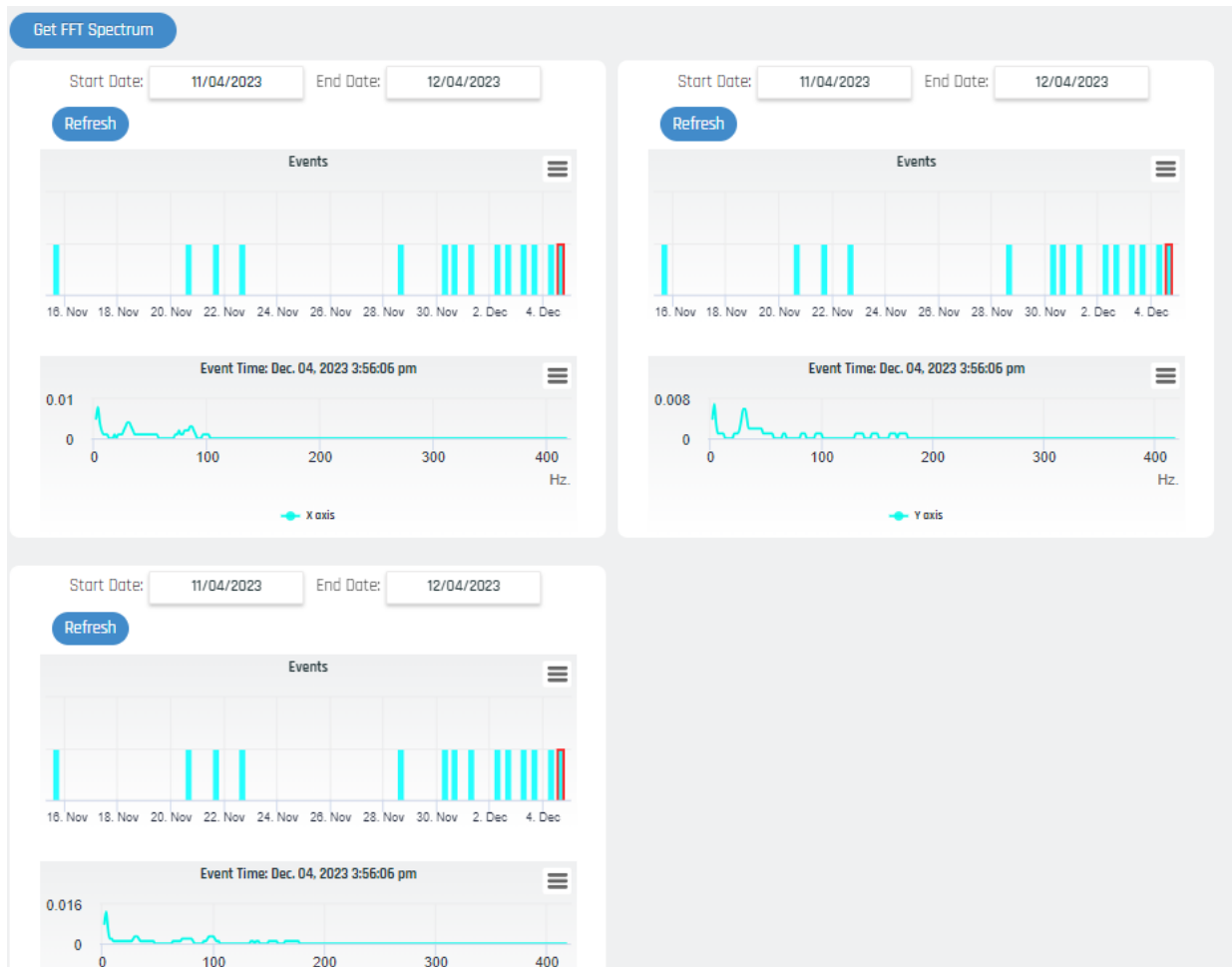
The full waveform graph is showing the vibration amplitude [inch/sec]

For each axis (x/y <both redial> /z <axial>) in each frequency of the sampled data-array

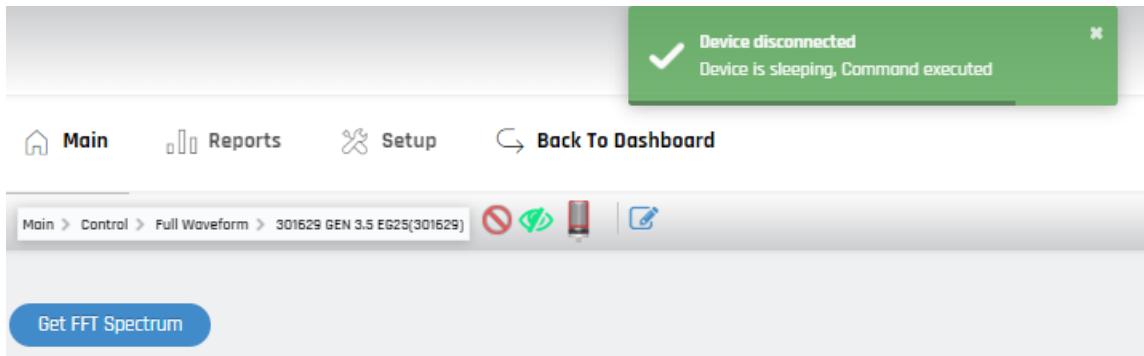
- The device accelerometer samples the pump vibration @ 833Hz
- This sample takes about 2.5 seconds, and the data is stored in an array of 2048 readings for each axis
- From this array we calculate the following for each axis:

**vRMS**(type of average velocity) for each axis

**FFT** data conversion: finds the specific velocity for each frequency 1.63Hz apart from 0..416Hz (The device updates the FFT array only when the pump is running to avoid useless data of a stalled pump.)



9.5.1. The **Get FFT Spectrum** button will send and request to the device. So when the device connects to upload the data, it'll also record and upload the FFT for all the axes to the server.



### 9.6. Configuration

Here the user can configure some parameters for the device.

#### 9.6.1. Uploads

It is possible to adjust the quantity of automatic uploads of data to the server. Remember that changing this default parameters affects battery life and is subject to change, so it can no longer be certified with a 1-year life.

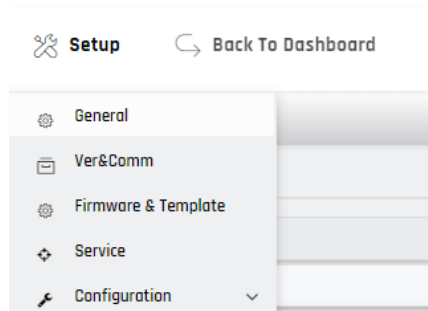
### 9.6.2. Battery Graph

Also found on the Configuration page is the Battery Life graph and the setup for background filtering. Predict-Plus has a filtering feature that allows the device to disregard vibration coming from other equipment or feedback through the system. This is especially useful in situations where multiple assets are mounted in proximity or feeding into a common process. By setting these filters correctly, users get the most accurate data reported to the cloud.

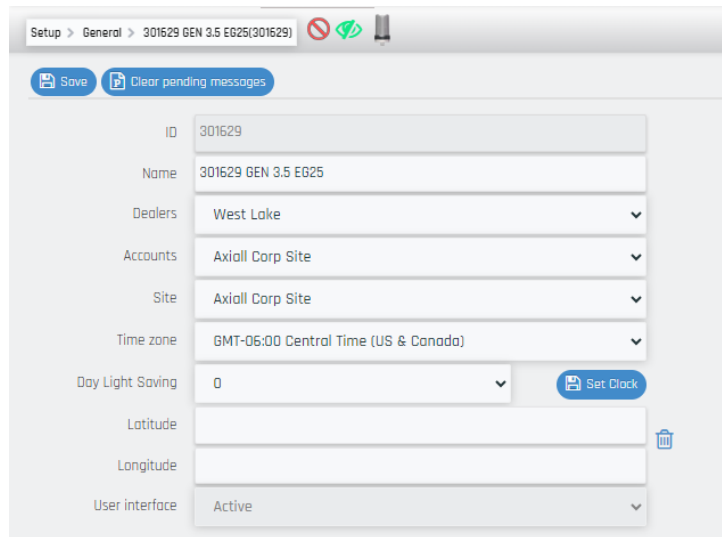
**Note:** FFT full waveform data is used for data analytics to try and “feel” through the pump visible vRMS changes and kind of meaningless to the naked eye.

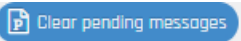


## 10. SETUP

This tab will give you access to basic diagnostic tools, device customization, and device specific notes.

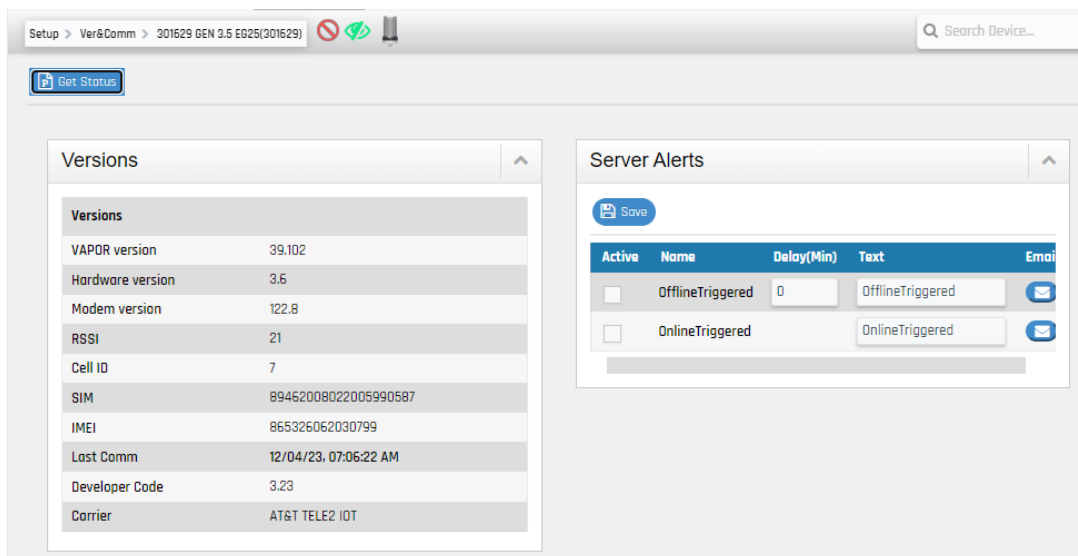


**10.1. General** – This tab contains basic configuration of the device.

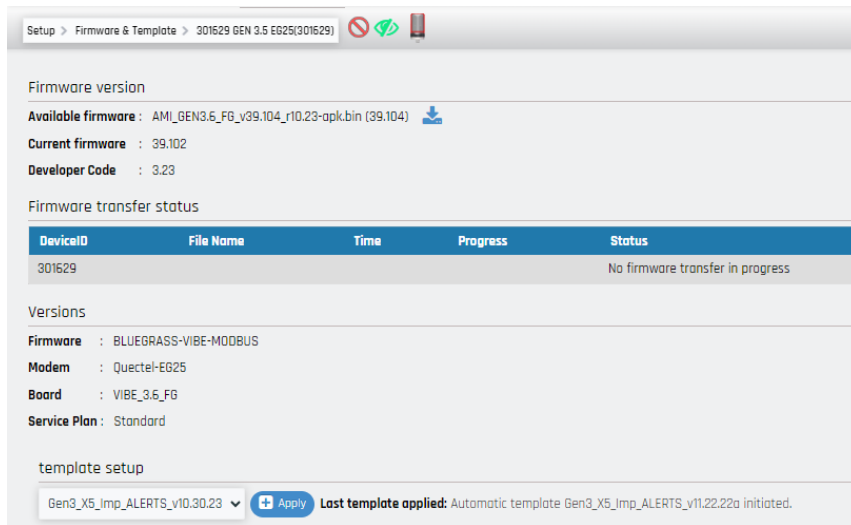


- 10.1.1.  This button removes any messages marked as state 4 and state 5. Messages in other states may reappear.
- 10.1.2. In the latitude and longitude option it is easy to update the relative position of the device if required. Remember to press the  button so the changes take effect.
- 10.1.3. The ID number is unique for each device and can't be changed.
- 10.1.4. The name of the device can be changed up to 20 characters.
- 10.1.5. Dealer/Account – Activated and Registered devices can be moved to different dealers and accounts from here. Select the desired Dealer and Account then click . Allow 10 to 20 seconds for the device to move across the new Dealer/Account setup. This place is the only one for moving devices between Dealers/Accounts.
- 10.1.6. Time Zone – Changes the time zone settings of the device. Select the desired time zone and click save. Wait for 20 seconds then click on Set Clock. This action will then send the Time zone desired to the device.
- 10.1.7. Daylight Savings – Selects the current Daylight Savings settings of the device.

### 10.2. Ver & Comm – Displays current Firmware and Cellular module information.

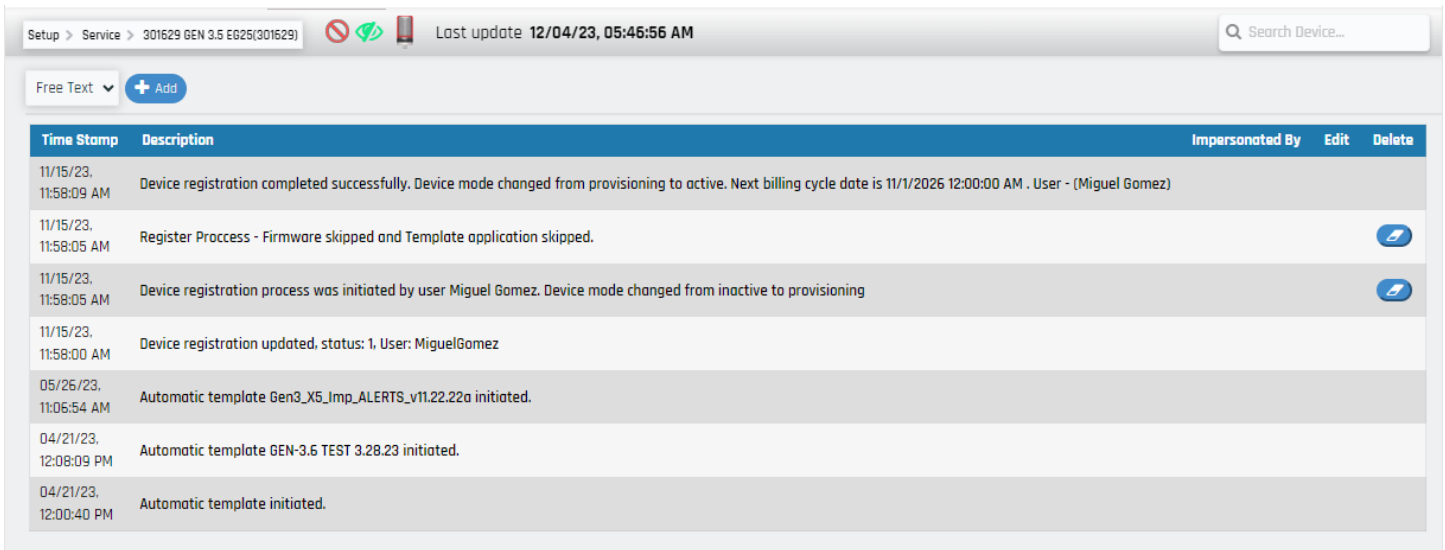


### 10.3. Firmware & Template – Displays current Firmware.



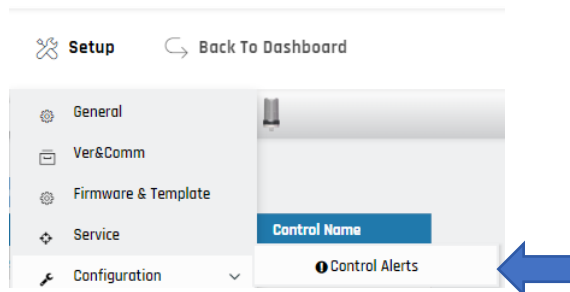
### 10.4. Service

Contains device history. This tab can also be used by service technicians to add notes to the device history.



### 10.5. Configuration

#### 10.5.1. Control Alerts



The Alerts and Runtime page features an Alerts Setup table for Temperature and all 3 axes of RMS vibration as well as a Runtime bar graph and an RPM trend graph.

The Temperature alert can be set by clicking the Temperature field of the table which will open a setup window. Within that window the specific temperature to trigger an alert can be set. Each alarm can be set to notify specific

users on the account with two levels of escalation for each user. From the Alert Setup menu, users can be selected to receive minimum and maximum threshold notifications. From the Select Users menu, two levels of escalation can be set per user so long as SMS notifications are enabled. When the initial user receives a text notification, they will be given the option to acknowledge or escalate. Please note that in order for text alerts to function properly, the mobile number of the user must be preceded by a +1 country code.

In this tab are the control alerts, which are sent by the device itself when it happens to sense the assigned thresholds to the selected users and this alert can be “Offline” or “Online” Triggered.

The screenshot shows the configuration interface for Control Alerts. It includes a breadcrumb trail: Setup > Configuration > Control Alerts > 301629 GEN 3.5 EG25(301629). There are status icons (no, yes, error) and a search bar for devices. The interface is divided into three main sections:

- Controls Alerts:** A table with columns for Assigned, Alert Text, and Control Name. It lists various alerts like High Temperature, X Axis Alert, Y Axis Alert, and Z Axis Alert.
- Server Alerts:** A table with columns for Assigned, Alert Text, and Alert Name. It lists OfflineTriggered and OnlineTriggered.
- Users:** A table with columns for User, @ 1, @ 2, SMS, Escalation 1, and Escalation 2. It lists various users with their email addresses and escalation settings.

### 10.5.2. Offline Triggered Alerts.

This type of alerts is sent from the [www.predict-cloud.com](http://www.predict-cloud.com) after the uploads have been reached and is sent if the data in the device has surpassed the configured alarm thresholds in 3 consecutive readings made every 5 minutes. So, if as an example and X Axis Alert is more than >0.8 in/sec, the device will wait so that this threshold is reached 3 times (e.g. 1:00 pm, 1:05 pm and 1:10 pm) and at the configured upload time, it will send an email or and SMS to the people configured in the users.

This is a close-up view of the Users table. The columns are User, @ 1, @ 2, SMS, Escalation 1, and Escalation 2. The row for BrianDortch has a checked checkbox in the SMS column, highlighted by a blue arrow.

User	@ 1	@ 2	SMS	Escalation 1	Escalation 2
ahardman@westlake.com	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	None	None
BrianDortch	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	None	None

Default configuration times are most used and can be changed via the tab. Under “Control” and “Configuration.”

Main > Control > Configuration > 301629 GEN 3.5 EG25(301629) Last update 12/04/23, 03:16:07 PM

[Get Configuration](#)   [Sample & Upload](#)   [Upload All Logs](#)   Connection Status: False

Parameter	Value
Upload #1	07:00 AM
Upload #2	04:00 PM
Upload #3	Not Used
Upload #4	Not Used
Upload #5	Not Used
Upload #6	Not Used
Upload #7	Not Used
Upload #8	Not Used
SAMPLE TIME	5 minutes
Pump Run Logging	10 min. Run-Time logging
Pump Idle Logging	30min Idle Logging

[Save](#)

From: 11/26/2023 To: 12/04/2023 [Refresh](#) [Options](#)

— Battery [v]

### 10.5.3. Online Triggered Alerts.

This type of alerts is sent directly from the device when the configured threshold is reached in 3 consecutive readings made every 5 minutes. So, for example if and X Axis Alert is more than >0.8 in/sec, the device will wait for this threshold to reach 3 times and then (e.g. 1:00 pm, 1:05 pm and 1:10 pm) send an email or and SMS to the people configured in the users. This alert is enabled on the device. Remember that this kind of alerts is battery consuming and can decrease the life expectancy of the installed batteries if the values are not configured correctly for the application.

User	@ 1	@ 2	SMS	Escalation 1	Escalation 2
ahardman@westlake.com	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	None	None
BrianDortch	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	None	None

### 10.5.4. Server Alerts.

Clicking on the alert row it is possible to see the selected alert for the current users. Clicking on the header row resets the selection.

Server Alerts [Apply Users](#)

Assigned	Alert Name
<input checked="" type="checkbox"/>	Offline
<input checked="" type="checkbox"/>	OnlineTriggered

Click on alert row to see selected alert current users  
Click on header row to reset

### 10.5.5. Control Alerts.

Clicking on the control alert header row resets the selection.



Controls Alerts ? Apply Users  Assigned Only

Assigned	Alert Text	Control Name
<input type="checkbox"/>	High Temperature	Temperature °F
<input type="checkbox"/>	X Axis Alert > 0.8 in/sec	X Axis Alarm Event
<input type="checkbox"/>	X Axis Alert > 0.5 in/sec	X Axis Warning Event
<input type="checkbox"/>	Y Axis Alert > 0.8 in/sec	Y Axis Alarm Event
<input type="checkbox"/>	Y Axis Alert > 0.5 in/sec	Y Axis Warning Event
<input type="checkbox"/>	Z Axis Alert > 0.8 in/sec	Z Axis Alarm Event
<input type="checkbox"/>	Z Axis Alert > 0.5 in/sec	Z Axis Warning Event

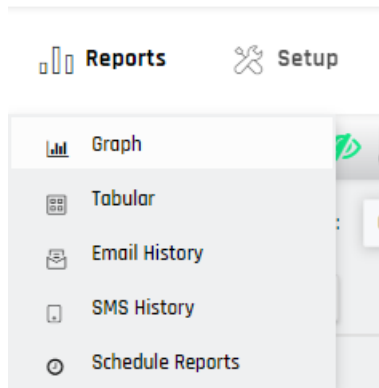
When the options “OfflineTriggered” or “OnlineTriggered” tab are clicked, the background color of the section will change to a darker color (Gray for the light theme)/ The user tab is used to check the associated users with their respective email or SMS configuration.

Server Alerts ? Apply Users

Assigned	Alert Text	Alert Name
<input checked="" type="checkbox"/>	OfflineTriggered	Offline
<input checked="" type="checkbox"/>	OnlineTriggered	Online

## 11.REPORTS

There are various reports based upon the variables of your application. With the reports tab there are 5 different reports.



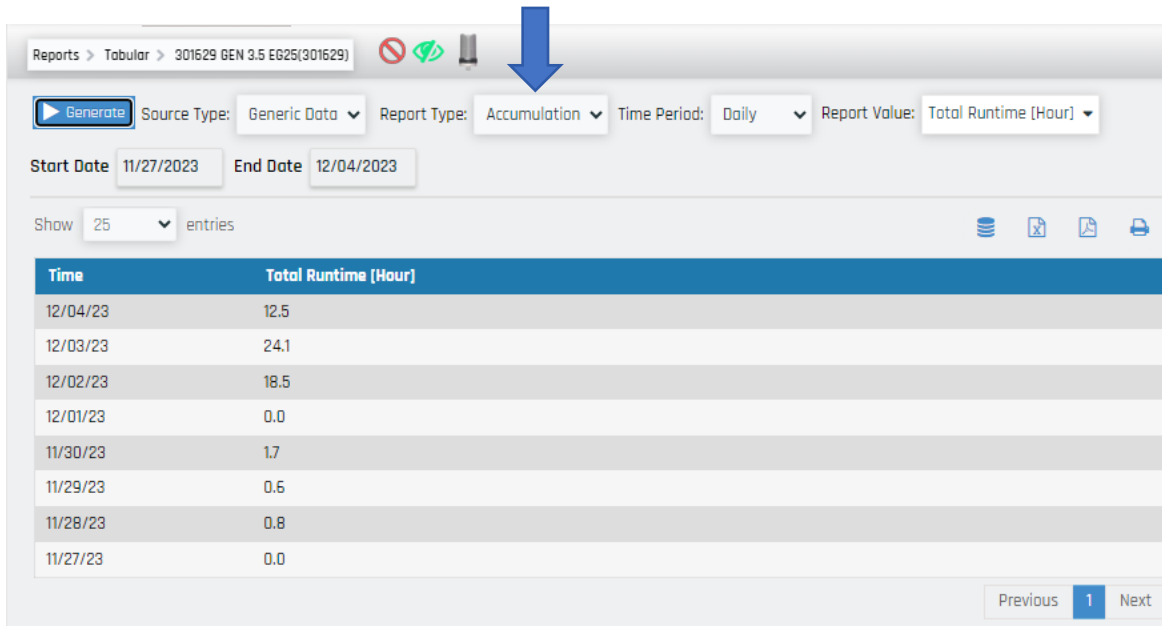
### 11.1. Graph

Linear or accumulative graphs defined from the tabs under Main. These graphs are exportable to multiple formats.



### 11.2. Tabular

Tabular data from all trended values are defined on the tabs under Main. These values are exportable to multiple formats.



For this example, the device has calculated that the pump has been running various times for multiple days.

The information of this kind of report can be accessed by selecting the report formats:

Report Type: Accumulation

or

Report Type: Linear

filter options.

Reports > Tabular > 301629 GEN 3.5 EG25(301629)

Generate Source Type: Generic Data Report Type: Linear Report Value: All (6)

Start Date: 11/27/2023 End Date: 12/04/2023

Show 25 entries

Time	Axial [y] RMS [in/sec]	Battery [v]	Horizontal [x] RMS [in/sec]	Temperature [°F]	Total RMS	Vertical [z] RMS [in/sec]
12/04/23, 03:16:07 PM	0.007	5.21	0.006	71.8	0.019	0.006
12/04/23, 03:06:09 PM	0.007	5.21	0.006	83.6	0.019	0.006
12/04/23, 02:16:10 PM	0.007	5.21	0.008	82.9	0.022	0.007
12/04/23, 02:06:11 PM	0.007	5.21	0.006	83.6	0.019	0.006
12/04/23, 01:06:13 PM	0.009	5.20	0.010	81.9	0.04	0.021
12/04/23, 12:56:14 PM	0.020	5.20	0.010	82.8	0.05	0.020

### 11.3. Email History

This report will log emails sent to the primary and/or secondary emails that are assigned to receive alerts from the device. The report can be created multiple formats.

Reports > Email History > 301229 GEN 3.6 EG25(301229)

Generate Start Date: 06/01/2023 End Date: 12/04/2023


Show 25 entries

Message Time	Delivered Time	To Address	Subject	Text Part
10/03/23, 09:41:31 PM	10/03/23, 09:41:31 PM	miguel.gomez@dxpe.com	301229 GEN 3.6 EG25 (301229) X Axis Alert > 0.5 in/sec at 10/3/2023 10:41:28 PM	301229 GEN 3.6 EG25 (301229) X Axis Alert > 0.5 in/sec at 10/3/2023
10/03/23, 09:41:31 PM	10/03/23, 09:41:31 PM	miguel.gomez@dxpe.com	301229 GEN 3.6 EG25 (301229) Y Axis Alert > 0.5 in/sec at 10/3/2023 10:41:28 PM	301229 GEN 3.6 EG25 (301229) Y Axis Alert > 0.5 in/sec at 10/3/2023
10/03/23, 09:41:33 PM	10/03/23, 09:41:33 PM	miguel.gomez@dxpe.com	301229 GEN 3.6 EG25 (301229) X Axis Alert > 0.8 in/sec at 10/3/2023 10:41:28 PM	301229 GEN 3.6 EG25 (301229) X Axis Alert > 0.8 in/sec at 10/3/2023
10/03/23, 09:41:33 PM	10/03/23, 09:41:33 PM	miguel.gomez@dxpe.com	301229 GEN 3.6 EG25 (301229) Z Axis Alert > 0.5 in/sec at 10/3/2023 10:41:28 PM	301229 GEN 3.6 EG25 (301229) Z Axis Alert > 0.5 in/sec at 10/3/2023
10/03/23, 09:41:36 PM	10/03/23, 09:41:36 PM	miguel.gomez@dxpe.com	301229 GEN 3.6 EG25 (301229) X Axis Alert > 0.8 in/sec at 10/3/2023 10:41:28 PM	301229 GEN 3.6 EG25 (301229) X Axis Alert > 0.8 in/sec at 10/3/2023
10/03/23, 05:22:29 PM	10/03/23, 05:22:29 PM	miguel.gomez@dxpe.com	301229 GEN 3.6 EG25 (301229) Z Axis Alert > 0.5 in/sec at 10/3/2023 7:22:27 PM	301229 GEN 3.6 EG25 (301229) Z Axis Alert > 0.5 in/sec at 10/3/2023
10/03/23, 05:22:31 PM	10/03/23, 05:22:31 PM	miguel.gomez@dxpe.com	301229 GEN 3.6 EG25 (301229) X Axis Alert > 0.5 in/sec at 10/3/2023 7:22:27 PM	301229 GEN 3.6 EG25 (301229) X Axis Alert > 0.5 in/sec at 10/3/2023
10/03/23, 05:22:31 PM	10/03/23, 05:22:31 PM	miguel.gomez@dxpe.com	301229 GEN 3.6 EG25 (301229) X Axis Alert > 0.8 in/sec at 10/3/2023 7:22:27 PM	301229 GEN 3.6 EG25 (301229) X Axis Alert > 0.8 in/sec at 10/3/2023
10/03/23, 05:22:33 PM	10/03/23, 05:22:33 PM	miguel.gomez@dxpe.com	301229 GEN 3.6 EG25 (301229) Y Axis Alert > 0.5 in/sec at 10/3/2023 7:22:27 PM	301229 GEN 3.6 EG25 (301229) Y Axis Alert > 0.5 in/sec at 10/3/2023


### 11.4. SMS History


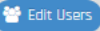


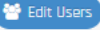

This report will log SMS/Text messages sent to the mobile number of the users assigned to receive alerts from the device. The report can be created multiple formats.

### 11.5. Schedule Reports

The scheduled report will show the already configured reports and the  will start a wizard with the following steps.

Reports > Schedule Reports > 301629 GEN 3.5 EG25(301629)

Schedule Reports 

Report Name	Period	Publish At	Edit	Users	Delete
2	Daily	12 PM			
3	Daily	12 PM			

### 11.5.1. Report Name

It is important that the Report Name matches the plant, or the location of the device so that it is easy to track the information provided by each report.

Report Details

Report Name

Period

Publish On

Time

Next

Here the user can set the period of the report by, Day, Week or Month.

Period

Publish On

After pressing **Next** the following step of the wizard will appear.

Report Items

Item Name

Table / Graph

Source Type

Graph Type

Graph Value

Time Period

Add Report Item

Item Name	Report Type	Data Type	Data Point
-----------	-------------	-----------	------------

Back

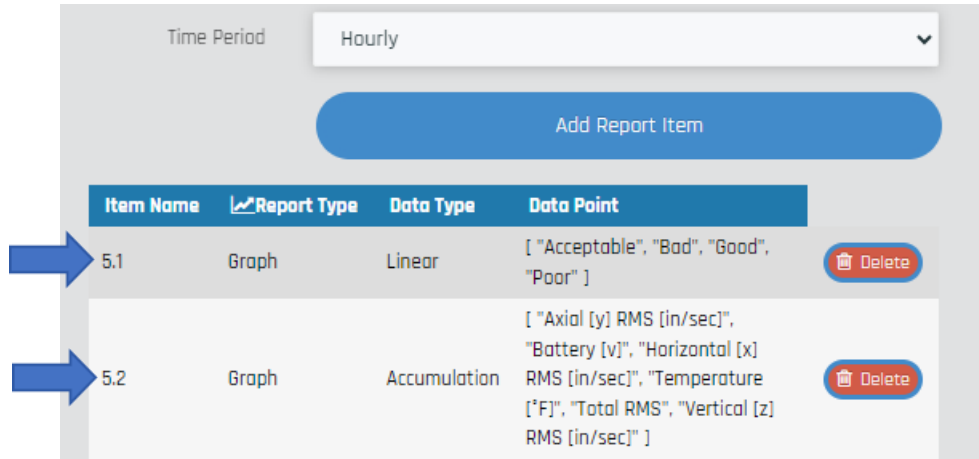
Next

It is important that every report has a unique name, to ensure easy analysis of the information and to avoid confusion between reports.

Also, after choosing the type of the information in the report, the Table/Graph is required to choose the source type of the data. This can be Points or Generic Data, and when the Graph type is selected there are two different options which are "Accumulation" or "Linear". When all the required conditions of the report are set click



button and the following dialog box will appear:

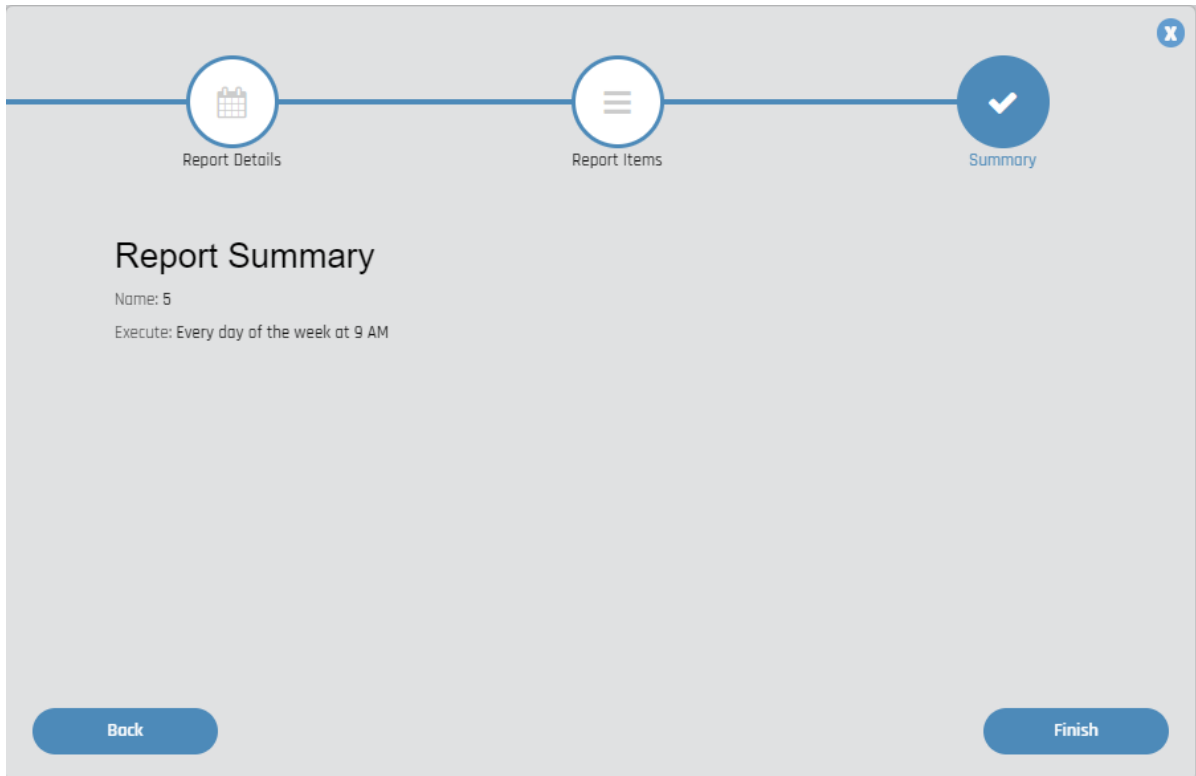


Item Name	Report Type	Data Type	Data Point	
5.1	Graph	Linear	[ "Acceptable", "Bad", "Good", "Poor" ]	Delete
5.2	Graph	Accumulation	[ "Axial [y] RMS [in/sec]", "Battery [v]", "Horizontal [x] RMS [in/sec]", "Temperature [°F]", "Total RMS", "Vertical [z] RMS [in/sec]" ]	Delete



After making sure that the report has the required information the **Next** button should be pressed.

The wizard will end with a summary of the report:



**Report Summary**

Name: 5  
Execute: Every day of the week at 9 AM

Back Finish

## 12. FAQ

- Q: How do I set upload times, sample rate, and power mode? A: These settings are set to a default and should not be adjusted without consulting DXP. When these defaults are changed, the battery life is reduced significantly below 1 year.
- Q: How to reduce vibration noise from surrounding equipment? A: Predict-Plus has a filtering feature in the configuration tab that allows the device to disregard vibration coming from other equipment or feedback through the system. This is especially useful in situation where multiple assets are mounted in proximity or feeding into a common process.
- Q: When do I see if a status is received? A: When one of the devices is sending data to the cloud it will change the status to green. Once data is received by the cloud the device will go back to sleep and the icon will turn grey again.

Select View

Select View > List Search Device...

Connected  Active Search:

Status	Device Name	DeviceID	Dealers	Accounts	Last Comm	Subscription
	301270 GEN 3.5 EG25	301270	JBS-Tolleason	JBS Demos	Thu Nov 30 2023 08:45:05	Active
	301746 GEN 3.5 EG25	301746	PumpsWorks Industrial	Inventory	Wed Jun 28 2023 10:41:42	Not Active

- **Icon Set.** The following icons will change in the dashboard depending of the actual state

