



COOLAUTOMATION

YOUR HVAC JUST GOT SMARTER

Professional App User Guide

User Manual

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About CoolAutomation

Founded in 2009, CoolAutomation is the industry leader of solutions that enable HVAC systems to be locally or remotely controlled, managed, and serviced. Our solutions are designed to allow any climate system to be internet-connected easily, securely, and reliably.

CoolAutomation's unique combination of devices and cloud-based technologies are the next evolution of IoT. They are crucial to any professional in the HVAC, facility management and automation industries.

Our solutions enable remote management, diagnostics, service, and control of any HVAC system within the residential and commercial realms. Our specialization in HVAC, hardware, firmware, and cloud development, position us as experts in HVAC standardization; allowing us to provide our clients with a one-stop solution, for accessing and interfacing with HVAC systems.

CoolAutomation is a global company headquartered in Israel, with tens of thousands of customers in over 90 countries.

Professional App

CoolAutomation Cloud solutions cover a wide range of capabilities, addressing the needs of the different stakeholders in any operation related to HVAC systems.

Starting from very basic tools for remotely controlling an AC unit, all the way to the more advanced tools of remotely servicing a complex site with multiple VRF & HVAC systems of different brands and models, you can select the application suite capabilities that best fits your needs.

HVAC Operation feature set

HVAC Operations allows you to be in full control of your HVAC status across any number of systems, brands, and locations. You can control energy efficiency and optimize it to ensure regulatory compliance.

Leveraging innovative machine-learning tools, you can prevent excess power usage, detect performance malfunctions, enforce operational modes, receive alerts, and more. You can also add external sensors and apply automatic logic on the building spaces based on sensor readings, weather and system status.

Predictive and remote diagnostics feature set

Remotely detect HVAC system anomalies early while they are still minor – or before they happen and prevent system downtime. By receiving push notifications on malfunctions that are about to occur, you can fix any system issue pre-emptively, preventing deterioration into system failure. Keep your clients' HVAC system at top performance, by setting a set of anomaly rules that are constantly monitored by the HVAC Predictive Maintenance solution.

HVAC Predictive Maintenance provides another layer of insurance for the period between scheduled maintenance visits, allowing you to optimize your maintenance visits.

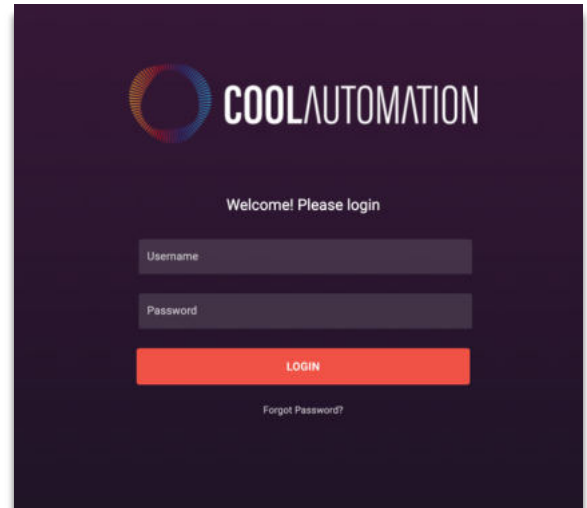
Login page

Login

Accessing the Professional App requires a user to be defined in the app.

To login,

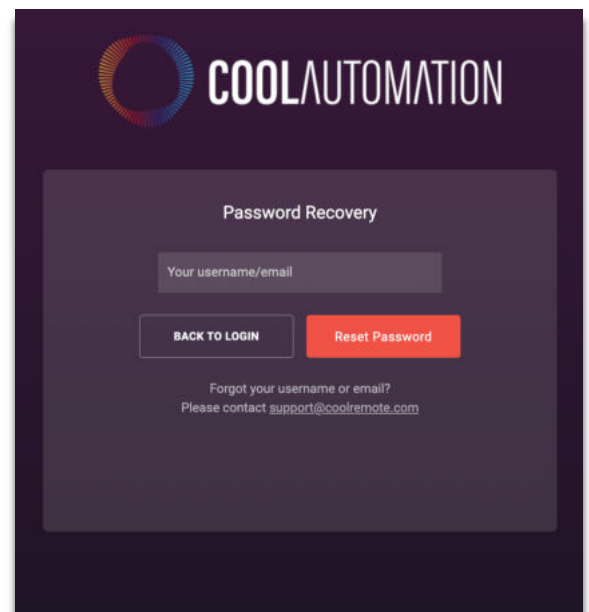
- Open your web browser, preferably Chrome, and navigate to <https://professional.coolremote.net>
- Enter your credentials and click "Login".



Forgot my Password/Username

In case you can't remember your password, you can reset your password by following these steps:

- Click on the "Forgot Password?" URL under the "Login" button
- Fill in your email address
- Click on "Reset Password"



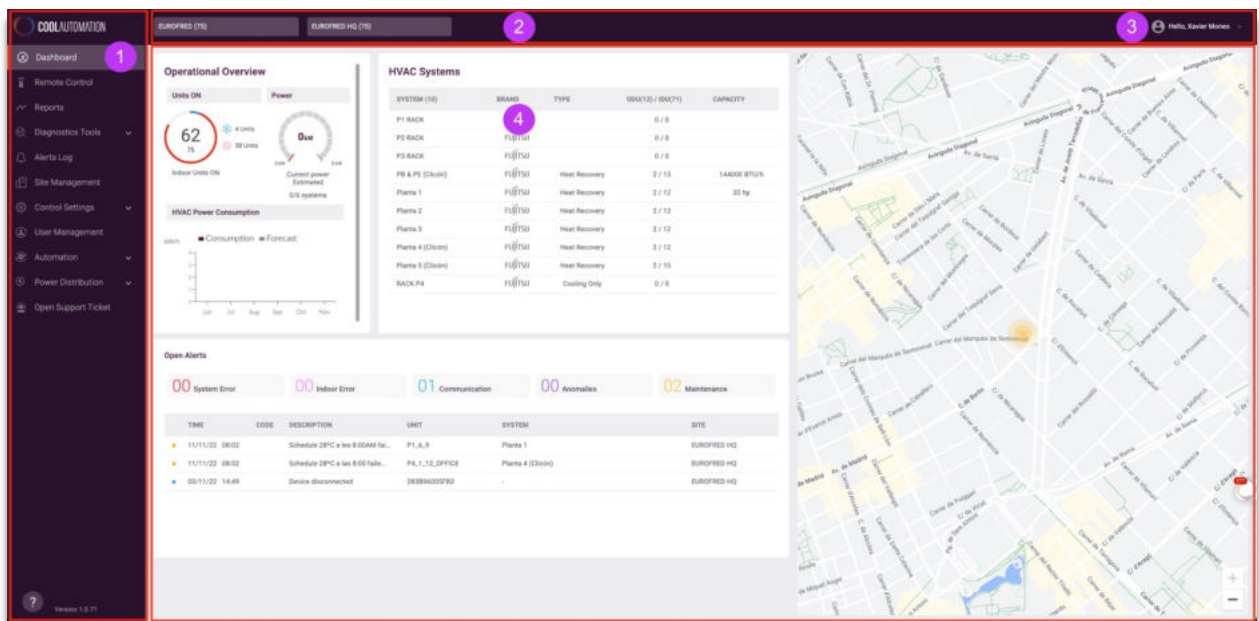
In cases you don't know your username, contact CoolAutomation's support team by clicking on the support button at the bottom left corner on the Login page or at <https://coolautomation.com/support>



User Interface

The professional app dashboard tab has four main sections as shown in the picture

1. Navigation Pane – use this section to select what information you want to view in “Main View”
2. Filter pane – use this section to filter the results shown in the main view. The available filters are context based on the selected option from the “Navigation Pane”
3. Profile setting – Use this section to set the apps behavior that best suits your preferences.
4. Main view – This section will show and take actions upon the information you have selected to view. The presented information is affected by the selection in the Navigation pane and the filters applied in the “Filter Pane”



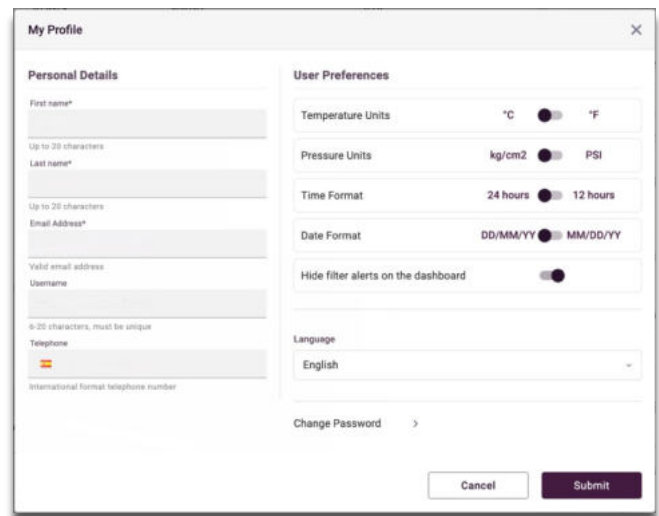
User profile settings

overview

The user setting allows you to manage your profile and the professional app behavior to your preferences.

Personal details

- First Name
- Last Name
- Email address – the email where notifications from the app will be sent to
- Username – the email used to login to the app. Usually, the email and the username have the same value. It is important to give a valid email address for the username, especially for password reset action.
- Telephone – This number will be used to send notification from the app



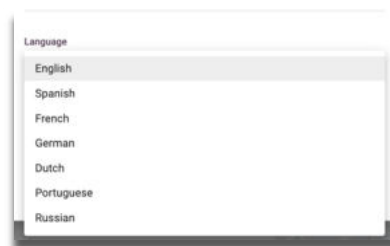
User preferences

- Temperature Units – Select Celsius or Fahrenheit temperature units as a default temperature unit to display in the app
- Pressure Units – Select KG/CM² or PSI pressure units to display as a default pressure unit in the app
- Time format – select 24 hours or 12 hours' time representation as the default of the app
- Date Format – Select date format DD/MM/YY or MM/DD/YY as the default date representation in the app
- Select if to hide or display filter related alerts in the dashboard

Language

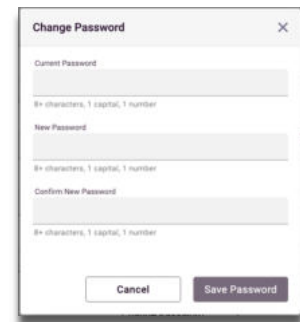
Select the preferred display language. The available languages for selection are:

- English
- Spanish
- French
- German
- Dutch
- Portuguese
- Russian



Change Password

Changing your password can be done from your user profile. Changing your password, requires providing the current password and the new one.



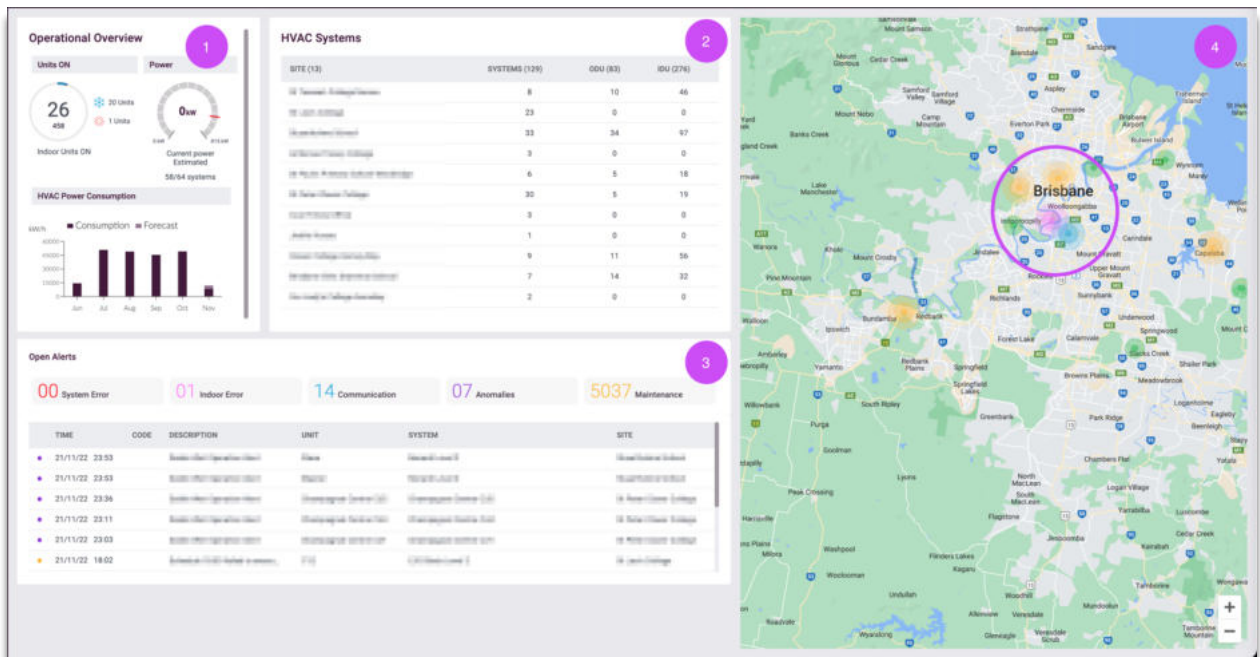
The image shows a 'Change Password' dialog box with a close button (X) in the top right corner. It contains three password input fields, each with a strength indicator below it: 'Current Password', 'New Password', and 'Confirm New Password'. Each indicator shows '8+ characters, 1 capital, 1 number'. At the bottom, there are two buttons: 'Cancel' and 'Save Password'.

Dashboard

Overview

The Dashboard is the first screen you will see when you log in to the Professional App. It has four sections which are affected by the filter you set in the filter pane.

1. Operational Overview – shows you a quick operational view of the selected sites.
2. HVAC Systems – Showing a list of the HVAC systems installed in the selected sites.
3. Open Alerts - Alerts dashboard, show alerts with a status of open. Alerts that were acknowledge are omitted from the list.
4. Site map – In the site map you will see all the locations where you have a CoolAutomation device connected to the professional app.



Operational Overview

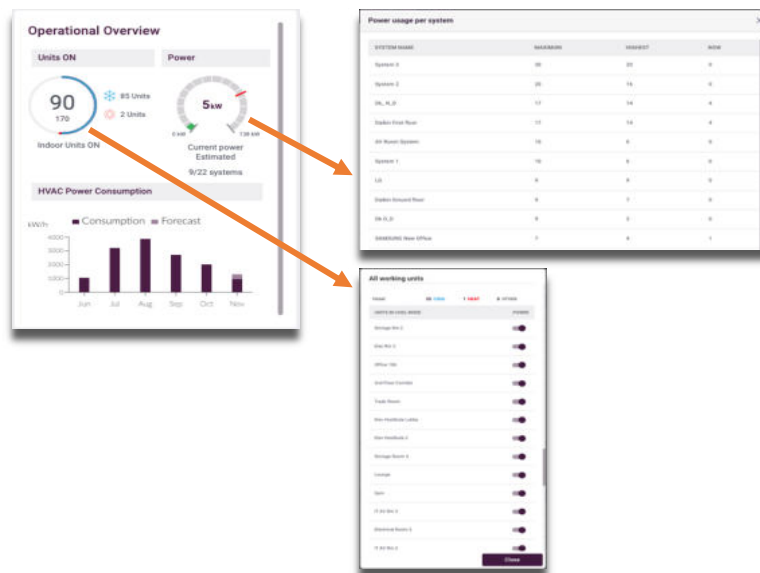
The operational Overview shows a summary based on the filters you have set in the Filters pane

In the overview you can see:

- The number of Powered On indoor units and their operational mode (Cool/Heat)
- The estimated * power consumption of the indoors

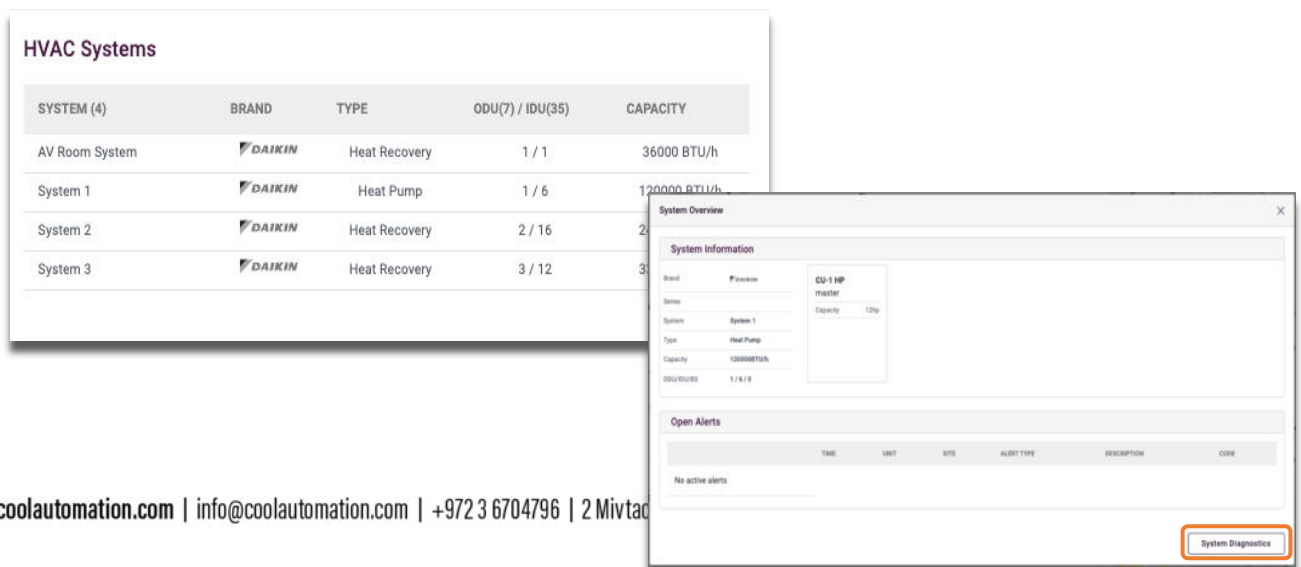
Clicking on each one of the widgets will show a more detailed overview relating to the clicked widget.

*Estimation is available for most brands and is based on system parameters like current and others.



HVAC Systems

The HVAC systems tab lists of the connected HVAC systems based on the filter set in the Filter pane. Clicking on each one of the systems, will open a window with detailed information and the option to go to the System Diagnostics view related to the system you have selected



Open Alerts

Open alerts show a list of alerts that are considered as “Open”
 An alert should stay in a status of “Open” until it is handles/fixed, and the user or system has acknowledged the that the alert in handled.

There are cases where the app would decide to acknowledge an alert if it detected that the issue is resolved. For example, if the system reports on a communication issue and the communication is restored, the alert will be closed and disappear from the alert dashboard

Open Alerts

00 System Error
00 Indoor Error
17 Communication
12 Anomalies
812 Maintenance

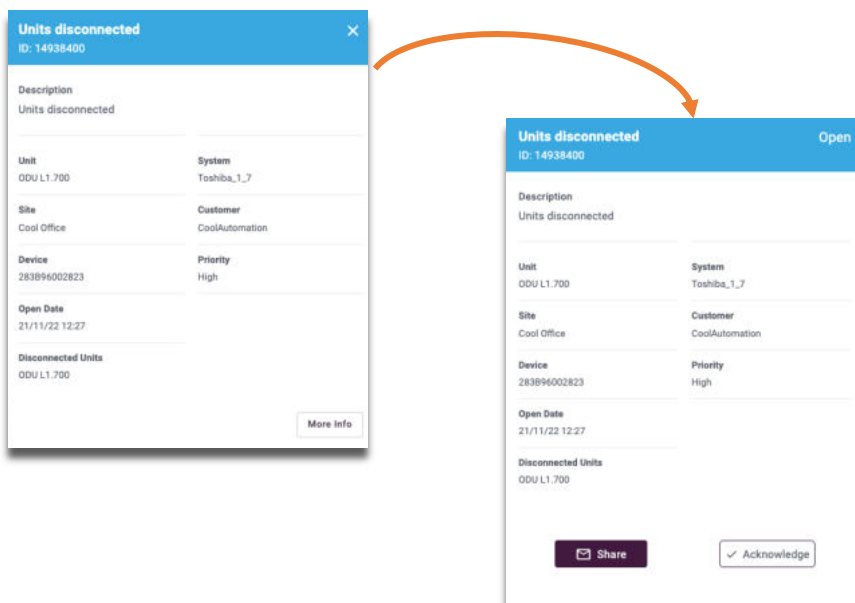
TIME	CODE	DESCRIPTION	UNIT	SYSTEM	SITE
22/11/22 13:30		Unit Setpoint Change	WeWork	Dk O_D	Cool Office
22/11/22 13:30		Unit Setpoint Change	Kitchen	Daikin Ground floor	Cool Office
22/11/22 12:30		Test Proportional Power Interl...	-	-	Cool Office
22/11/22 12:30		Test Proportional Power Alert	Dorit Maayan (201)	SAMSUNG New Office	Cool Office
22/11/22 11:46		Unit On Roy test	Maayan (104)	GREE New Office	Cool Office

To filter the list and see only specific alert type, click on the required alert type summary. To cancel the filter, click again on the filtered category.

Open Alerts

00 System Error
00 Indoor Error
17 Communication
12 Anomalies
812 Maintenance

Clicking on a specific alert will open an alert details window from which you can click on “more info and acknowledge or share the alert



Site map

In the site map you will see all the locations where you have a CoolAutomation device connected to the professional app.

The sites are represented in 5 different colors. The colors of the site represent the most severe alert type reported for the site.

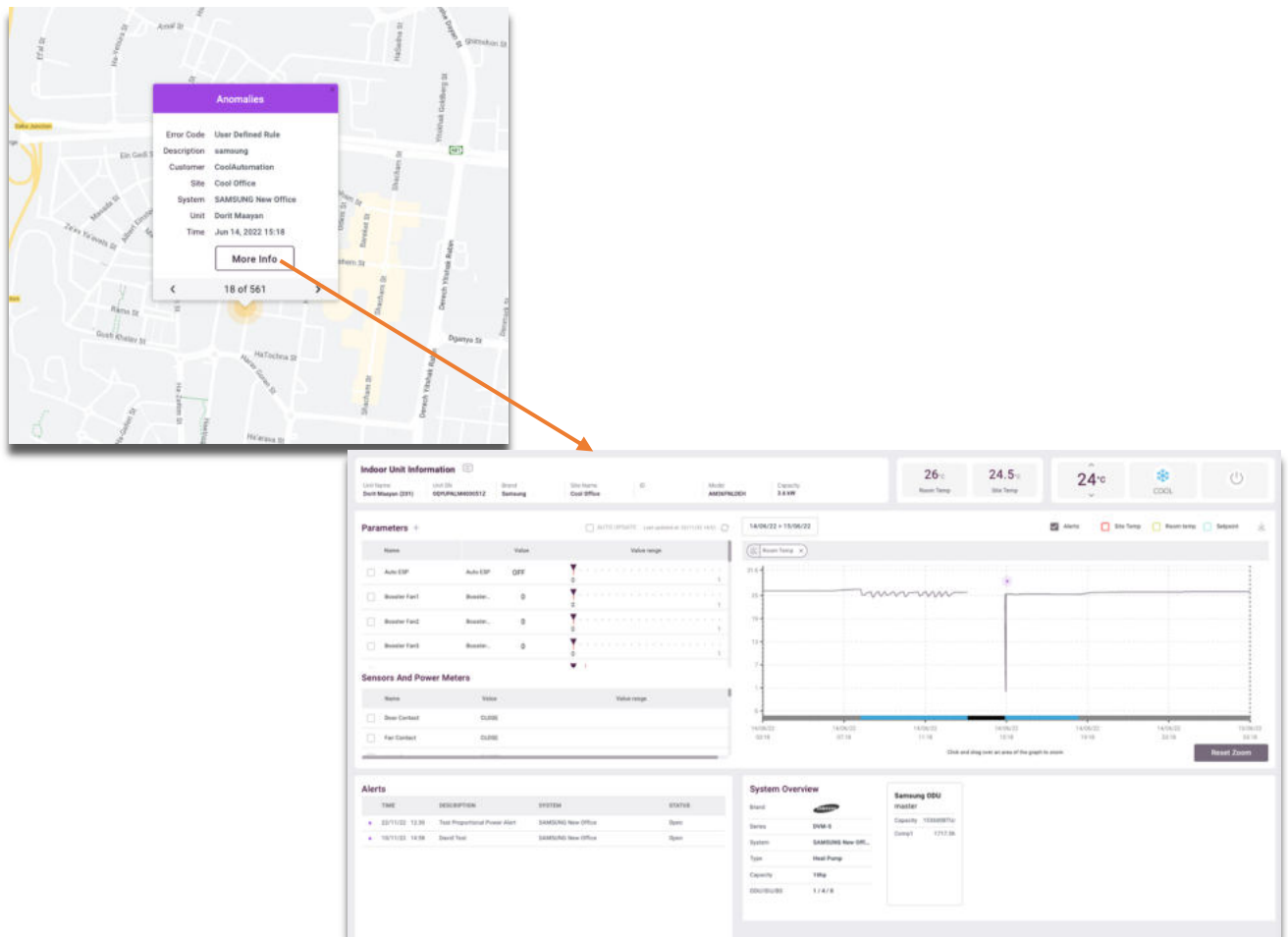
The Severity type from low to high is as follows:

1. Red – System Error
2. Magenta – Indoor Error
3. Cyan – Communication
4. Purple – Anomalies
5. Yellow – Maintenance

Clicking on a site in the map, will set the filter to the selected site and the entire dashboard will show only information for the selected site.

Moreover, the map will show a window with the reported alerts in the selected site. To scroll between the alerts, use the left & right arrows at the bottom of the alert.

Clicking on More info, will open the diagnostic tool with the alert's details



The image shows two parts of the CoolAutomation app interface. On the left is a map view with a pop-up window for an 'Anomalies' alert. On the right is a detailed diagnostic dashboard for a specific indoor unit.

Anomalies Pop-up Window:

- Header: Anomalies
- Error Code: User Defined Rule
- Description: samsung
- Customer: CoolAutomation
- Site: Cool Office
- System: SAMSUNG New Office
- Unit: Dorit Maayan
- Time: Jun 14, 2022 15:18
- Buttons: More Info
- Footer: 18 of 501

Diagnostic Dashboard:

- Indoor Unit Information:** Unit Name: Dorit Maayan (201), Brand: Samsung, Site Name: Cool Office, Model: AMRFLRDR, Capacity: 2.8 kW.
- Parameters:**

Name	Value	Value range
Auto ESP	Auto-ESP	OFF
Booster Fan1	Booster...	0
Booster Fan2	Booster...	0
Booster Fan3	Booster...	0
- Sensors And Power Meters:**

Name	Value	Value range
Door Contact	CLDR	
Part Contact	CLDR	
- Alerts:**

TIME	DESCRIPTION	SYSTEM	STATUS
13/11/22 12:30	Test Proprietary Power Alert	SAMSUNG New Office	Open
16/11/22 14:38	Sound Test	SAMSUNG New Office	Open
- System Overview:**
 - Brand: Samsung
 - Series: SWR-S
 - System: SAMSUNG New Office
 - Type: Heat Pump
 - Capacity: 2.8kW
 - Dimensions: 1.14x1.8
- Temperature Graph:** Shows room temperature (26°C) and site temperature (24°C) over time from 14/06/22 02:16 to 14/06/22 08:19.

Remote Control

Overview

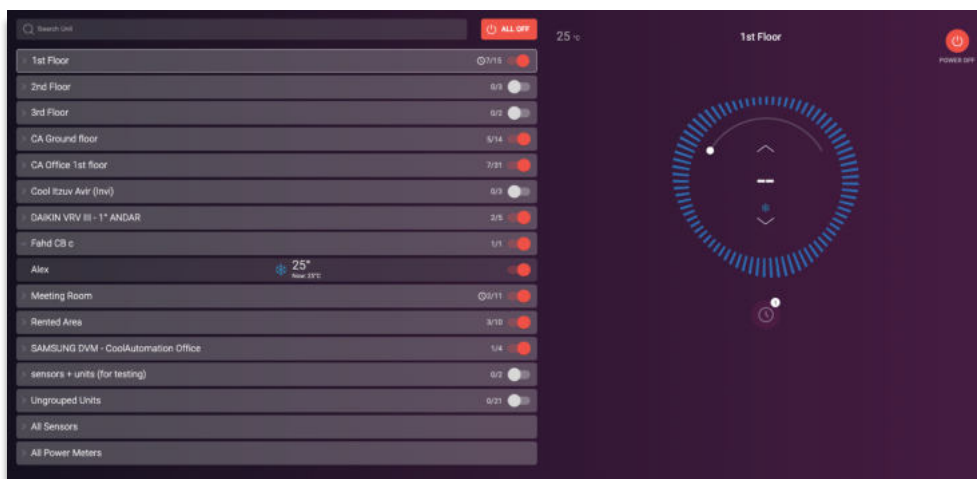
The “Remote Control” tab is an interface for managing your site’s indoor units from an operational aspect

The control tab is a similar view to the iocControl mobile app (Android/IOS)

From the Remote-control tab, you will be able to:

- Search for an indoor
- Power Off all site indoor units
- Group management
 - Set group set point
 - Set group schedules
 - Power On/Off all the group’s indoor units
- Indoor management
 - Set indoor set point
 - Mode
 - Scheduling
 - Fan Speed
 - Auto Timer setting for shutdown
 - Power On/Off
 - View Air quality
 - View room temperature as read from the sensor
 - See alerts related to the indoor
 - Connection status

The control tab is divided into two main areas. The left pane shows the list of groups and indoor units, and the right pane shows the settings for the group or the indoor unit depending on the selection from the left pane.



Control UI

Group

A group is an entity which consists out of a collection of indoor units. Indoor units which are not group, will be automatically associated to a default "Ungrouped" group.

A group is represented as an "Accordion" menu. Expanding the accordion will show the indoor units (IDUs) associated with it.

On a group line you will be able to see the following (from left to right):

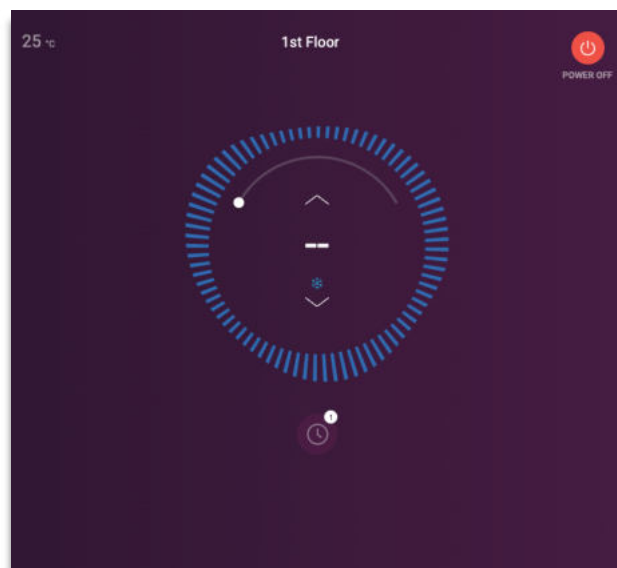
- An arrow symbol. When clicking on the arrow, the Accordion menu will open and show the associated IDUs
- Groups name
- A clock icon If there are any group schedules defined. Group schedules are schedules applied to all the IDUs under the group.
- Number of powered On IDUS out of the number of IDUs in the group
- On/Off toggle. The toggle can be used to turn the power On/Off to all of the group's IDUs



When clicking on a group line, the right pane will show the information and available action on a

Group



Note that current Setpoint value for Group will show as"- -" unless all units in the group are currently set to the same setpoint. User can change up and down to apply the same setpoint to all units in group.



Indoor Units (IDUs)

Each line under the group, represents an IDU.

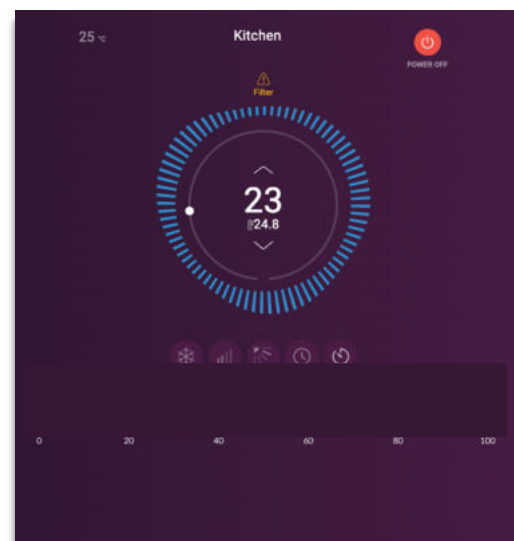
On an IDU line you will be able to see the following (From left to right):

- Unit name
- Unit operational mode for powered on IDUs
- Unit's Setpoint and current temperature as reported by the sensor
- For disconnected IDUs a disconnected icon 
- A clock icon for IDUs with schedules defined
- Alerts notification  for IDUs that there is an open alert in the system
- On/Off toggle. The toggle can be used to turn the power ON/OFF the IDU



When clicking on an IDU line, the right pane will show the information and available action on an IDU. From the right pane you can:

- View
 - IDU name
 - Sensor's temperature
- Actions
 - Power On/Off the IDU
 - Change set point
 - Change Mode
 - Change Fan Speed
 - Change air flow direction
 - Create schedules
 - Set auto shutdown



Another option to view a site's IDUs in the Control tab is to switch to a floor plan view. A floor plan/s can be added per each site through Site Management Tab, by selecting Floor Plan view - edit and manage floor plan: add units/groups, position them on the map.

Floor Plan images format can be jpg/gif/png

After setting the floor plan on site management, it is available for use on the control tab, by selecting the Floor Plan View button (see below)

Supported packages: Advanced Operation, Predictive Maintenance

To switch from a list to a floor plan view, click on the Floor plan option on the top right corner of the main view pane.

In the map view, to view/action on an IDU, click on the required IDU and change its setting from the right pane.



Controlling Groups and IDUs

Before you start configuring the groups and IDUs, a site needs to be selected from filter pane

Creating schedules

The steps for creating schedules for a group and an IDU are the same. To create a schedule, follow these steps:

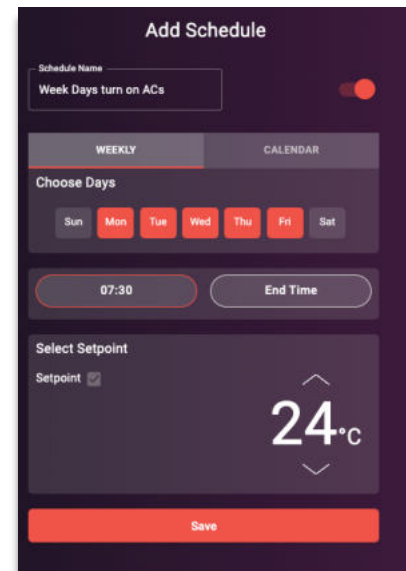
- Click in the left pane on the object you want to create a schedule for (Group or IDU)



- From the right pane, click on the Clock icon. If you have a schedules already defined for the selected object, the number of schedules will be indicated by a number in the clock icon



- Click on the “+” sign on the top right corner to add a new schedule
- Set the schedule name
- Select “Weekly” tab for reoccurring schedules or the “Calendar” tab for specific dates scheduling
 - For weekly schedules, select the days you want the schedule to trigger
 - For Calendar schedules, select the dates you would like the schedule to trigger
- Time setting. You can create the following schedule options.
 - Schedule with only “Start Time” -set the Power On time
 - Schedule with only “End Time” -set the Power Off time
 - Schedule with both start and stop time
- Set point
 - Click the Setpoint checkbox if you wish to set the setpoint when the IDU is starting
 - Adjust the setpoint to the desired temperature
- Click Save
- Use the toggle on the top right of the scheduling setting to activate or disable the schedule

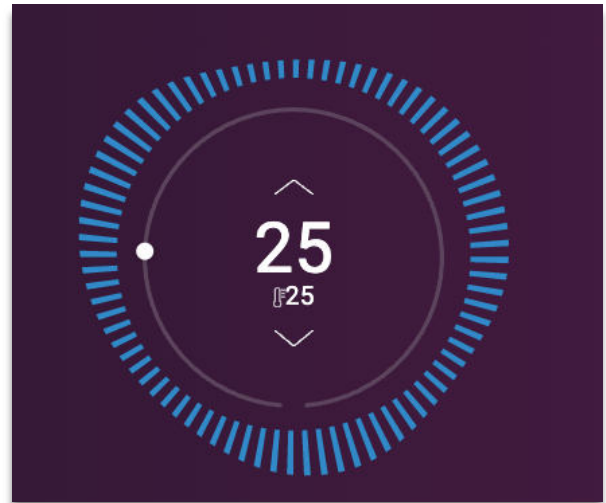


Setting Group & IDU Setpoint

The steps for changing the setpoint for a group and an IDU are the same.

To change the setpoint, follow these steps:

- Click in the left pane on the object you want to change the setpoint to (Group or IDU)
- From the right pane use the up & down arrows to set the desired setpoint. Alternately you can move the white dot on the circle to the desired setpoint



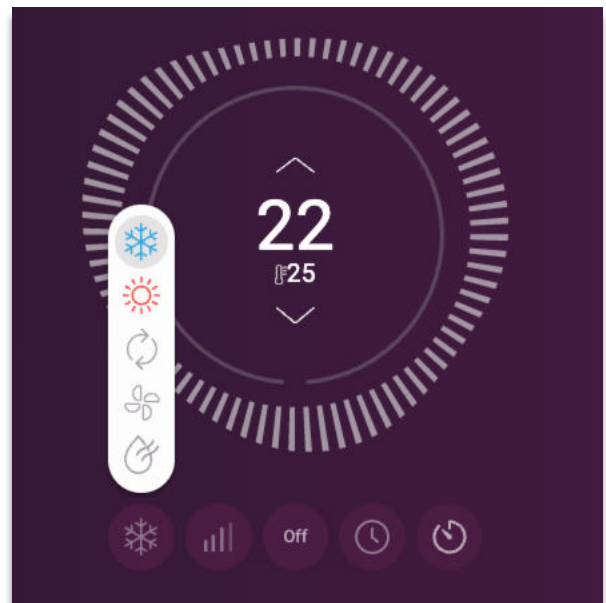
Changing the setpoint to group will apply to all Powered on IDUs associated to the group.

! When in Celsius units, you can control the Setpoint steps in the app through the Unit Control Settings Tab, changing between 0.5C and 1C. This step must be supported also on the HVAC system under control.

Changing IDU mode

To change the IDU mode, follow these steps

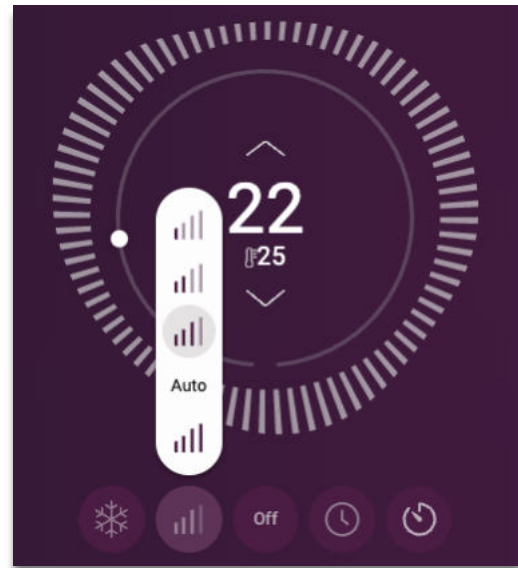
- From the left pane, select the IDU to apply the change on
- From the right pane, click on the mode button
- Click on the required IDU mode



Changing Fan speed

To change the IDU fan speed, follow these steps

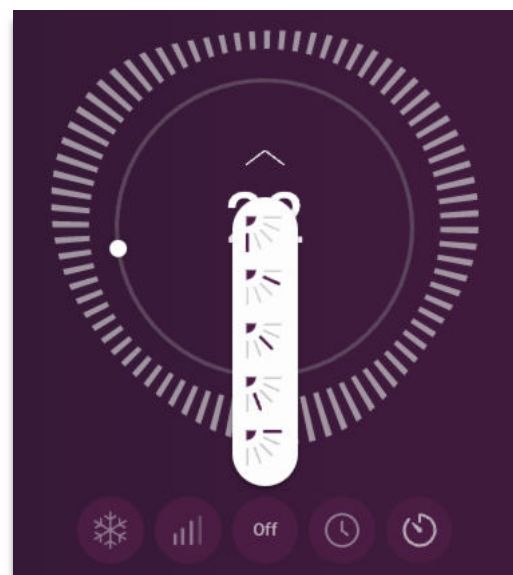
- From the left pane, select the IDU to apply the change on
- From the right pane, click on the Fan button
- Click on the required IDU fan speed



Changing Air flow direction


To change the IDU Air flow direction, follow these steps

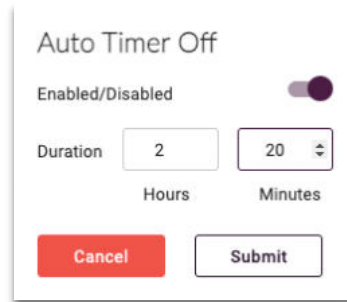
- From the left pane, select the IDU to apply the change on
- From the right pane, click on the Air flow direction button
- Click on the required IDU Air flow direction



Auto Timer Off

Auto Timer Off will turn unit OFF automatically XXX min after it was turned ON
 To set an auto timer Off, follow these steps

- From the left pane, select the IDU to apply the change on
- From the right pane, click on the Auto Timer Off button 
- From the Auto Timer off popup, enable the timer and set the duration.
- Click submit



The image shows a 'Auto Timer Off' popup form. It features a title 'Auto Timer Off' at the top. Below the title is a toggle switch labeled 'Enabled/Disabled', which is currently turned on. Underneath, there are two input fields for 'Duration'. The first field is labeled 'Hours' and contains the value '2'. The second field is labeled 'Minutes' and contains the value '20'. At the bottom of the form, there are two buttons: a red 'Cancel' button and a white 'Submit' button with a black border.

Diagnostic tools

Overview

The diagnostics tools menu has four diagnostics tools

- Unit diagnostics, aimed for indoor & outdoor units diagnostics and troubleshooting
- System diagnostics, aimed for the outdoor diagnostics and troubleshooting
- Unit Statistics showing a single indoor statistic over time
- Activity log, shows the activities recorded in the Professional App.

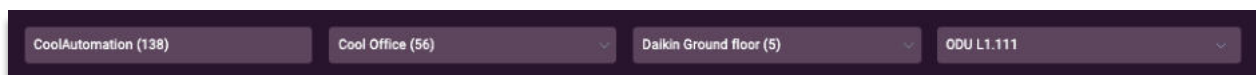
Unit diagnostics

The unit diagnostics tool is a collection of a diagnostic tool and dashboards. The Unit diagnostics is a very powerful tool for monitoring and debugging unit behavior.

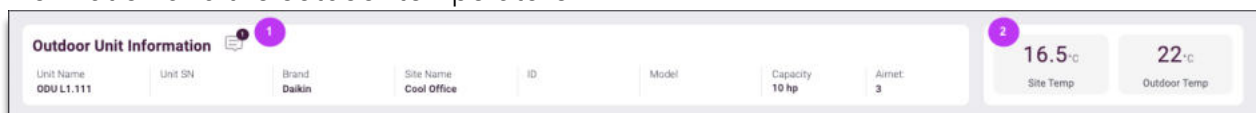
The Unit Diagnostic screen consists out of the following:

- Unit information
- Unit Parameters
- Graph view of the selected parameters over time
- Sensors and Power meters information
- Alerts associated to the selected unit
- A system overview with information about the system the selected unit is associated with

Any monitoring or investigation in the Unit Diagnostic tool starts with setting the filters on the top of the screen and selecting the unit you wish to monitor or investigate its behavior. There is a difference in UI and available parameters between an outdoor unit and an indoor unit.



When selecting an outdoor unit, the information ribbon will show the outdoor unit information and the outdoor temperature.



In the outdoor unit details, you have the option to add notes (#1). If a note is added, a number indicating the number of existing notes will show over the note's icon.

The outdoor temperature (#2) shows two temperatures from two sources.

- Site temp is the outdoor temperature as reported from a 3rd party web weather service. The site temperature is retrieved based on the location setting you have entered when setting up a new site.
- Outdoor temp, is the temperature measured by the outdoors's temperature sensor

! It is very important to set the site's location correctly to make sure the Site Temp information is accurate.

If an indoor unit is selected from the filters, additional information and actions are added to the top ribbon.

At the left side of the ribbon, the options to change the unit's setpoint, mode and power ON/Off will be added,

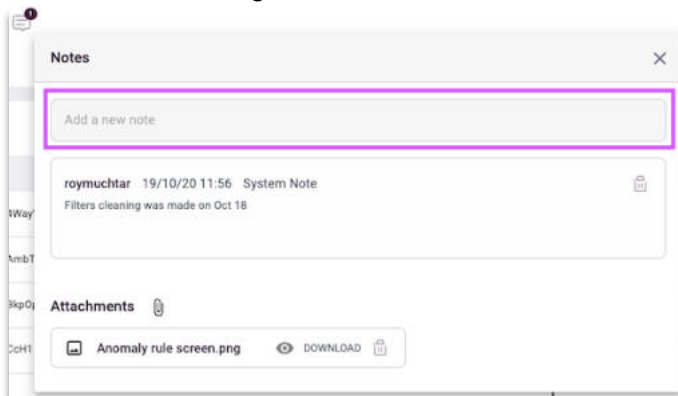


Managing notes

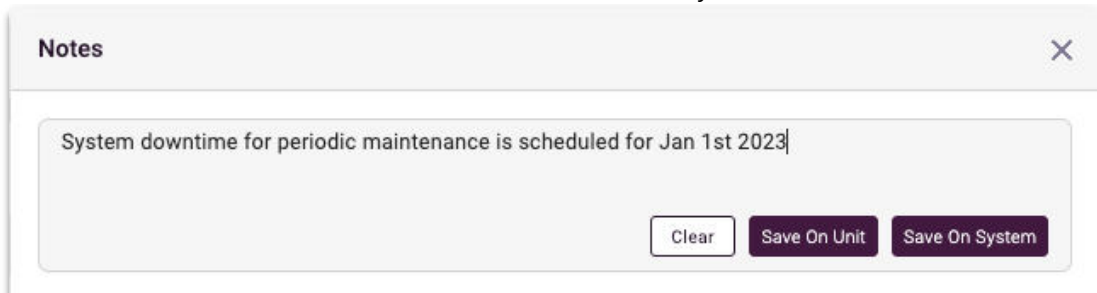
Adding notes

To add a note, follow these steps

1. Click on the "Notes" icon
2. In the notes management window, click on "Add a new note"

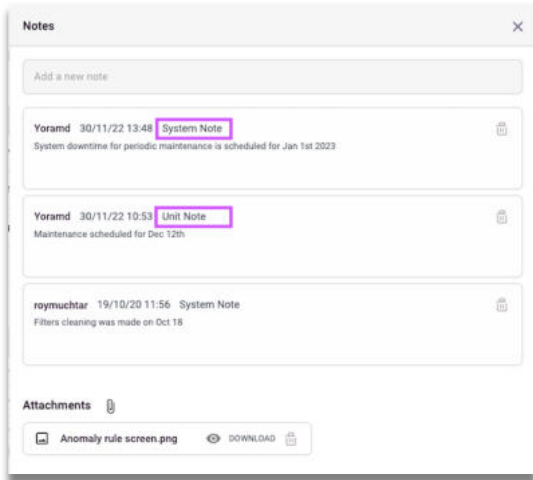


3. Write the note and select if to save it as a Unit or System note



The note will be visible only on the selected unit if "Save On Unit" is selected and visible on all the units associated with the system if "Save On System" is selected.

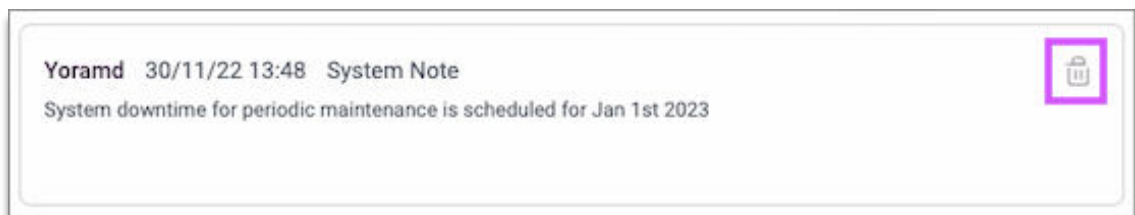
In the notes management window, on every note, there is an indication on the note type, Unit or System note



Deleting notes

To delete a note, follow these steps:

1. Click on the Notes icon
2. In the notes management window, identify the note you wish to delete and click on the Trash icon



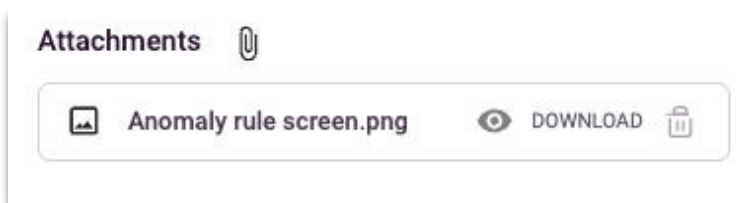
3. Confirm the action from the confirmation popup window

Adding attachment

To add attachments, follow these steps:

1. Click on the Notes icon
2. Click on the paper clip icon and select a file to upload.

Once file is uploaded, it will be added to the list of attachments with the options to view, download and remove the attachment.



Parmenter

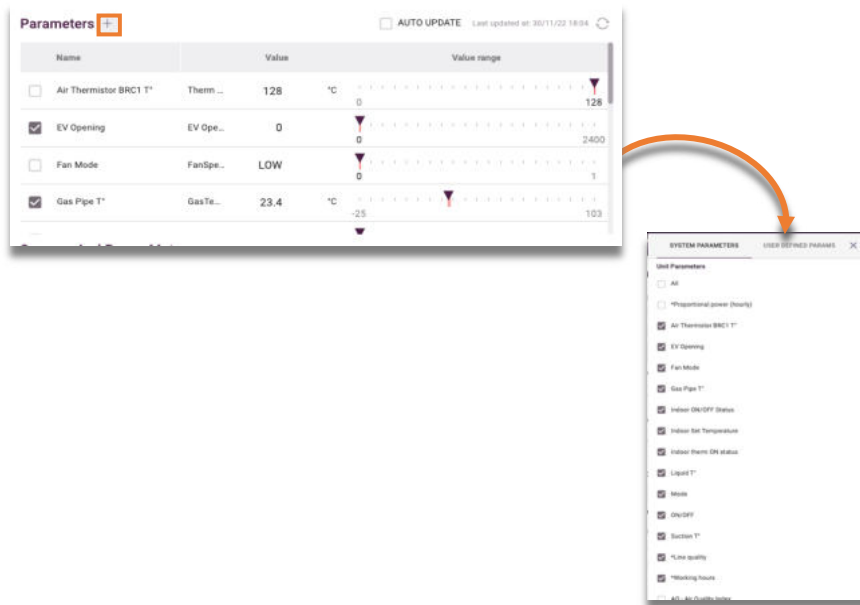
The list of parameters enables you to investigate, by selecting what parameters will be shown in the graph on the right side against each other.

For example, showing one parameter against another can show you the impact one parameter on the other.

Parameters list

The list of parameters can be managed, allowing you to decide what are the commonly used parameters and minimize the list.

To select what parameters are available in the list, click on the “Plus” sign



Checking the checkboxes in the list, we determine if the parameter will be visible in the list.

User defined parameters

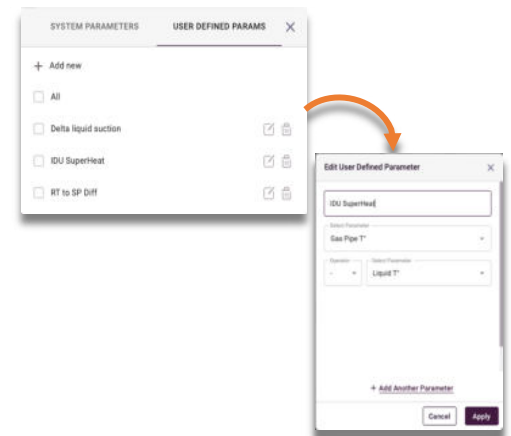
The list of parameters consists out of system parameters and user defined parameters.

User defined parameters are you can define on your own.

To create a new parameter, follow these steps:

1. Click the “Plus” icon in the parameters list

2. From the popup screen, choose the “USER DEFINED PARAMS” tab
3. Add a name to the parameter
4. Select at least two parameters and the relationship between them by choosing the desired operator. Additional parameters can be added by clicking on the “Add Another Parameter” option and selecting the desired operator between the new parameter and the previous one.



Graph view

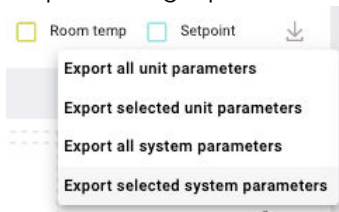
The selected parameters will be reflected in the graph view on the right side of the parameters list.

The graph view will draw the trends for the selected parameters over time and show the alerts which were triggered in the Professional app for the selected unit.

Graph view components

The graph view consists out of the following:

1. Date range selection widget, used to select the range of dates to draw data for in the graph. A maximum of 7 days can be selected.
2. Parameters show in the graph. You can remove and change the axis direction from the shown list
3. Additional layers – by checking the checkboxes, additional layer with the corresponding information will be added to the graph.
4. Export the graph values to CSV format



5. If selected to be shown, alerts indication will be seen in the corresponding time they have been triggered
6. When hovering over the graph, the values of the parameters will show, corresponding to the time axis position you are hovering over.
7. Clicking and dragging over an area in the graph will zoom in to this selected area. Click the Reset button to zoom out to the default zoom ratio.



Axis management

In some cases, the scales used to measure a parameter significant difference, and using a single access to show the values obscures the trend, as shown in the picture below.

EEV1 values ranges from 0 – 2000 and Eva IN1 values ranges -30 – 50 Celsius degrees. With a single axis display, is it hard to view the Eva IN1 while EEV1 is also displayed.

To separate the axis reference of a parameter, click on the Axis direction toggle for the desired parameter. The arrow in the toggle shows to what axis the parameters values are referenced.



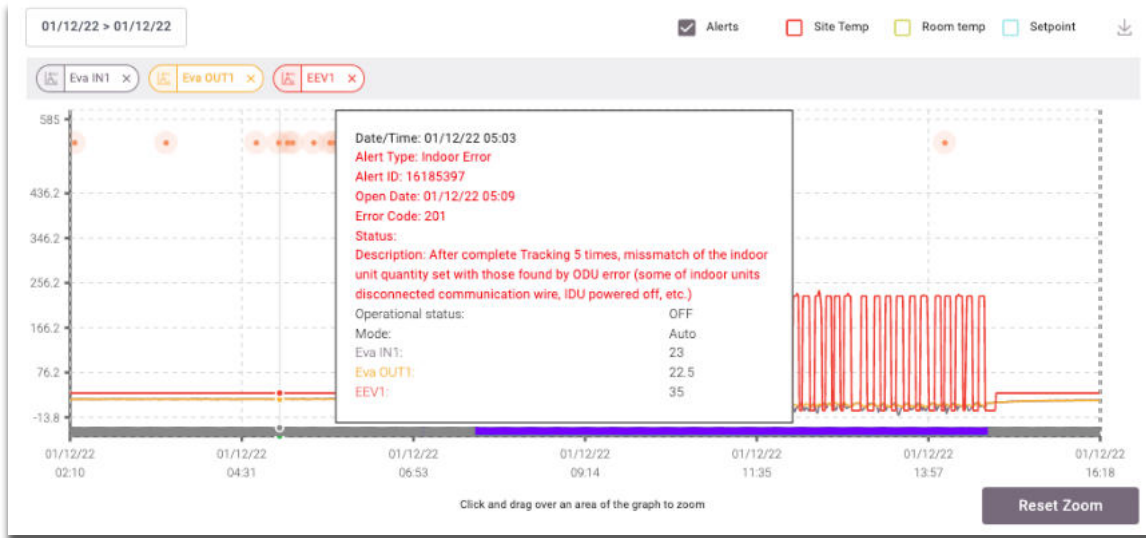
After changing the reference axis, it is easier to diagnose the trend



Alerts

If alerts are selected as a layer to add to the graph view, they will be seen in their corresponding time they were triggered.

Hovering over an alert, will open a summary of the alert showing the values of the selected parameters, shown in the graph

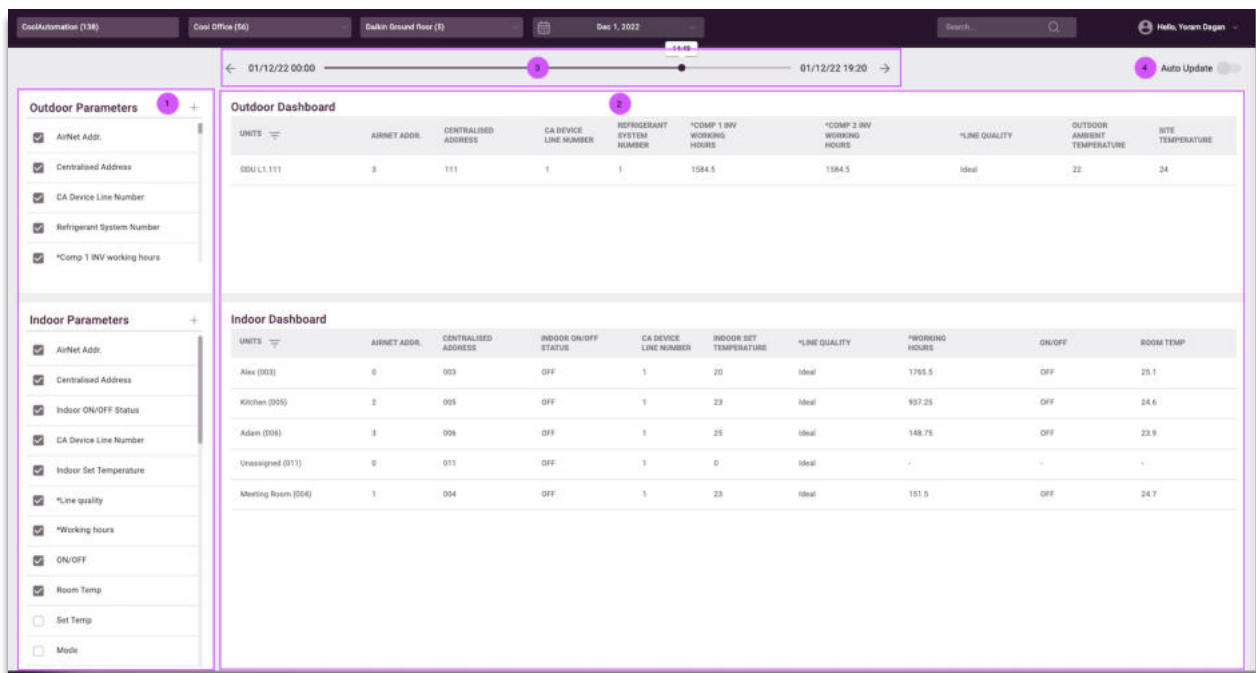


System Diagnostics

The system diagnostics screen shows a whole system overview in any given time in a day selected in the filter pane

The screen consists out of the following:

1. Parameter selection pane, where you can select the indoor and outdoor parameters to view in the grid on the right. The parameters are the same parameters available on the "Unit Diagnostic" screen and managed in the same way except for the "User defined parameters" which are defined in the "Unit Diagnostic" screen and populated in the parameter's selection pane
2. Dashboard - shows system's data based on the filters and specific time selected at the time selection widget
3. Time selection widget – moving the slider to a specific time, will affect the dashboard accordingly. The dashboard will show system's data at the selected time.
4. Use the "Auto Update" toggle to refresh the dashboard data automatically.



UNITS	AIRNET ADDR.	CENTRALISED ADDRESS	CA DEVICE LINE NUMBER	REFRIGERANT SYSTEM NUMBER	*COMP 1 INV WORKING HOURS	*COMP 2 INV WORKING HOURS	*LINE QUALITY	OUTDOOR AMBIENT TEMPERATURE	SITE TEMPERATURE
DDU L1.111	3	111	1	1	1584.5	1584.5	Ideal	22	24

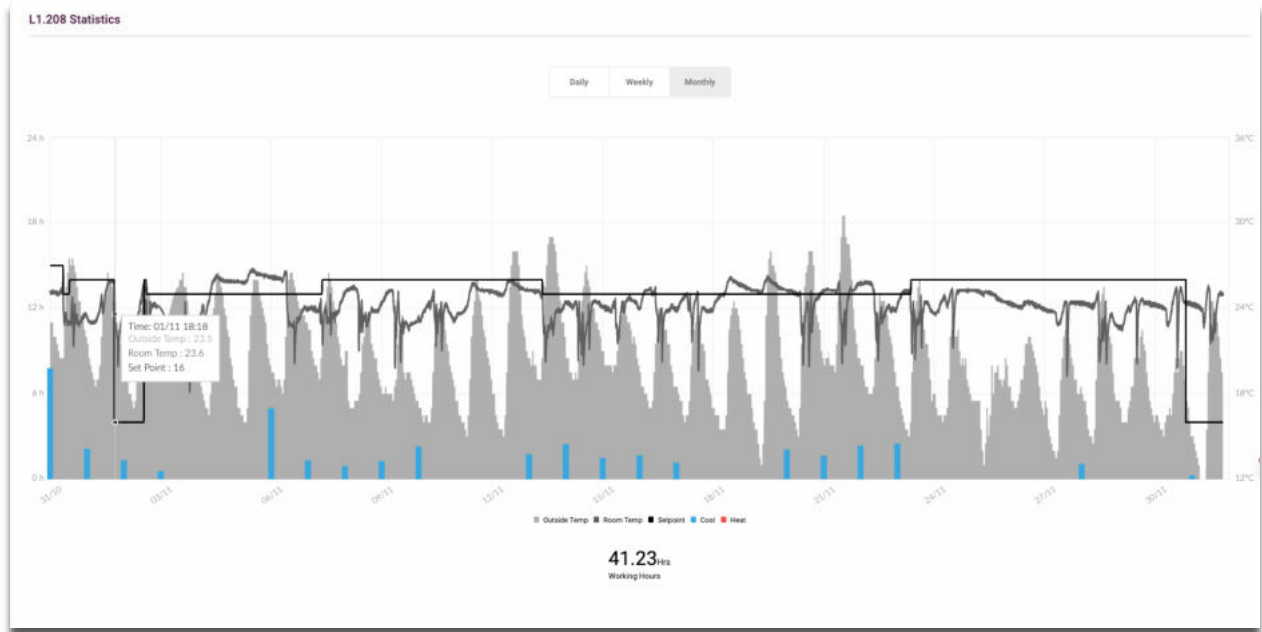
UNITS	AIRNET ADDR.	CENTRALISED ADDRESS	INDOOR ON/OFF STATUS	CA DEVICE LINE NUMBER	INDOOR SET TEMPERATURE	*LINE QUALITY	*WORKING HOURS	ON/OFF	ROOM TEMP
Alex (003)	0	003	OFF	1	20	Ideal	1785.5	OFF	25.1
Kitchen (025)	2	025	OFF	1	23	Ideal	937.25	OFF	24.6
Adem (004)	3	006	OFF	1	25	Ideal	148.75	OFF	23.9
Unassigned (011)	0	011	OFF	1	0	Ideal	-	-	-
Meeting Room (004)	1	004	OFF	1	22	Ideal	151.5	OFF	24.7

Double clicking on any of the dashboard lines, will open the "Unit Diagnostics" screen with the selected unit information.

Unit Statistics

Unit statistics shows usage statistics related to a specific units selected in the filters pane.

The statistics can show a daily, weekly or Monthly statistics.

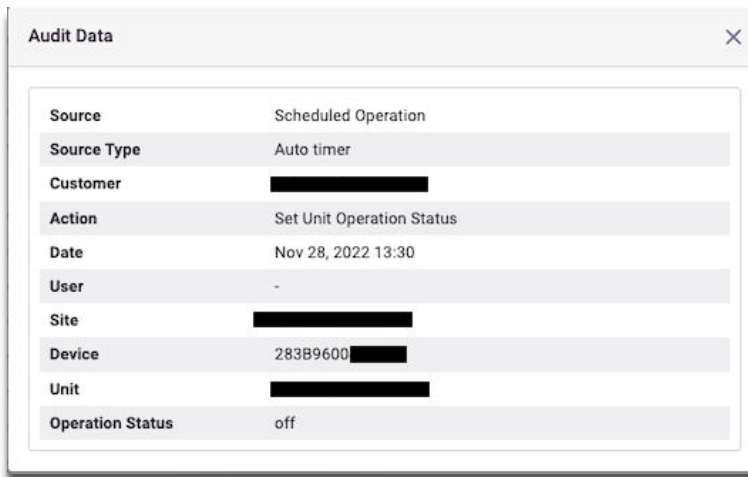


Activity Log

Activity logs allows you to track and understand actions made in your systems. This tool can be used to debug actions and their source.

For example, if you are trying to understand why a specific unit shuts down immediately after it is turned, you can use the Activity log to see what the source of the action is.

As shown in the picture below, the action's source was a scheduled operation, and the source type is an auto timer set on the indoor unit.

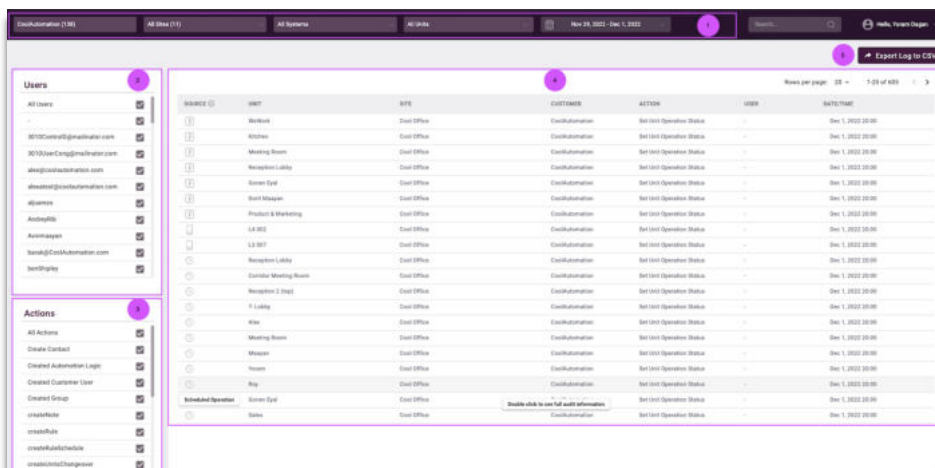


Source	Scheduled Operation
Source Type	Auto timer
Customer	[REDACTED]
Action	Set Unit Operation Status
Date	Nov 28, 2022 13:30
User	-
Site	[REDACTED]
Device	283B9600 [REDACTED]
Unit	[REDACTED]
Operation Status	off

Using the Activity log

The activity log screen consists out of 5 main components

1. Filter pane – used to filter the unit and time of activities to explore
2. Users filter pane – used to filter what users' activities you would like to explore
3. Action filter pane – used to filter what actions you would like to explore
4. Main dashboard where the activities are shown based on the selected filters. Double clicking on any of the line, will open the activity log details
5. Download to CSV – used to download the log to a CSV format



SELECTED ID	UNIT	SITE	USER/EMAIL	ACTION	USER	DATE/TIME
[icon]	Beit Beit	Coast Office	coolautomation	Set Unit Operation Status	-	Nov 1, 2022 22:00
[icon]	Beit Beit	Coast Office	coolautomation	Set Unit Operation Status	-	Nov 1, 2022 22:00
[icon]	Meeting Room	Coast Office	coolautomation	Set Unit Operation Status	-	Nov 1, 2022 22:00
[icon]	Reception Lobby	Coast Office	coolautomation	Set Unit Operation Status	-	Nov 1, 2022 22:00
[icon]	Screen Eye	Coast Office	coolautomation	Set Unit Operation Status	-	Nov 1, 2022 22:00
[icon]	Unit Messag	Coast Office	coolautomation	Set Unit Operation Status	-	Nov 1, 2022 22:00
[icon]	Product & Marketing	Coast Office	coolautomation	Set Unit Operation Status	-	Nov 1, 2022 22:00
[icon]	LA 202	Coast Office	coolautomation	Set Unit Operation Status	-	Nov 1, 2022 22:00
[icon]	LA 202	Coast Office	coolautomation	Set Unit Operation Status	-	Nov 1, 2022 22:00
[icon]	Reception Lobby	Coast Office	coolautomation	Set Unit Operation Status	-	Nov 1, 2022 22:00
[icon]	Customer Meeting Room	Coast Office	coolautomation	Set Unit Operation Status	-	Nov 1, 2022 22:00
[icon]	Reception 2 Stage	Coast Office	coolautomation	Set Unit Operation Status	-	Nov 1, 2022 22:00
[icon]	F Lobby	Coast Office	coolautomation	Set Unit Operation Status	-	Nov 1, 2022 22:00
[icon]	Kita	Coast Office	coolautomation	Set Unit Operation Status	-	Nov 1, 2022 22:00
[icon]	Meeting Room	Coast Office	coolautomation	Set Unit Operation Status	-	Nov 1, 2022 22:00
[icon]	Messag	Coast Office	coolautomation	Set Unit Operation Status	-	Nov 1, 2022 22:00
[icon]	Screen Eye	Coast Office	coolautomation	Set Unit Operation Status	-	Nov 1, 2022 22:00
[icon]	Reception 2 Stage	Coast Office	coolautomation	Set Unit Operation Status	-	Nov 1, 2022 22:00
[icon]	Screen Eye	Coast Office	coolautomation	Set Unit Operation Status	-	Nov 1, 2022 22:00
[icon]	Beit Beit	Coast Office	coolautomation	Set Unit Operation Status	-	Nov 1, 2022 22:00

Alert Log

Overview

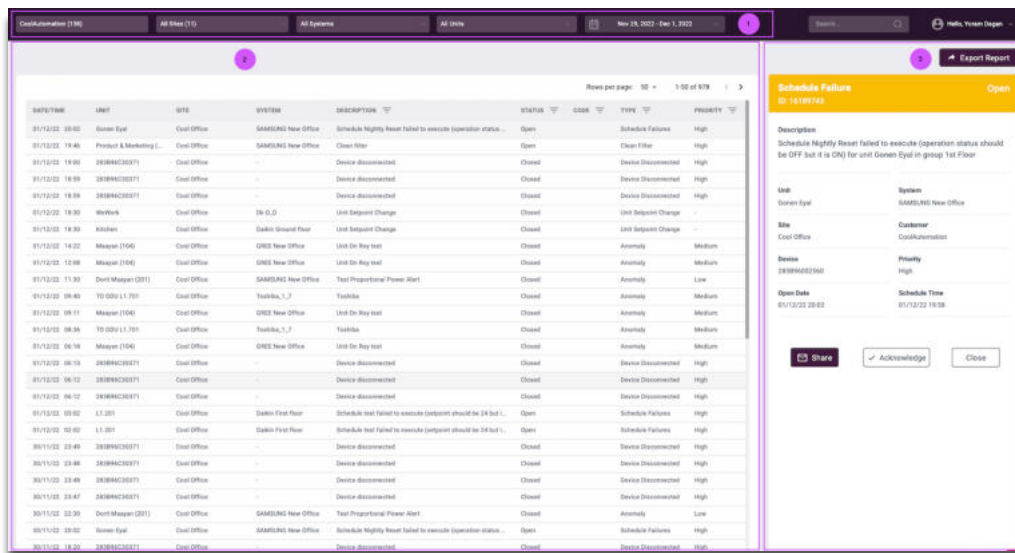
The alert log shows all the alerts that were triggered, allowing you to manage the alert, initiate an investigation, collaborate with other people, and resolve it.

The alert log is tied directly to the Dashboard and the unit diagnostic screen.

The dashboard will show open alerts and double clicking on an alert will open the Unit diagnostic screen with the alert's information

The Alert log consists out of 3 main areas,

1. Filters pane – used to filter the unit and date of the alert
2. Alert dashboard – used to view and filter the alerts
3. Alert details and action pane, used to review the alert and act.



DATE/TIME	UNIT	SITE	SYSTEM	DESCRIPTION	STATUS	CODE	TYPE	PRIORITY
01/12/22 20:02	Gonen Eyal	Cool Office	SAMSUNG New Office	Schedule Nightly Reset failed to execute (operation status ...	Open		Schedule Failures	High
01/12/22 19:46	Product & Marketing L.	Cool Office	SAMSUNG New Office	Clean Filter	Open		Clean Filter	High
01/12/22 19:00	2809602560	Cool Office	-	Device disconnected	Closed		Device Disconnected	High
01/12/22 18:59	2809602560	Cool Office	-	Device disconnected	Closed		Device Disconnected	High
01/12/22 18:58	2809602560	Cool Office	-	Device disconnected	Closed		Device Disconnected	High
01/12/22 18:58	2809602560	Cool Office	-	Device disconnected	Closed		Device Disconnected	High
01/12/22 18:50	Workshop	Cool Office	DR P.O.	Unit Request Change	Closed		Unit Request Change	-
01/12/22 18:50	Kidderon	Cool Office	Sabin Ground floor	Unit Request Change	Closed		Unit Request Change	-
01/12/22 14:02	Mizpey (104)	Cool Office	GRE2 New Office	Unit On-By test	Closed		Anomaly	Medium
01/12/22 12:08	Mizpey (104)	Cool Office	GRE2 New Office	Unit On-By test	Closed		Anomaly	Medium
01/12/22 11:30	Dorit Mizpey (201)	Cool Office	SAMSUNG New Office	Test Proportional Power Alert	Closed		Anomaly	Low
01/12/22 09:40	TD 020 L1.701	Cool Office	Yashiva_1_f	Yashiva	Closed		Anomaly	Medium
01/12/22 09:11	Mizpey (104)	Cool Office	GRE2 New Office	Unit On-By test	Closed		Anomaly	Medium
01/12/22 08:36	TD 020 L1.701	Cool Office	Yashiva_1_f	Yashiva	Closed		Anomaly	Medium
01/12/22 08:18	Mizpey (104)	Cool Office	GRE2 New Office	Unit On-By test	Closed		Anomaly	Medium
01/12/22 08:18	2809602560	Cool Office	-	Device disconnected	Closed		Device Disconnected	High
01/12/22 08:12	2809602560	Cool Office	-	Device disconnected	Closed		Device Disconnected	High
01/12/22 08:12	2809602560	Cool Office	-	Device disconnected	Closed		Device Disconnected	High
01/12/22 08:02	L1.201	Cool Office	Sabin First floor	Schedule test failed to execute (component should be 24 but L...	Open		Schedule Failures	High
01/12/22 08:02	L1.201	Cool Office	Sabin First floor	Schedule test failed to execute (component should be 24 but L...	Open		Schedule Failures	High
00/11/22 23:49	2809602560	Cool Office	-	Device disconnected	Closed		Device Disconnected	High
00/11/22 23:49	2809602560	Cool Office	-	Device disconnected	Closed		Device Disconnected	High
00/11/22 23:49	2809602560	Cool Office	-	Device disconnected	Closed		Device Disconnected	High
00/11/22 23:47	2809602560	Cool Office	-	Device disconnected	Closed		Device Disconnected	High
00/11/22 22:30	Dorit Mizpey (201)	Cool Office	SAMSUNG New Office	Test Proportional Power Alert	Closed		Anomaly	Low
00/11/22 20:02	Gonen Eyal	Cool Office	SAMSUNG New Office	Schedule Nightly Reset failed to execute (operation status ...	Open		Schedule Failures	High
00/11/22 19:20	2809602560	Cool Office	-	Device disconnected	Closed		Device Disconnected	High

Using the alert log

To start using the alert log, first filter the alerts by using the filters pane on the top and the dashboard's grid column header filters.

Once your alert dashboard shows the alerts you wish to handle, highlight a line and review the alert details in the alert details pane.

From here, you can act in a few ways

1. Double click on the alert line and open the Unit Diagnostic dashboard for further investigation
2. Export the alert log to a CSV format for further analysis. To export, click on the "Export Report" in the alert details pane
3. Share the alert with other people by clicking on the Share button in the alert details pane. The alert details and a link to dashboard on CoolAutomation's professional app
4. Resolve this alert by clicking on Acknowledge button in the alert details pane

Site Management

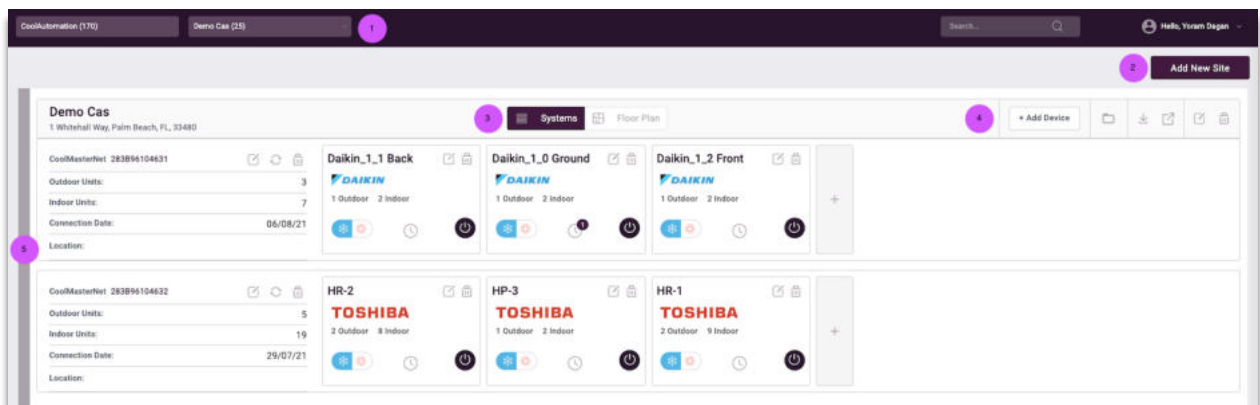
Overview

The site management dashboard consolidates the site and CoolAutomation's devices information.

Defining and managing the site architecture is done here.

The site dashboard consists out of the following:

1. Filter pane
2. Add new site button
3. Visibility selection between system view and floor plan view
4. Action bar with the options
 - a. Add a new device to the site
 - b. Manage files associated with the site
 - c. Import and export site information in a CSV format
 - d. Edit site information
 - e. Delete a site
5. Site dashboard - view site status, information and site configure settings

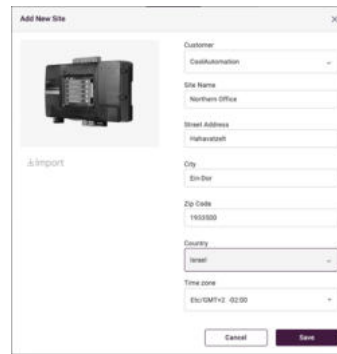


Creating a new site

To add a new site, follow these steps

1. Click on the "Add New Site" button
2. Fill the required information
3. Save the new site

Another option for creating a site, is to import



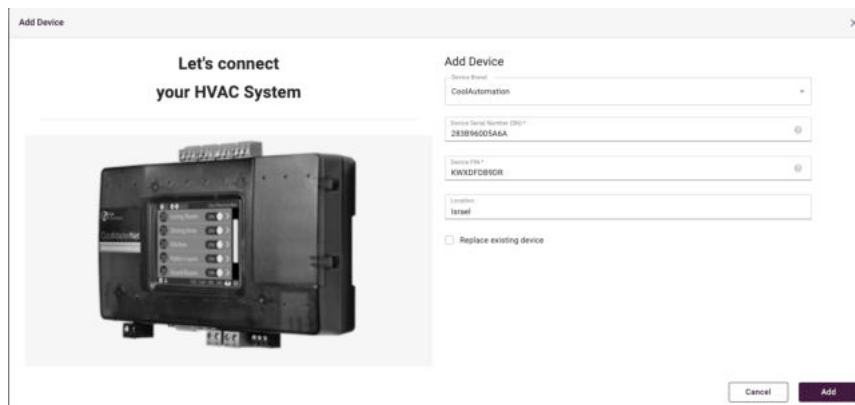
! It is very important to set the site's location correctly to make sure the Site Temp information is accurate.

Once the site has been added, you should contact CoolAutomation to assign the required professional license.

Adding/Replacing a device

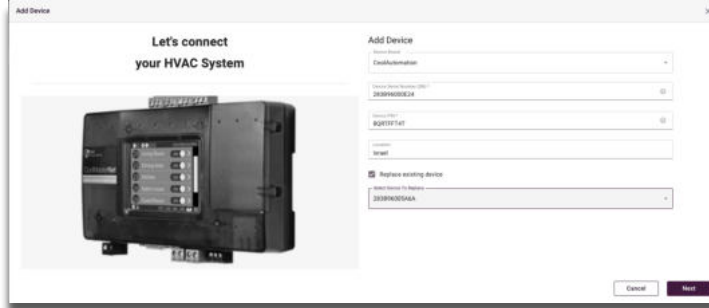
To add a new device to a site, follow these steps

1. Click on "+Add Device"
2. Fill in the required information
3. Click save

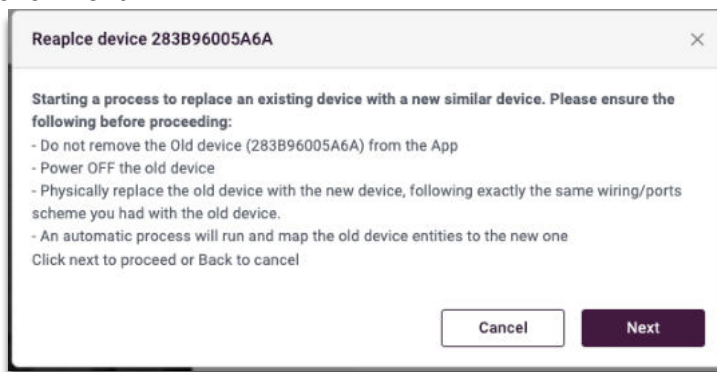


In cases where a device needs to be replaced while preserving the historical data, additional steps are required.

1. Check the “Replace existing device” checkbox
2. Select from the dropdown the device to be replaced. The list will contain device that already installed on the site and click next

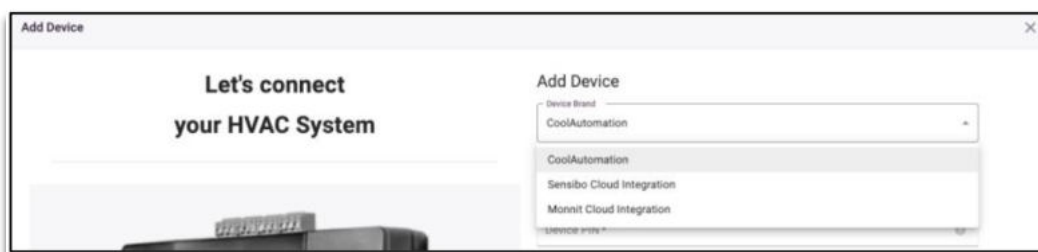


3. Make sure read and follow the instructions presented in the popup window and click next



In addition, you can select to add Sensibo and Monnit devices through Cloud to Cloud

Sensibo accounts integration, brings in IR based controls in sites where no bi-directional communication is available with CP or CMN. (e.g. unitary window units). After adding the Sensibo devices, all Sensibo units on that account can be controlled as an indoor unit through the control list of the site.

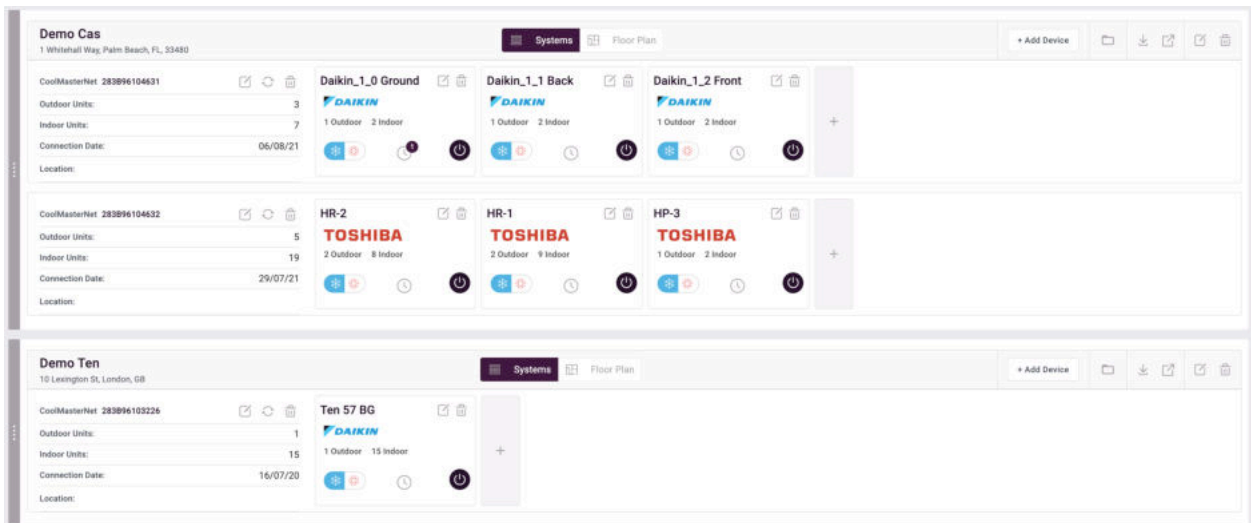


Monnit sensors integration - integrates with iMonnit accounts, bringing in wireless sensors to sites. The sensor reading are then presented in the diagnostics and can also be used as input sensors for creating anomaly and Interlocking rules.

Site management & Configuration

A site consists out of one or more CoolAutomation device, visually grouped together. On the top of each site group, the following information will be shown:

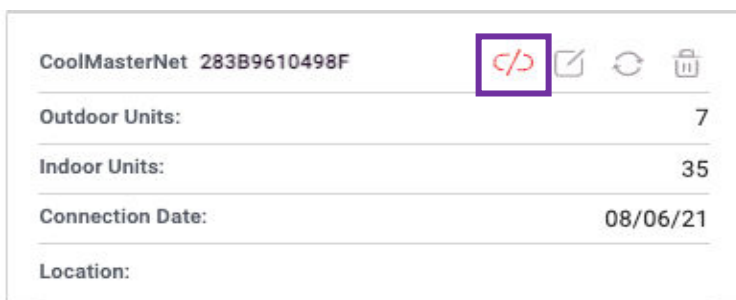
1. Site name and information
2. Visual options (System/Floor Plan)
3. Action bar
4. Air quality indicator for sites with air quality sensor commissioned



On the left site, a list of connected devices associated with the site will be listed with the:

- CoolAutomation device type and serial number
- Action bar with the options to see the devices configuration, refresh the device data and delete the device from the site
- The number of outdoor units connected to the device
- The number of indoor units connected to the device
- Connection date
- Location

If the device is disconnected, an additional indication will be seen in the action bar



On the right side of each device listing, the systems connected to the device are shown and the option to manually add a new system to the list.

In each system, you will have:

- System Name
- System's Brand
- The number of outdoor and indoor units connected to it
- The current operation mode status
- Scheduling indicator
- Power On/Off
- The option to edit the system configuration
- The option to Delete the system from the site

Device setting configuration

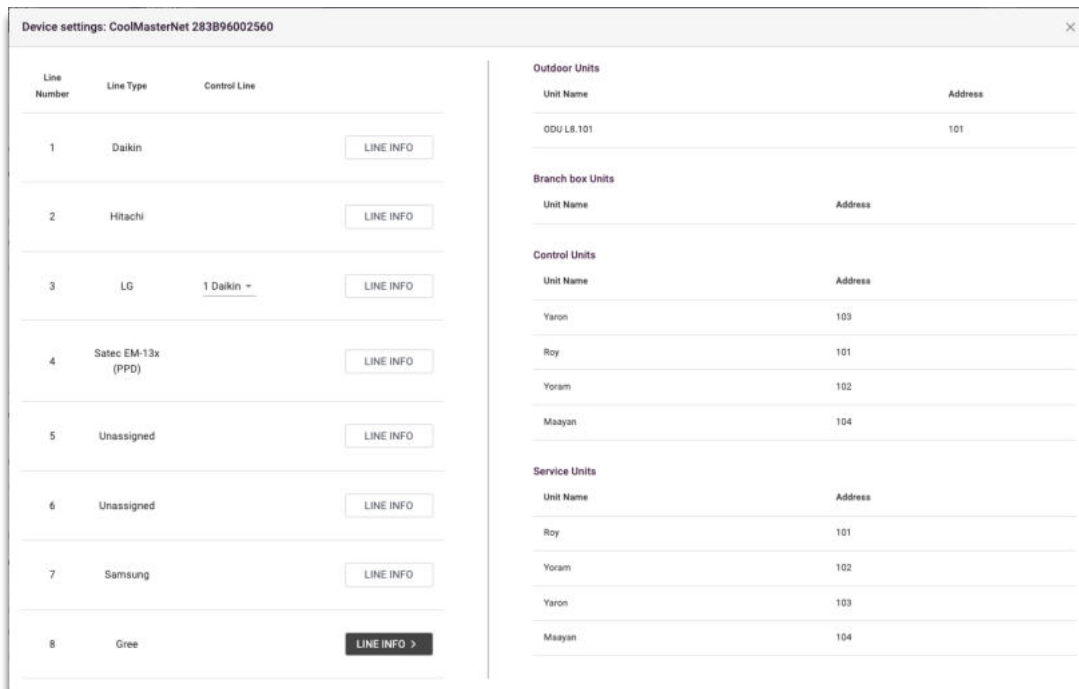
Clicking on the device configuration setting icon will open a new window, visualizing the device configuration per the Device line.

The device configuration setting window is divided into two panes.

The left pane showing CoolAutomation's device line numbers, line type and if required, the line type to be used to send control data.

The right pane will show the relevant system data for the selected line.

The data will be divided into four sections of Outdoor units, Branch Box Units, Control units sending control data and Service units sending service data.



Line Number	Line Type	Control Line
1	Daikin	
2	Hitachi	
3	LG	1 Daikin
4	Satec EM-13x (PPD)	
5	Unassigned	
6	Unassigned	
7	Samsung	
8	Gree	

Outdoor Units	
Unit Name	Address
ODU L8.101	101

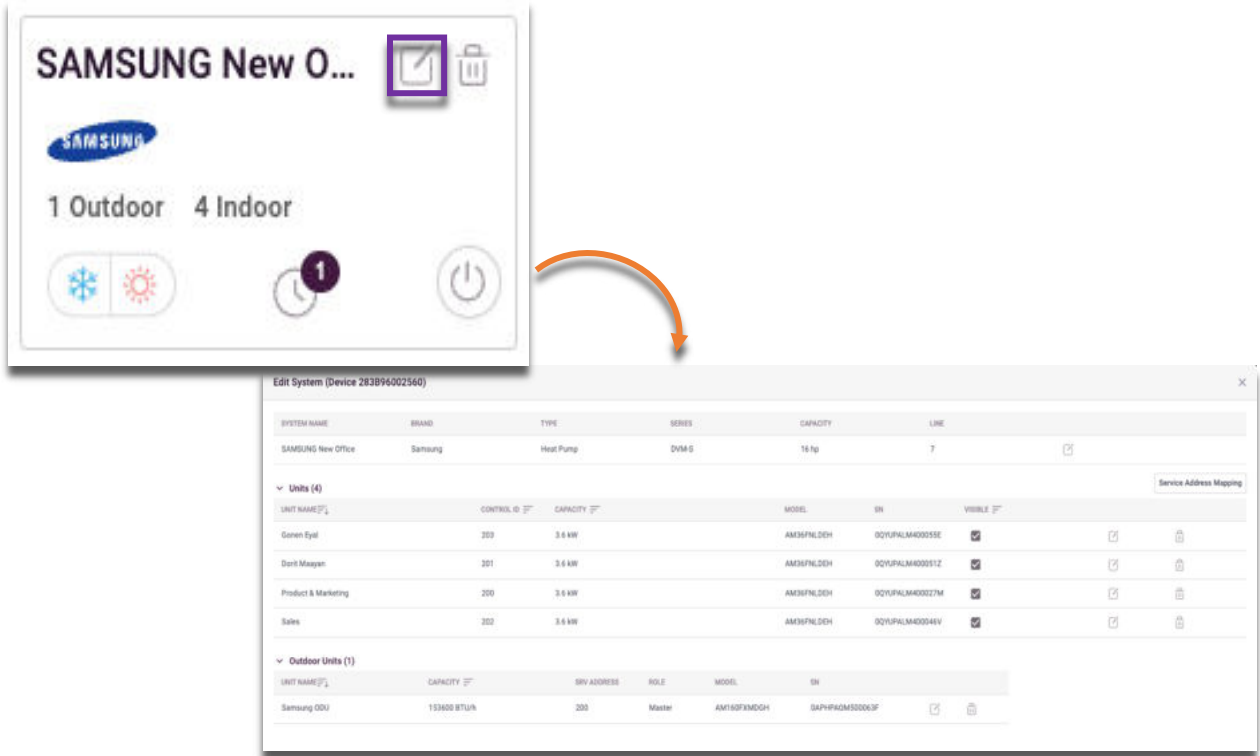
Branch box Units	
Unit Name	Address

Control Units	
Unit Name	Address
Yaron	103
Roy	101
Yoram	102
Maayan	104

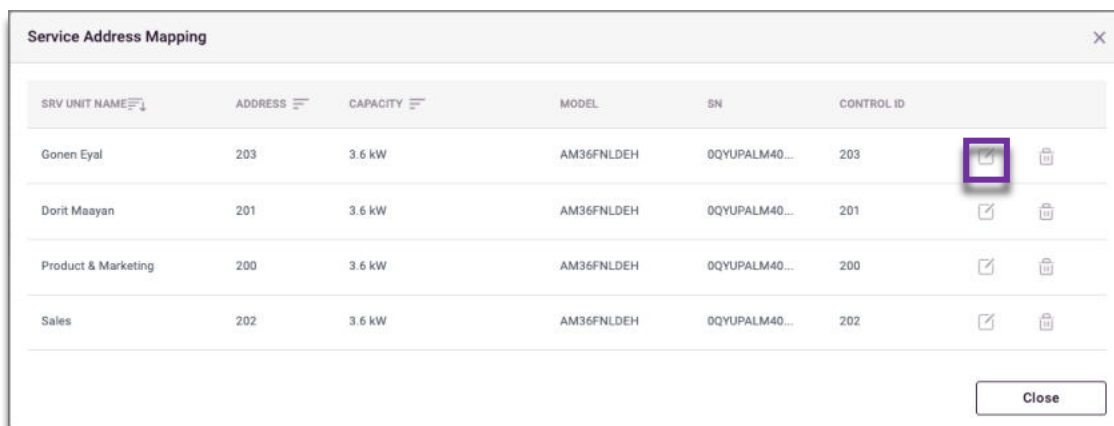
Service Units	
Unit Name	Address
Roy	101
Yoram	102
Yaron	103
Maayan	104

System configuration edit

Clicking on the system edit icon will open a new window with the current setting of the system. Each line can be edited and the information can be added if missing. The window is divided into three sections grouping the system's details, indoor units details and outdoor units details.



In some cases, relating to specific HVAC brands, there is a need to map the unit address to the service unit name. This is achieved by clicking on the "Service Address Mapping" button and editing the units lines with the correct address references.



Creating a system schedule

Scheduling HVAC operational actions can be set on different level, from the system to the unit level.

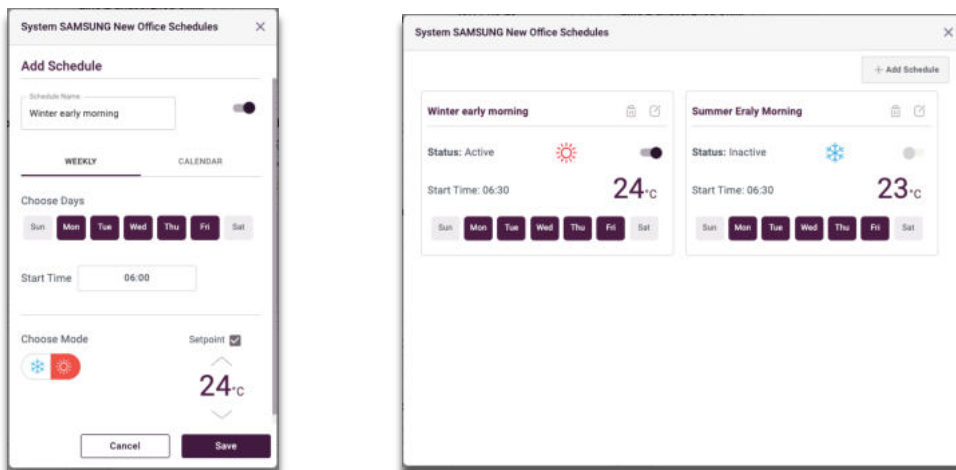
Scheduling on the system level addresses only the "Mode" change from Heat to Cool and vice versa.

Adding a schedule at the system level will affect all the units connected to the system. There are no limits to the number of schedules you can set for a system, however it is important to make sure there are not collisions between the schedules.

To add a schedule, click on the "Clock" icon on the system and click "Add Schedule" in the scheduling setting window.

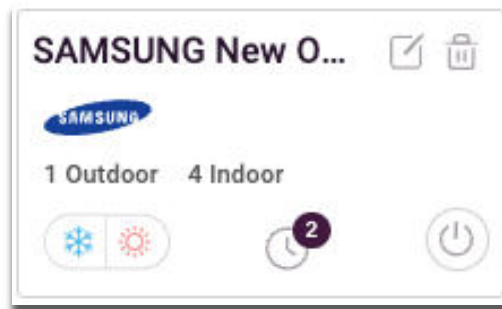
The schedule can be set a weekly schedule or as a calendar schedule by selecting specific dates for the schedule to trigger.

Fill the required information and save the schedule



From the system schedule setting window, you can view the configured schedules, enable/disable them and delete them.

After the schedules are set, an indication number over the Clock icon will show the number of schedules set for the system



Control Settings

The “Control Setting” modules allows better usage management achieving better efficiency, control, and energy saving.

App Control

App control setting defines what the user will have on the application control screen for each unit. Can be AC/HRV unit.

What are the settings he is allowed to change in a unit operation and with what limitations.

To set he control setting, you first need to select the unit to apply the setting on from the filer’s pane on the top of the screen.

Once a unit is selected, A screen divided into 3 main sections will appear.

First section is the control unit settings

Second section is a scheduling setting section

Third section on the right allows copying the settings set on the unit to other units.

Control settings

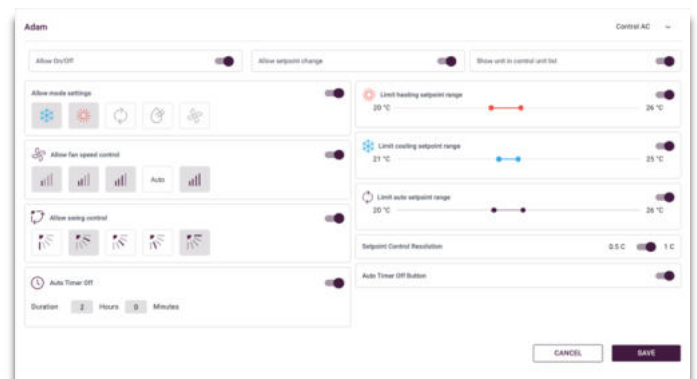
To set a control setting, you first need to enable the setting with the toggle on each one of the settings. Alternately, clicking on one of the options in the settings, will automatically switch the toggle on.

When a toggle of a settings is disabled, the setting will be unavailable for the user to change.

An option in grey is an enabled option.

The available settings for an AC unit are:

- Power On/Off
- Allow setpoint change
- Visibility setting of the unit in the App
- AC Mode change and what modes can be selected
- Fan speed change and what speeds can be selected
- Swing change and to what position
- Maximum “Auto timer off” duration
- Set heat setpoint range limits
- Set Cool setpoint range limits
- Set auto setpoint range limits
- Setpoint resolution settings
- Enablement of the Auto Timer option

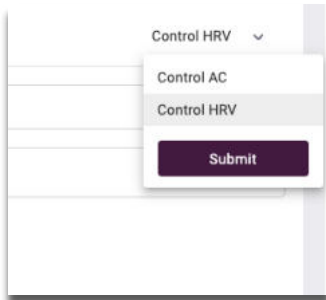


Once the settings are set, click Save.

If you wish to use the same setting on other units, you can select the units from the right pane and click apply to copy the settings to the selected units.

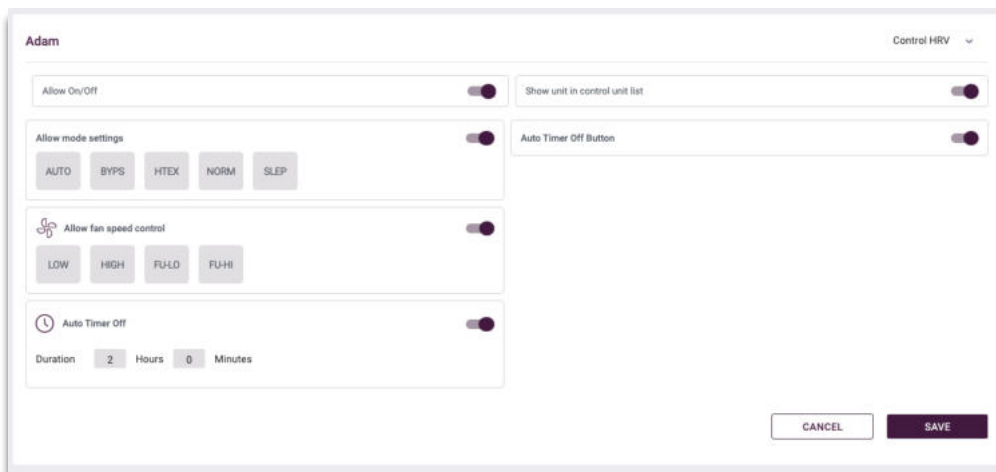
To set App control setting to HRV systems, select “Control HRV” from the menu in the top right corner of the setting screen and click submit.

In the same way as with the “Control AC”, set the desired settings and click save.



The available settings in an HRV system are:

- Power On/Off
- Visibility setting of the unit in the App
- Mode change and what modes can be selected
- Fan speed change and what speeds can be selected
- Maximum “Auto timer off” duration
- Enablement of the Auto Timer option



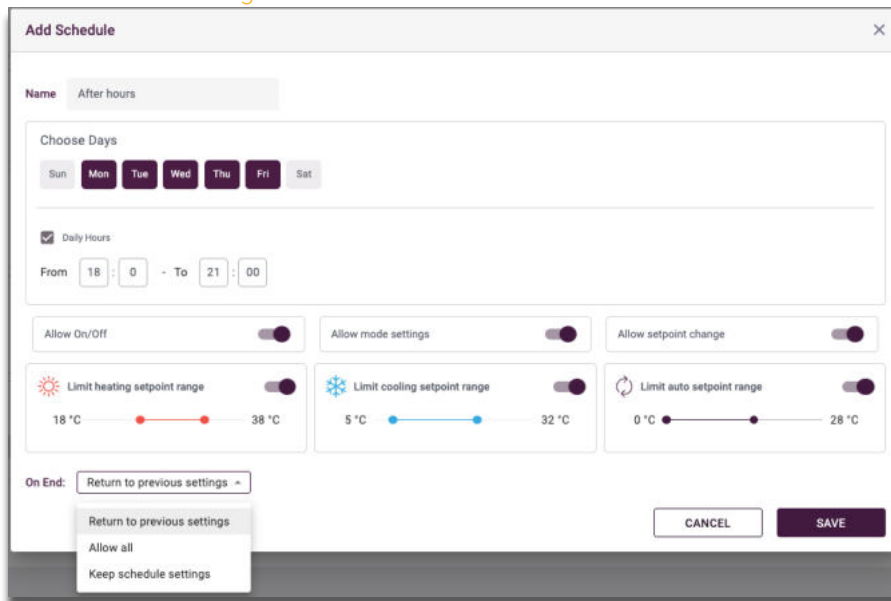
Scheduling

App controls allows you to create schedules of when to allow different access tools/limits than what was set in the App Control settings.

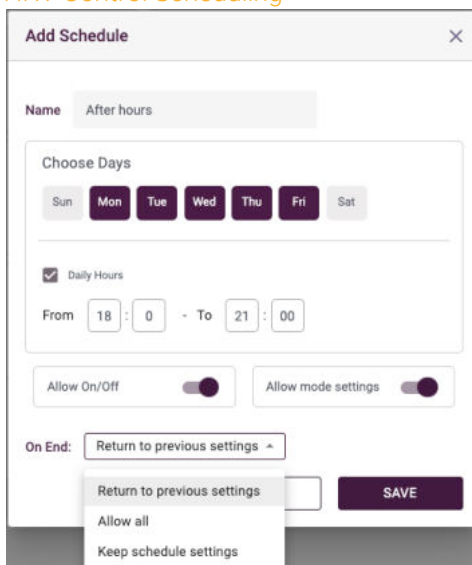
Here also, there is a difference between an AC control and an HRV control scheduling. The scheduling allows you to set is to return to the previous setting or keep the settings set in the schedule after the schedule expired

Once the schedule parameters are set, click on save.

AC Control scheduling



HRV Control Scheduling



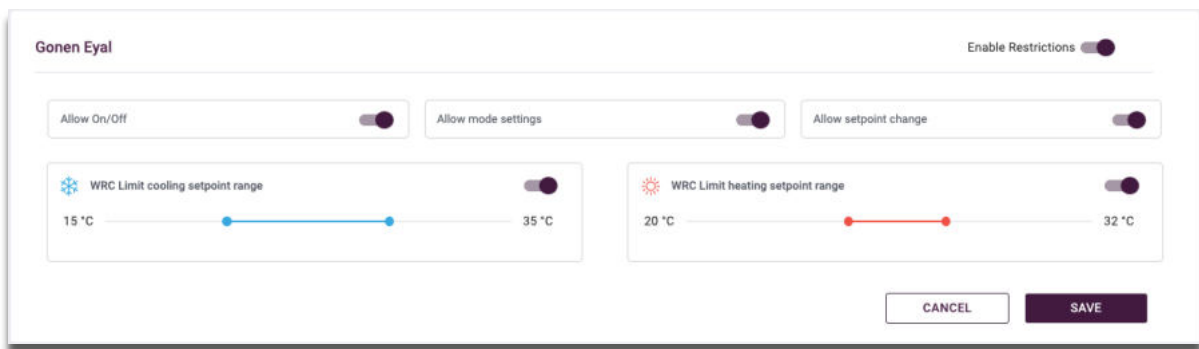
WRC Restrictions

WRC restrictions allow you to disable some of the changes done from the Thermostat.

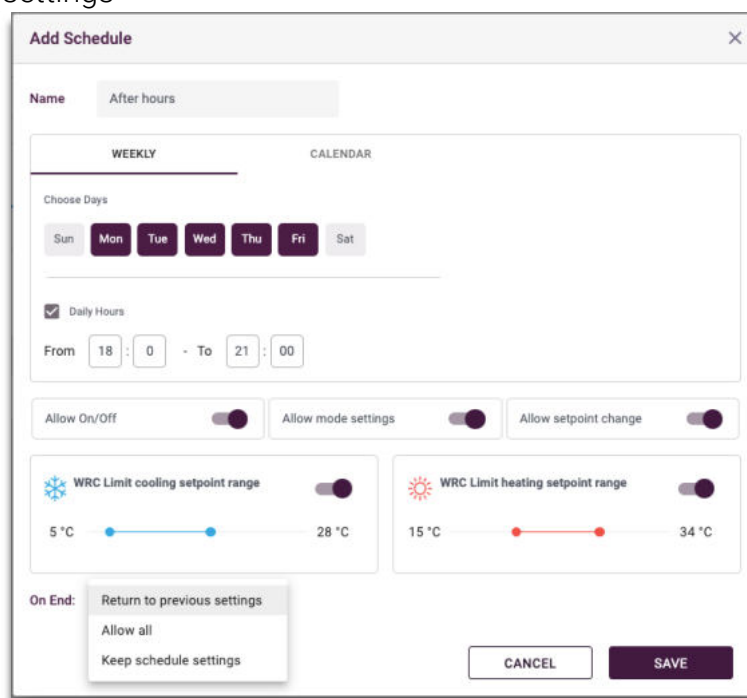
The WRC restriction setting doesn't restrict the change of the setting in the Thermostat; however, it enforces the setting by identifying that a change was done via the Thermostat and rolling back the thermostat setting to the state it was prior to the change.

The available restriction options are:

- Enable/Disable Power On/Off
- Enable/Disable Mode setting
- Enable/Disable setpoint changes
- Restrictions of Heat and Cool setpoint ranges



As in the App Control setting, scheduling is available and set in the same way as in the App Control settings



Groups

Groups is a union of a few indoor units into one entity which you can apply rules and scheduling on.

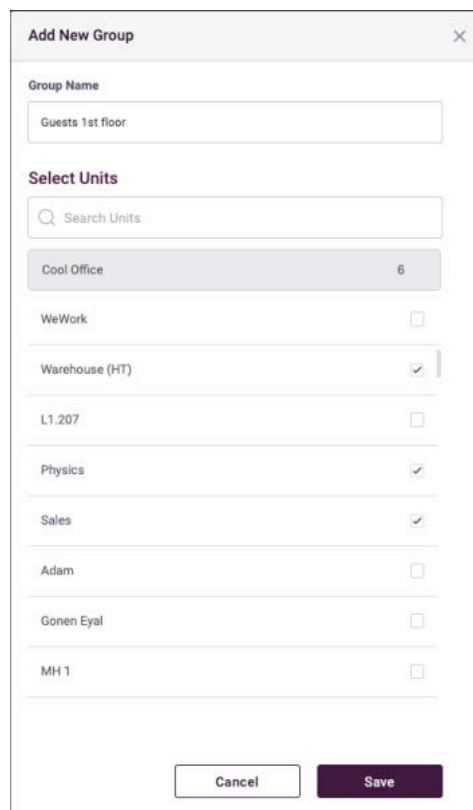
Any rule or schedule applied on a group will affect the indoor units under the group.

An indoor unit can be associated with more than one group.

Groups created in the group section can be seen on the “Remote Control” tab and the iocControl mobile App.

To create a group, click on “Add New” button the group management tab.

Write a name and select the units occupying the group and click “Save”.



Add New Group ✕

Group Name

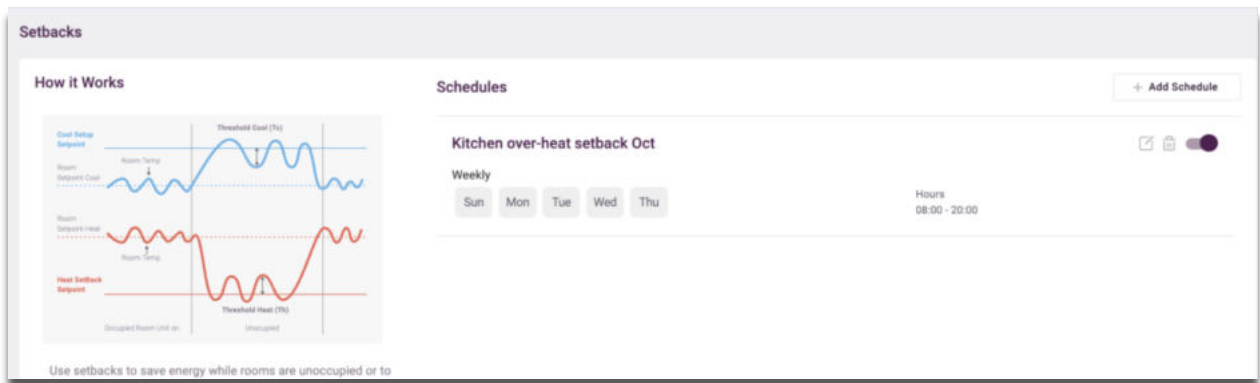
Select Units

- Cool Office 6
- WeWork
- Warehouse (HT)
- L1.207
- Physics
- Sales
- Adam
- Gonen Eyal
- MH 1

Setback

Setbacks is used to save energy while rooms are unoccupied, or to avoid extreme room temperatures when the AC is turned OFF (E.g. anti-freeze, overheat conditions).

Multiple, different schedules can be set for activating setback mode for different units on which units.



when a unit is in a setback mode schedule, the App continuously monitors the room temp while the unit is turned Off.

As illustrated in the diagram above, If the room temp reaches the Setback-setpoint (Cool) or Setback-setpoint (Heat), it will start working until the room temperature reaches the Setup - Tc or SetBack+Th for and will be turned Off, E.g. if unit is in Cool mode, SetUp (Cool) Setpoint is 26C, Threshold Cool (Tc) is 2C. When unit is Off and room temp reaches 26C, the unit will be turned ON to setpoint 24C (26C-2C) and when reaching 24C it will be turned Off again.

When the Setback mode is active, an indication in the Control tab will appear in the form of a small "SB" sign to the right of the setpoint.

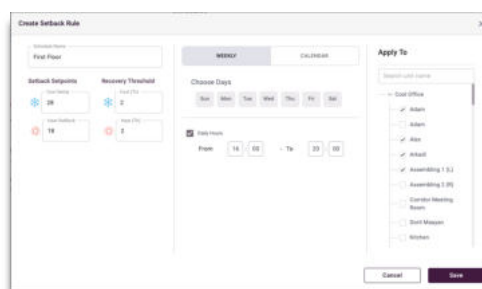
This means that unit is in SB mode and when the Setback condition is met, it will start working according to the defined setpoints in the schedule.

Setback Schedule settings

Multiple schedules can be set for a single unit.

Setback schedules can be set by recurring weekly specific days (e.g. Mon - Fri work week), or

by calendar specific dates. The schedules can also be limited to specific hours of the day.



User management

Overview

The user management tab allows managing access to different Site assets and the level of activities that can be done on these sites. User can manage existing users and invite new users.

The user in the Professional App is a 'floating' entity, meaning it does not tie specifically to one organization (customer). It allows an organization (Customer) to invite users to access their environment through the App and for Service Providers to give service to multiple organizations without the need to have multiple users.

Use cases

- Manage User Access to a Site
- Invite service/support/home & Building automation providers to configure and fix a system at a customer's site.
- Share and manage access to control Home AC with family members and guests
- Building manager sharing control on a group of units (e.g., whole floor) with office admins
- Office admin share control with office users, each one gets access to only his related units
- Multi location management company assign site admin to its customers

User permission

An organization (Customer) can invite a user to their environment with a set of access permissions. If the user (identified by the e-mail) was already created on the platform, an invitation will be sent to him updating him of the new Access rights he just received.

If it is a new user, a pending user will be created, an invite e-mail will be sent with a link to create a user and join the App.

Once the invited user completes his registration process and press submit, the user will be created and can log-in into the App using the credentials he has selected.

User access permissions can be set in on 4 hierarchic levels of entities:

- Customer – Granting access to the all the HVAC system/s installed on all Sites under this Customer
- Site – Granting access to all HVAC systems on a specific Site
- Group – Granting access to specific group of indoor units on a specific site.
- Unit – Granting access to specific indoor unit/s

The allowed actions on each one of the entities are determined by the assigned Role the user was given on that entity. A user can be assigned to multiple entities, with different Roles on each.

User has access only to entities he was invited to.


Users see other users (in the user management tab), only for the entities they share.

Editing a user profile is allowed to users with the same role level on an entity.

User Roles

For each one of the entity levels there are three Roles a user can be assigned to.

- Admin – Access all functions* available for the entity he was given access to and can make any change to the App and through the app to the connected HVAC system.
- Technical Service – a user with access to all functions to do remote technical service. He has no access to make changes to the management platform (cant see: site management, user management, reports, control settings, notification settings, smart rules, power distribution settings)
- Viewer – View only access to all functions* available for the entity he was given access to but cannot perform any changes.

 If a user has a mixed role on an entity (i.e., on some sub levels of the entity, he is an admin and on others he is a viewer), then on the entity level he will be seen as "Limited" role.

Access rights are given to Professional App functions or to Control App Only. When selecting the Role, user can define if it will be for the Pro (includes Both Professional and Control App functions) or only to Control.

*Note: The set of maximum functions available on each Site are defined by the Package the customer registered to with CoolAutomation on the commercial level.

A user with the entity access and Admin permissions can invite other users to an entity or role if they have an equivalent or less access rights. By inviting a user to an entity, an existing user will be added to the access right of the entity or a new user will be created if the user does not exist in the Professional App

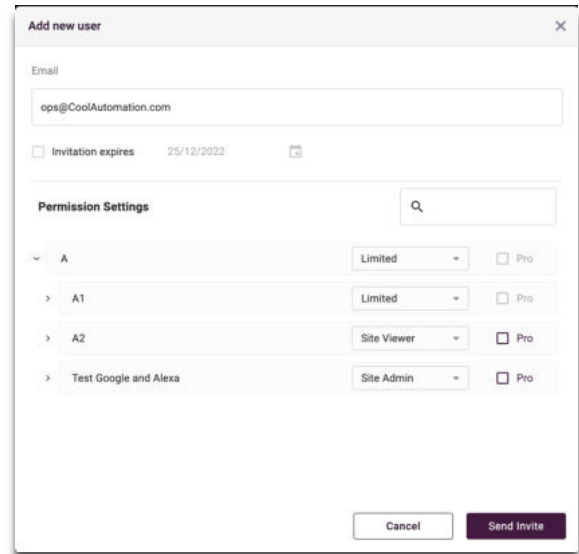
User Invitation

To invite a user, in the “User Management” tab, click on “Invite User”

In the user profile definition window add the following details

- User’s email address
- Permissions Settings – select to what entities (Customer, Site, Group, Unit) you give access to and at what Role
- Select whether it is access to only the Control App or to Professional App also
- Click on “Send Invite”

If the user email does not exist in the system, an invitation to register will be sent to the user’s email.



The screenshot shows a window titled "Add new user" with the following fields and options:

- Email:** ops@CoolAutomation.com
- Invitation expires:** 25/12/2022
- Permission Settings:** A search bar and a list of entities with roles and checkboxes.

Entity	Role	Pro
A	Limited	<input type="checkbox"/>
A1	Limited	<input type="checkbox"/>
A2	Site Viewer	<input type="checkbox"/>
Test Google and Alexa	Site Admin	<input type="checkbox"/>

Buttons at the bottom: Cancel, Send Invite

Automations

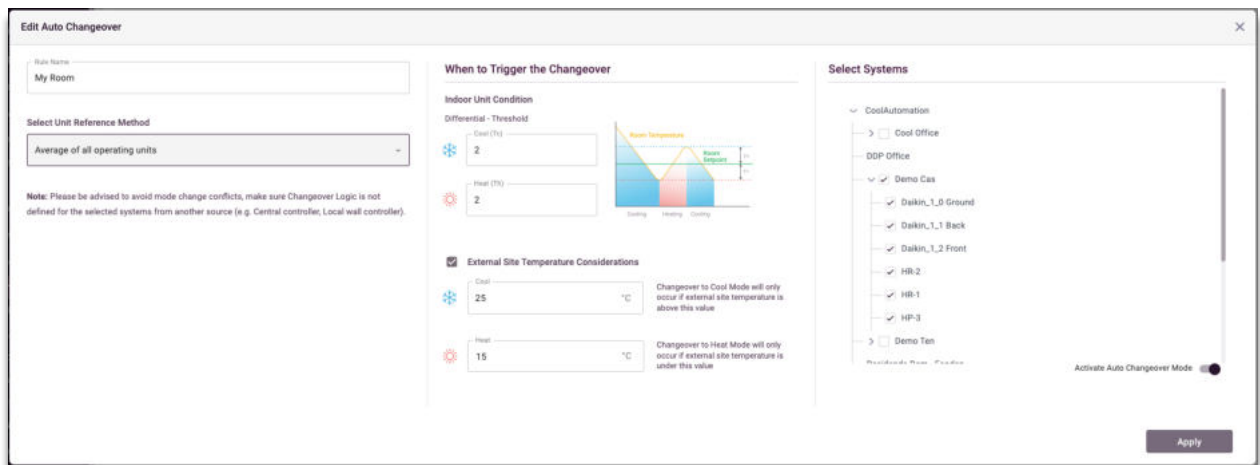
Auto Changeover

Auto Changeover is used on units to automatically change operation modes when meeting specific room temp conditions.

To add an Auto Changeover rule, select from the filter pane the customer and site you wish to create the rule for and Click on “Add New Rule”

In the Auto Changeover window, fill in the:

- Rule name
- Unit Reference mode
 - Average of All operating units
 - Majority of operating units
 - Individual unit auto mode change
- `triggering conditions
 - Threshold for Cool and Heat
 - Changeover setpoint for Cool and Heat
 - Systems to apply the rule on
- Set the toggle to the right to activate the rule



! Changeover is limited if the system is a heat pump as not all units can switch modes independently of the system. It requires that the admin who set this function understand his VRF system model and piping plan.

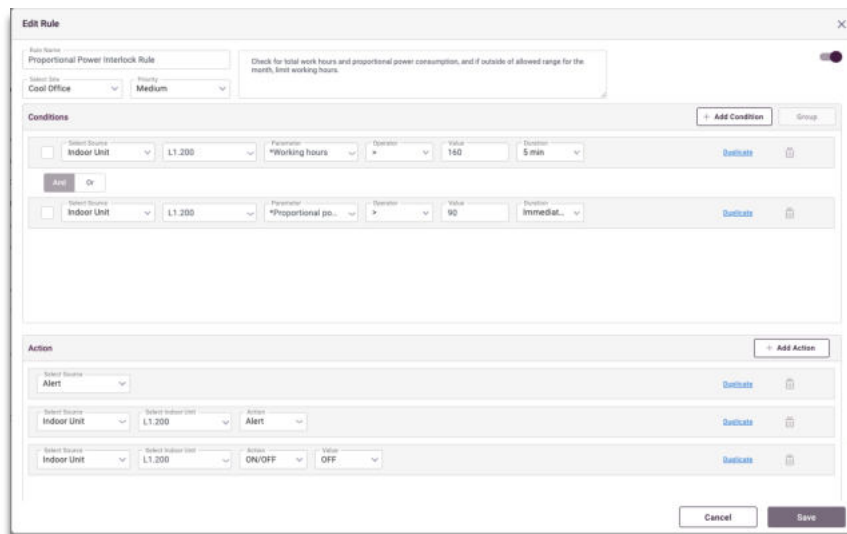
Interlocking

An Interlock rule is a rule in which you set a condition based on outdoor or indoor parameters values and when they are met, the interlock rule will initiate a set of actions defined in the rule

To define an interlock rule, select from the filter pane the customer and site you wish to create the rule for and click on “Add New Rule”.

In the Interlock rule configuration window, fill in the following:

- Rule name
- The site the rule will monitor and trigger on
- Alert priority of interlock rule. The priority will be reflected in the priority of the alert in the alert log and dashboard.
- Add conditions by clicking on “+Add Condition” for each condition you need to add.
 - The relationship of AND or OR needs to be defined between each condition
 - Conditions can be grouped by checking the checkbox on the left of the condition row and clicking on group. The result of a group will be taken and referenced to the next condition
- Define what actions should be taken if the rule’s conditions are met
- Enable the rule from toggle on the top right corner of the window
- Click save



An Interlock rule can be duplicated by clicking on the duplicate link in the rule’s row

Sistema 2 - FULL ON	Cool Office	Detectar funcionamiento de la mayoría de las evaporadoras en el Sistema 2, y forzar modo COOL FULL en todas.	<input type="checkbox"/>	Duplicate
Hydracion L2.001 Vacío	Cool Office	Detectar ocupación	<input checked="" type="checkbox"/>	Duplicate
Proportional Power Interlock Rule	Cool Office	Check for total work hours and proportional power consumption, and if outside of allowed range for the month, limit working hours.	<input checked="" type="checkbox"/>	Duplicate


Procedures

A Procedure allow automation of specific sequences of actions on the system/units for analyzing performance and system health (e.g., during periodic check or system startup)

This feature allows benchmarking of system performance over time, by running the same exact procedures and comparing key performance indicators between the runs. You can track current consumption, pressures or any other parameter using the unit and system diagnostics screens.

Procedures management is divided into two tabs

1. Procedures - add/edit procedures, to be used anytime later to run on a system. All procedures are in the general context of the customer account. When running a procedure, you can define on which specific systems/units it will run. Once launched, the actual run record will move to the "Test Procedures & Log" tab, where you can track its progress and download the completion report.
2. Test Procedures & Log - here you can track, and control running procedures and view their status. It includes two panes:
 - a. Running Procedures - shows the procedures that are currently running. You can stop a procedure at any time.
 - b. Procedure Reports – list of all procedure runs, and their run reports. Here you can see when it was running, on which systems/units and if they were successfully completed.

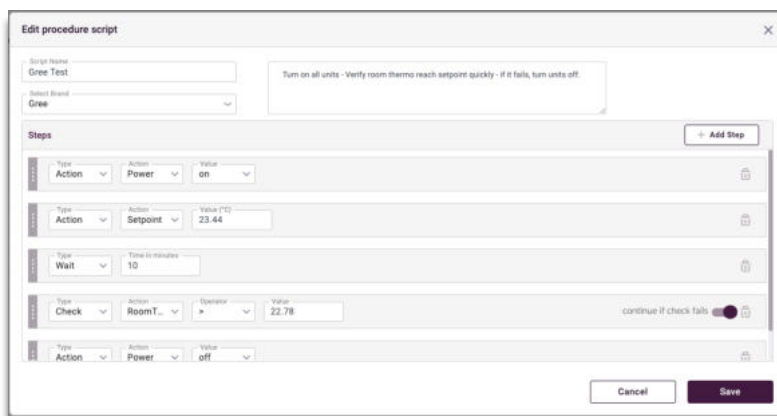
 Note: When procedure ends or stopped, all units will stay at the operational status they are.

Create a new procedure

To create a new procedure, select from the filter pane the customer and site you wish to create the procedure for and Click on the "Add new procedure script" button.

Add a name and a brand on which the procedure will test against.

In the procedure script configuration window, define the procedure steps by adding steps



Once you finished adding the steps, click save.

A Procedure can be run from the procedure list by clicking on the Play icon

NAME	BRAND	DESCRIPTION	RUN	EDIT	REMOVE
demo procedure	Hizachi		▶	✎	🗑️
Force Heat Mode Mitsubishi Electric	Mitsubishi electric	Forzar el Modo HEAT a todos mis equipos Mitsubishi Electric. Si falla, apagar equipos.	▶	✎	🗑️
Forzar modo HEAT	Samsung		▶	✎	🗑️

Once the Play icon was clicked, the procedures move to the “Test Procedures & Logs” tab in which you see the status and log of the test

Running Procedures				
NAME	STATUS	DATE/TIME	STOP	
test	Initiated	06/12/22 23:39	⏹	

After the procedure is complete, the status will change, and you will have the option to download the report and rerun the procedure

Running Procedures				
NAME	STATUS	DATE/TIME	STOP	
just wait	Completed Successfully	05/04/21 15:02	⏹	

Procedures Reports						
PROCEDURE	STATUS	START DATE/TIME	END DATE/TIME	DOWNLOAD	RERUN	REMOVE
test	Success	06/12/22 23:39	06/12/22 23:39	📄	▶	🗑️

test.06_12_22 23_39-06_12_22 23_39

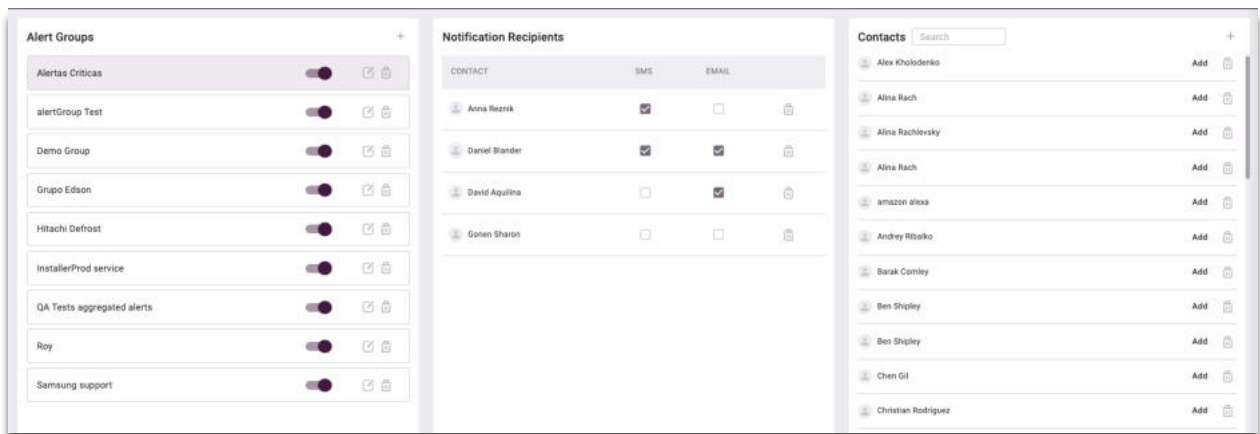
Gonen Eyal					
Type	Action	Operator	Value	Result	Date/Time
condition	Power <		off	Success	06/12/22 23:39
command	Power		on	Success	06/12/22 23:39
Sales					
Type	Action	Operator	Value	Result	Date/Time
condition	Power <		off	Success	06/12/22 23:39
command	Power		on	Success	06/12/22 23:39
Dorit Maayan					
Type	Action	Operator	Value	Result	Date/Time
condition	Power <		off	Success	06/12/22 23:39
command	Power		on	Success	06/12/22 23:39
Product & Marketing					
Type	Action	Operator	Value	Result	Date/Time
condition	Power <		off	Success	06/12/22 23:39
command	Power		on	Success	06/12/22 23:39

Notification Settings

Notification setting allows managing the alerts from the systems and automations in an efficient way by creating alert groups and targeting the alerts to the correct group, responsible for addressing the reported issue.

The notification setting tab is divided into 3 panes.

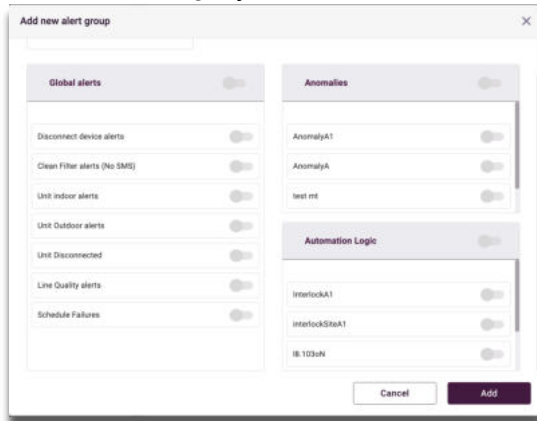
- Left pane, Alerts Group – In this pane alert groups are defined. A group consists of the alerts sent to the users associated with the group. The alerts in the group setting has four alert type categories
 - Global alerts
 - Site alerts
 - Anomalies alerts
 - Automation alerts
- Center pane, Notification Recipients – when highlighting a group in the left pane, the center pane shows the users receiving the alerts from the group and the method used to deliver the alert (email, SMS). After adding an alert recipient user, the center pane is used set the alert delivery method/s.
- Right pane, Contacts – shows the list of the users in the Professional App, allowing to add them to the Notification Recipients of the highlighted Alert Group. A user can be associated with more than one Alert Group. A user in the list can be created independently here only as a notification recipient without access privileges to the Professional App.



Create an Alert Group

To create an Alert Group, follow these steps

- Select from the filter pane the customer and site you wish to create the alert group for
- In the Alert Groups pane, click on the “+” icon on the top right corner.
- In the “Add Alert Group” setup window, fill a name and select what alerts will this group report on. You can selectively move the toggle to the right to activate a specific alert or use the toggle at the alert category name to enable all the alerts in that alert category.



- Click “Add” to save the Alert Group.

Setting notification Recipients









Once the Alert Group has been created, you would want to add recipients to this Alert Group.

Before adding recipients to the Alert Group, you need to make sure that the recipients are defined as contacts in the left pane.

If you cannot find the contact in the list, Click on the “+” icon in the Contacts pane to add a new contact and fill in the required contact details prior to saving the new contact.

Follow these steps to set the recipients for an Alert group:

- Highlight the Alert group you want to add recipients to.
- From the contact list, identify the contact and click the “Add” option to the right of the contact. This will add the contact to the Notification Recipients list.
- In the notification recipient’s pane, identify the user you added and check the checkboxes reflecting the delivery method to alert the contact.

Notification Recipients			
CONTACT	SMS	EMAIL	
 Cool Demo	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
 Edson Machado	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
 Mosh Almog	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
 Roy Muchtar	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

If you wish to remove a contact from the alert notification recipients, click the trashcan icon on the right of the contact in the Notification Recipients pane

Anomaly Rules

The anomaly rules are custom rules you can create to monitor and alert on what you would define as an anomaly to the normal operation of the system.

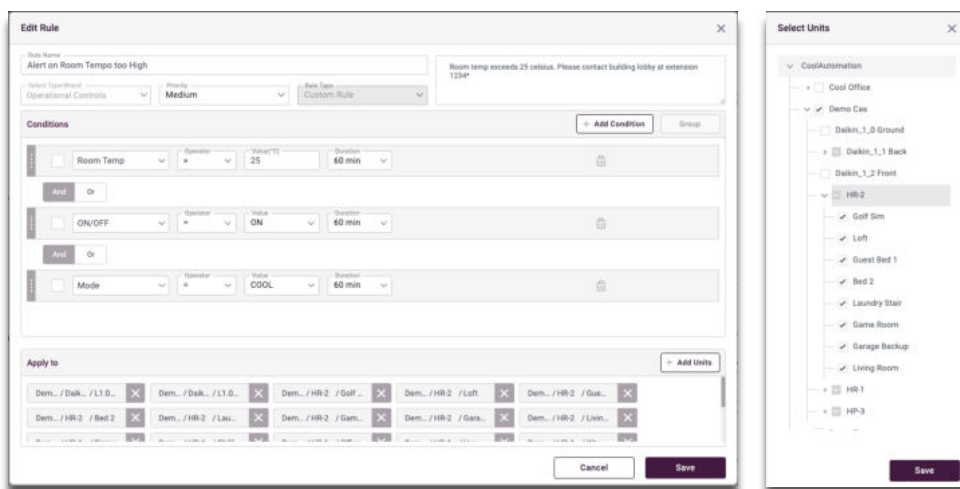
The Anomaly engine allows writing anomaly rule taking into consideration the indoor & outdoor parameters, The number of impacted indoor & outdoor units and the cross-referenced values of these parameters to create and insight on the operation of your HVAC system and alerts on it.

The Anomaly engine allows exporting an importing anomaly rules from different sites. Anomaly rules are type or HVAC brand related.

To create an anomaly rule, select "Add New Rule" from the top right corner of the "Anomaly Rules" tab.

In the anomaly rule editor do the following:

- Set an anomaly rule name
- Select the HVAC brand or rule type
- Select the priority of the rule if an alert is triggered. The priority will be reflected in the Alert Log tab and the alerts in the Dashboard tab
- Add conditions to the rule by clicking on the "+ Add Condition" button. Conditions can be grouped together by checking the checkbox on the left of the condition and clicking on "Group". Once grouped, the relationship of the condition after the group will be associated with the group's outcome.
- Set the required relationship between the conditions (AND, OR)
- Add units to apply the Anomaly on by Clicking on the "+Add Units" button and selecting the required units from the unit list and saving the list.
- Click "Save"



Smart Rules

Smart Rules tab support 4 rule types

- abnormal unit operation time - units working in hours where it usually doesn't (user defined % of time), based on a 4 week history
- High rate of setpoint changes - units with high number of setpoint changes per hour (user defines the number)
- Setpoint maintenance - units where the room temperature is, in high percentage of the time, far (+-2C) from setpoint (user defined number of hours and %)
- Unit standby time - unit has high % of time with therm-on active (user defined number of hours and %)

Abnormal Hour of Unit Operation

Unit is turned ON at a time it is 'normally' OFF. The analysis is made for each slot of hour & weekday and is calculated automatically. The frequency threshold settings define what OFF occasions frequency is considered as 'normal' unit operation status.

Example:

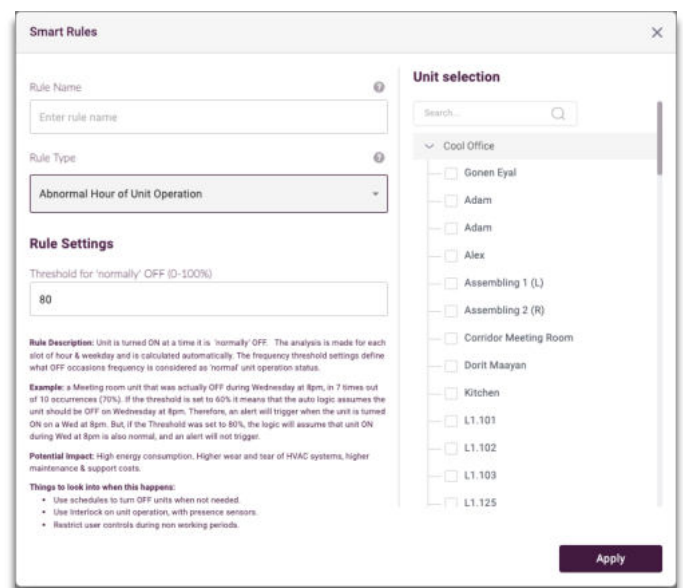
A meeting room unit that is powered OFF on Wednesdays at 8pm, in 7 times out of 10 occurrences (i.e., 70% of the times). If the threshold is set to 60% it means that the auto logic assumes the unit should be OFF on Wednesday at 8pm. Therefore, an alert will trigger when the unit is turned ON on a Wed at 8pm. However, if the Threshold was set to 80%, the logic will assume that unit ON during Wed at 8pm is also normal, and an alert will not trigger.

Potential Impact:

- High energy consumption.
- Higher wear and tear of HVAC systems,
- Higher maintenance & support costs.

Possible Investigation routes when this happens:

- Use schedules to turn OFF units when not needed.
- Use Interlock on unit operation, with presence sensors.
- Restrict user controls during non-working periods.



High rate of Setpoint changes

Too many Setpoint changes within 1 hour. Users can set the threshold of maximum changes before sending an alert. Usually happens when the original room temp is far from the comfort setpoint. Users tend to 'play' with the setpoint to get their comfort level.

Example:

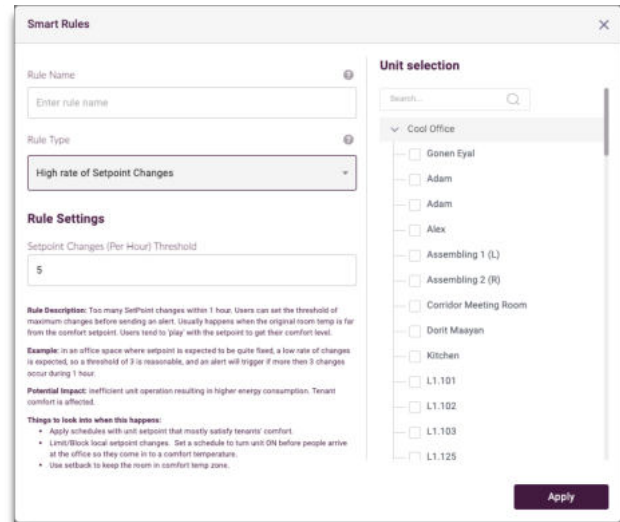
In an office space where setpoint is expected to be quite fixed, a low rate of changes is expected, so a threshold of 3 is reasonable, and an alert will trigger if more than 3 changes occur during 1 hour.

Potential Impact:

- inefficient unit operation resulting in higher energy consumption.
- Tenant comfort is affected.

Possible Investigation routes when this happens:

- Apply schedules with unit setpoint that mostly satisfy tenants' comfort.
- Limit/Block local setpoint changes. Set a schedule to turn unit ON before people arrive at the office so they come in to a comfort temperature.
- Use setback to keep the room in comfort temp zone.



Setpoint Maintenance Anomaly

Alert will trigger when the room temp is not meeting the set point in high percent of the runtime (when unit is ON) Users can set what percentage of time that the setpoint is off range ($\pm 2C$) will be considered as an anomaly. They can also define for what timeslot window the percentage is calculated.

Example:

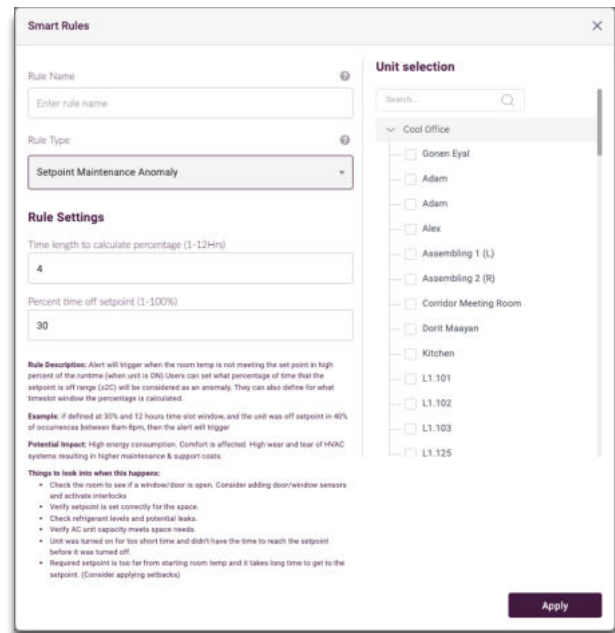
if defined at 30% and 12 hours time slot window, and the unit was off setpoint in 40% of occurrences between 8am-8pm, then the alert will trigger

Potential Impact:

- High energy consumption.
- Comfort is affected.
- High wear and tear of HVAC systems resulting in higher maintenance & support costs.

Possible Investigation routes when this happens:

- Check the room to see if a window/door is open. Consider adding door/window sensors and activate interlocks
- Verify setpoint is set correctly for the space.
- Check refrigerant levels and potential leaks.
- Verify AC unit capacity meets space needs.
- Unit was turned on for too short time and didn't have the time to reach the setpoint before it was turned off.
- Required setpoint is too far from starting room temp and it takes long time to get to the setpoint. (Consider applying setbacks)



Unit Standby Time Anomaly

Alert will trigger when the unit was on standby (no demand) at a low percent of the runtime. Users can set what percentage of Standby time that anything below it will be considered as an anomaly. They can also define for what timeslot window the percentage is calculated.

Example:

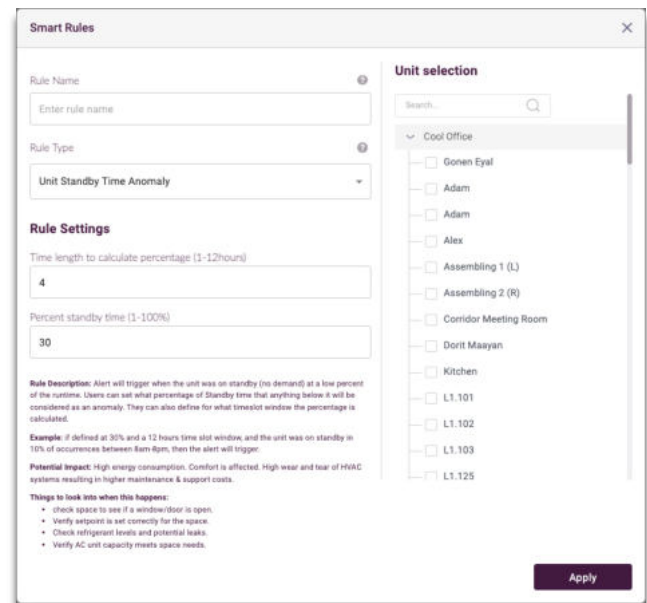
If defined at 30% and a 12 hours time slot window, and the unit was on standby in 10% of occurrences between 8am-8pm, then the alert will trigger.

Potential Impact:

- High energy consumption.
- Comfort is affected.
- High wear and tear of HVAC systems resulting in higher maintenance & support costs.

Possible Investigation routes when this happens:

- check space to see if a window/door is open.
- Verify setpoint is set correctly for the space.
- Check refrigerant levels and potential leaks.
- Verify AC unit capacity meets space needs.



The screenshot shows the 'Smart Rules' configuration window. The 'Rule Name' field is empty. The 'Rule Type' is set to 'Unit Standby Time Anomaly'. Under 'Rule Settings', 'Time length to calculate percentage (1-12hours)' is set to 4, and 'Percent standby time (1-100%)' is set to 30. The 'Unit selection' panel on the right shows a list of units under 'Cool Office', including Gonen Eyal, Adam, Alex, Assembling 1 (L), Assembling 2 (R), Corridor Meeting Room, Dorit Maayan, Kitchen, L1.101, L1.102, L1.103, and L1.125. An 'Apply' button is located at the bottom right. The 'Rule Description' and 'Things to look into when this happens' sections provide additional context and troubleshooting steps.

Power Distribution

The Power Distribution module allows you to track the consumption of each unit. This is very useful when you want to invoice your tenants based on their actual power consumption rather than splitting the bill equally between your tenants disregarding their consumption.

Power distribution will work on system where a power meter is connected to CoolAutomation device.

The connected power meter will show in the Site Management tab in the CoolMaster's device it is connected to

The Power Distribution tab has four sub tabs addressing the Power Distribution analysis and operation.

- Usage Analysis
- Tenants Settings
- Report Scheduler
- Power Meter Settings

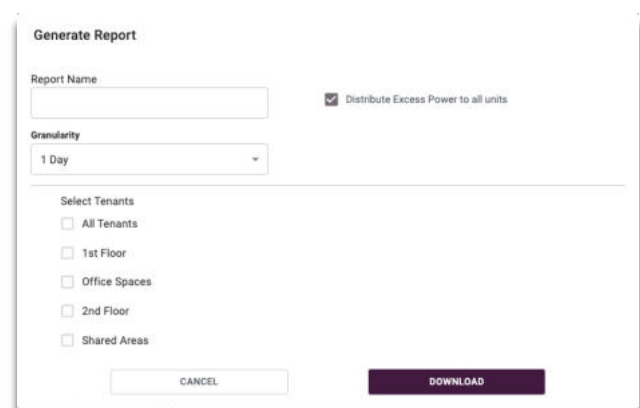
Usage Analysis

Once the power distribution setting is done (Tenants setting & Power meters settings), you can use the Usage Analysis tab to review your tenants and power meters consumption.

By default, the detailed analysis graph will show the last 7 days, however you can change the date range to your need.

Use the filters on the left side to affect the graph view.

You can also generate and download a report by clicking the "Generate Report" button and setting the report parameters

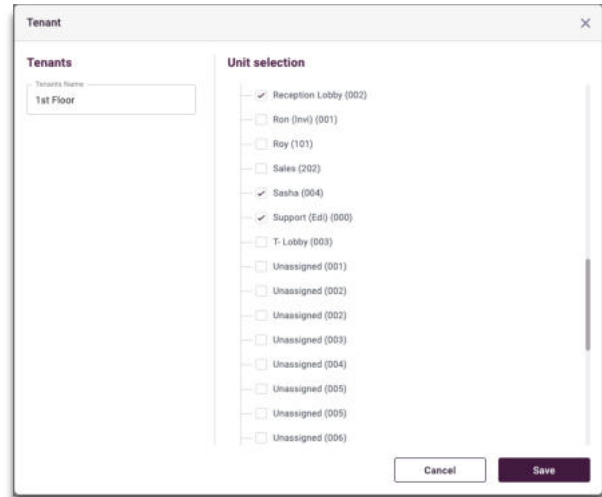



Tenant Settings

In the tenant Setting tab, you will associate tenants to system units which will later be used to calculate the tenants power consumption. Based on the consumption report, you can calculate how much to invoice your tenant.

Tenants are associated with a site. As a part of the tenant creation, you will need to select the site you want to associate the new tenant to by selecting the site from the filter pane.

To create a new tenant, click on the “Add New Tenant” in the Tenant Setting tab. Fill his name in the Tenant name field and select what units to associate him with



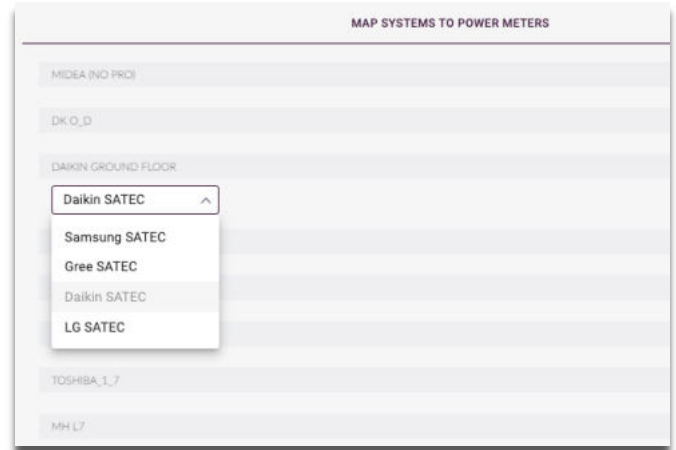
TENANT NAME	UNITS	EDIT	REMOVE
1st Floor	8		

Power Meter Settings

In the Power Meter Setting you will be able to map HVAC system to the correct power meter.

To map an HVAC system to a power meter, you need to click on the “+” sign on the right of the HVAC system line and select the right power meter to associate it with.

Once you have finished to map the HVAC systems, click on the save button at the bottom of the screen

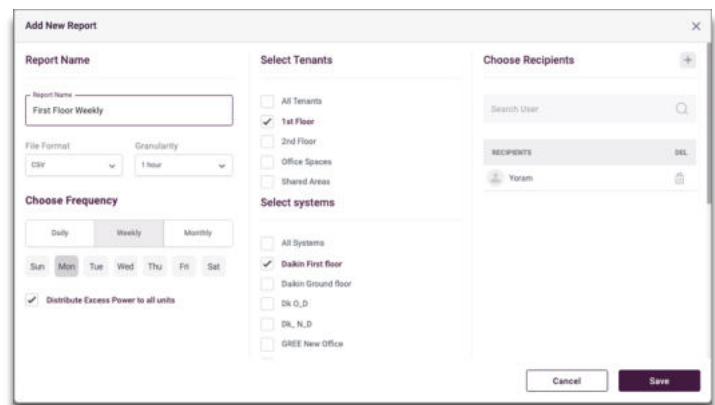


Report Scheduler

The report scheduler allows you to schedule a report delivery.

To create a schedule, click on the “Add New” button.

Fill the desired delivery configuration in the “Add New Report” window and click Save.



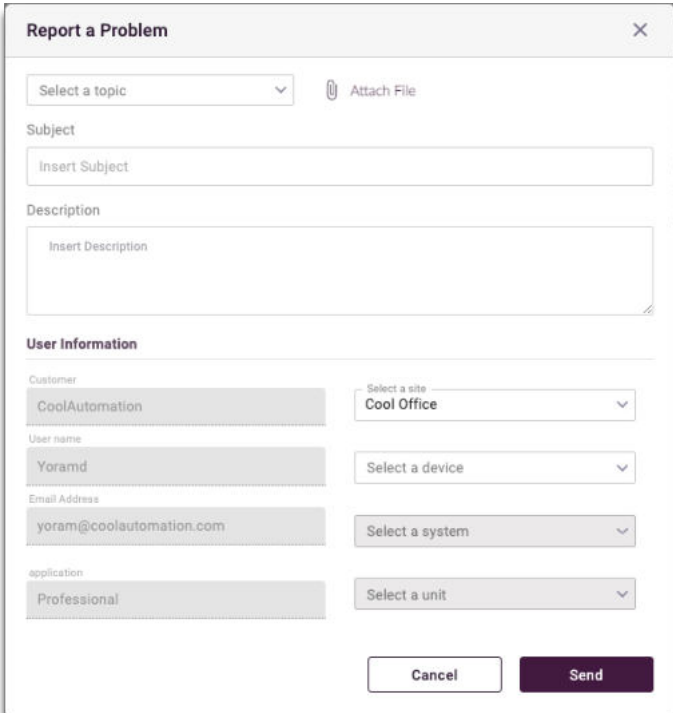
Support

A support request can be submitted from within the Professional App by clicking on the “Open Support Ticket” tab.

Clicking on the “Open Support Ticket” tab will open a support ticket form. Make sure to fill as many details as possible to the request.

Once submitted, a ticket with your request is opened and our support team will make sure to assist you.

Other resources such as manuals, tutorial videos and more can be found at <https://coolautomation.com/support>



Report a Problem
✕

Select a topic ▾

📎 Attach File

Subject

Insert Subject

Description

Insert Description

User Information

Customer CoolAutomation	Select a site Cool Office ▾
User name Yoram	Select a device ▾
Email Address yoram@coolautomation.com	Select a system ▾
application Professional	Select a unit ▾

Cancel

Send