

# ENVIROMUX® Series


## E-MNG-SH

### Enterprise Environment Monitoring System Self-Hosted Management Software


NTI ENVIROMUX Management Software Admin

Status & Alerts Edit Refresh

**Server Room**



**Server Room Temperature**



**Server Rack Main Voltage**

Server Rack Main Voltage  
118.7 V  
 Normal  
 Last Updated: now

**Alerts**

Sensor Name	Sensor Value	Sensor Status	Sensor Type	Device Name	Last Updated
E-5D E04 Port 2 ACLM-Frequency	0.0 Hz	Alarm	External Sensors	E-5D E04 DDNS Test Unit	4 sec. ago
E-5D E04 Port 2 ACLM-Voltage	5.6 V	Alarm	External Sensors	E-5D E04 DDNS Test Unit	4 sec. ago
E-SDEL E07 Light Detector (2)	Lights On	Alarm	Digital Inputs	E-SDEL-1 (E07)	1 sec. ago

Previous 1 Next


**Server Rack & Labs**

Sensor Name	Sensor Value	Sensor Type	Updated
Computer Lab Temperature	72.8 °F	External Sensors	3 sec. ago
Computer Lab Humidity	27.4 %	External Sensors	3 sec. ago
Server Rack Temperature	77.4 °F	External Sensors	3 sec. ago
Server Rack Humidity	21.2 %	External Sensors	3 sec. ago
Equipment Lab 1 Temperature	77.7 °F	External Sensors	3 sec. ago
Equipment Lab 1 Humidity	21.2 %	External Sensors	3 sec. ago
Equipment Lab 2 Temperature	79.6 °F	External Sensors	3 sec. ago
Equipment Lab 2 Humidity	22.1 %	External Sensors	3 sec. ago

**Computer Lab Temperature**

1 Hr 8 Hr 1 Day 1 Wk 1 Mo 6 Mo 2 Yr

● Max. Computer Lab Te... ● Min. Computer Lab Te... ● Avg. Computer Lab Te...



**Device Status**

IP Address	Device Name	Status
10.0.1.16	Furnace Room E-2D	Normal
147.0.27.197	E-16D Server Rack Monitor	Normal
147.0.27.207	E-2D Lab Room Environment Monitor	Normal
147.0.27.208	E-5D Server Rack Monitor	Normal
147.0.27.212	E-5D E04 DDNS Test Unit	Alert
147.0.27.218	E-2D P05	Normal
192.168.1.100	E-16D 24V IPMI Rack	Normal
192.168.3.100	E-16DEL-1 (Master)	Normal
192.168.3.101	E-16D S1	Normal
192.168.3.200	E-16D P02	Normal
192.168.3.213	Oper8 Test Unit	Normal
192.168.3.217	E-5D-48V	Normal
192.168.3.221	E-2DB P02	Normal
192.168.3.222	E-2D E12	Normal
192.168.3.223	E-2DB E11 (RevF)	Normal
192.168.3.225	E-5D E02	Normal
192.168.3.227	E-2D P04	Normal
192.168.3.80	E-16D E100	Normal
192.168.3.81	E-SDEL-1 (E07)	Alert
192.168.3.82	E-2DB E08	Normal
192.168.3.83	E-5D E01	Normal
98.27.170.240	Remote E-5D	Normal

**TRADEMARK**

ENVIROMUX and the NTI logo are registered trademarks of Network Technologies Inc in the U.S. and other countries. All other brand names and trademarks or registered trademarks are the property of their respective owners.

**COPYRIGHT**

Copyright © 2020-2022 by Network Technologies Inc. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written consent of Network Technologies Inc, 1275 Danner Drive, Aurora, Ohio 44202.

**CHANGES**

The material in this guide is for information only and is subject to change without notice. Network Technologies Inc reserves the right to make changes in the product design without reservation and without notification to its users.

**VERSION**

Release Version 1.0.1.3.

## Table of Contents

<b>Introduction</b> .....	<b>1</b>
<b>Materials</b> .....	<b>2</b>
<b>Limitations</b> .....	<b>2</b>
<b>Download</b> .....	<b>3</b>
<b>Installation</b> .....	<b>4</b>
Application Settings .....	8
System Log Level .....	8
Network Settings.....	9
Server Host Name .....	10
User Settings .....	11
<b>Devices</b> .....	<b>12</b>
Devices to Monitor .....	16
Device Discovery Tool .....	20
<b>View Sensors Individually</b> .....	<b>21</b>
<b>Setup A Dashboard</b> .....	<b>24</b>
<b>Events Menu</b> .....	<b>30</b>
Events Log.....	30
Reports .....	32
Triggers.....	34
Recordings.....	37
<b>The About Menu</b> .....	<b>38</b>
<b>Shut Down E-MNG-SH Server</b> .....	<b>39</b>
<b>Other Type Devices</b> .....	<b>40</b>
<b>Uninstall the Program</b> .....	<b>42</b>
<b>Software Update</b> .....	<b>42</b>
<b>Index</b> .....	<b>43</b>

## Table of Figures

Figure 1- Registration Form .....	3
Figure 2- Locate the installation file on your local hard drive .....	4
Figure 3- Agree to terms.....	4
Figure 4- Create Admin login account.....	4
Figure 5- Activation screen .....	5
Figure 6- Activate later.....	5
Figure 7-Manually Renew License.....	6
Figure 8- View of the Home screen .....	7
Figure 9- Application Settings .....	8
Figure 10- Network Settings .....	9
Figure 11- User Settings for Adding Users .....	11
Figure 12- Edit user settings .....	11
Figure 13- My Devices List .....	12
Figure 14- My Sensors List.....	12
Figure 15- Add or Remove Devices .....	13
Figure 16- Map Types to choose from .....	13
Figure 17- World map provided .....	14
Figure 18- Loading maps and placing markers.....	14
Figure 19- Markers for Device or Sensor.....	15
Figure 20- Use a configured map to monitor select sensors.....	15
Figure 21- Sensor status at location "Basement" .....	16
Figure 22- Add Devices to monitor .....	17
Figure 23- Primary group, and New Group added .....	17
Figure 24- Select Device to delete .....	18
Figure 25- Device moved/added to New Group.....	18
Figure 26- Additional features from Add Devices menu.....	19
Figure 27- Device configuration options.....	19
Figure 28- System Info page for the Device.....	19
Figure 29- Device Discovery Tool page.....	20
Figure 30- Sensors being monitored.....	21

Figure 31- Details for Internal Temperature Sensor.....	22
Figure 32- Use Search Sensors box.....	22
Figure 33- Sensors, relays, IP Cameras etc attached to a specific Device.....	23
Figure 34- External Sensors connected to specific Device.....	23
Figure 35- Initial Monitoring Dashboard menu.....	24
Figure 36- Dashboard options.....	24
Figure 37- How to add Columns or delete Rows.....	25
Figure 38- Ready to add a sensor window.....	25
Figure 39- Select sensors to view.....	25
Figure 40- Multiple types of views available.....	26
Figure 41- More types of views.....	26
Figure 42- Select one or more sensors.....	27
Figure 43- Change the width of a column.....	27
Figure 44- Add a new row of sensors.....	28
Figure 45- Log out.....	28
Figure 46- Dashboard setup to display specific content.....	29
Figure 47- Enable full screen view.....	29
Figure 48- Events Menu.....	30
Figure 49- Events Log.....	30
Figure 50- Connect directly to acknowledge or dismiss alert.....	31
Figure 51- View and connect directly with sensor through the Dashboard.....	31
Figure 52- Acknowledge or Dismiss alert pop-up.....	32
Figure 53- Action List.....	32
Figure 54- Action Options.....	33
Figure 55- Trigger List.....	34
Figure 56- Trigger Options.....	34
Figure 57- Option detail for Trigger Frequency.....	35
Figure 58- Reports list.....	35
Figure 59- Report showing sensor alert trends.....	36
Figure 60- User settings to enable Recording.....	37
Figure 61- Recording list.....	37
Figure 62- About menu.....	38
Figure 63- Click on Tray icon.....	39
Figure 64- Exit the program.....	39
Figure 65- Screenshot from an iPad.....	40
Figure 66- Screenshot from a smartphone.....	41

## **INTRODUCTION**

E-MNG-SH is a self-hosted Software program that provides an easy-to-use, unified interface for monitoring and configuring up to 3,000 E-16D, E-5D, and E-2D monitoring systems (Devices) and all connected sensors (internal, external, digital input and IP sensors and output relays via Ethernet. Supported IP sensors (when connected to Devices) include E-MICRO-TRH(P) and E-1W(P). The Software is installed on a Windows-based server or computer (the Server) to actively poll all Devices for status information and alerts. Any computer, smartphone, or tablet with a web browser can be used to access the Software. All enabled users can be kept up to date on sensor statuses and be alerted instantly when a sensor goes out of range of a configurable threshold.

### **Features:**

- Devices may be monitored individually or in a group
- Display values and status for individual sensors or list of sensors.
- Unlimited number of users can access the Software program at the same time.
  - o Users can configure their own Dashboards to display the data relevant to them and the window arrangement.
- Customize Dashboards to display Device status, sensor data, gauges, graphs, maps and IP camera snapshots.
- Any computer, smartphone, tablet with a web browser installed can be used to access the Software.
  - o Access is operating system independent through the HTML5 user interface on the computer/smartphone/tablet's web browser.
  - o No clients or special apps to install.
- Self-hosted Software – ideal for users in industries that require local Software management solutions for security or data privacy purposes.
- Plot the placement of E-LLDC-xx Liquid Location Detection Sensor Cables on floor plan maps to visually see the specific location of liquid presence when detected.

### **Software Requirements:**

- Windows 7/8/10/11 32 or 64-bit, Windows Server 2008/2012/2016/2019/2022 32 or 64-bit.
- Requires firmware version 4.15 or later in E-xD Devices.

**Note: We recommend the server/computer is protected by a firewall and anti-virus software if the server /computer is going to be accessed from the internet..**

### **Server Roles and User Access:**

One user is assigned as Super Admin to register the license and complete Software setup, plus has access to all Admin privileges.

Users with Admin access have privileges to add/delete E-xD Devices, edit sensors, set up Dashboards, acknowledge/dismiss alerts, simulate alerts, view logs, view sensor data, and monitor Dashboards. Admins can also add/edit/delete users (Administrators and Operators). Any number of users can be assigned as Admin.

Users with Operator access can acknowledge/dismiss alerts, view logs and sensor data, and monitor Dashboards. An unlimited number of users can be assigned as Operator.

Users with Read Only access can view alerts, logs, sensor data and monitor Dashboards. An unlimited number of users can be assigned as Read Only.

### **Virtual Machines**

The E-MNG-SH self-hosted Software program now supports a floating Virtual Machine-friendly license.

## MATERIALS

### Materials supplied with this package:

NTI E-MNG-SH ENVIROMUX Self-Hosted Management Software including:

- NTI ENVIROMUX-Management-Software-Installer\_Vx.x.x.x\_x64.exe or  
NTI ENVIROMUX-Management-Software-Installer\_Vx.x.x.x\_x86.exe (vx.x.x.x = the version number)  
The current version number is 1.0.1.3.
- Adobe pdf file of this manual

### Note:

**x86 is for 32 bit servers or computers which can only run 32 bit Windows OS and limits the maximum RAM size to 4GB.**

**x64 is for 64 bit servers or computers which run 64 bit Windows OS and has a much larger RAM size limit.**

## LIMITATIONS

- The Management Software:
  - Only Devices (E-xD) can be added with current version.
    - E-MICRO-TRH(P) and E-1W(P) can be added when attached to an E-xD as an IP Sensor.
  - Managing Device sensors on cascaded Devices are not supported currently.
  - Any changes to Device configuration done locally will require a re-load on the E-MNG-SH Software
  - Cannot change, save or restore individual E-xD configurations from the E-MNG-SH Software
  - Internet Explorer does not work with the E-MNG-SH Software

**DOWNLOAD**

To get the installer, go to our [website](#) .

- If you wish to evaluate the software, click on "Request Server Software Evaluation" and fill out the registration form. We will send the files and you can install it as described under "Installation".
- To purchase the software, you can go to our website or contact an authorized representative or NTI sales associate directly at 330-562-7070. NTI will email you links to the software and a link to request a license activation key.

**Self-Hosted Enterprise Environment Monitoring System Management Software**

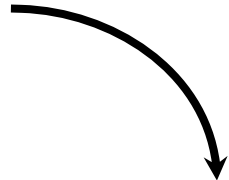
Monitor and configure up to 3,000 ENVIROMUX environment monitoring systems and all connected sensors. Access from anywhere using a web browser on a computer, smartphone, or tablet. No clients or special apps to install.

[Request Server Software Evaluation](#)

(Requires ENVIROMUX unit)

[View Online Demo](#)

(Does NOT require ENVIROMUX unit)



**E-MNG-SH Self-Hosted Enterprise Environment Monitoring Software**

**NTI NETWORK TECHNOLOGIES INCORPORATED**

ENVIROMUX Management Software  
Software Evaluation Request Form

[Home](#) | [Contact Us](#)  
networktechninc.com

[Products](#) | [Applications](#) | [Support](#) | [Resources](#) | [Partners](#) | [Where to Buy](#) | [About](#)

Products » [Self-Hosted ENVIROMUX Management Software](#) » ENVIROMUX Management Software Evaluation

**E-MNG-SH Self-Hosted ENVIROMUX Management Software Evaluation**

**\* Required Fields**

**End User Information**

\* First Name  \* Last Name

\* Company

\* Street Address

\* City  \* State / Province

\* Zip / Postal Code  \* Country

\* Phone

\* E-mail

\* Confirm E-mail

\* How many ENVIROMUX units do you plan on managing?

**End User License Agreement**

Network Technologies Incorporated (NTI)  
ENVIROMUX Management Software Software  
End User License Agreement

You, as the Customer, agree as follows:

\*  I Agree to the End User License Agreement  I Do Not Agree

[Submit](#)

**Figure 1- Registration Form**

## NTI E-MNG-SH Self-Hosted Enterprise Environment Monitoring System Management Software

Whether you are evaluating the software, or purchasing it, you will receive an email with links for a download of the software.

**NOTE: The download exe files can only be accessed and downloaded once.** Please be sure that you will be able to save the files to a local computer prior to using the links.

The email will also include the serial number for your copy of the software. Be sure to make note of it as you will need to refer to it when you request the license key or if you call for assistance with the software.

## INSTALLATION

To install the Software on a Windows-based server or computer, double-click the appropriate version of ENVIROMUX-Management Software-Installer. (No need for Administrator privileges).

- For a 32 bit computer/server install ENVIROMUX-Management-Software-Installer\_Vx.x.x.x\_x86.exe.
- For a 64 bit computer/server install ENVIROMUX-Management-Software-Installer\_Vx.x.x.x\_x64.exe

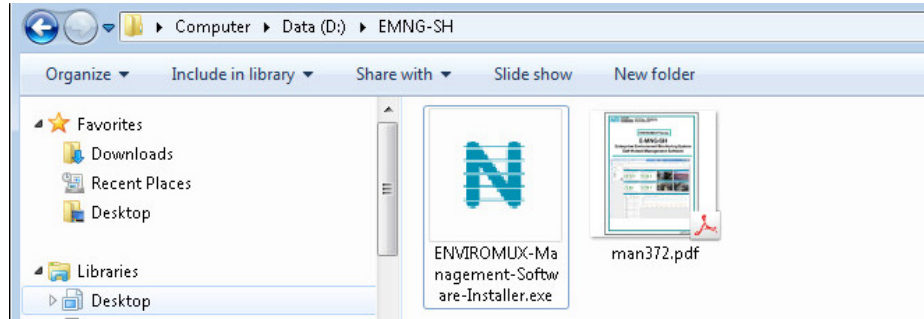


Figure 2- Locate the installation file on your local hard drive

Click to "Agree".

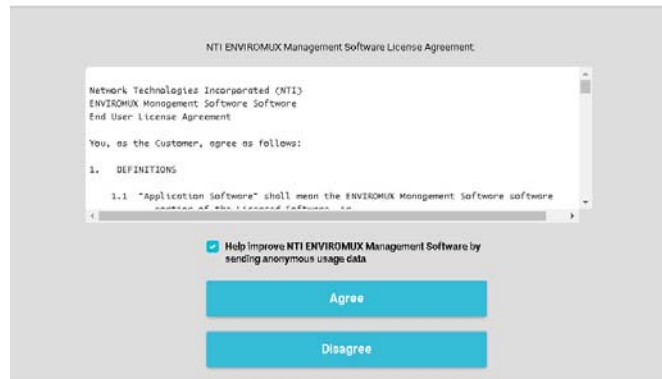


Figure 3- Agree to terms

The email address needs to be a valid email address. The password will be whatever you want to use to access the E-MNG-SH Software. After entering that information, click "Set Admin".

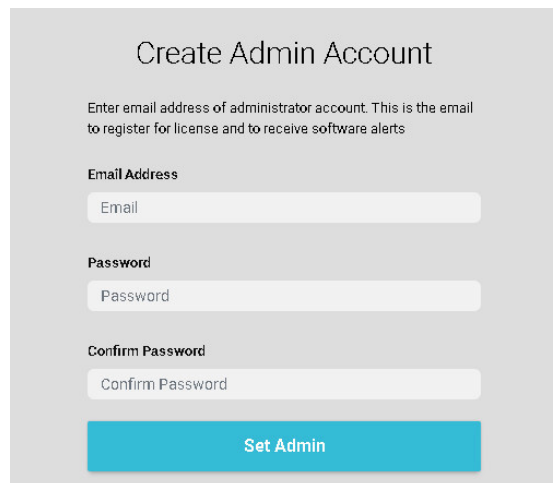


Figure 4- Create Admin login account



# NTI E-MNG-SH Self-Hosted Enterprise Environment Monitoring System Management Software

You will be prompted for a license key. To request a license key, [contact NTI](#). This key will be unique to this Windows user and installation of the management program. You will need the serial number for the software provided on the email that provided the software download. If you already have a license key enter the license key here and click "Activate License".

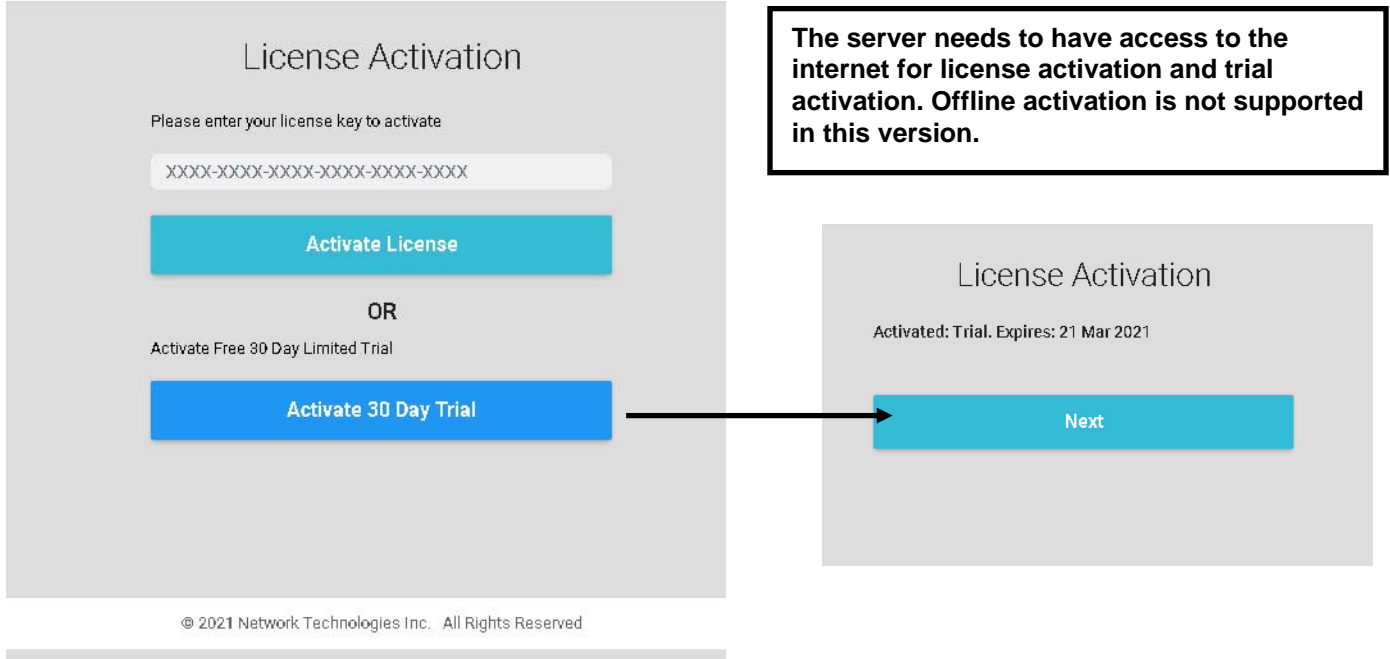


Figure 5- Activation screen

If you choose to just demo the Software at this time, click "Activate 30 Day Trial". You can activate the license later by going to the Settings -> Application Settings page. With a trial activation, the software will be fully functional for 30 days, after which you will need to activate the license to resume operation. None of your settings will be lost.

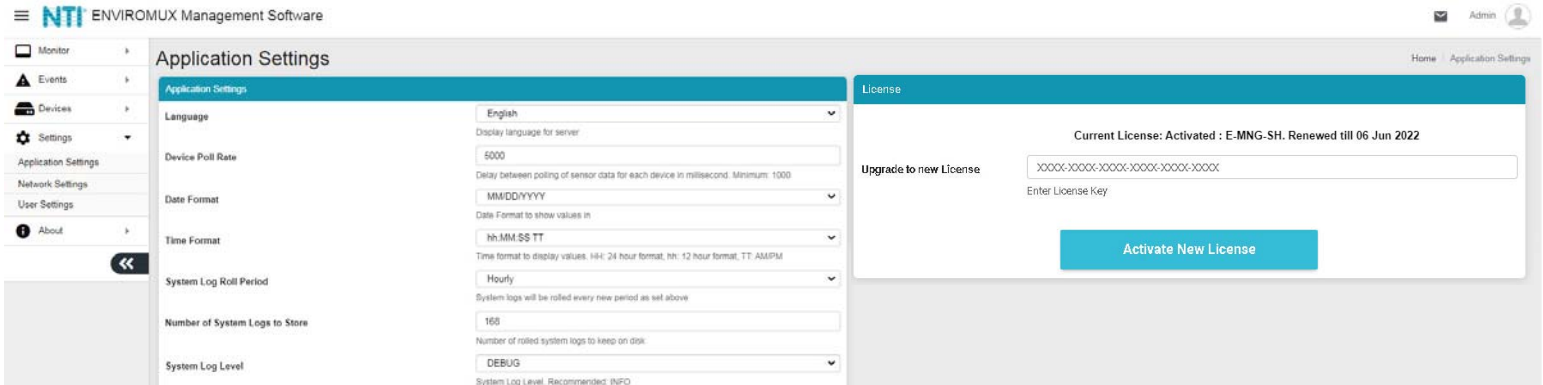


Figure 6- Activate later

Once the software license is activated, the software will auto-renew every 30 days. If the Server is not connected to the internet, the software will continue to function for 30 days after the first attempt to renew it. After 5 days of unsuccessful attempts (once each hour), the following screen will replace the standard License Activation screen. Within the next 25 days you will need to connect the Server to the internet and have it auto-renew or manually click the "Try License Renewal" button.

Notifications will be sent to registered users via email when there is only 14 days, 7 days and 2 days left before expiration.

Failure to successfully renew the license will result in the software becoming unusable.

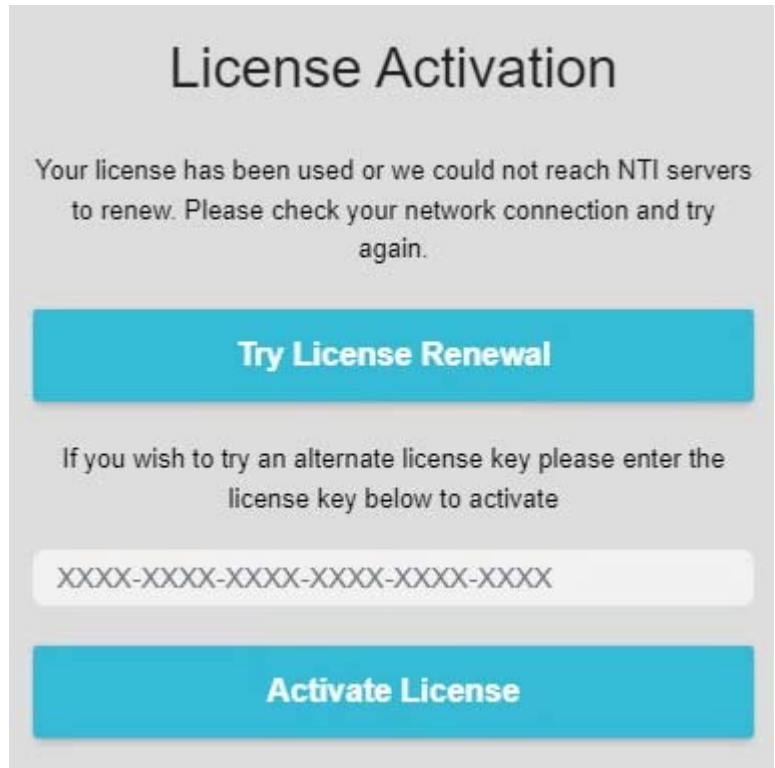


Figure 7-Manually Renew License

### Cloning Software

If the Software is installed on a virtual machine (VM) and this VM needs to be cloned to another computer, this can be done and the Software will continue to work with the same activation license, however only one instance of the activated software will function at a time. When you clone a VM like this, Please be sure to shutdown the old software or uninstall it, before the next license renewal. If you continue to run both old and cloned softwares, with the same license, they will interfere with each other and one of them will get locked out.

Once the program is installed, a teal "N" will appear on your desktop and a shortcut on the taskbar. A shortcut will also be added to the "Start Menu"-> All Programs list.



**Note: This is a web-based software. The icon is used only for starting the software on a server. Management and monitoring of the software is done through the browser.**

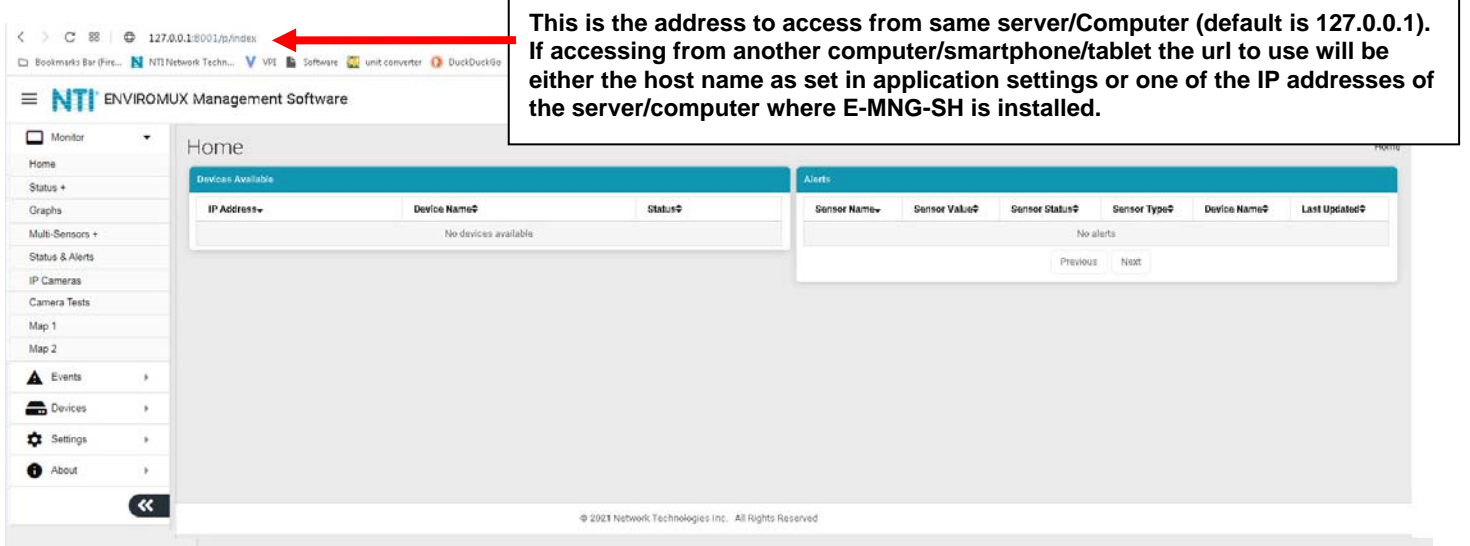
**Note: Ensure that the server firewall allows TCP port access as set in the application settings (see page 8).**

Any computer, smartphone, or tablet with a web browser installed can be used to access the E-MNG-SH software. Access is operating system independent through the HTML5 user interface on the computer/smartphone/tablet's web browser.

To access the E-MNG-SH, simply enter in the IP address or Server host name of the ENVIROMUX Management System into the URL bar on your browsing computer/smartphone/tablet. If your computer/smartphone/tablet has network access to the E-MNG-SH, you will be presented with the login screen. The server can be configured by anyone with access to it that has administrative privileges.

Users with only "Operator" privileges can assess the E-MNG-SH and view the monitored Devices, but they cannot change any settings. For more on privileges, see page 11.

The Software will open to two empty lists under the Home page. The Home page will display the IP addresses of the Devices being monitored and a list of any alerts associated with sensors being monitored on those Devices.



**Figure 8- View of the Home screen**

To configure the E-MNG-SH to manage your devices and sensors, go to the Settings pages. Under Settings you will find three submenus,

- Applications Settings
- Network Settings
- User Settings

Make sure all of the details for operating the E-MNG-SH are as desired.

## Application Settings

Application Settings

**Language** English ▼  
Display language for server

**Device Poll Rate** 5000  
Delay between polling of sensor data for each device in millisecond. Minimum: 1000

**Date Format** MM/DD/YYYY ▼  
Date Format to show values in

**Time Format** hh:MM:SS TT ▼  
Time format to display values. HH: 24 hour format, hh: 12 hour format, TT: AM/PM

**System Log Roll Period** Hourly ▼  
System logs will be rolled every new period as set above

**Number of System Logs to Store** 168  
Number of rolled system logs to keep on disk

**System Log Level** DEBUG ▼  
System Log Level. Recommended: INFO

**Send Anonymous Usage Stats**   
Help NTI improve ENVIROMUX Management Software by sending anonymous usage reports

**Upload Crash Reports (Recommended)**   
Upload crash report to request NTI for fix (Restart Required)

Save

Application Setting	Description
Language	Only English is available at this time
Device Poll Rate	Delay time between polling data for each sensor attached to each Device, measured in milliseconds (Min. is 1000)
Date Format	Format of how the date will be displayed in the Software- six to choose from
Time Format	Format of how the time will be displayed in the Software- four to choose from
System Log Roll Period	System Logs will be rolled as often as set here- Hourly, Daily, Weekly, Monthly, Quarterly or Yearly
Number of System Logs to Store	Number of system logs to store on disk- There is no limit.
System Log Level	Select the types of messages that will be logged in the system.log file on Software (see below)
Send Anonymous Usage Stats	Place a checkmark if you approve of sending anonymous usage reports to NTI to help improve this Software
Upload Crash Reports	Place a checkmark in the box to have your Software upload crash reports to NTI and to request a fix. We strongly recommend enabling upload of crash reports. If disabled, NTI will not be able to help with any fixes because of a possible Software crash

### System Log Level

- CRITICAL only logs messages that cause Software to exit
- ERROR logs messages with Device, server communication, sensor or user errors including CRITICAL messages
- WARNING will log messages including possible issues with setup or communication including ERROR & CRITICAL
- INFO logs informative messages including WARNING, ERROR & CRITICAL
- FINE logs extra informative messages that logs Device communication including INFO,WARNING, ERROR & CRITICAL
- DEBUG logs all messages which may be too verbose for normal usage but helps with debugging any software issues, including FINE, INFO, WARNING, ERROR & CRITICAL

Don't forget to click "Save" once this is complete.

## Network Settings

### Network Settings

← General Network Settings

**Server Host Name**

Host name to use on all urls. This host name should be associated with atleast one of the IP Addresses of this server

**Restrict to above Host Name**

Restricts all access to use host name only. If host name is incorrect, you will not be able to access the server

**HTTP Port**

HTTP port on which the software should listen to (Restart Required)

**HTTPS Port**

HTTPS port on which the software should listen to

← SMTP Settings

**SMTP Server**

SMTP Server address or domain that you want to use to send emails

**Email From Address**

SMTP email address that NTI ENVIROMUX Management Software should use to send emails

**SMTP Encryption Type** STARTTLS

Encryption type to be used with above SMTP Server

**SMTP Server Port**

SMTP Port to be used with above encryption setting for server. Usual port #- None: 25, TLS: 465, STARTTLS: 587

**SMTP Server Requires Authentication**

Check this box if SMTP server requires authentication to send email

**SMTP Username**

SMTP authentication username

**SMTP Password**

SMTP authentication password

**Confirm SMTP Password**

Confirm above SMTP authentication password

← Certificate Settings

**Certificate Signer** CA Signed

Certificate type to be used with HTTPS Server.  
Select Self Signed certificate if you are not using a third party CA service like Digicert, Verisign etc.

**Certificate Option** Upload Keypair and Certificate

Select a procedure to have the server certificate signed by CA

**Private Key File (\*.pem)** Choose File No file chosen

Upload Private Key

**Server Certificate File (\*.pem)** Choose File No file chosen

Upload Server Certificate

**CA Certificate File (\*.ca)** Choose File No file chosen

Upload CA Certificate

Save

Send Test Email

Figure 10- Network Settings

Network Setting	Description
Server Host Name	If you want to access the server with a specific domain name, please set that domain name here <b>The DB browser can be used to recover from an incorrect host name. (See next page)</b>
Enable Above Host Name	Enable the Host Name assigned to the Server- restricting access to the Server by using the Host Name only.
HTTP Port	Port on which the Server will be connected with . This is the default HTTP port. If you change this, you will need to add ":<port#>" to the end of the IP address. i.e. If you change it to 85, you will need to enter <IP ADDRESS>:85 in the URL bar to access the Server.
HTTPS Port	HTTPS port on which the Server will be connected with.

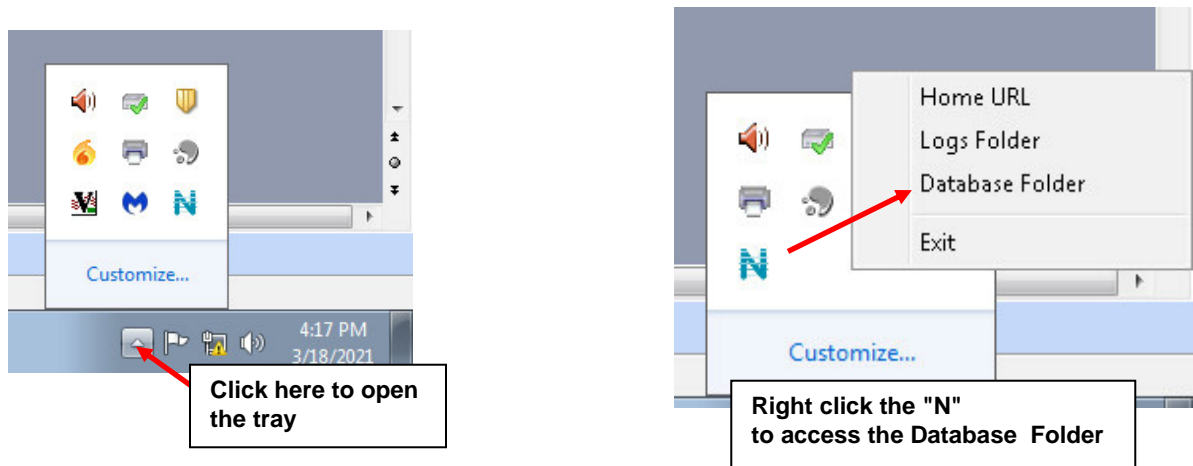
Network Setting	Description
SMTP Server	Enter a valid SMTP server address
Email From Address	Enter email "From" address to be used by E-MNG-SH to send messages from
SMTP Encryption Type	Choose encryption type from dropdown menu: STARTTLS, TLS or None
SMTP Server Port	Enter port used by SMTP Server (default is 587)
SMTP Server Requires Authentication	Place a checkmark in here if the SMTP Server requires authentication to send messages
SMTP Username	Enter the SMTP Username for the E-MNG-SH-if encryption is checked
SMTP Password	Enter the SMTP Password for the E-MNG-SH- if encryption is checked
Confirm SMTP Password	Re-enter the SMTP Password for the E-MNG-SH
Certificate signer	Certificate type to be used with HTTPS Server. Select self-signed certificate if you are not using a third party CA service like Digicert, Verisign, etc.
Certificate Option	Select a procedure to have the server certificate signed by CA
Private Key File	Choose and upload a private key file in *.pem format.
Server Certificate File	Choose a server certificate and upload in *.pem format
CA Certificate File	Choose and upload a CA Certificate file in *.ca / *.crt format.

Don't forget to click "Save" once this is complete. You can test your settings by clicking "Send Test Email". An email will be sent to any configured users.

### Server Host Name

If you want to access E-MNG-SH with a specific domain name, please set that host + domain name (also referred to as FQDN (Fully Qualified Domain Name)) here (for example "monitor.enviromux.com"). This FQDN should be associated with at least one of the IP Addresses of this server or computer. In the event the FQDN set is incorrect and access is restricted to this FQDN (as set in "Enable Above Host Name"), you would not be able to login to E-MNG-SH. In this case you can correct the FQDN by following the below procedure.

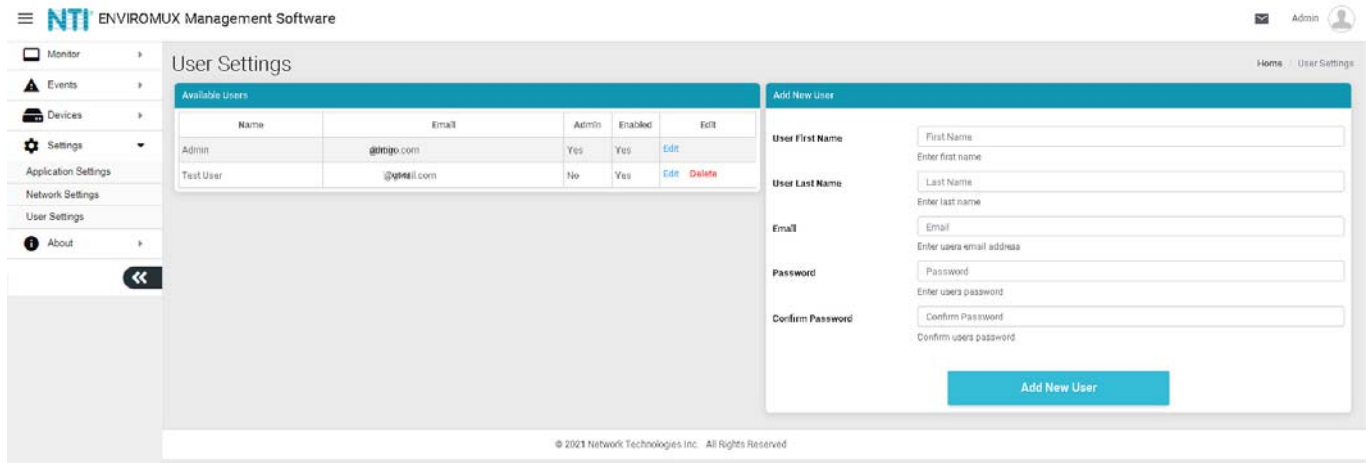
1. Access the server or computer where E-MNG-SH is installed. Open the database folder and locate the "settings.db" file. (You can right click on the E-MNG-SH icon (teal colored "N") in the system tray to access the database folder.)



2. Exit E-MNG-SH software now
3. Open "settings.db" with any SQLite editor like DB Browser or DBeaver
4. Set the desired FQDN in "HOST\_NAME" column of "EMANAGER\_SETTINGS" table
5. Save these changes and close the file. Restart E-MNG-SH now and you should be able to login with a correct host name.

## User Settings

There is a limit of 1000 users that can be configured to access the E-MNG-SH. To add users, go to Settings -> User Settings . Enter the first and last name, email address and password for that user to use to access the E-MNG-SH.



**Figure 11- User Settings for Adding Users**

Once a user has been established, click on "Edit" in the "Available Users" window to bring up the Edit User page and add additional information. You can also, instead, click on "Delete" to remove the user altogether.

First decide what access level this user will have:

Super Admin- This user cannot be deleted and is the same user used in license registration and managing the E-MNG-SH.

Admin - User has administrative privileges to make changes to the configuration of the E-MNG-SH

Operator- User only has access to the information provided on the E-MNG-SH. No changes can be made.

Read Only- User can see everything the E-MNG-SH has to offer, but cannot change any settings or add anything.

**Note: Only Admin users can edit other user's passwords, the Operator users can edit their own password only**

Be sure to check the "User Enable" block to give the listed user access to the E-MNG-SH.

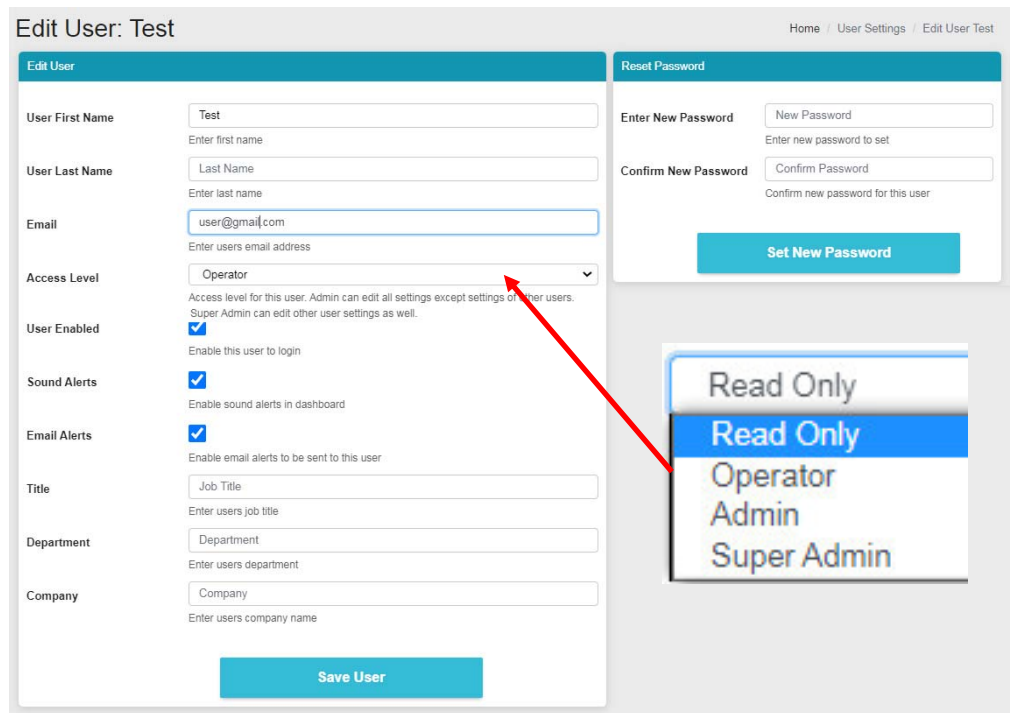
Place a checkmark in "Sound Alerts" to enable the user to hear audible warnings about an alert being sensed while the user is monitoring a Dashboard.

Place a checkmark in "Enable Alerts" so the user can receive emails about sensor alerts or reports generated (page 30).

The Title, Department and Company are optional information that can be provided for reference.

On this page the user's password can also be changed. After entering, click "Set New Password".

When finished, be sure to click "Save User".



**Figure 12- Edit user settings**

## DEVICES

Under Devices, in the menu, there are four options to select.

- Device Settings
- Sensor Settings
- Add or Remove Device
- Maps

The Device Settings page displays all the Devices you have configured to be monitored and the groups you have established for the management of those Devices. You can click on the IP Address of each to view status and adjust settings of each sensor in each device.

IP Address	Device Name	Status
10.0.1.16	Furnace Room E-2D	Normal
10.0.1.17	Compressor Rm. E-5D	Normal
147.0.27.197	E-16D Server Rack Monitor	Normal
147.0.27.207	E-2D Lab Room Environment Monitor	Normal
147.0.27.208	E-5D Server Rack Monitor	Normal
147.0.27.212	E-5D E04 DDNS Test Unit	Normal
147.0.27.218	E-2D P05	Normal
192.168.1.100	E-16D 24V IPMI Rack	Normal

Figure 13- My Devices List

Next, under Sensor Settings, you have a "My Sensors" list of all sensors, IP addresses and cameras connected to the Devices being monitored.

Sensor Name	Sensor Type	Device Name
1. E-2DB E08 Input Voltage	Internal Sensor	E-2DB E08
1.1. E-2DB E08 Temperature 1	External Sensor	E-2DB E08
1.2. E-2DB E08 Humidity 1	External Sensor	E-2DB E08
1.3. E-2DB E08 Dew Point 1	External Sensor	E-2DB E08
2.1. E-2DB E08 ACDCCLM Sensor 2-1	External Sensor	E-2DB E08
2.2. E-2DB E08 ACDCCLM Sensor 2-3	External Sensor	E-2DB E08
2.3. E-2DB E08 ACDCCLM Sensor 2-2	External Sensor	E-2DB E08
2.4. E-2DB E08 ACDCCLM Sensor 2-4	External Sensor	E-2DB E08
1. E-2DB E08 Digital Input 1	Digital Inputs	E-2DB E08
2. E-2DB E08 Digital Input 2	Digital Inputs	E-2DB E08
1. CPU250 Win Server 2016	IP Devices	E-2DB E08
1. E-16D-24V IPMI Rack Memory Free	SNMP Sensors	E-2DB E08
2. IPDU Output Relay 1	SNMP Sensors	E-2DB E08
3. NAS (NDATA) System Temperature	SNMP Sensors	E-2DB E08
4. NAS (NDATA) Fan 1 Speed (RPM)	SNMP Sensors	E-2DB E08
5. NAS (NDATA) Fan 2 Speed (RPM)	SNMP Sensors	E-2DB E08
1. E-2DB E08 Output Relay 1	Output Relays	E-2DB E08
1. Power Supply 1	Power Supplies	E-2DB E08
2. Power Supply 2	Power Supplies	E-2DB E08
1. Wanscam HW0041-1	IP Cameras	E-2DB E08
2. MXS 4K Camera MJPEG	IP Cameras	E-2DB E08

Figure 14- My Sensors List



Next is the “Add Or Remove Devices” page for adding more Devices to be monitored and adding groups to put the Devices into. Groups makes it easier to manage how the sensors and Devices will be monitored. From this page they can also quickly be removed from the list.

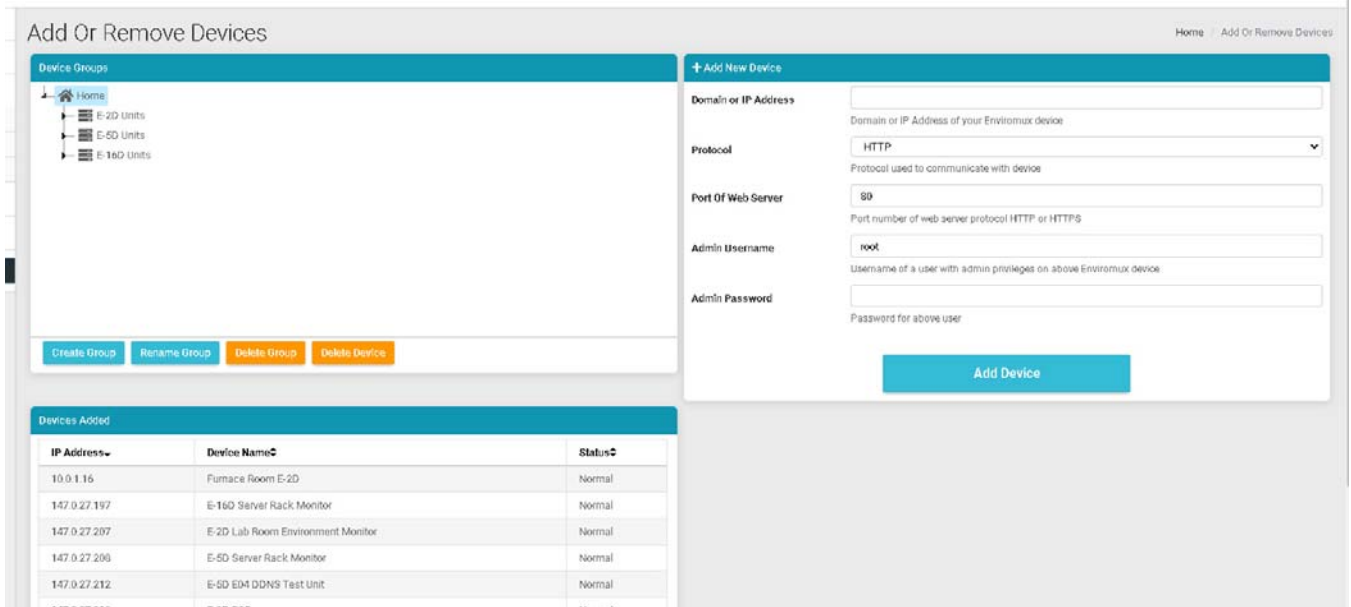


Figure 15- Add or Remove Devices

Lastly, use the “Maps” page to upload an unlimited number of images of a map, building, or server room (examples). Images must be .jpg or .png format, with a maximum size of 20MB (any resolution). On these images you can place markers for Places, Devices, or individual Sensors that you want to easily monitor the status of. Many map images are pre-loaded for you to choose from.

1. To setup a map, first select either “Floorplan” from the Map Type dropdown, or select a specific location from the pre-loaded maps. If you select “Floorplan”, you will have the option to load a custom image. Locate the image file to be uploaded (must be .jpg or .png format). Then click "Upload".
2. Once uploaded, you can click on the map to have it enlarge in the viewing window.

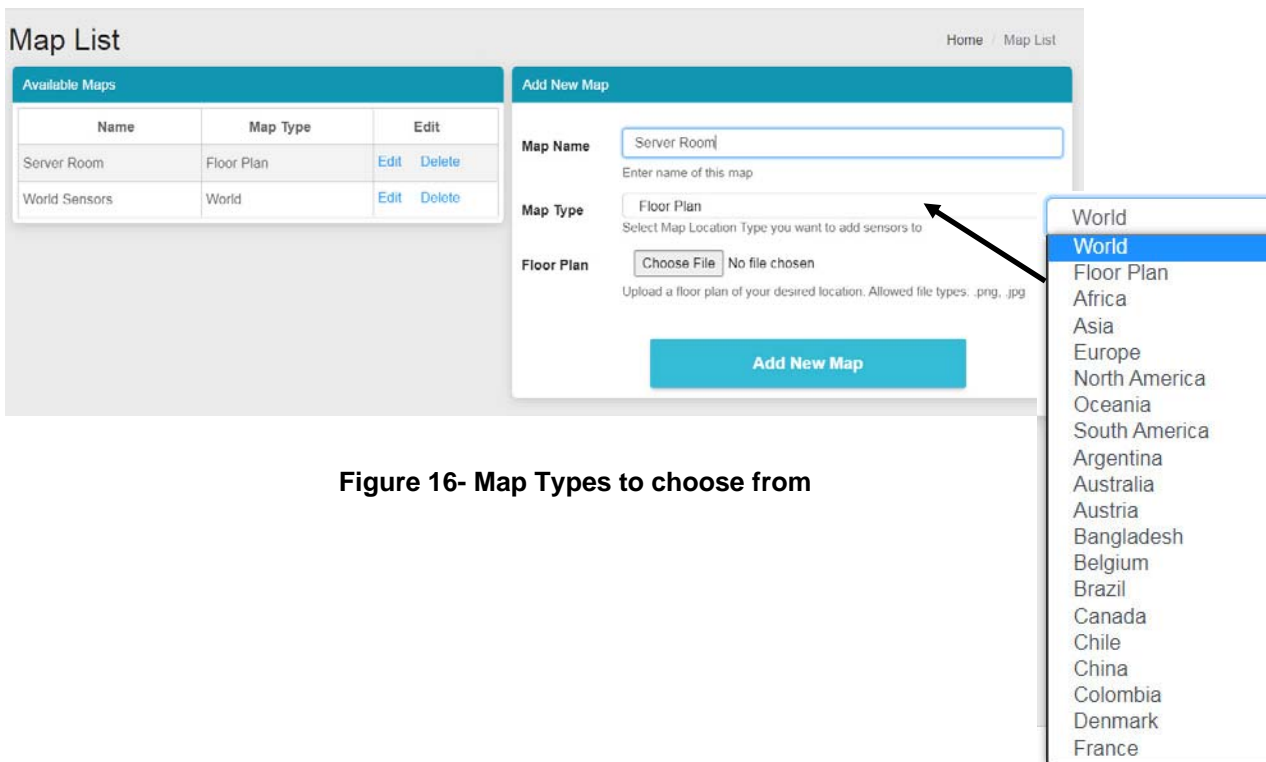
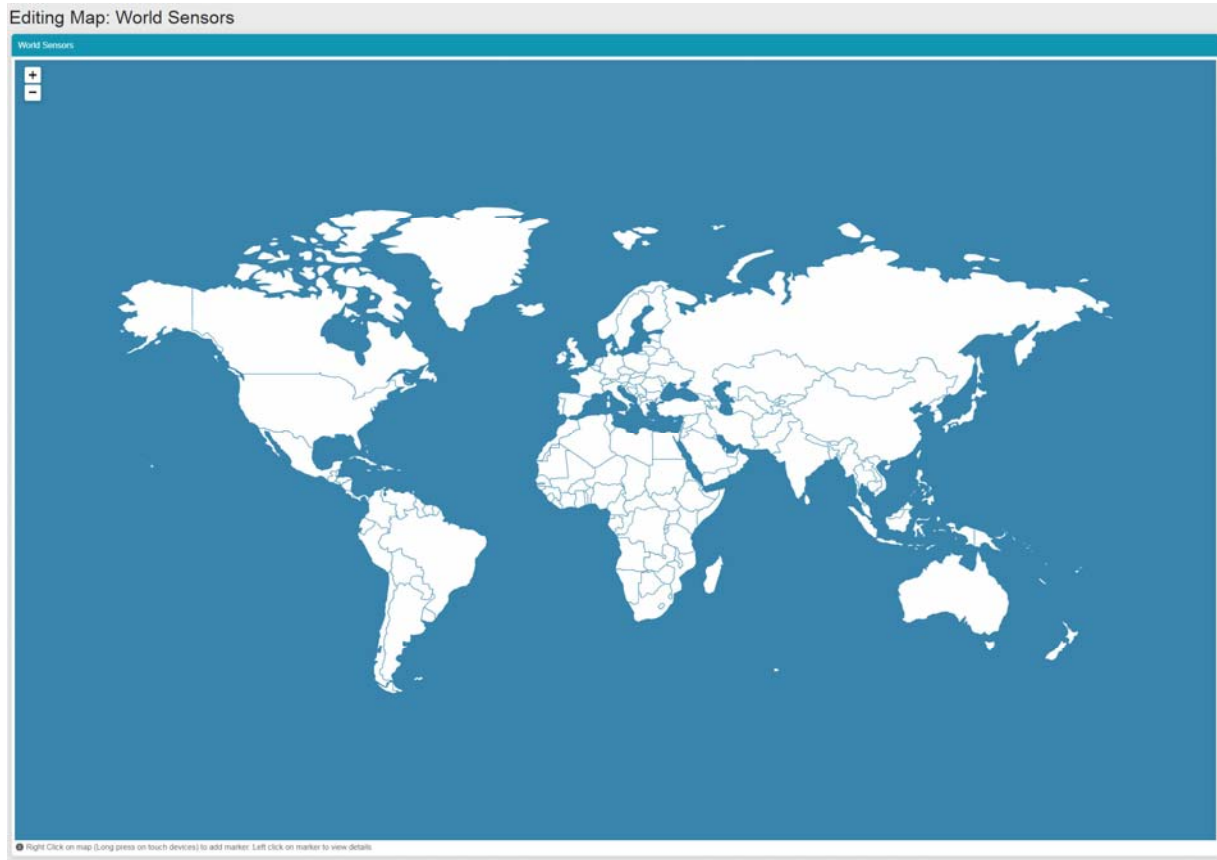


Figure 16- Map Types to choose from



3. Right click anywhere in the image to add a marker. A prompt for "Add Marker" will display. Click on that to bring up a list of sensors to be monitored in a Place, from a Device, or individual sensors.

The "Add Marker" dialog box is shown with a callout pointing to the "Place" dropdown menu. The "Name of the Place" field contains "Server Room". Below is a search bar and a table of sensors. A callout points to the selected sensors in the table. Another callout points to the "Add Marker" button on the map. A third callout explains the marker's alert status.

**Enter a name for this marker if it is a location, then select what sensors will be monitored at that location. Click "Save" when complete.**

**Selected sensors**

**Markers will flash between light and dark green when not in alert, and between light and dark red when in alert.**

Item Name	Item Type	Parent Name
E-2DB E08	Device 192.168.3.82	E-2D Units
E-2DB E08 Input Voltage	Internal Sensors	E-2DB E08
E-2DB E08 Temperature 1	External Sensors	E-2DB E08
E-2DB E08 Humidity 1	External Sensors	E-2DB E08
E-2DB E08 Dew Point 1	External Sensors	E-2DB E08
E-2DB E08 ACDCM Sensor 2-1	External Sensors	E-2DB E08
E-2DB E08 ACDCM Sensor 2-3	External Sensors	E-2DB E08
E-2DB E08 ACDCM Sensor 2-2	External Sensors	E-2DB E08
E-2DB E08 ACDCM Sensor 2-4	External Sensors	E-2DB E08
E-2DB E08 Digital Input 1	Digital Inputs	E-2DB E08

Figure 18- Loading maps and placing markers

Add Marker ✕

Select Marker Type: **Device**

Sensor Markers shows detailed view for one Sensor/IP Camera.  
Place and Device Marker shows summary view for multiple Devices/Sensors

Search:

Device Name	IP Address	Group Name
E-2DB E08	Device 192.168.3.82	E-2D Units
E-2DB E02 (RevG)	Device 192.168.3.222	E-2D Units
E-2DB E01 (RevG/POE)	Device 192.168.3.223	E-2D Units
E-2D Lab Room Environment Monitor	Device 147.0.27.207	E-2D Units
E-5DEL-1 (E07)	Device 192.168.3.81	E-5D Units
E-5D Server Rack Monitor	Device 147.0.27.208	E-5D Units
E-5D E04 DDNS Test Unit	Device 147.0.27.212	E-5D Units
E-16DEL-1 (Master)	Device 192.168.3.100	E-16D Units
E-16D S1	Device 192.168.3.101	E-16D Units
E-16D 24V IPMI Rack	Device 192.168.1.100	E-16D Units

Previous **1** 2 3 Next

Cancel Save

Add Marker ✕

Select Marker Type: **Sensor**

Sensor Markers shows detailed view for one Sensor/IP Camera.  
Place and Device Marker shows summary view for multiple Devices/Sensors

Search:

Sensor Name	Sensor Type	Device Name
E-2DB E08 Input Voltage	Internal Sensors	E-2DB E08
E-2DB E08 Temperature 1	External Sensors	E-2DB E08
E-2DB E08 Humidity 1	External Sensors	E-2DB E08
E-2DB E08 Dew Point 1	External Sensors	E-2DB E08
E-2DB E08 ACDCLM Sensor 2-1	External Sensors	E-2DB E08
E-2DB E08 ACDCLM Sensor 2-3	External Sensors	E-2DB E08
E-2DB E08 ACDCLM Sensor 2-2	External Sensors	E-2DB E08
E-2DB E08 ACDCLM Sensor 2-4	External Sensors	E-2DB E08
E-2DB E08 Digital Input 1	Digital Inputs	E-2DB E08
E-2DB E08 Digital Input 2	Digital Inputs	E-2DB E08

Previous **1** 2 3 4

5 ... 75 Next

Cancel Save

Figure 19- Markers for Device or Sensor

With your maps and markers defined, you can create a Dashboard and add your map to it (see page 24) .

The screenshot shows the NTI ENVIROMUX Management Software interface. On the left is a sidebar menu with the following items: Monitor, Home, Status +, Graphs, Multi-Sensors +, Status & Alerts, IP Cameras, Camera Tests, Map 1, Map 2 (highlighted with a black arrow), Events, Devices, Settings, and About. The main area displays 'Map 2' with 'Edit' and 'Fullscreen' icons. Below the title bar is a blue map area with a '+' and '-' zoom control.

Figure 20- Use a configured map to monitor select sensors

With the map on the screen, click on any marker and the sensor or sensors associated with the Location/Device will be displayed and the status of those sensors will be indicated.

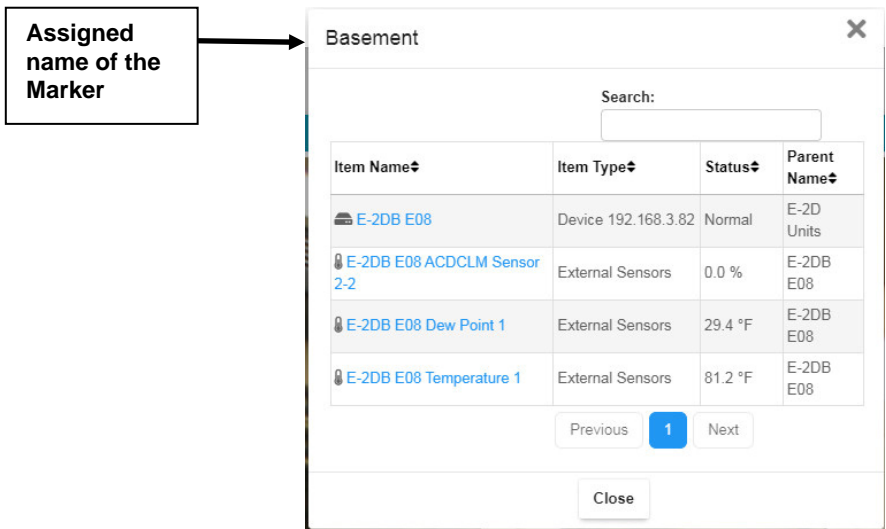


Figure 21- Sensor status at location "Basement"

**Devices to Monitor**

Before adding a Device, select the group under which the Device needs to be added. If no selection is made the Device will be added to the "Home" group.

To add a Device, click on "Devices"-> "Add or Remove Device" in the side menu. A window will open as shown on the next page.

Enter 1) the Domain or IP address for the Device,

- 2) the connection protocol (HTTP or HTTPS),
- 3) the server port number (usually 80 for HTTP and 443 for HTTPS)
- 4) any user with admin privileges on the E-xD can be used
- 5) the user with admin privileges password
- 6) press "Add Device".

If the IP address is valid, the message "Connecting to Device" will be followed by "Device added successfully" and the Device will appear in the Devices Added list. The sensors attached to that Device will be sensed and added to the "My Sensors" page.

If the IP address or Domain is not valid or accessible, the message "Error 913: Connection Timeout" will be displayed.

*TIP: If you don't know the IP addresses of the Devices to be monitored, you can use the included NTI Discovery Tool (page 20) to identify them (provided they are all connected to the same LAN).*

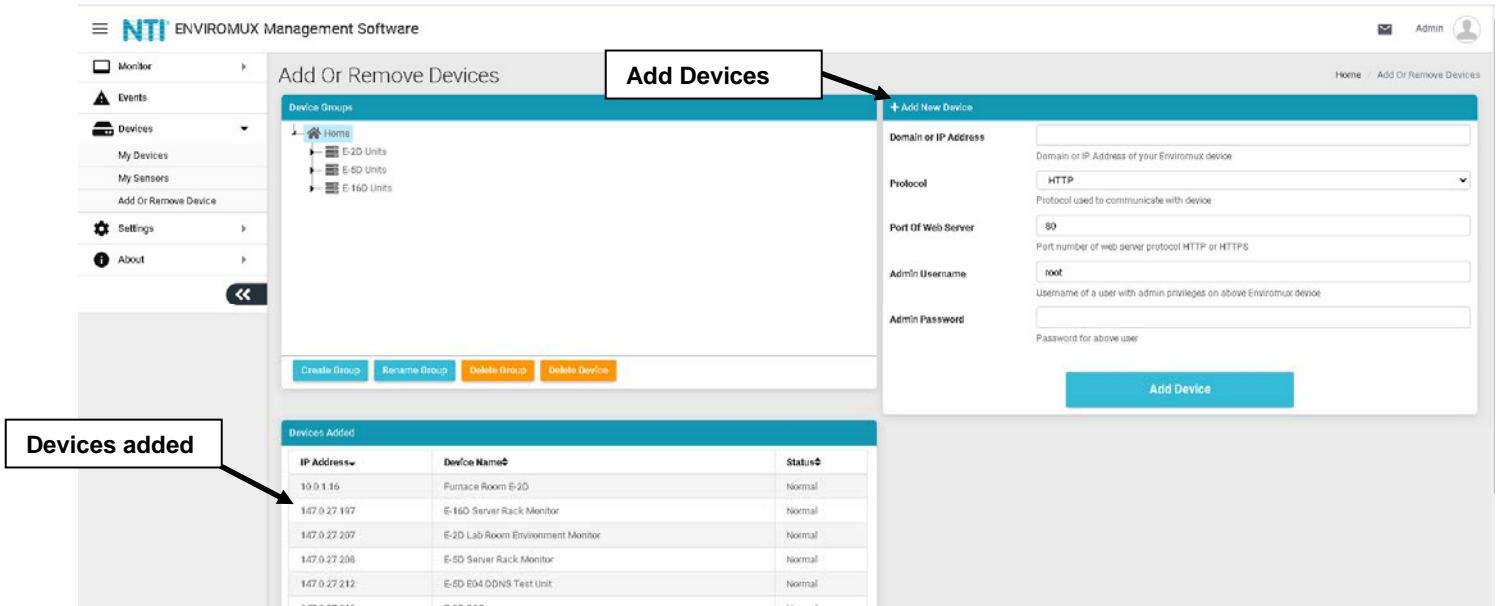


Figure 22- Add Devices to monitor

Continue adding until all Devices to be monitored are listed.

## Groups

Groups can be used to organize your Devices as viewed on the Dashboard.

The name of the default group "Home" can be changed. Below it has been changed to "Server Room". Click the name, click on "Rename Group", and enter the new name. Press Enter key to save.

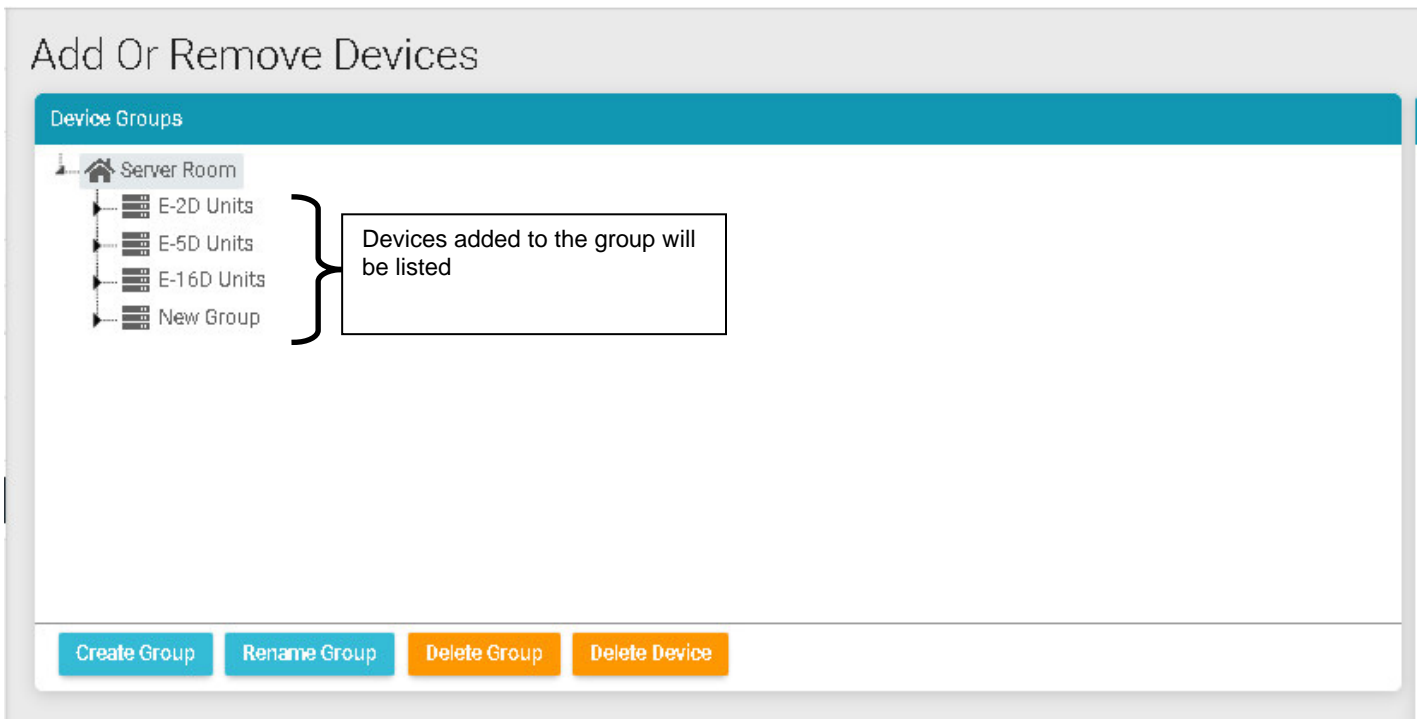


Figure 23- Primary group, and New Group added

## NTI E-MNG-SH Self-Hosted Enterprise Environment Monitoring System Management Software

Click "Create Group" to add an additional group. While the "New Group" name is selected (highlighted), any Device that is entered will fall under that group.

To remove a group, while the group to be removed is selected (highlighted), click "Delete Group".

To move a Device from one group to another group, first select the Device in the group to remove it from, then click "Delete Device".

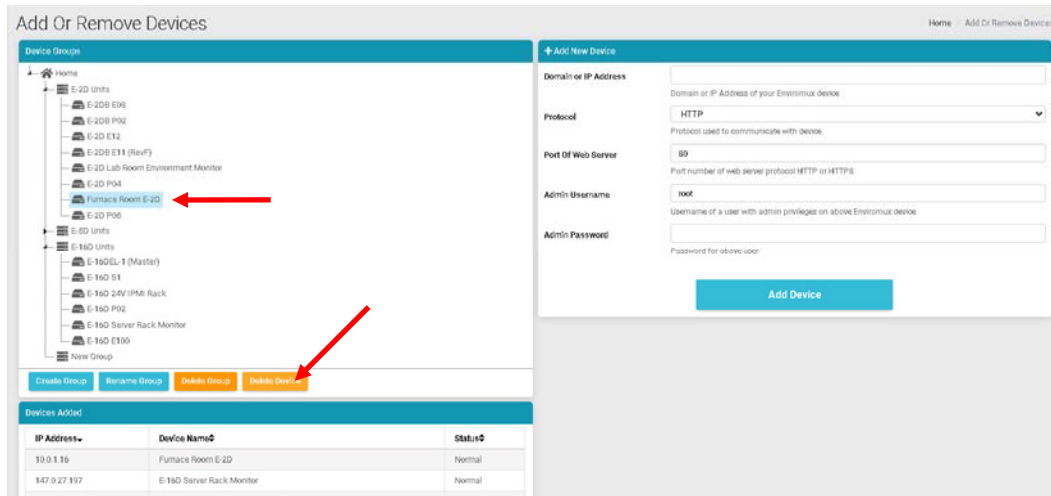


Figure 24- Select Device to delete

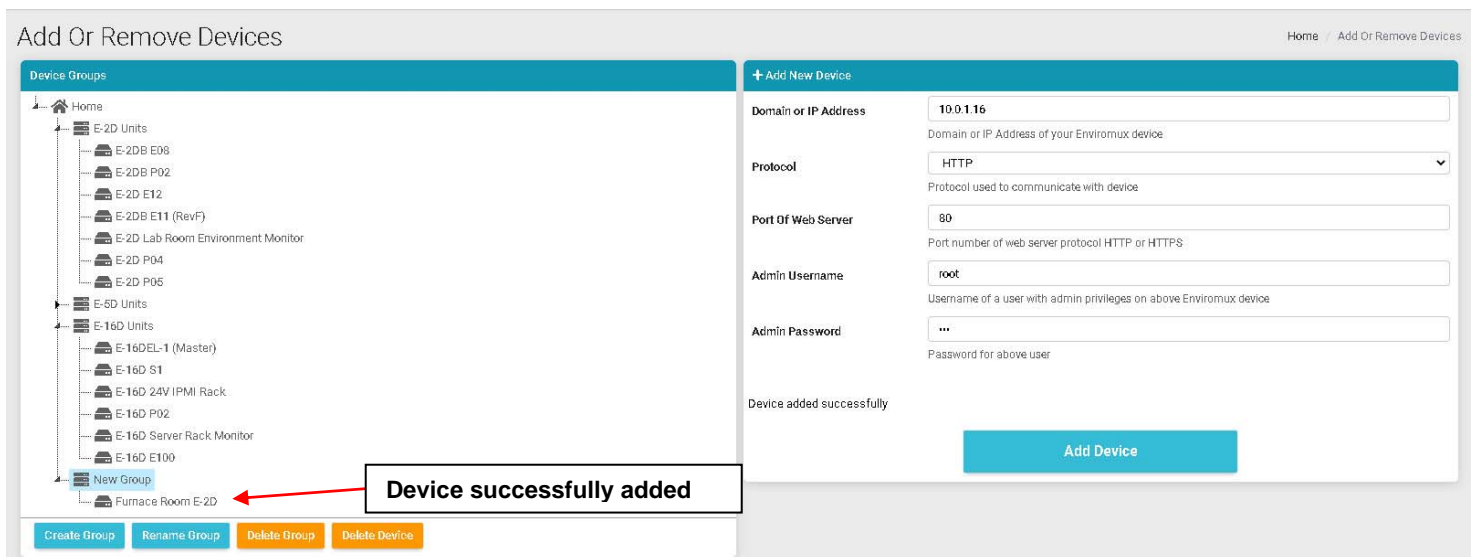


Figure 25- Device moved/added to New Group

Now select the new group name to add it to (above it is "New Group"), and re-enter the IP address and additional information. Click "Add Device". If successful, the message "Device added successfully" will appear and the Device will be listed under the new group name.

If you do not know the IP address of the Device you want to add, you can use the included NTI Discovery Tool (page 20 ) to identify them (provided they are all connected to the same LAN).

To reload the configuration for a Device, rename the Device or delete the Device, you can right-click the Device in the list from the Add Or Remove Devices menu.

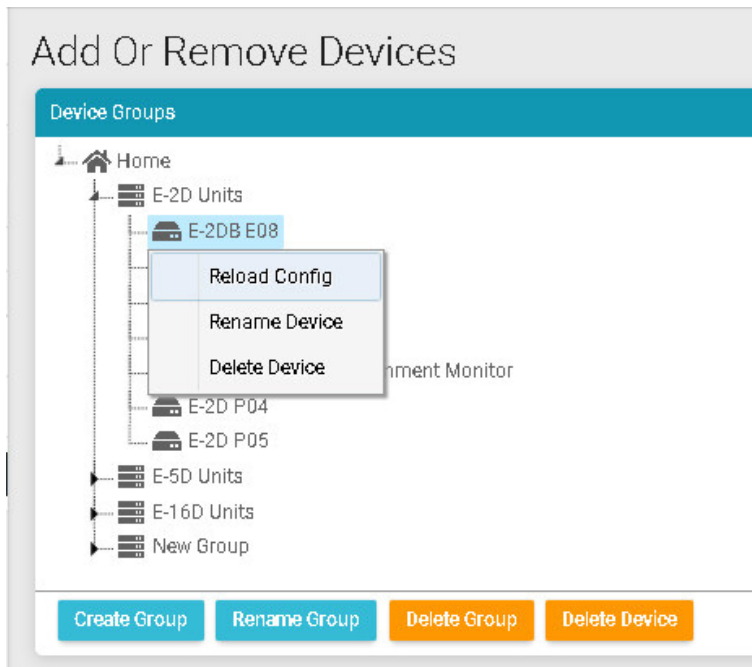


Figure 26- Additional features from Add Devices menu

The user can access and change configuration settings for a Device by going to the My Devices menu, double-clicking the Group, and then the Device. Accessing the Device this way will open up the list of configuration options for the Device.

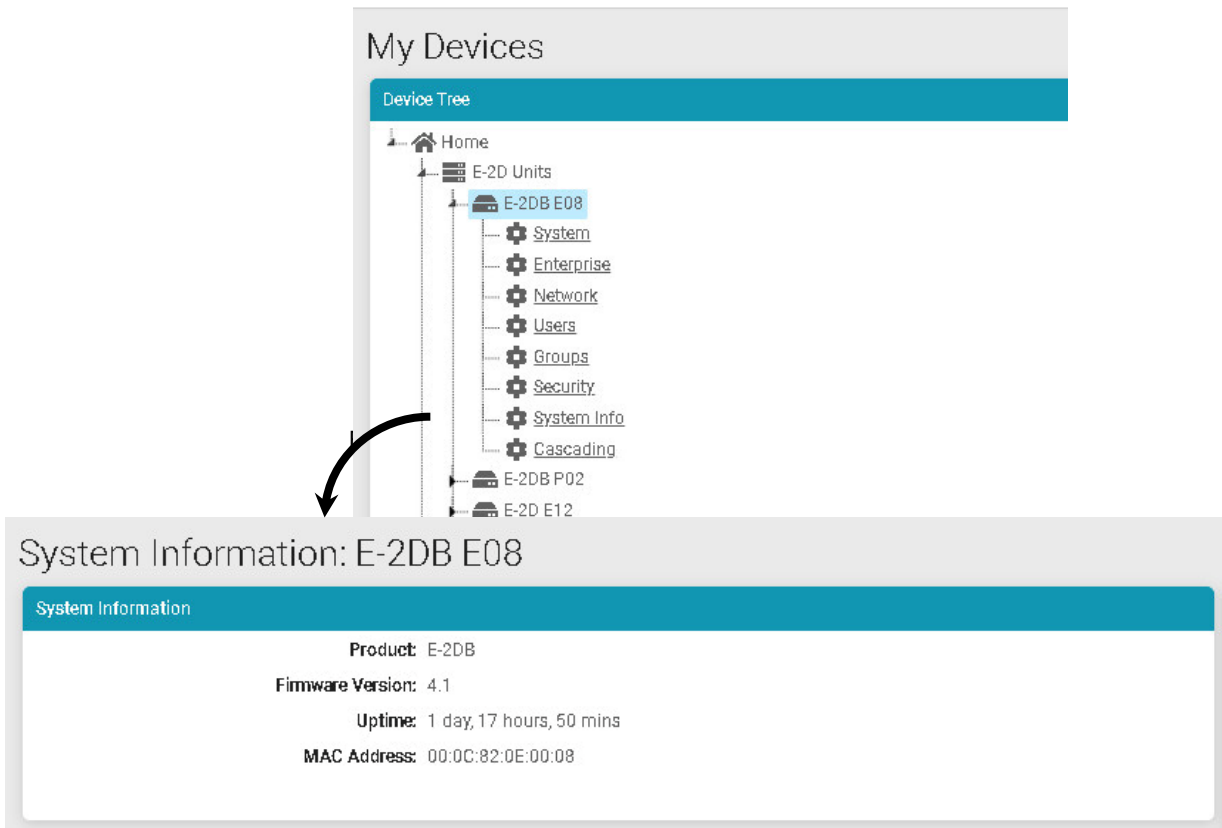


Figure 28- System Info page for the Device

## Device Discovery Tool

In order to easily locate the Device on a network, the NTI Device Discovery Tool may be used. The Discovery Tool is available on many of our webpages, including <http://www.networktechinc.com/download/d-environment-monitor-16.html>. Download the discovery.zip, extract the contents to your PC and click on the file *NTIdiscover.jar*. This will open your browser and display the Device Discovery Tool page.

**Note:** The Device Discovery Tool requires the Java Runtime Environment to operate.

**Note:** The computer using the Device Discovery Tool and the ENVIROMUX must be connected to the same physical network in order for the Device Discovery Tool to work.

### Network Technologies Inc Device Discovery Tool

- **START**
  - When you load this page, the NTI Device Discovery Applet should load. Accept the Certificate to allow this applet access to your network. Press the button entitled **Detect NTI Devices** to start the discovery process. After a short time, the tool will display all NTI devices on your network, along with their network settings.

**Note:** Do not close this page while the NTI Discovery Tool is running. Close the NTI Device Discovery Application first, **then** this webpage.
- **How To Use the Discovery Tool**
  - **To Change A Device's Settings**, within the row of the device whose setting you wish to change, type in a new setting and press the **Enter** key or the **Submit** button on that row. You can also press the **Submit All** button to submit all changes at once.
  - **To Refresh the list of devices**, press the **Refresh** button.
  - **To Blink the LEDs of the unit**, press the **Blink LED** button (This feature not supported on all products). The **Blink LED** button will change to a **Blinking...** button. The LEDs of the unit will blink until the **Blinking...** button is pressed, or the NTI Device Discovery Application is closed. The LEDs will automatically cease blinking after 2 hours.
  - **To Stop the LEDs of the unit blinking**, press the **Blinking...** button. The **Blinking...** button will change to a **Blink LED** button.

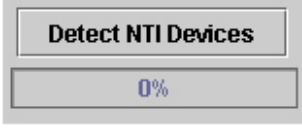


Figure 29- Device Discovery Tool page

Use the Device Discovery Tool to display all NTI ENVIROMUX Devices on the network, along with their network settings. Follow the instructions on the Device Discovery Tool page to use the tool and to change the Device settings if so desired.

Device	MAC Address	IP Address	Mask	Gateway		
ENVIROMUX	00:40:8D:24:07:70	65.243.248.18	255.255.255.128	65.243.248.1	Submit	Blink LED
		Submit All	Refresh	Close		



VIEW SENSORS INDIVIDUALLY

With Devices added, you can now view the sensors connected to those Devices. Select My Sensors from the side menu.

My Sensors

**Sensor Tree**

- Home
- E-2D Units
  - E-2DB E08
  - E-2DB E02 (RevG)
  - E-2DB E01 (RevG/POE)
  - E-2D Lab Room Environment Monitor
  - E-2D P04
  - Furnace Room E-2D
  - E-2D E04 (RevG)
  - E-2DB P02
  - E-2DB E15
  - E-2D P05
- E-5D Units
  - E-5DEL-1 (E07)
  - E-5D Server Rack Monitor
  - E-5D E04 DDNS Test Unit
  - Remote E-5D
  - E-5D E01
  - E-5D-48V
  - Compressor Rm. E-5D
  - E-5D E02
  - E-5DB P02 (PLSD Test Unit)
- E-16D Units
  - E-16DEL-1 (Master)
  - E-16D S1
  - E-16D 24V IPMI Rack
  - E-16D Server Rack Monitor
  - Oper8 Test Unit
  - E-16D 48V
  - E-16D E100
  - E-16D P02

**Sensors Available**

Search Sensors:

Sensor Name	Sensor Type	Device Name
1. E-2DB E08 Input Voltage	Internal Sensor	E-2DB E08
1.1. E-2DB E08 Temperature 1		E-2DB E08
1.2. E-2DB E08 Humidity 1		E-2DB E08
1.3. E-2DB E08 Dew Point 1	External Sensor	E-2DB E08
2.1. E-2DB E08 ACDCM Sensor 2-1	External Sensor	E-2DB E08
2.2. E-2DB E08 ACDCM Sensor 2-3	External Sensor	E-2DB E08
2.3. E-2DB E08 ACDCM Sensor 2-2	External Sensor	E-2DB E08
2.4. E-2DB E08 ACDCM Sensor 2-4	External Sensor	E-2DB E08
1. E-2DB E08 Digital Input 1	Digital Inputs	E-2DB E08
2. E-2DB E08 Digital Input 2	Digital Inputs	E-2DB E08
1. CPU250 Win Server 2016	IP Devices	E-2DB E08
1. E-MICRO E03	IP Sensors	E-2DB E08
1.1 E-MICRO E03 Temperature	IP Sensors	E-2DB E08
1.2 E-MICRO E03 Humidity	IP Sensors	E-2DB E08
1.3 E-MICRO E03 Humidity Dew Point	IP Sensors	E-2DB E08
E.1 E-MICRO E03 Temperature 1	IP Sensors	E-2DB E08
E.4 E-MICRO E03 Temperature 2	IP Sensors	E-2DB E08
E.5 E-MICRO E03 Humidity 2	IP Sensors	E-2DB E08
E.6 E-MICRO E03 Dew Point 2	IP Sensors	E-2DB E08
D.1 E-MICRO E03 Digital Input 1	IP Sensors	E-2DB E08
D.2 E-MICRO E03 Digital Input 2	IP Sensors	E-2DB E08
1. E-1W P01	IP Sensors	E-2DB E08
E.1 E-1W P01 Temperature 1	IP Sensors	E-2DB E08

Figure 30- Sensors being monitored

The initial list will be all of the sensors, cameras, remote IP Devices and IP Sensors (E-MICRO-TRH(P) and E-1W(P)) that are attached to the Devices and are now being monitored by the E-MNG-SH. To see the details for a specific sensor in that list, click on the blue text for the Sensor Name.

Sensor values, a historical graph, and all settings for that sensor can be viewed. Settings can also be changed if desired.

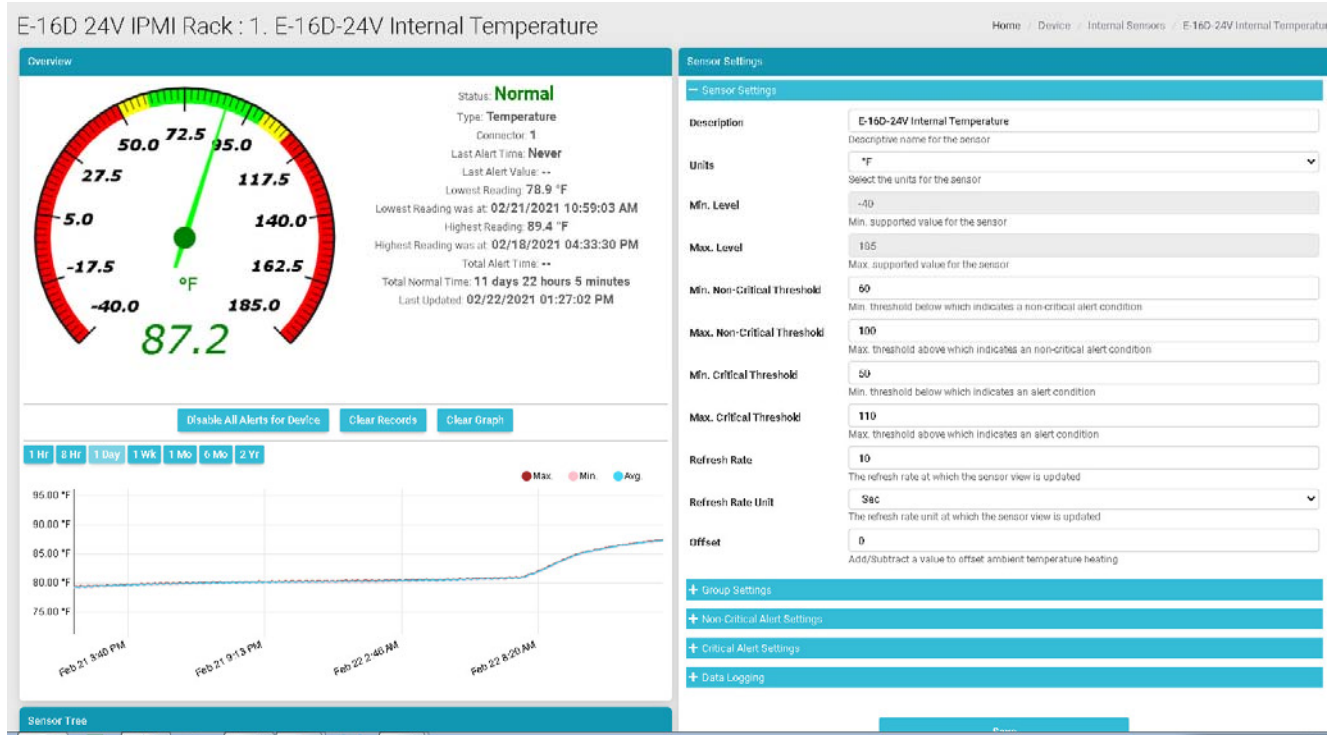


Figure 31- Details for Internal Temperature Sensor

To quickly find a sensor, type all or part of a sensor name or Device name in the “Search Sensors” box.

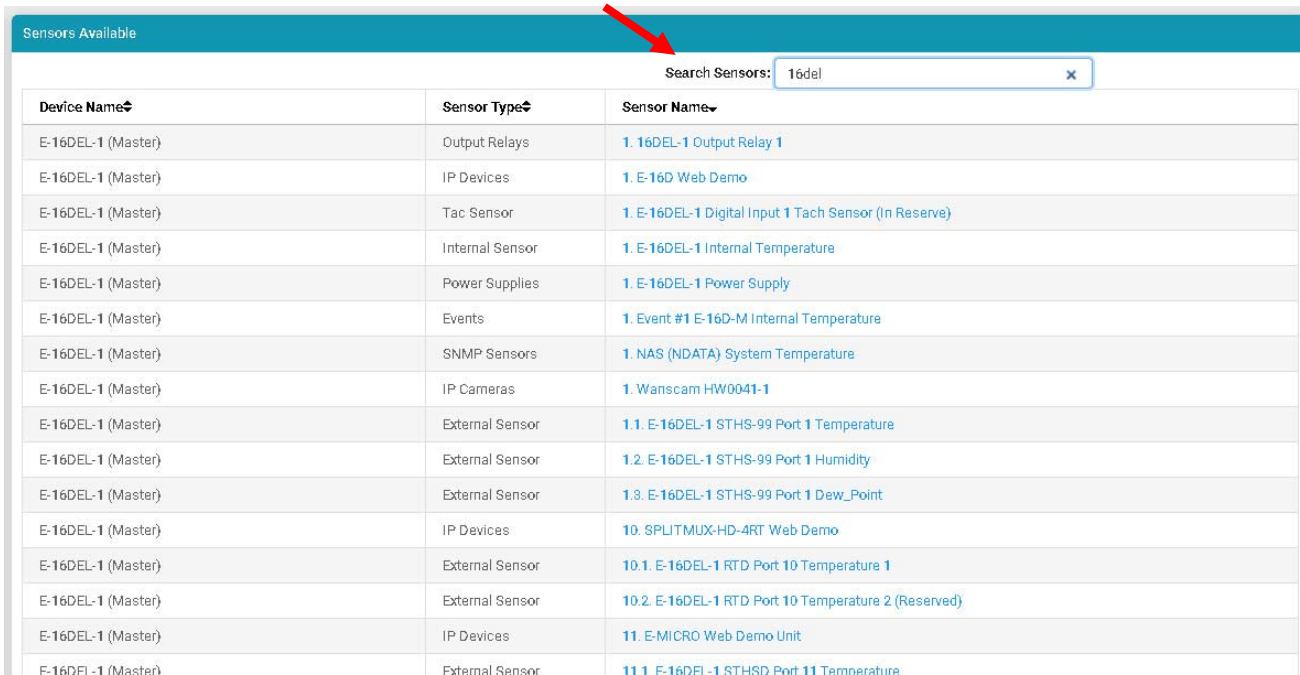


Figure 32- Use Search Sensors box

To see sensors connected to a specific Device, double-click or expand the Device in the group.

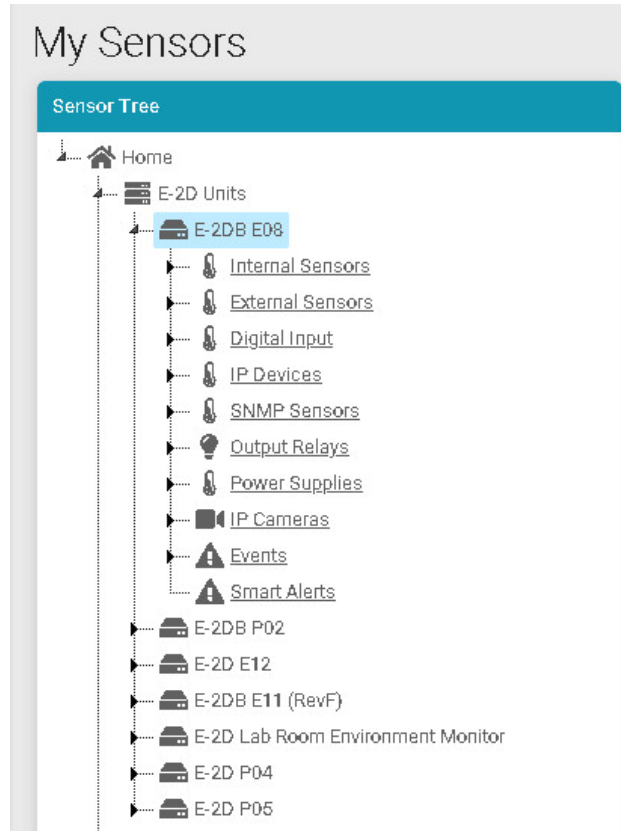


Figure 33- Sensors, relays, IP Cameras etc attached to a specific Device

If you click once on a specific sensor category, the screen format will change and show the status of all sensors in that category.

External Sensors : E-2DB E08

Description	Type	Value	Status	Action
1.1. E-2DB E08 Temperature 1	Temperature Combo	79.1 °F	Normal	<a href="#">View</a> <a href="#">Delete</a>
1.2. E-2DB E08 Humidity 1	Temperature Combo	18.7 %	Normal	<a href="#">View</a> <a href="#">Delete</a>
1.3. E-2DB E08 Dew Point 1	Dew Point	32.8 °F	Normal	<a href="#">View</a> <a href="#">Delete</a>
2.1. E-2DB E08 ACDCM Sensor 2-1	AC Voltage	0.0 V	Normal	<a href="#">View</a> <a href="#">Delete</a>
2.2. E-2DB E08 ACDCM Sensor 2-3	DC Voltage	-0.1 V	Normal	<a href="#">View</a> <a href="#">Delete</a>
2.3. E-2DB E08 ACDCM Sensor 2-2	AC Current	0.0 %	Normal	<a href="#">View</a> <a href="#">Delete</a>
2.4. E-2DB E08 ACDCM Sensor 2-4	DC Current	0.4 %	Normal	<a href="#">View</a> <a href="#">Delete</a>

+ Add External Sensors

Sensor Tree

- Home
- E-2D Units
  - E-2DB E08
    - Internal Sensors
    - External Sensors
    - Digital Input
    - IP Devices
    - SNMP Sensors
    - Output Relays
    - Power Supplies
    - IP Cameras
    - Events
    - Smart Alerts
  - E-2DB P02
  - E-2D E12
  - E-2DB E11 (RevF)
  - E-2D Lab Room Environment Monitor
  - E-2D P04
  - E-2D P05

Figure 34- External Sensors connected to specific Device

From that screen you can view each sensor, or delete it from the list.

## SETUP A DASHBOARD

Groups of sensors can be monitored in Dashboards containing rows and columns displaying the status of individual sensors. Each of the sensors monitored on each of the Devices can be added to various Dashboards and organized in rows and columns as necessary for easy viewing.

To get started, click the "Edit" button next to "Dashboard1".

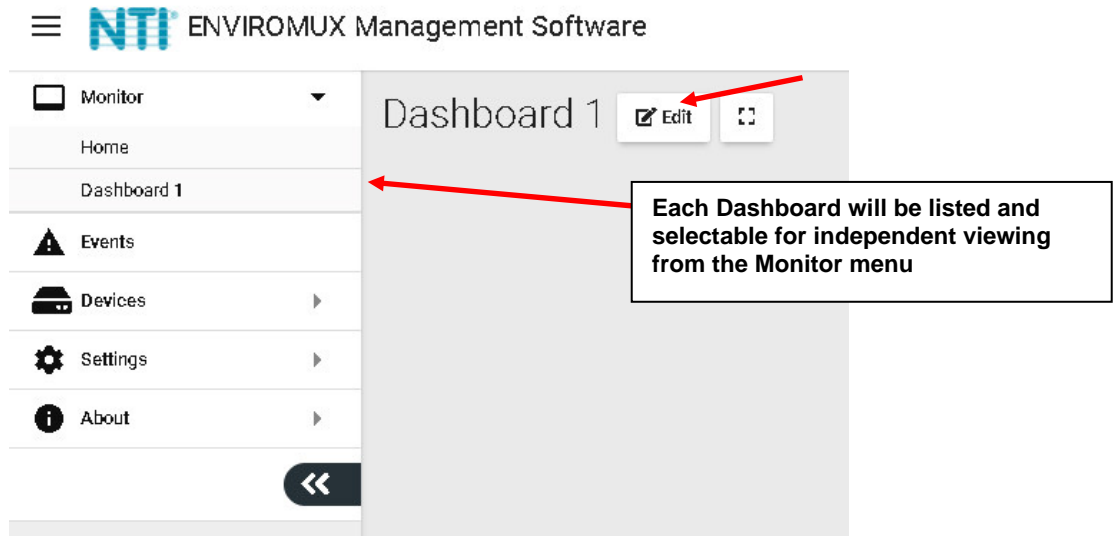


Figure 35- Initial Monitoring Dashboard menu

This will open the window into the options available for creating new Dashboards. With the editing window open, you can change the name of the Dashboard, add a new Dashboard, or add a new row of monitored sensors to the layout. If you click the Finish Edit button, the editing window will close and the configured Dashboard will remain.

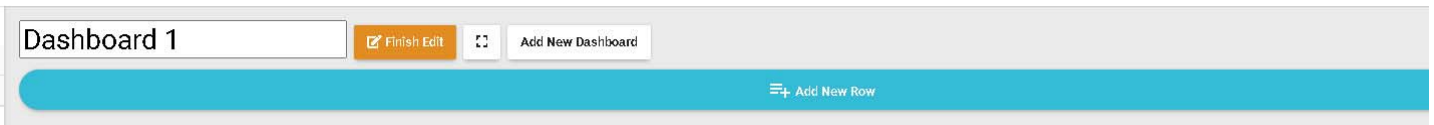


Figure 36- Dashboard options

Click "Add New Row" to establish your first row of sensors. Click the "X" to delete the row and all columns in it.

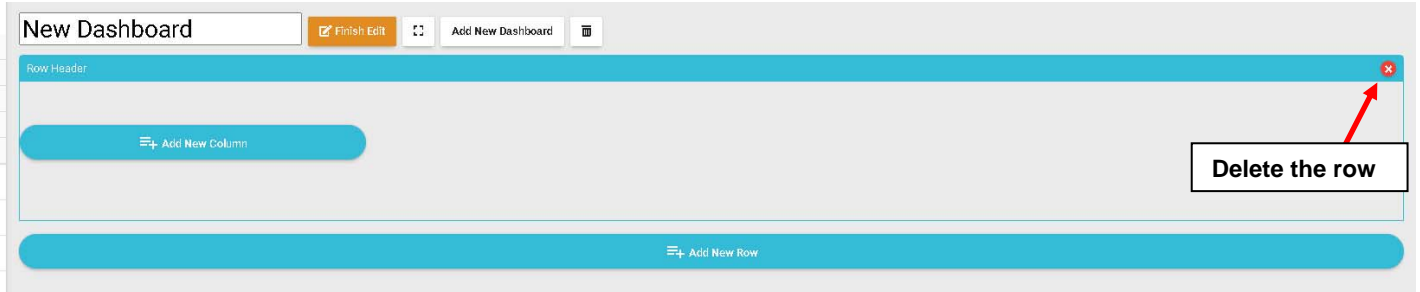


Figure 37- How to add Columns or delete Rows

Then click the "Add New Column" to create a column in that row. Click it multiple times for multiple columns. We recommend all columns fit in the same row side by side. To resize the columns click on the Decrease or Increase icon, as many times as needed, and that column will resize accordingly after a short delay (see also page 27) .

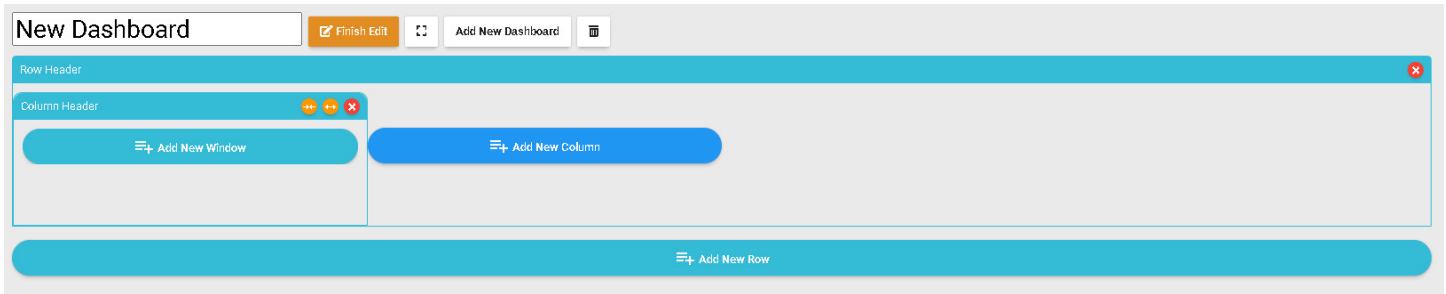


Figure 38- Ready to add a sensor window

To add a sensor, in the Column Header, click the "Add New Window". A list of all sensors connected to all of the Devices will appear, 10 at a time. Select which sensor is to be monitored in the column. You can also enter a name to associate with that sensor. Navigate through the many sensors available.

Sensors can be viewed as individual sensors, graphs for single sensors, gauges for single sensors and much more. IP Camera snapshots, an alerts list, or Device status can also be viewed.

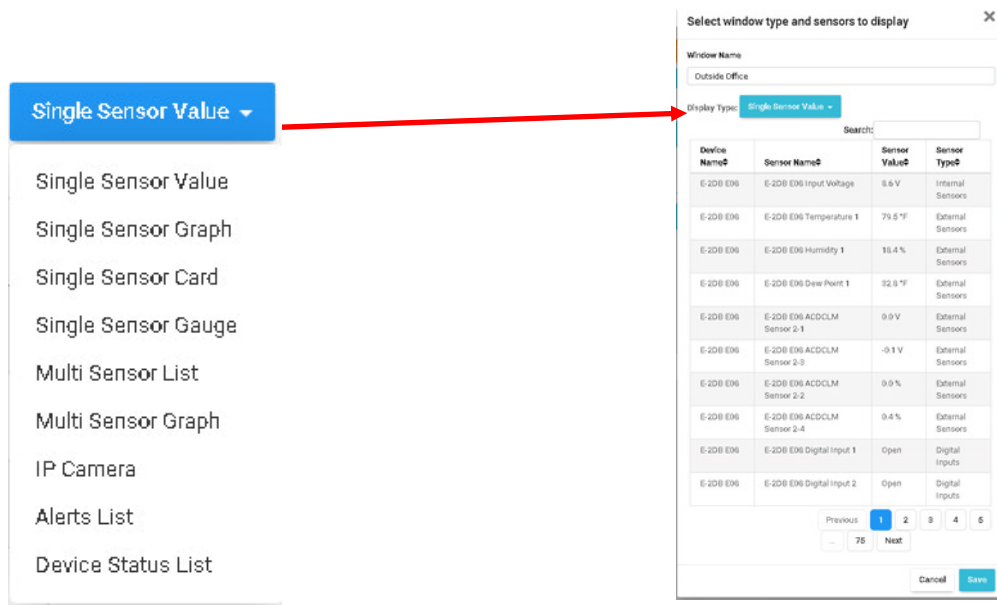


Figure 39- Select sensors to view

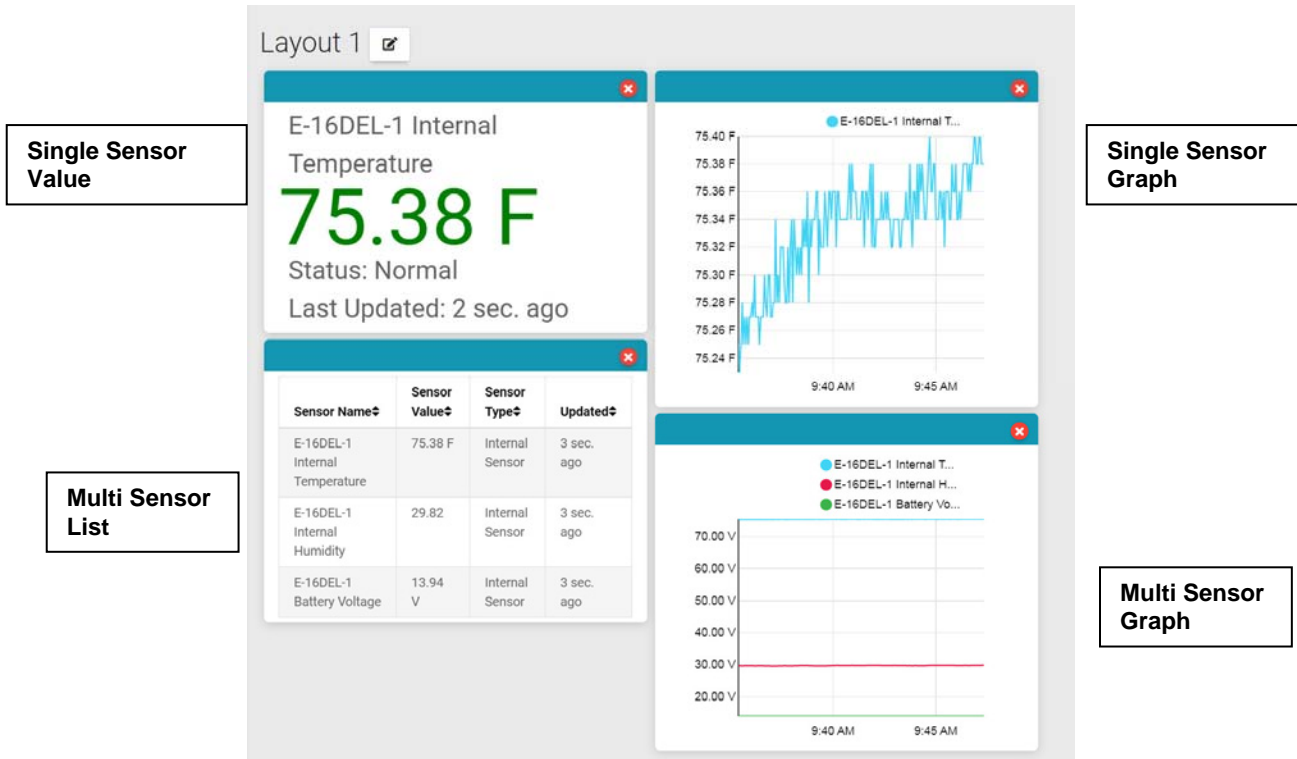


Figure 40- Multiple types of views available

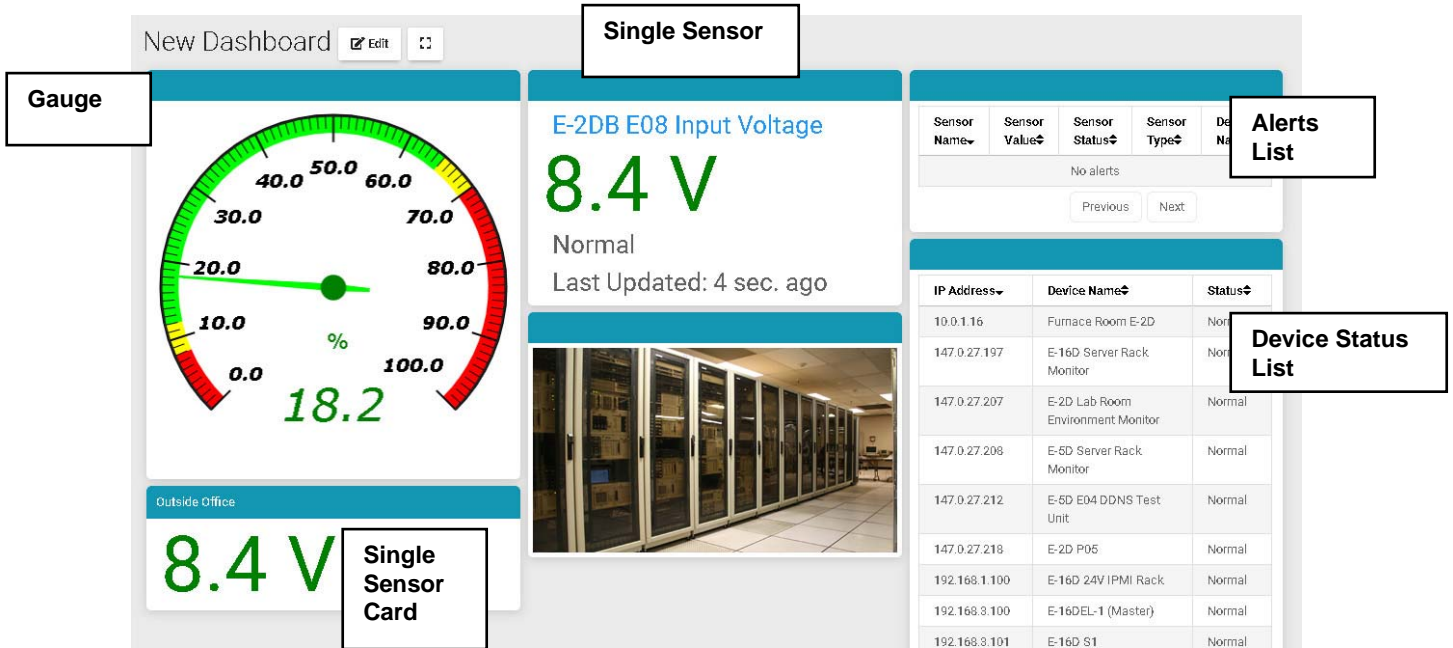


Figure 41- More types of views

To select one sensor, click one listed item and it will turn blue. Click "Save" to enter that in the column.

To select multiple sensors, there is no need to hold the shift key. Clicking one after the other keeps the sensor selected.

To deselect a sensor, click the sensor again.

Once done click "Save" to enter them in the same window.

To quickly locate the sensor you want to display, use the Search box to enter characters in the description to sort the available sensors and display only the ones that include your search parameters.

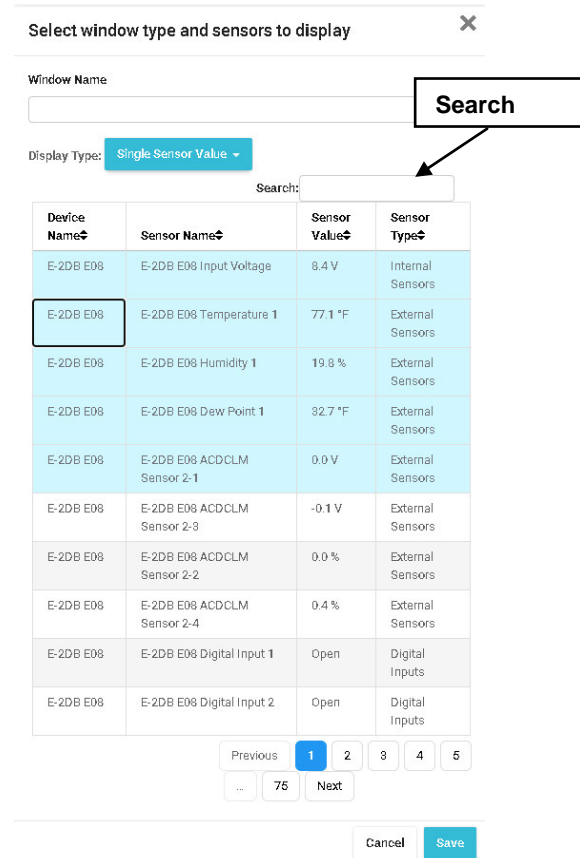


Figure 42- Select one or more sensors

To delete a window in a column, click the red "X" in the upper right corner of the window.

If you wish to change the order in which your sensors are viewed, you can move a window from one column to another. First add the column if it doesn't already exist, then simply drag the window by holding the window header bar to the target column. While dropping to the target column, that column will show a white placeholder indicating that the window can be dropped there.

Use the Increase button to increase the width of a selected column.

Use the Decrease button to decrease the width of a selected column.

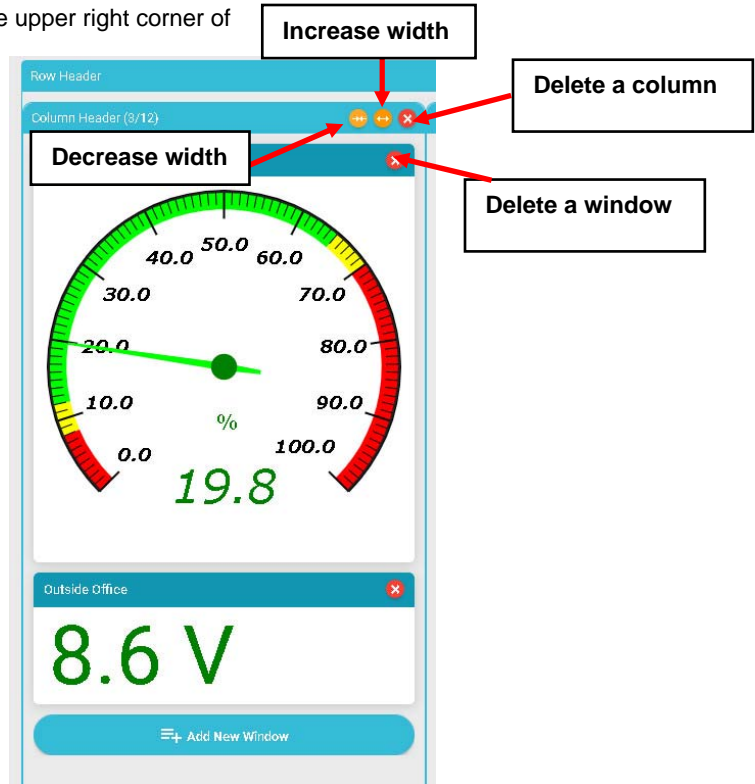


Figure 43- Change the width of a column

To add a new group of sensors to a separate row, Click "Add New Row" and configure the new row in the same fashion.

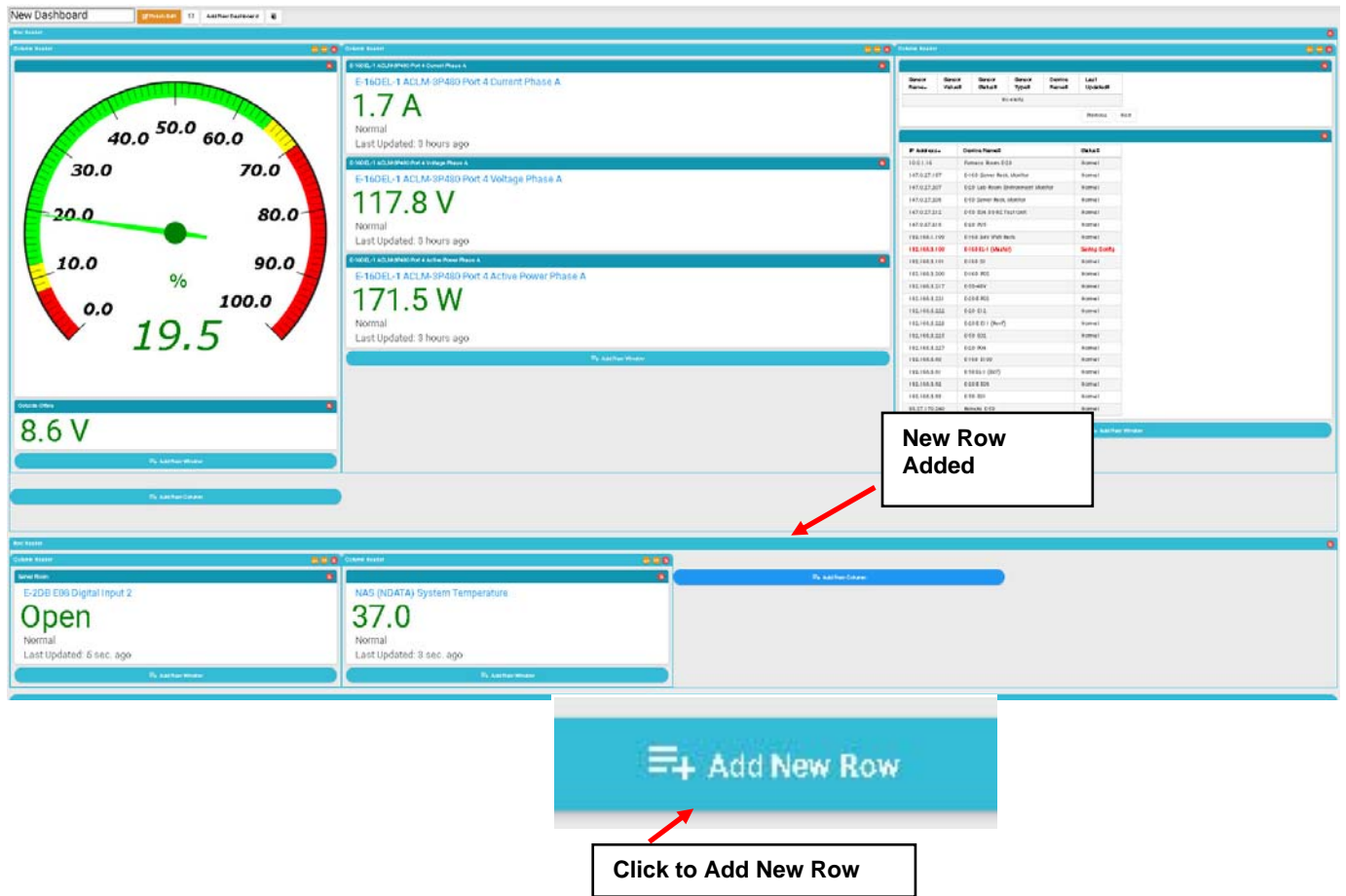


Figure 44- Add a new row of sensors

To logout of the server without shutting the Server down, click on the Root icon in the upper right corner of the screen, and click on "Log Out".

Message number (image right) indicates the number of alerts triggered since the last alert was viewed or acknowledged by this user

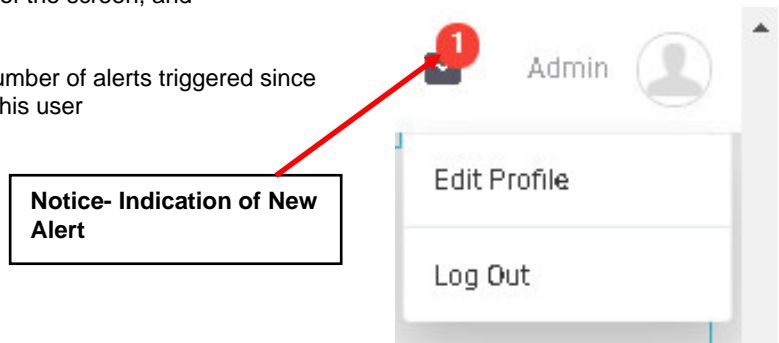


Figure 45- Log out



There is no limit to the number of Dashboards that can be setup to organize the type of sensor data you want to see. For example, a "Graphs" Dashboard was setup to view only the graphs from specific sensors.

When in full screen mode (see bottom of this page), scrolling the screen is not possible. Please make sure all windows fit inside the screen to be visible on the monitor.

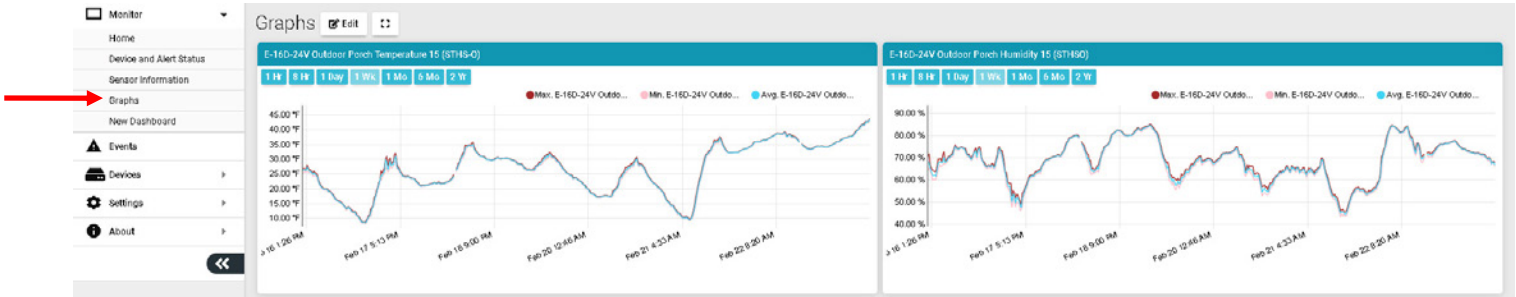
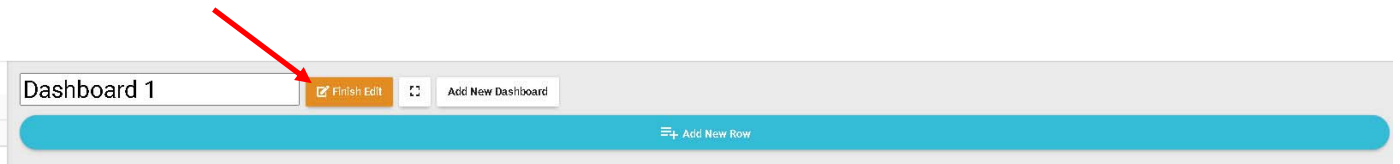


Figure 46- Dashboard setup to display specific content

Once you are finished editing a Dashboard, click "Finish Editing"



While viewing your Dashboard, to make it fill your screen, click on the small box to the right of the Edit button. Press the "Esc" key to return to normal viewing.

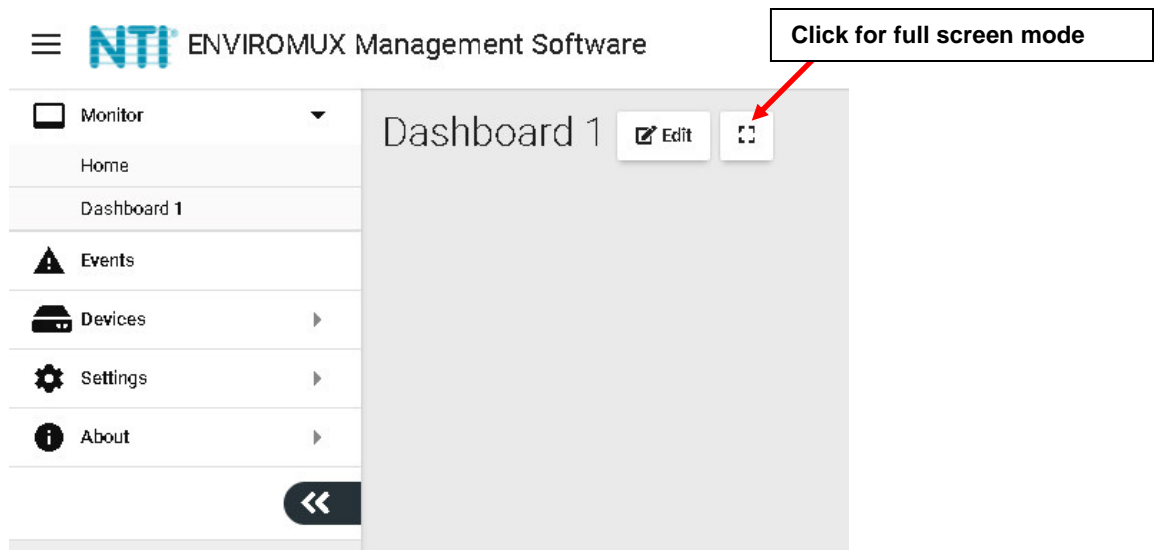


Figure 47- Enable full screen view

## EVENTS MENU

The E-MNG-SH can provide information on alerts generated by the devices it is monitoring, and will provide that information in three different forms.

**Events Log** will provide a list of events that have occurred for each device/sensor the E-MNG-SH is monitoring.

**Reports**, once configured, will contain event information on selected sensors, devices (and all sensors connected to those devices), or markers assigned to configured maps. The information the reports will provide includes 1) the combined number of alerts that have been generated by each selected sensors/device's sensors/markers in the maps and 2) the combined length of time each of those devices/sensors/markers were in alert. The frequency of reports and the data present in reports can be configured by "Triggers" and "Actions" respectively.

**Recordings** are a collection of IPCAM snapshot recordings that have been saved as configured in each sensor alert that is set to provide a snapshot recording from a connected IPCAM.

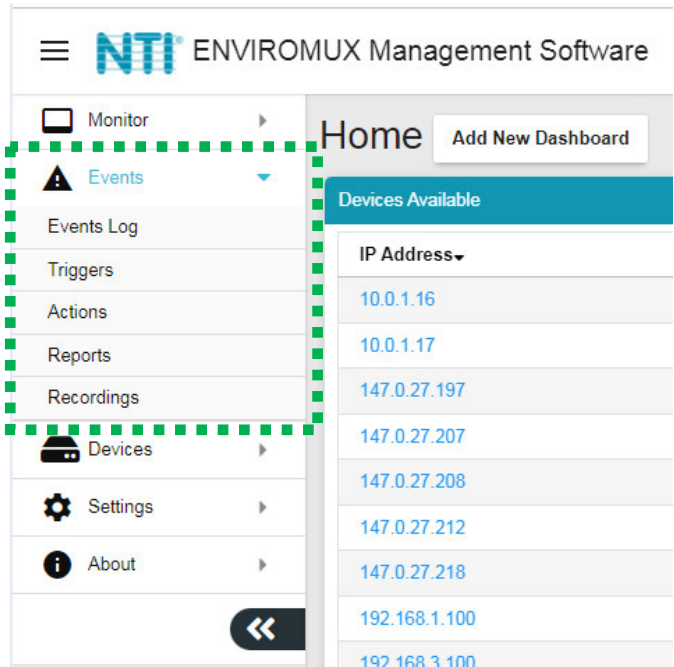


Figure 48- Events Menu

## Events Log

The Events Logs is where Sensor Events, Smart Alerts and Alert messages are individually recorded. The time of each event, the type of event and the source of each event are recorded.

Alert logs are recorded in red font.

When the alert is Acknowledged or Dismissed, the alert will show up in the Events Log along with the name of the user.

From the link in the message, you can click and go directly to the sensor to see its current state.

Time	Event Type	Message
02/23/2021 10:34:36 AM	Info	Sensor 4.1 E-5DEL Port 4 NLS returned to Normal on device E-5DEL-1 (E07)
02/23/2021 10:23:32 AM	Alert	Sensor 4.1 E-5DEL Port 4 NLS went into Alert on device E-5DEL-1 (E07)
02/23/2021 10:14:57 AM	Info	Sensor 4.1 E-5DEL Port 4 NLS returned to Normal on device E-5DEL-1 (E07)
02/23/2021 10:11:38 AM	Alert	Sensor 4.1 E-5DEL Port 4 NLS went into Alert on device E-5DEL-1 (E07)
02/23/2021 10:00:15 AM	Info	Sensor 4.1 E-5DEL Port 4 NLS returned to Normal on device E-5DEL-1 (E07)
02/23/2021 09:59:41 AM	Alert	Sensor 4.1 E-5DEL Port 4 NLS went into Alert on device E-5DEL-1 (E07)
02/23/2021 09:52:04 AM	Info	Sensor 1.1 E-16D-24V IPMI Rack Motion Detector 1 AE/7% returned to Normal on device E-16D 24V IPMI Rack
02/23/2021 09:51:53 AM	Alert	Sensor 1.1 E-16D-24V IPMI Rack Motion Detector 1 AE/7% went into Alert on device E-16D 24V IPMI Rack
02/23/2021 09:24:43 AM	Info	Smart Alert 2.Smart.Alert.#2 Beacon & Siren Trigger returned to Normal on device E-2D Lab Room Environment Monitor
02/23/2021 09:24:43 AM	Info	Smart.Alert.1.Smart.Alert.#1 Lab Intrusion returned to Normal on device E-2D Lab Room Environment Monitor
02/23/2021 09:24:43 AM	Info	Event 4.Event.#4 Lab Smoke Detector returned to Normal on device E-2D Lab Room Environment Monitor
02/23/2021 09:24:43 AM	Info	Event 3.Event.#3 Lab Water Sensor returned to Normal on device E-2D Lab Room Environment Monitor
02/23/2021 09:24:43 AM	Info	Event 2.Event.#2 Lab Equipment Door returned to Normal on device E-2D Lab Room Environment Monitor
02/23/2021 09:24:43 AM	Info	Event 1.Event.#1 Lab Main Door returned to Normal on device E-2D Lab Room Environment Monitor
02/23/2021 09:23:35 AM	Info	Smart.Alert.2.Smart.Alert.2 Beacon & Siren Alerts returned to Normal on device E-16D Server Rack Monitor
02/23/2021 09:23:16 AM	Info	Smart.Alert.1.Smart.Alert.1 Environmental IPIS Shutdown returned to Normal on device E-16D Server Rack Monitor

Figure 49- Events Log

If a sensor is in alert, you can directly connect to it and Acknowledge or Dismiss the alert.

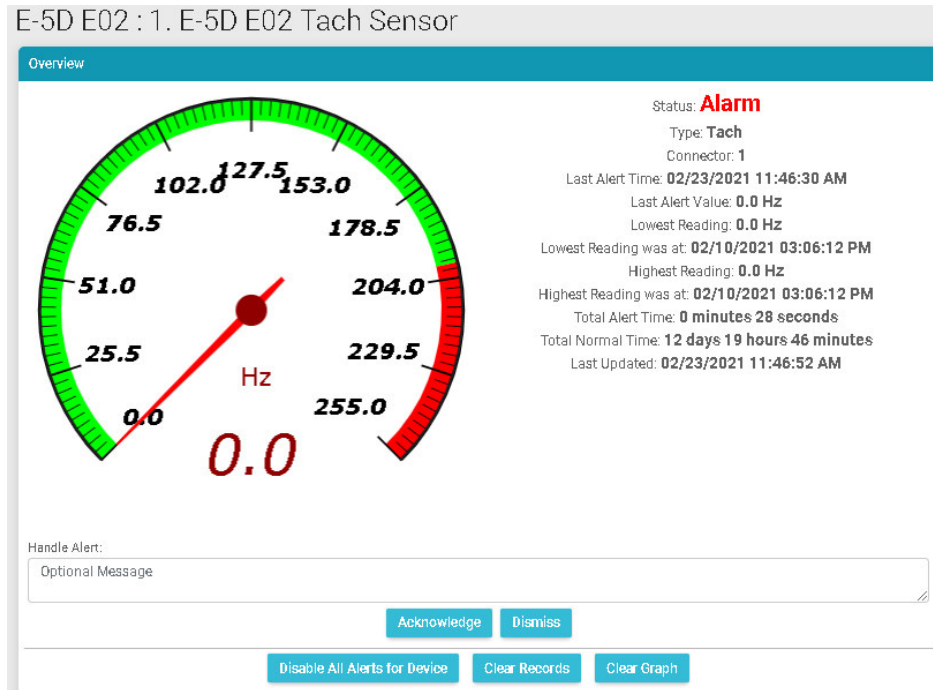


Figure 50- Connect directly to acknowledge or dismiss alert

Whether the Event is viewed on the Events Log page, or from a Dashboard displaying the event, you can click on the sensor in the image and address the event directly.

You can click on the alert to Acknowledge/Dismiss the alert directly from Dashboard.

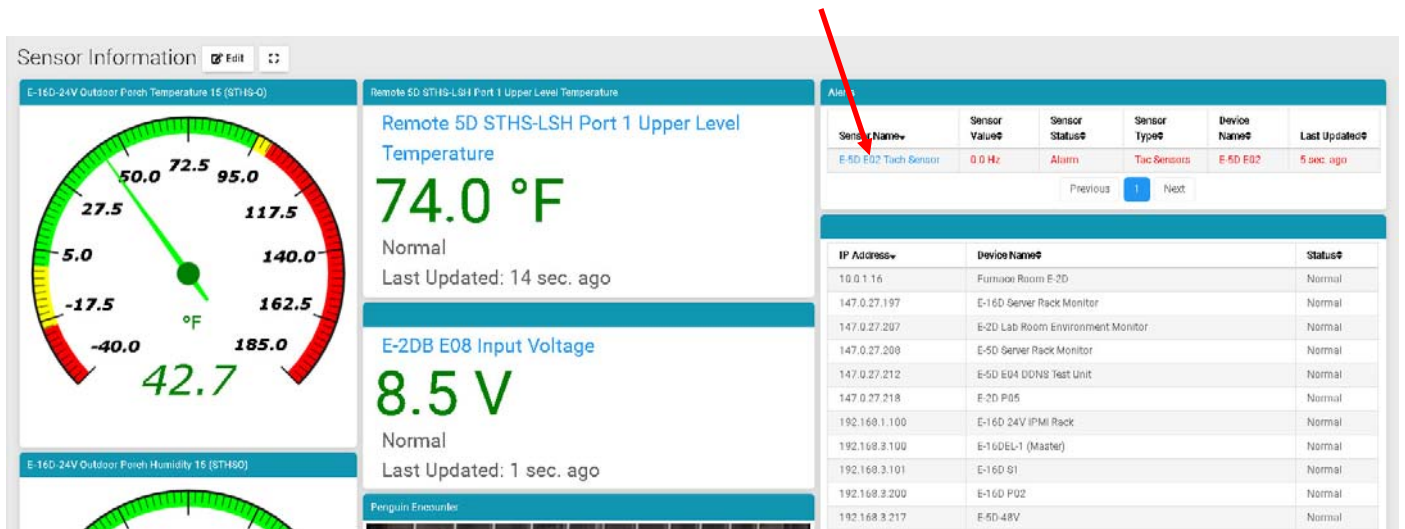


Figure 51- View and connect directly with sensor through the Dashboard

When you click on the alert from the Dashboard, a pop-up will display providing the option to acknowledge or dismiss it.

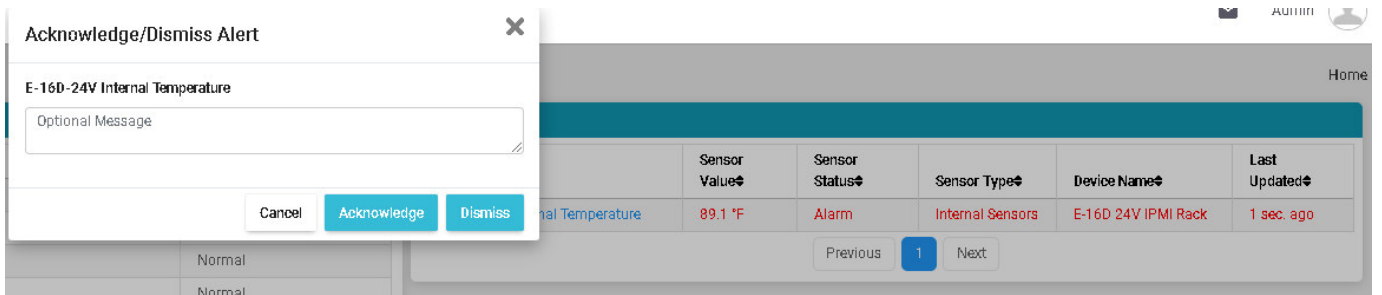


Figure 52- Acknowledge or Dismiss alert pop-up

## Reports

**Reports** will contain event information on selected sensors and devices individually or in groups as they are assigned to Devices, or markers assigned to configured maps. Before you must configure Actions to be reported on and Triggers for how often to have Reports generated.

First click on “Actions” in the Events menu. Apply a name to the Action you will create. Then click on “Add New Action” and your new Action will appear in the list to the left.

Once the Action is listed, click on “Edit” to configure it.

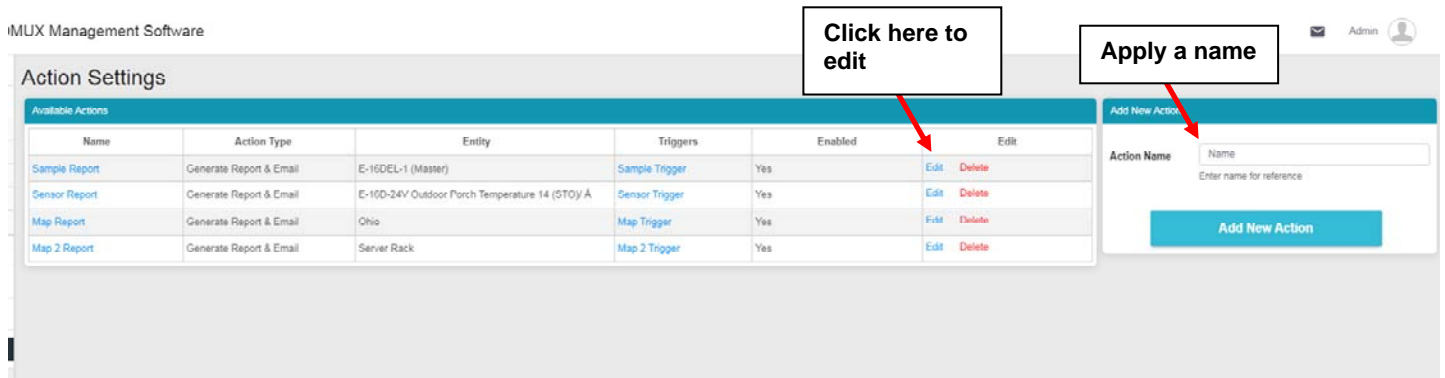


Figure 53- Action List

Edit Action: Sample Report

**Edit Action**

Last Run Time: 01/25/2022 09:00:03 AM

Action Name: Sample Report  
Enter name for reference (Optional)

Action Enable:  Select to enable this action

Action Type: Generate Report & Email  
Select what action to take

Report Period: Last Day  
The period for which to generate report. Report Week starts on Sunday

Report Data Type: Device  
Select the type of data this report should have

Select Device

Device Name	IP Address	Parent Group Name
Device 192.168.3.100	Device 192.168.3.100	E-16D Units
Device 192.168.3.82	Device 192.168.3.82	E-2D Units
Device 192.168.3.222	Device 192.168.3.222	E-2D Units
Device 192.168.3.223	Device 192.168.3.223	E-2D Units
Device 147.0.27.207	Device 147.0.27.207	E-2D Units
Device 192.168.3.81	Device 192.168.3.81	E-5D Units
Device 147.0.27.208	Device 147.0.27.208	E-5D Units
Device 147.0.27.212	Device 147.0.27.212	E-5D Units
Device 192.168.3.101	Device 192.168.3.101	E-16D Units
Device 192.168.1.100	Device 192.168.1.100	E-16D Units

Devices that can be selected.

Select Triggers that activate this Action

Trigger Name	Trigger Frequency	Next Trigger Time	Enabled
Sample Trigger	Repeat Daily	01/26/2022 09:00:00 AM	Yes
Sensor Trigger	Repeat Weekly	01/27/2022 12:00:00 AM	Yes
Map Trigger	Repeat Daily	01/25/2022 12:00:00 PM	Yes
Map 2 Trigger	Repeat Weekly	01/31/2022 12:00:00 AM	Yes

Save Action

Run Action Now

Figure 54- Action Options

Be sure to enable the “Action Enable” block. Otherwise reports will not be generated.

For Action Type, select between “Generate Report” and “Generate Report & Email”. If you select “Generate Report & Email” then all users with “Email Alerts” selected (Figure 12) will received reports via email.

The Report Period is the data in the time period that reports should include. A long list of time periods is available to select from.

The Report can include alerts from specific sensors, sensors that are connected to specific devices (E-xD units) or sensors identified with markers place in configured maps. Available selections will adjust depending upon what Report Data Type you select.

Once Triggers have been set up, they will appear in the list. Triggers determine how often the Action will be initiated and when. Either select a Trigger to cause the action to occur and generate a report, or configure a new Trigger first (on the next page).

Be sure to click “Save Action” to retain your changes. To test the result of the action, click “Run Action Now”. The Report generated by that action should appear under Reports, and if you have selected it, each user with Email Alerts enabled will also receive a pdf copy of the report.

## Triggers

Triggers determine how often an Action will be taken and a Report generated from that Action.

Click “Triggers” in the Events menu. Apply a name to the Trigger you will create. Then click on “Add New Trigger” and your new Trigger will appear in the list to the left.

Once the Trigger is listed, click on “Edit” to configure it.

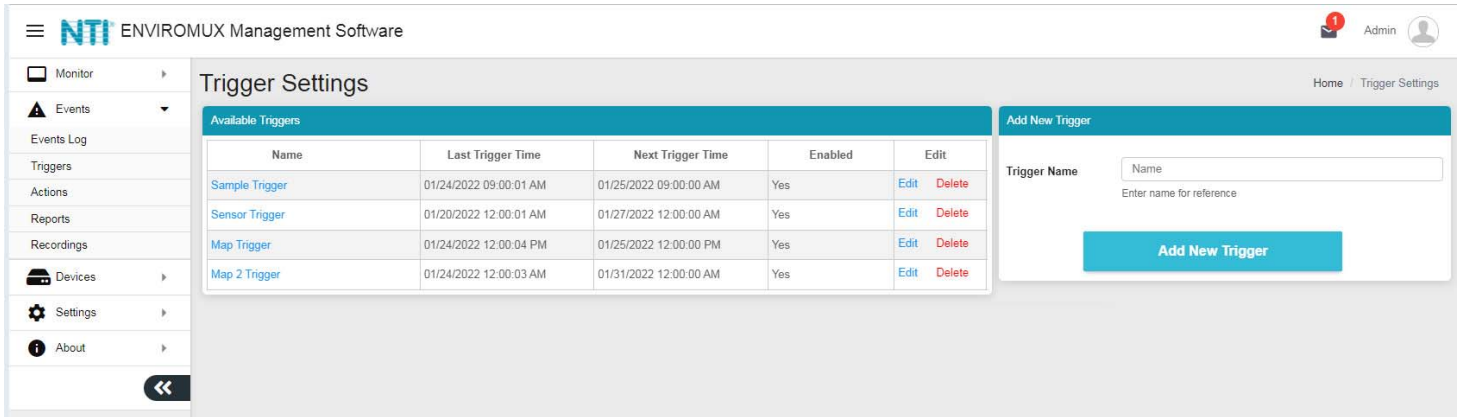


Figure 55- Trigger List

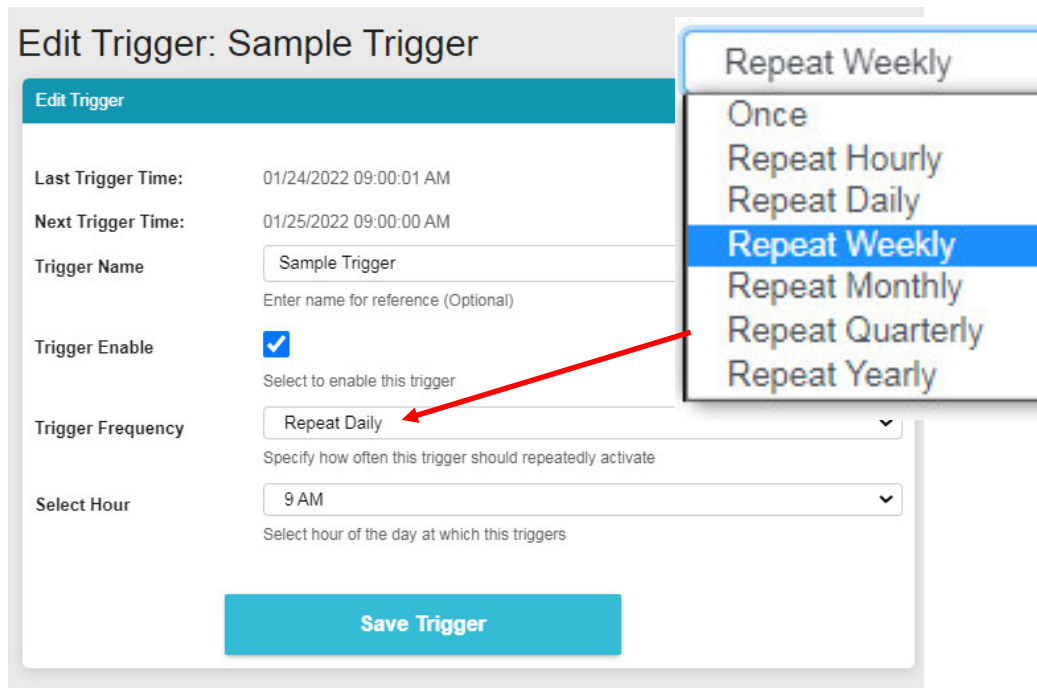


Figure 56- Trigger Options

If the Trigger had been previously setup, the last trigger time and next trigger time will be indicated.

The name given to the Trigger will be displayed and can be changed.

A checkbox to enable the Trigger is provided so that it can be used.

Select the Trigger Frequency from a list of options. Depending upon what Trigger Frequency is selected, the option for fine tuning the frequency will change. (See next page)

**Trigger Frequency**   
Specify how often this trigger should

**Select date and time of trigger**   
Select trigger date and time

**Trigger Frequency**   
Specify how often this trigger should repeatedly activate

**Select Minute**   
Select minute of the hour at which this triggers

**Trigger Frequency**   
Specify how often this trigger should repeatedly activate

**Select Hour**   
Select hour of the day at which this triggers

**Trigger Frequency**   
Specify how often this trigger should repeatedly activate

**Select day of month**   
Select day of the month at which this triggers

**Figure 57- Option detail for Trigger Frequency**

Be sure to click “Save Trigger” to retain your changes.

With Triggers and Actions setup, Reports will be generated and added to the Report List.

Report List						
Pending Reports: 0 Available Reports:						
7. E-16DEL-1 (Master) Device Report	Last Day	Completed	Device	01/08/2022 09:00:02 AM	<a href="#">View</a>	<a href="#">Download</a> <a href="#">Delete</a>
6. E-16DEL-1 (Master) Device Report	Last Day	Completed	Device	01/07/2022 09:00:02 AM	<a href="#">View</a>	<a href="#">Download</a> <a href="#">Delete</a>
5. E-16DEL-1 (Master) Device Report	Last Day	Completed	Device	01/06/2022 09:00:03 AM	<a href="#">View</a>	<a href="#">Download</a> <a href="#">Delete</a>
4. E-16D-24V Outdoor Porch Temperature 14 (STO) A Report	Last Week	Completed	Sensor	01/05/2022 11:54:51 AM	<a href="#">View</a>	<a href="#">Download</a> <a href="#">Delete</a>
3. E-16DEL-1 (Master) Device Report	Last Day	Completed	Device	01/05/2022 09:00:04 AM	<a href="#">View</a>	<a href="#">Download</a> <a href="#">Delete</a>
2. E-16DEL-1 (Master) Device Report	Last Day	Completed	Device	01/04/2022 09:00:06 AM	<a href="#">View</a>	<a href="#">Download</a> <a href="#">Delete</a>
1. E-16DEL-1 (Master) Device Report	Last Day	Completed	Device	01/03/2022 03:37:16 PM	<a href="#">View</a>	<a href="#">Download</a> <a href="#">Delete</a>

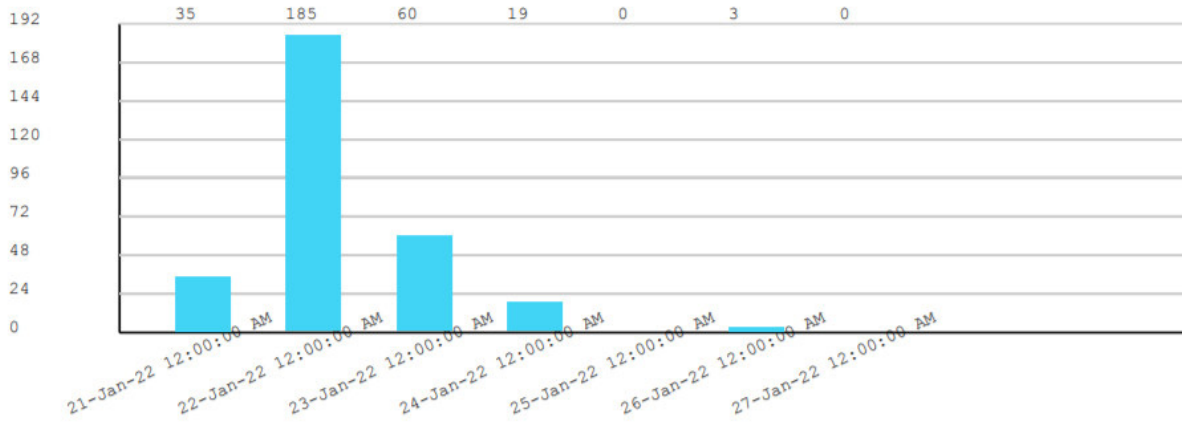
**Figure 58- Reports list**

With a report in the list, you can click “View” to see the content immediately, click “Download” to save it for viewing later, or click “Delete” if you don’t want it in the list any longer.

The sensor report will provide a graph indicating the total number of alerts generated by each sensor and the total length of time that sensor was in alert.

Maps and device reports provide an alert details summary and its trends (see image on next page). A maximum of 800 reports will be stored before the software automatically deletes the oldest reports.

E-16D Server Rack Monitor Alerts Count Trend



E-16D Server Rack Monitor Alerts Time Trend

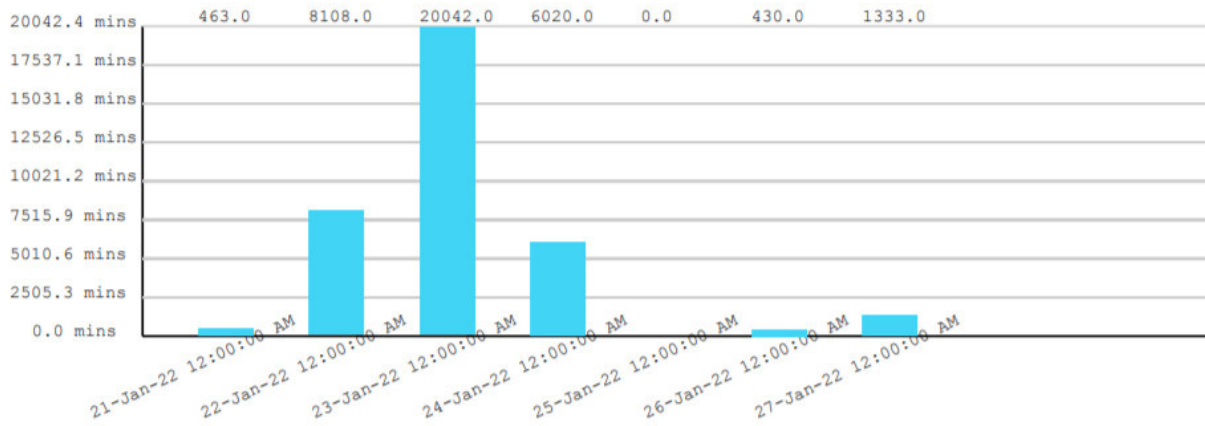
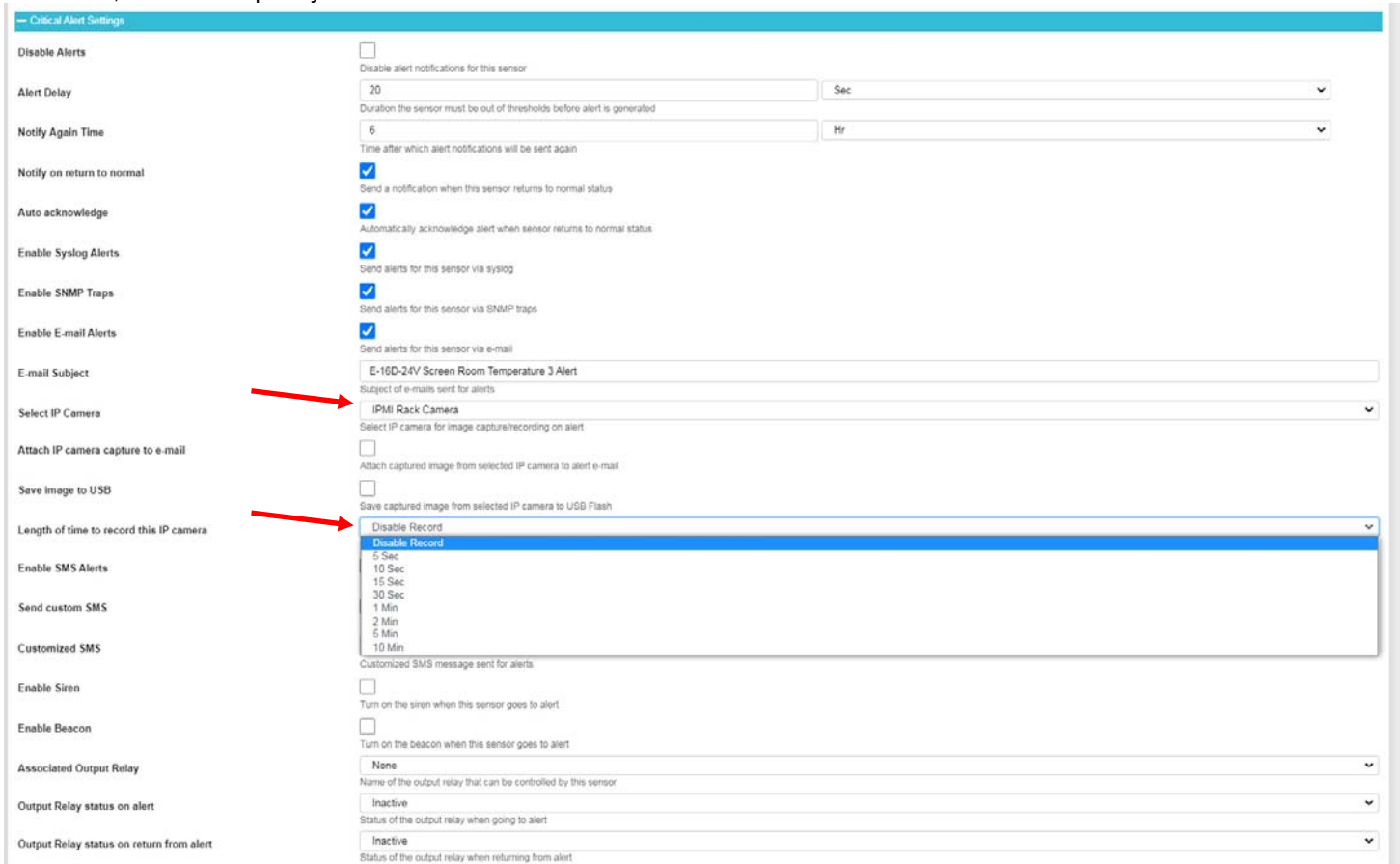


Figure 59- Report showing sensor alert trends



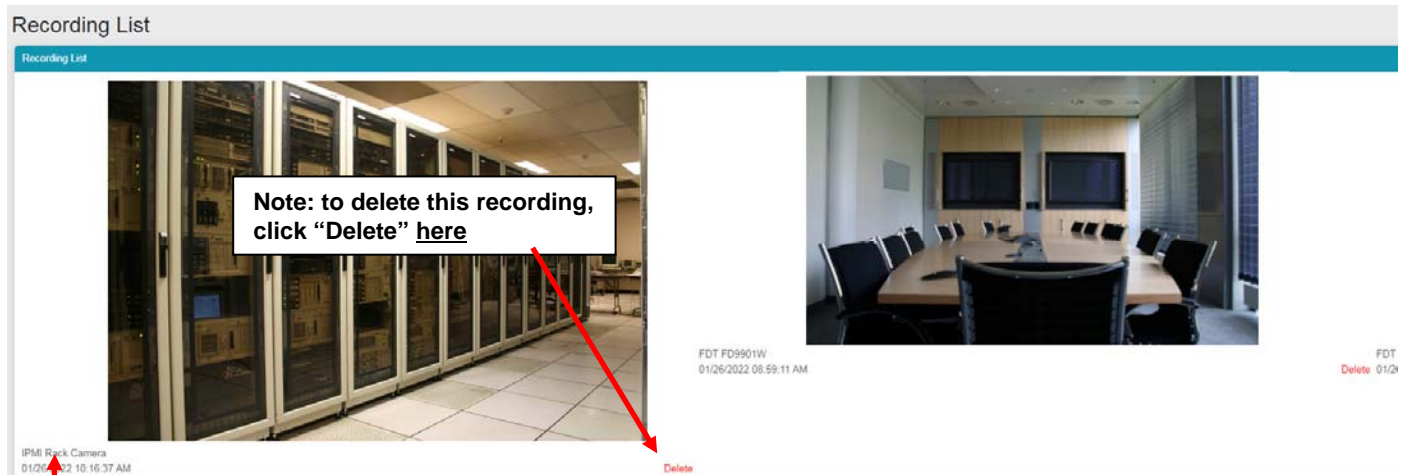
## Recordings

Recordings are snapshot recordings from selected IPCAMs when a sensor goes into alert. The IPCAM and the length of time it will record will be selected under critical alert settings for that sensor (below). Recordings are collections of snapshots from the camera, taken as frequently as the refresh rate for the camera is set for.



**Figure 60- User settings to enable Recording**

To see your recordings, click on “Recordings” in the Events menu. The camera the recording came from and time it was recorded will be in the bottom left corner of the recording. To delete a recording, click “Delete” in the bottom **right** corner of the recording image. Up to 1000 recordings will be stored before the software automatically deletes the oldest recording.



Label shows where the video was captured from and when

**Figure 61- Recording list**

# THE ABOUT MENU

The About menu includes tools for viewing the firmware version you are using and any details about it, as well as providing a link to this manual and a link to a contacts page should you need to contact NTI. Lastly it provides a link to the firmware downloads page where you can get access to the most current version of the E-MNG-SH program.

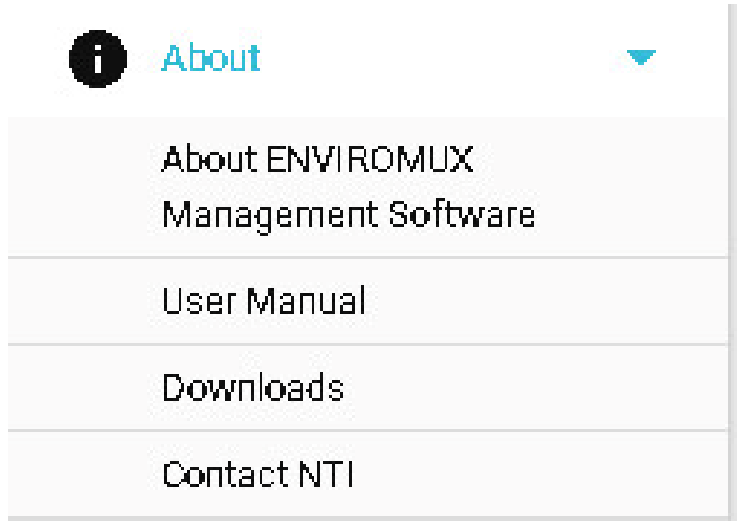
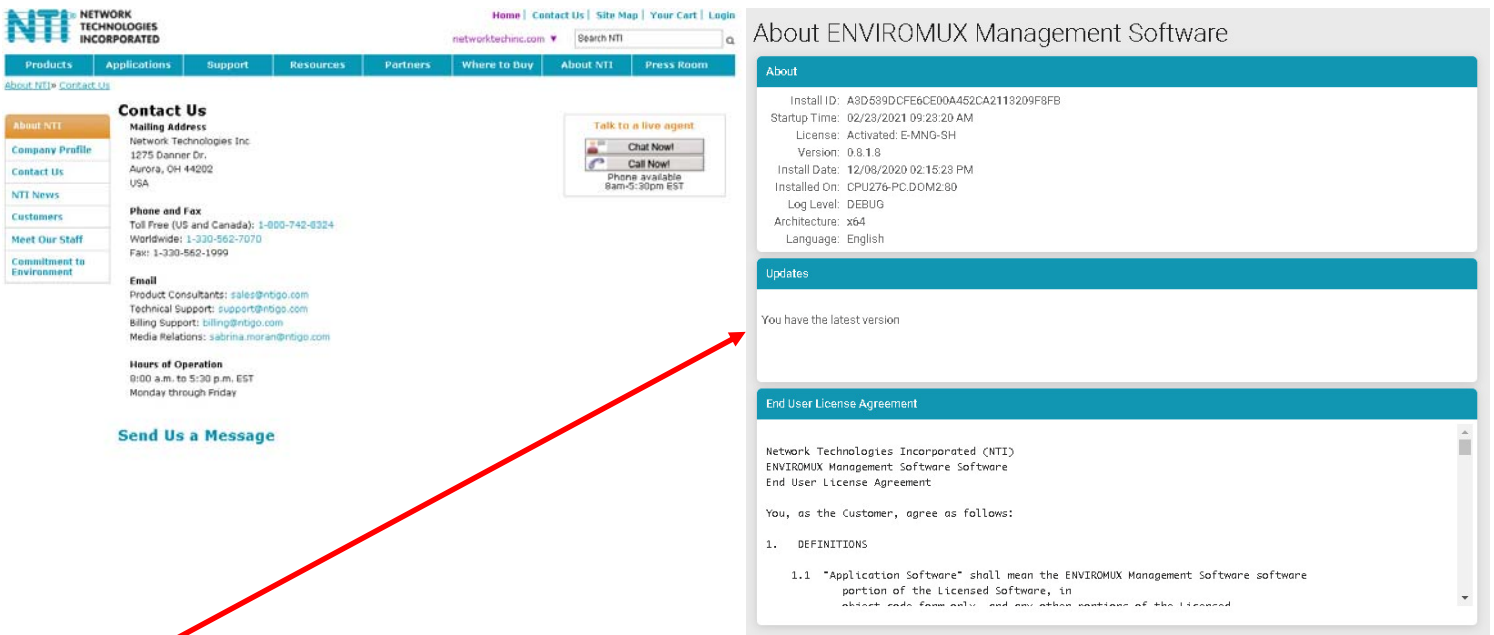


Figure 62- About menu



From the "About ENVIROMUX Management Software" page you can also, at a glance, see if another more current version of the software is available, without having to actually leave the program and go to the Downloads page.

## SHUT DOWN E-MNG-SH SERVER

To shut down the E-MNG-SH completely, left click the tray icon in the bottom right corner of your desktop.

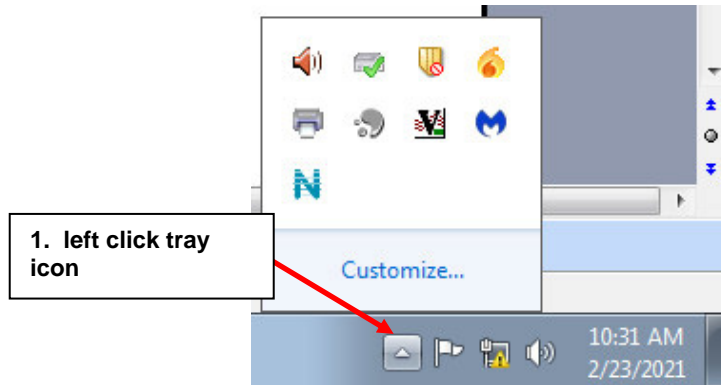


Figure 63- Click on Tray icon

Then right click the E-MNG-SH icon, and select Exit.

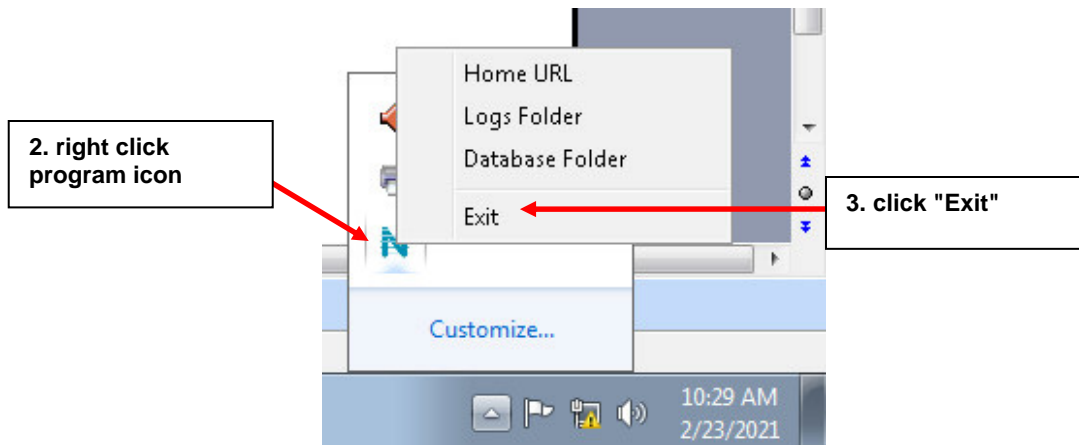


Figure 64- Exit the program

## OTHER TYPE DEVICES

The E-MNG-SH can be accessed from any network-connected computers/smartphone/tablet (provided the computer/smartphone/tablet has access to the Server the E-MNG-SH is on).

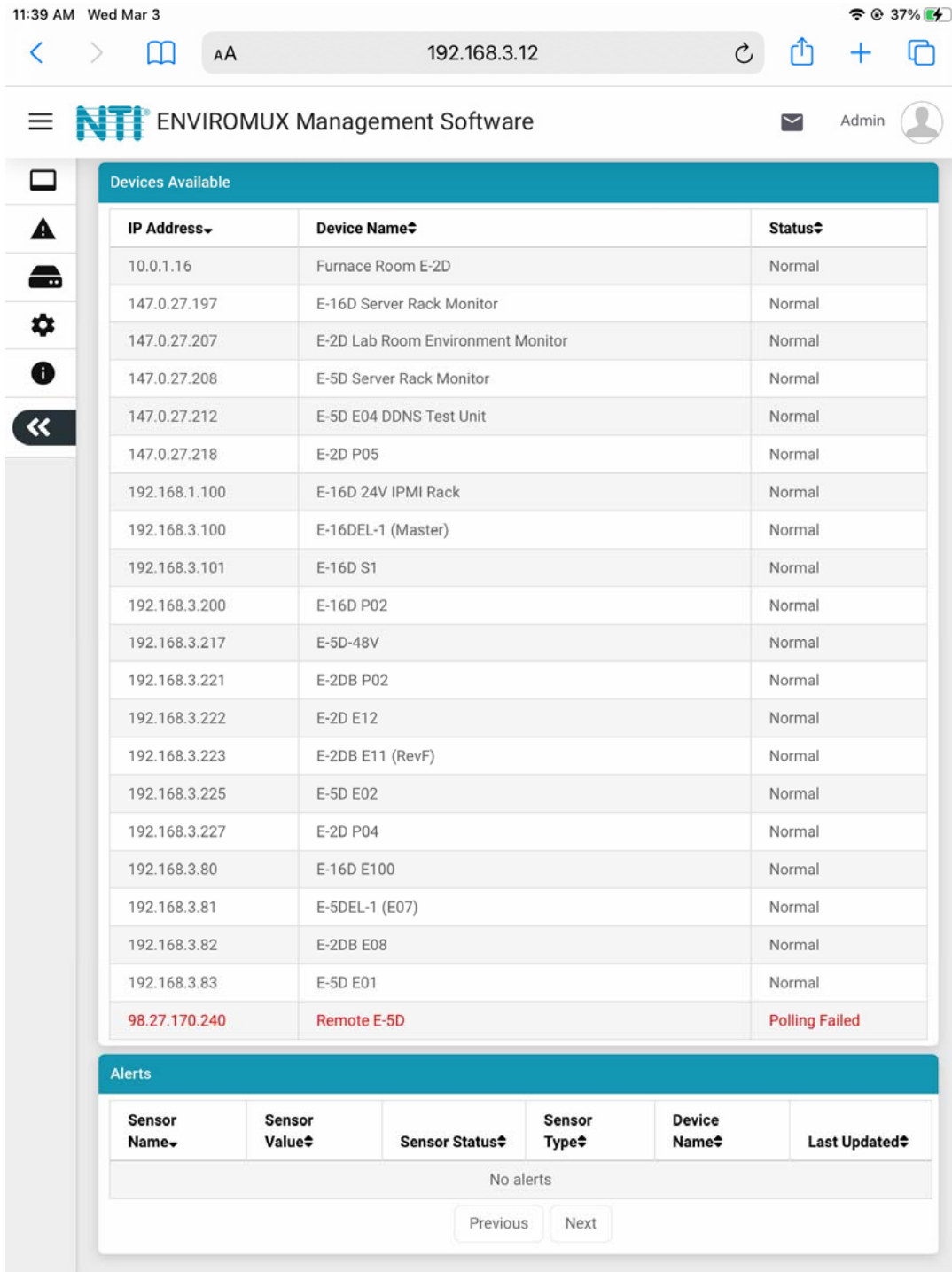


Figure 65- Screenshot from an iPad

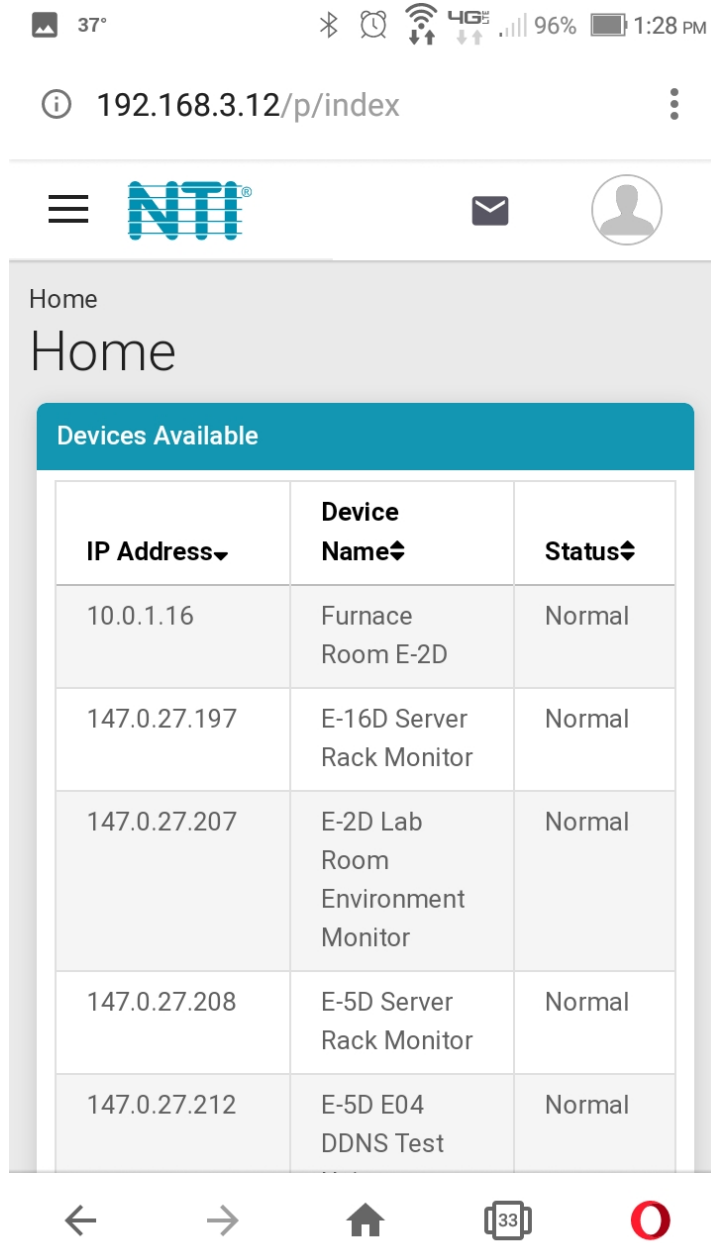


Figure 66- Screenshot from a smartphone

## UNINSTALL THE PROGRAM

To uninstall the program: Go to the appropriate programs settings page (i.e. Control Panel -> Programs and Features) and select the "ENVIROMUX Management Software" to uninstall.

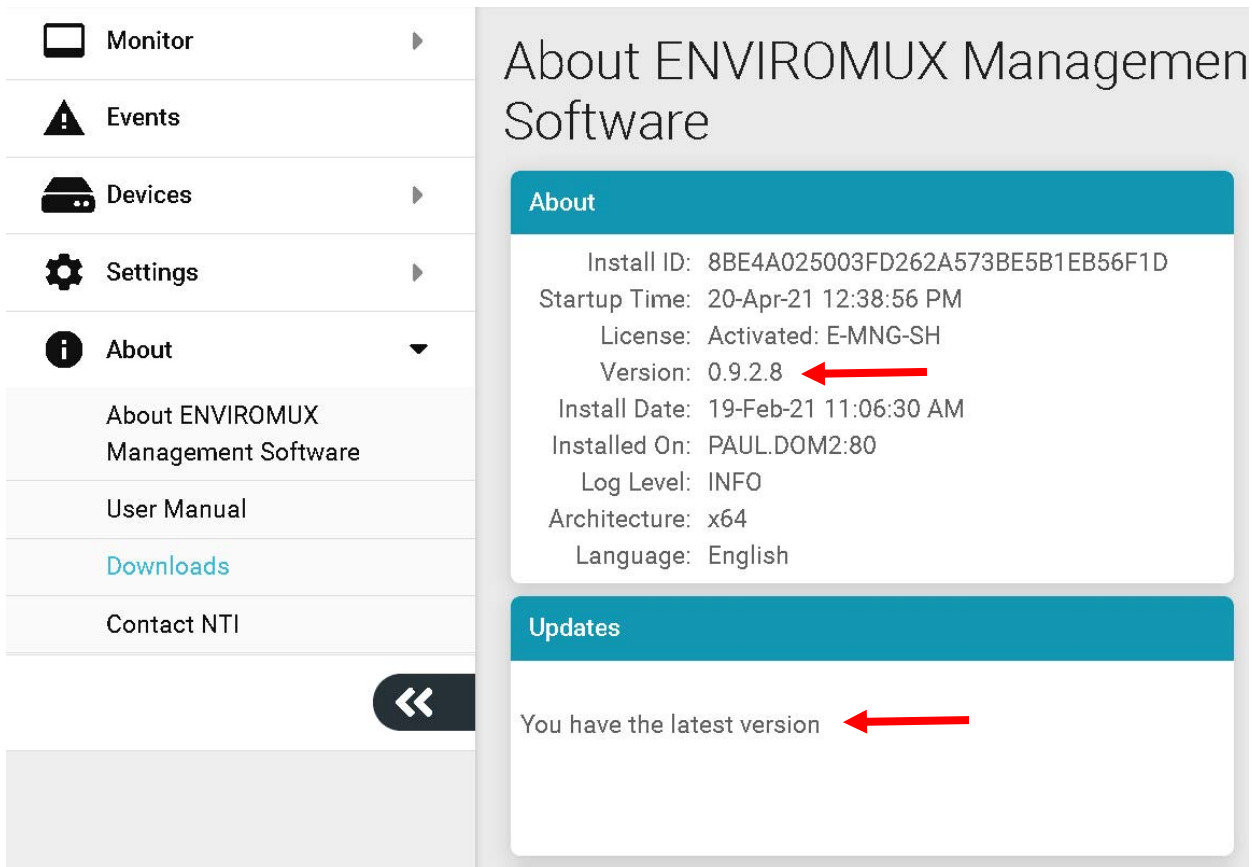
**Note:** Uninstalling the program will also remove any settings and saved sensor values. The license will remain (the license is not transferable)

## SOFTWARE UPDATE

From time to time a new version of this program will be available. If you decide to update, follow these steps.

1. Download the new software version to the computer/server the E-MNG-SH is installed on.
2. Shut down the E-MNG software if running on this computer/server.
3. Double-click on the new installation file to install. Once the update has completed, it will prompt for login from the default browser.

Login to the E-MNG-SH and verify that the update has worked. Click on "About" in the side menu, then click "About ENVIROMUX Management Software". The version number shown there will indicate what version you are running. The Updates section will get refreshed after the next update check.



## INDEX

About\_menu, 38  
activation, 5  
add Devices, 16  
application settings, 8  
dashboards, 24  
Device Discovery Tool, 20  
Events\_log, 30  
firewall, 6  
groups, 17  
Java Runtime Environment, 20  
maps configuration, 13  
my sensors list, 21  
recordings, 37  
reports, 32, 35  
shutdown server, 39  
software update, 42  
triggers, 34  
uninstall, 42  
Users-add, 11