



IRIS **Pro** Client Software

User Guide

EMIT

Overview

IRIS Pro monitors the performance of the EMIT Intelligent Room Ionization System (IRIS) and manages the functionality of the EMIT [50849](#) IRIS Power Supply. IRIS Pro receives live updates from the EMIT power supply and displays the results in a graphical form. Calibration and system activity are logged daily. Alerts are e-mailed in the event of a system failure.

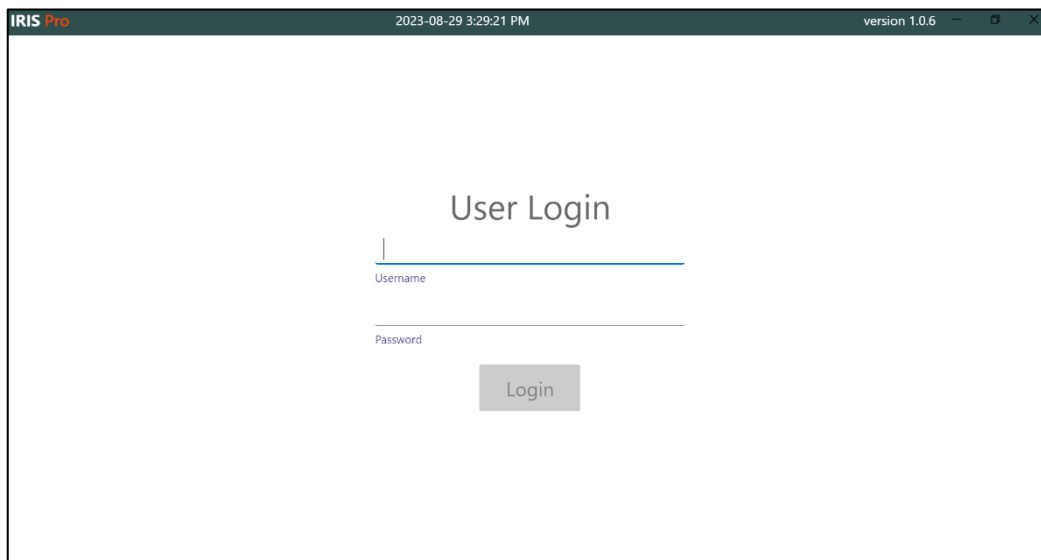
EMIT IRIS neutralizes electrostatic charges in an entire cubic volume of a room environment. Applications for IRIS include controlling Electrostatic Discharge (ESD) and Electrostatic Attraction (ESA).

The following user guide provides details on the functionality of the software.

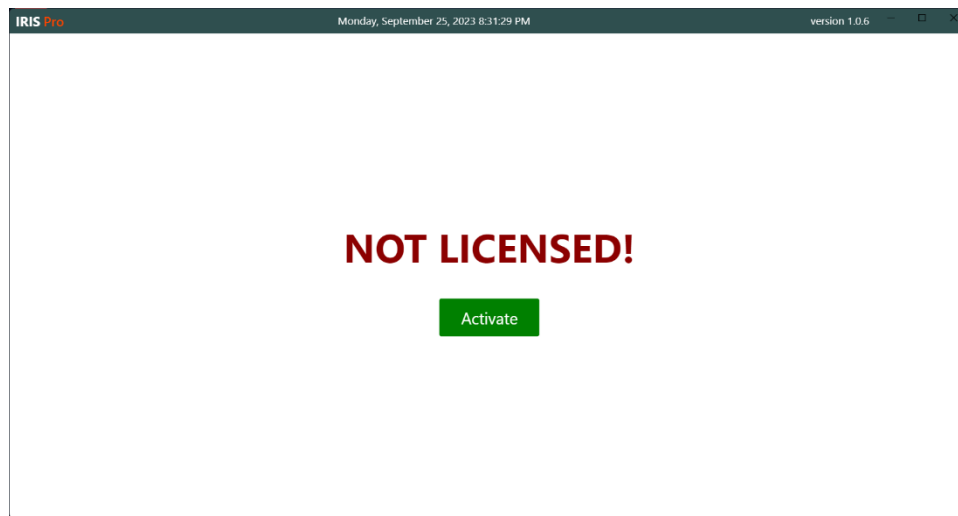
Login

This is the initial screen shown when the IRIS application is launched.

The default username is "IRIS" and password is "iris". Once logged in the software will remain active. When logged out communication between the software and power supply will be stopped.



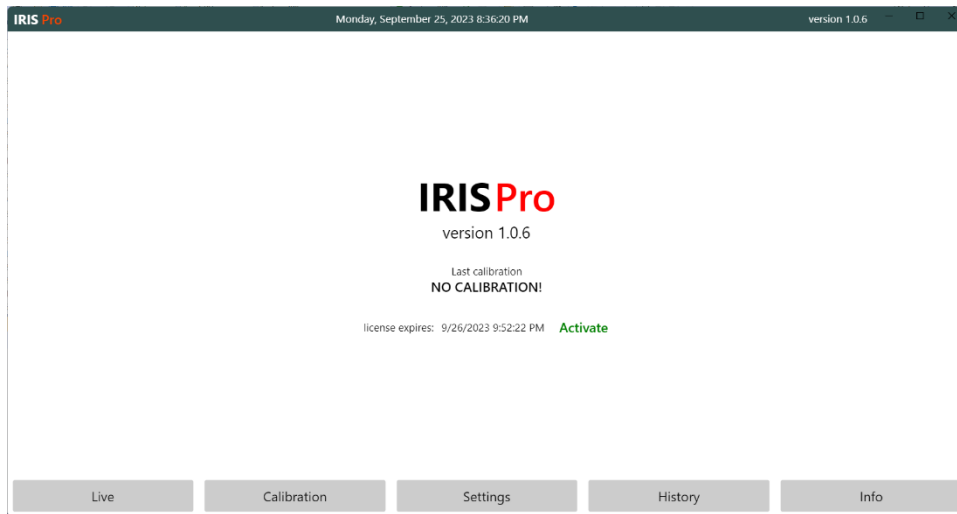
Note: If IRIS Pro isn't licensed properly the following screen will show instead:



In this case, activation is required. Details on how to obtain a license key are provided in the next section.

Home Screen

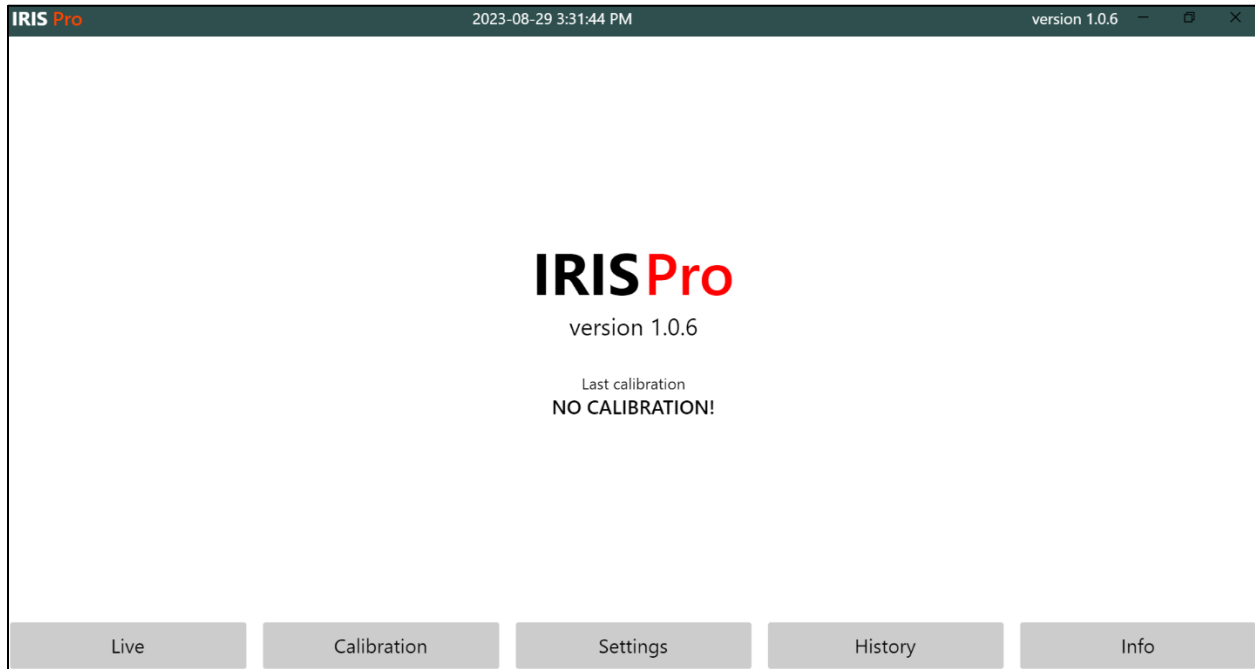
This screen provides options for different features within the software. This screen also shows basic information about the software (version, last calibration, license):



IRIS Pro offers a 30-day trial license (home screen shows date & time of license expiration). Clicking on the **Activate** button will display a 20-digit alphanumeric product ID.

Share this product ID with the EMIT factory so they can provide you with a one-time permanent license key. Enter the activation key in the provided box and click on Activate.

The license key is permanent and will never expire.



Action buttons are located on the bottom of the home screen. Their purpose is to navigate throughout the software. Explanations on each feature is provided below:

Live – Provides a live graphical view of each Sensor and Power Supply performance.

Calibration

- Active Calibration – Provides the values saved during the last calibration of the room system
- Calibration History – A running log of calibration
- Current Values – Programmed settings for the timers, power supply and sensors (factory set or captured values)

Settings

- Application Settings – Timers and Refresh rates for the power supply (factory set)
- Mailing – Enable to allow the software to send out alarm notifications
- Users – Create login profiles for each user who will login into the application (if necessary)
- Alarm Notifications – Create emailed notifications of active alarms

History

- Alarms – Running log of all sensor/power supply alarms
- Actions – Running log of all start/stop actions, calibrations and alarm handling
- History – Running log of all sensor/power supply values

Info – Defaults back to the home screen

Live Graphical Display

This screen provides a live graphical readout of each sensor and power supply. It displays the positive (+) and negative (-) values of each sensor and power supply.

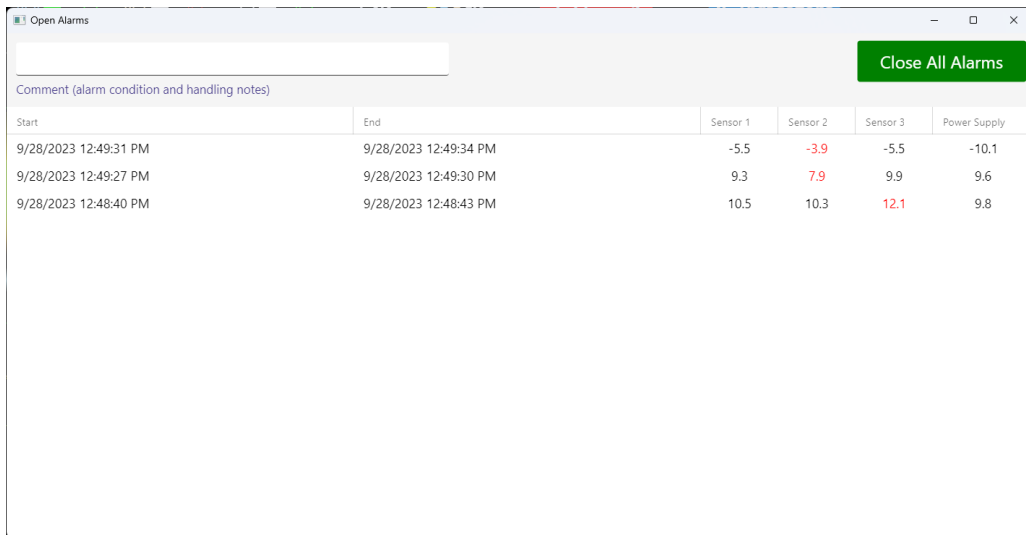
The header will display the positive (+) and negative (-) average of each sensor during a cycle. The cycle is based on the positive, idle and negative timers set in the Calibration.

Those timers can also be found under the “Timers” column of this header.

Next to the timers info, there is “Alert +/-” column containing information about accepted operational range (around average calibrated value) for sensors and the power supply.

The header also contains the **Alarms** button. This button will turn red whenever there are unhandled alarms.

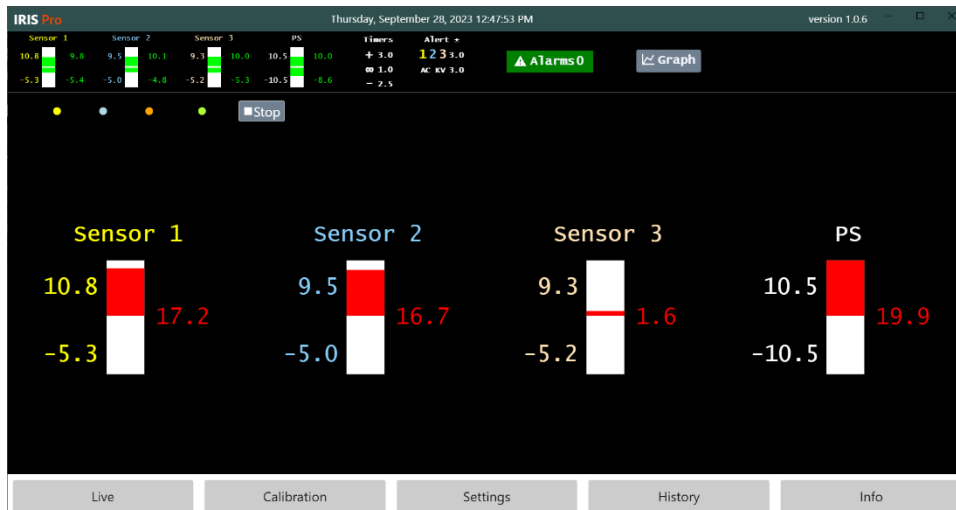
Note: An alarm is generated whenever the average value over cycle falls outside of the calibrated interval (average +/- range). Selecting this button will open up the “Open Alarms” window like shown below.



| Start | End | Sensor 1 | Sensor 2 | Sensor 3 | Power Supply |
|-----------------------|-----------------------|----------|----------|----------|--------------|
| 9/28/2023 12:49:31 PM | 9/28/2023 12:49:34 PM | -5.5 | -3.9 | -5.5 | -10.1 |
| 9/28/2023 12:49:27 PM | 9/28/2023 12:49:30 PM | 9.3 | 7.9 | 9.9 | 9.6 |
| 9/28/2023 12:48:40 PM | 9/28/2023 12:48:43 PM | 10.5 | 10.3 | 12.1 | 9.8 |

This window contains a list of all unhandled (open) alarms and provides the option to close (acknowledge) them with optional comments.

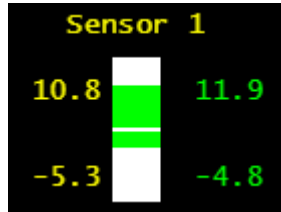
The header also offers display modes for the sensors and power supply. You can toggle between a graphical or column (**Indicators**) view.



Each sensor is color coded and can be hidden/shown from the graph by selecting each color-coded circle icon near the top of the screen. There is also a **Stop / Start** button which is used to stop and start power supply if necessary.



Values for each sensor and power supply is shown like the below:



The numbers on the left indicate the calibrated values (averages) and values on the right indicate the current averages. Values are shown for both positive and negative cycles except when in the column (**Indicators**) display mode. This mode shows the real-time value on the right.

IMPORTANT: The **IRIS Pro** software controls the power supply **only** when on the **Live** screen. Whenever toggling between screens, the power supply will stop running configured cycles.

If the system is not calibrated, the live screen will run the power supply and show current values but it won't generate any alarms since its hasn't been calibrated. It will then use the power timer values set in **Settings**. For further details about calibration see below.

Calibration

This page contains all information about power supply and software calibration.

Active Calibration

Displays current active calibration values.

IRIS Pro Monday, September 25, 2023 9:32:16 PM version 1.0.6

Active Calibration

Calibration History

Current Values

Power Timers

Positive **3.0 s** Idle **1.0 s** Negative **2.5 s**

Power Supply

Positive average **10.5 KV** Negative average **-10.5 KV** Range +/- **3.0 KV**

Sensors

| Sensor 1 | Sensor 2 | Sensor 3 |
|---|--|--|
| Positive average 10.8 KV Negative average -5.3 KV | Positive average 9.5 KV Negative average -5.0 KV | Positive average 9.3 KV Negative average -5.2 KV |

Range +/- (all sensors) **3.0 KV**

Live Calibration Settings History Info

Calibration History

Displays complete historical logs of system calibrations.

IRIS Pro Monday, September 25, 2023 9:35:42 PM version 1.0.6

Active Calibration

Calibration History

Current Values

| Date/time | Timers | | | Power Supply | | | Sensor 1 | | Sensor 2 | | Sensor 3 | | Sensors range +/- |
|-----------------------|--------|------|------|--------------|-------|-----|----------|------|----------|------|----------|------|-------------------|
| | pos | idle | neg | pos | neg | +/- | pos | neg | pos | neg | pos | neg | |
| 7/6/2023 1:09:59 PM | 3.0 | 1.0 | 2.5 | 10.5 | -10.5 | 3.0 | 10.8 | -5.3 | 9.5 | -5.0 | 9.3 | -5.2 | 3.0 |
| 7/6/2023 1:04:08 PM | 20.0 | 15.0 | 15.0 | 10.1 | -10.1 | 3.0 | 11.6 | -4.7 | 10.6 | -6.0 | 9.6 | -4.5 | 3.0 |
| 7/5/2023 7:10:01 PM | 3.0 | 1.0 | 2.0 | 11.9 | -11.9 | 3.0 | 8.6 | 0.0 | 9.8 | 0.0 | 11.6 | 0.0 | 3.0 |
| 7/5/2023 6:49:39 PM | 3.0 | 1.0 | 2.0 | 10.8 | -10.8 | 1.5 | 10.0 | -4.6 | 11.4 | -5.1 | 10.5 | -5.0 | 1.5 |
| 6/30/2023 12:24:41 PM | 3.0 | 1.0 | 2.0 | 10.8 | -10.8 | 2.0 | 10.0 | -4.6 | 11.4 | -5.1 | 10.5 | -5.0 | 1.5 |
| 6/28/2023 6:37:29 PM | 3.0 | 1.0 | 2.0 | 11.6 | -11.6 | 1.0 | 10.7 | -5.0 | 9.8 | -4.7 | 10.0 | -4.0 | 1.5 |
| 6/27/2023 10:30:01 PM | 3.0 | 1.0 | 2.0 | 10.5 | -10.5 | 2.0 | 12.1 | -5.1 | 10.0 | -5.1 | 9.8 | -5.7 | 2.5 |
| 6/12/2023 9:09:41 AM | 5.0 | 1.0 | 5.0 | 9.8 | -9.8 | 2.0 | 10.1 | -7.7 | 10.1 | -7.6 | 10.3 | -7.9 | 5.0 |
| 6/12/2023 12:49:41 AM | 5.0 | 1.0 | 5.0 | 10.2 | -10.2 | 2.0 | 10.3 | -5.0 | 10.3 | -6.0 | 10.1 | -7.0 | 2.0 |
| 6/11/2023 10:03:01 PM | 3.0 | 1.0 | 2.0 | 10.8 | -10.8 | 2.0 | 10.7 | -4.7 | 10.1 | -4.8 | 9.9 | -5.1 | 1.5 |
| 6/11/2023 5:23:01 AM | 3.0 | 1.0 | 2.0 | 12.0 | -12.0 | 2.0 | 9.6 | -4.8 | 9.6 | -5.3 | 11.3 | -4.8 | 1.5 |

Live Calibration Settings History Info

Current Values

Displays current system parameters and enables calibration.

The screenshot shows the IRIS Pro software interface. The top bar displays "IRIS Pro", the date and time "Monday, September 25, 2023 9:39:49 PM", and the version "version 1.0.6". A "Save" button is located in the top right corner. The left sidebar contains three options: "Active Calibration", "Calibration History", and "Current Values", with "Current Values" selected. The main content area is divided into three sections: "Power Timers", "Power Supply", and "Sensors".

Power Timers

| | | |
|--------------|----------|--------------|
| 3 | 1 | 2.5 |
| Positive (s) | Idle (s) | Negative (s) |

Power Supply

| | |
|------------|-----------|
| 10.5 | 3 |
| AC average | Range +/- |

Sensors

| Sensor 1 | Sensor 2 | Sensor 3 |
|------------------|------------------|------------------|
| 10.8 | 9.5 | 9.3 |
| Positive average | Positive average | Positive average |
| -5.3 | -5 | -5.2 |
| Negative average | Negative average | Negative average |

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Range +/- (all sensors)

At the bottom, there are five buttons: "Live", "Calibration", "Settings", "History", and "Info".

This screen will initially show the factory default settings but the **IRIS Pro** software constantly captures running values to adjust calibration settings if necessary.

Calibration is performed by a factory technician during installation, but the process is as follows:

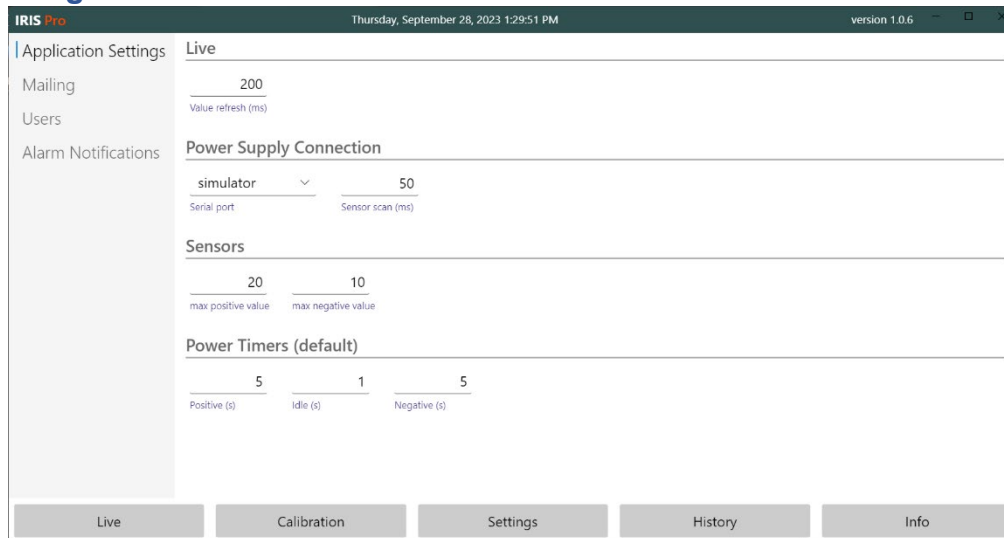
- Connect the power supply with ion bars system and configure the required parameters (on the **Settings** screen)
- Switch to **Live** screen and let it run for several minutes
**note: live screen will display actual readings and capture all average values*
**note: allow it to run for a couple of cycles or until certain that there is enough data for an accurate average*
- Switch back to the **Calibration** screen (**Current Values**) and manually (optional) adjust the average values. Set +/- range values to best fit for your system. Adjust the power timers (optional) values if desired.
- Click on the **Save** button. This will set active calibration to selected values.

IRIS Pro allows for fine tuning and repeating the calibration process as many times and as often as you like but it is usually performed only when environment conditions change.

Settings

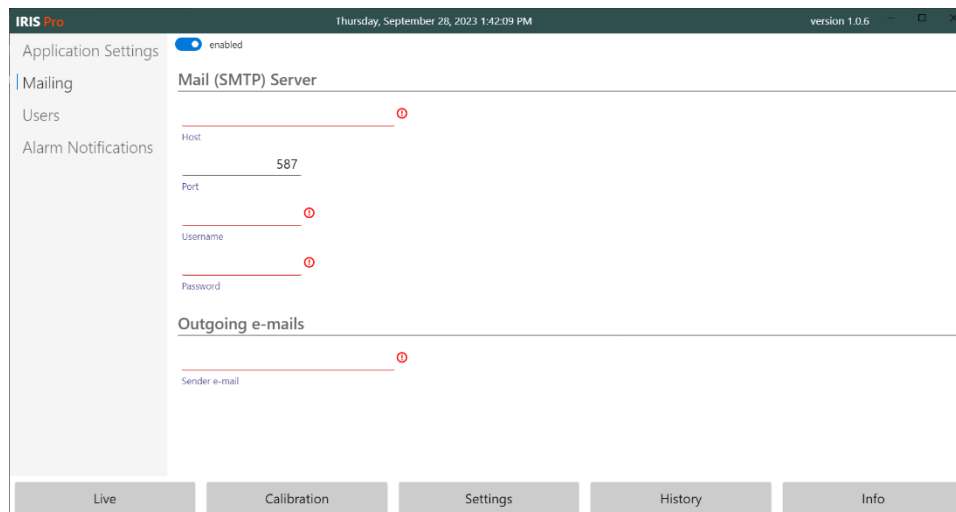
This screen contains various system settings.

Application Settings



- **Live**
 - *Value refresh (ms)* is time interval in milliseconds for screen (value) refresh on Live screen when the power supply is running
- **Power Supply Connection**
 - *Serial port* is a port where power supply is connected. Selecting wrong port may lead to application crash and unpredictable results
 - *Sensor scan (ms)* is time interval in milliseconds between two consecutive sensor scans
- **Sensors**
 - *Max positive/negative value* allows for finetuning system operation. Sensors usually show lower values during negative cycles and this “tweaks” scale on Live screen
- **Power Timers (default)**
 - *Positive / Idle / Negative* are durations in seconds for positive, idle and negative cycles. Values set here are applied only when there is no active calibration. Calibration allows for power timers override.

Mailing



IRIS Pro has an automated alarm notifications feature which can be configured to send alarm notification e-mails. To enable, you must input your email server information. IRIS uses SMTP for sending automated e-mails. You can use the local mail server if available or any of the available cloud services.

Users

IRIS Pro comes with a preconfigured user role of **Admin** (username: IRIS, password: iris). You can edit/add/remove user profiles in this section.

User entry/edit form is:

The form is a light gray rounded rectangle. At the top right are two buttons: 'Cancel' and 'Save'. Below them is a large empty text input field. Underneath is the label 'Name' followed by another empty text input field. Below that is the label 'e-mail' followed by a dropdown menu showing 'User' with a downward arrow. Below the dropdown is the label 'Role' followed by an empty text input field with a red error icon (exclamation mark in a circle) to its right. Below that is the label 'Username' followed by another empty text input field with a red error icon to its right. At the bottom is the label 'Password' followed by an empty text input field.

Alarm Notifications

This page is used to create, edit, enable and disable alarm notifications.

Cancel Save

inactive

!

Name

Type

Snooze (minutes)

Mailing list (separate multiple e-mails with comma)

IRIS Pro offers the following alarm notifications types:

- **Alarm** – notification is triggered with a new alarm occurrence.
 - **Snooze**. This allows for the ongoing alarms after the initial alarm to be dismissed during the defined period of time. For example, if snooze is set to 5 minutes and an alarm is triggered, an e-mail notification is sent immediately. If multiple alarms happen within the set 5 min snooze then no e-mails are sent. When the snooze period ends, if another alarm happens it will include details for all alarms that happened during the initial snooze period.
- **Open alarms** – notification is sent periodically if there are open (unhandled) alarms in the system. Sending period is defined with additional parameter (**Period**).
- **Alarms closed** – notification is sent whenever active alarms are closed (handled) by the logged in User.