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Introduction

The Climate Dashboard is a secure internal interface for multiple-level users, acting as an interface to the climate system installed on-site. Through the dashboard, the customer can monitor, operate and customize the climate system remotely (from anywhere), immediately, and safely.

Key Functions:

Can be modified and customized per Building, Floor, and room.

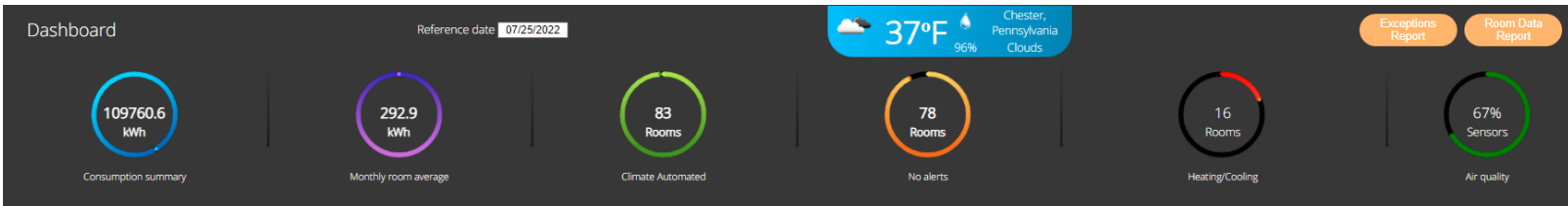
- A/C system settings management.
- Data display, data production, and analysis (reports)
- Managing operation and advanced savings features
- Malfunctions and alerts indications and notifications.

Floor	Average Temp. F°	A/C On	Open Windows	Current Consumption kW	Cumulative Consumption kWh	Alerts	Group Program
Environmental	N/A	0	0	0.0	0.0	--	Rooms
Floor 1 North	75.0	10	0	40.5	39989.8	--	Rooms
Floor 1 South	75.0	7	0	30.9	42537.3	2	Rooms
Homestead	74.0	7	0	28.5	33415.3	1	Rooms
All floors	74.0	24	0	99.0	115942.0	3	Rooms

Building Overview - Spheres & Reports

Spheres:

The spheres present live data received from the system and broken down into 6 categories. Each A/C installed with an OakController is called a controlled zone.



- ★ **Calculated energy consumption** of all Airkind controlled zones in the building. Calculation time starts according to the “Reference date” (the installation date), and specifically every time that a new controlled zone is connected (A/C installed with OakController).
- ★ **The monthly room average** shows the consumption average per all controlled zones installed.
- ★ **Climate Automated** shows the number of controlled zones working under advanced saving features.
- ★ **No Alerts** represent the number of functional controlled zones and their associated nodes - No malfunction identified by the server.
- ★ **Heating/Cooling** shows the number of controlled zones actively cooling and/or heating, Fan or Off events are not recorded.
- ★ **IAQ Quality** shows the percentage of IAQ (Indoor Air Quality) sensors that are functional.

When pressing on the IAQ Quality Sphere it will automatically direct the user to the IAQ dashboard. The OakIAQ system measures types of pollutants and provides means for monitoring indoor air quality. You may review the results via the Sensor page as well.

< Back to main screen Refresh All floors, ZES Office

All floors

Name	Indoor air quality	CO ₂ [ppm]	VOC [µg/m ³]	Particle density		
				Less 1.0 µm [µg/m ³]	1.0 - 2.5 µm [µg/m ³]	2.5-10 µm [µg/m ³]
OakIAQ - Ofer		413	2383	2.1	0.0010	0.26
OakIAQ-Yaara		463	711	1.7e+04	0.0	0.0
OakIAQ-Lobby		421	1297	1.9	0.25	0.27
OakIAQ-Daniel		823	1699	2.0	1.1	0.38
OakIAQ-Yossi		476	215	0.99	0.18	0.15

Legend: On (green), Off (orange), Fan (blue)

OakIAQ

With the increasing awareness of the health and environmental impacts of air pollution, air quality monitoring is an essential tool for improving air quality, protecting public health, and ensuring compliance with regulations.

The OakIAQ is a wireless, smart Indoor Air Quality sensor developed by Airkind to monitor, alert and identify air quality trends, suitable for all types of controlled zones.

How does it work?

The sensor is an easy plug-and-play device, connected to an electricity socket and equipped with a LED light to indicate the air quality conditions in the controlled zone. In addition, as with all Oakdevices, the information is available on the climate intelligence platform in a few formats to accommodate all customer needs.



The led light is found behind the Airkind Logo, emitting a color to reflect the quality of the air -



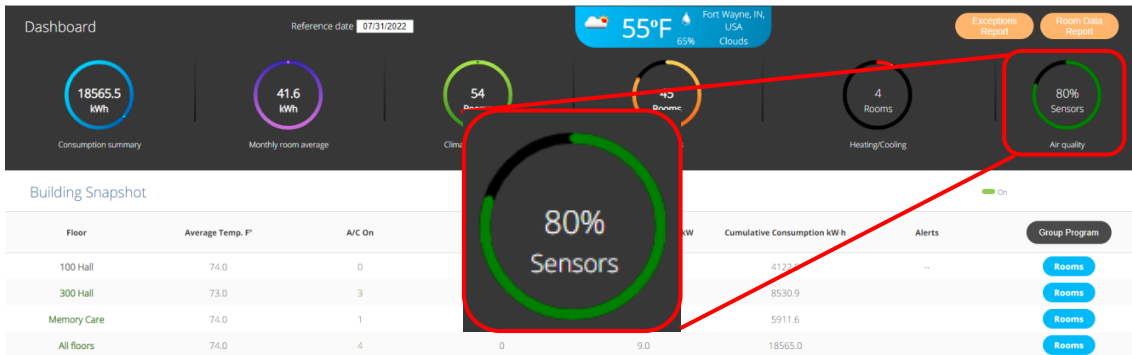
From **RED** - Poor quality to bright **GREEN** - excellent quality.

- Monitor and prevent exposure to high levels of CO₂ in rooms with insufficient ventilation.
- Monitor and adjust to desired Temperature and Humidity levels.
- Monitor, detect and alert increases of Fine Particles and VOCs capable of hosting and spreading viral threats.

Detectable pollutants by the OakIAQ:

- ❖ CO₂
- ❖ TVOC (Total Volatile Organic Compound), according to ISO16000-29:2104(E) norm
- ❖ PM - Particle Matters, referred to respirable particles
- ❖ AQI - Air Quality Index, according to acceptable standards

vIndoor Air Quality



Found on the main page, The Air Quality sphere shows the percent of OakIAQ sensors with an IAQ level above or equal to an agreeable value. This value is set by default and can be customized according to the customer's needs.

Double-click on the sphere to reach a breakdown of all IAQ devices,
 Double-click on the IAQ icon to open the sensor dialog to review its breakdown.

Name	Indoor air quality	CO ₂ [ppm]	VOC [µg/m ³]	Particle density		
				Less 1.0 µm [µg/m ³]	1.0 - 2.5 µm [µg/m ³]	2.5-10 µm [µg/m ³]
Activities room		690	35176	10	3.1	1.7
si00_Medical Records		622	8743	2.1	0.29	0.30
si00_317		531	6612	2.5	0.49	0.37
Nurses desk		1148	5316	0.23	0.0	0.029
Next to oxygen		684	269987	1.7e+04	0.0	0.0

Excellent	
Good	
Moderate	
Poor	
Unhealthy	

Air quality report

NURSES DESK AIR QUALITY REPORT

Sensor ID	00124B001F3D8C20
CO ₂ [ppm]	1148
VOC [µg/m ³]	5316
Particle density < 1.0 µm [µg/m ³]	0.23
Particle density 1.0-2.5 µm [µg/m ³]	0.0
Particle density 2.5-10 µm [µg/m ³]	0.029
Sensor OK	Yes
Indoor Air Quality (IAQ)	Good

Colors: Excellent Good Moderate Poor Unhealthy Hazardous

Reports

The climate system collects data continuously from all OakDevices installed on-site. The close monitoring of the system allows the user to produce multiple types of reports with customized values such as time range, type of report, and the recipient of the report.

On the main page found 2 types of reports

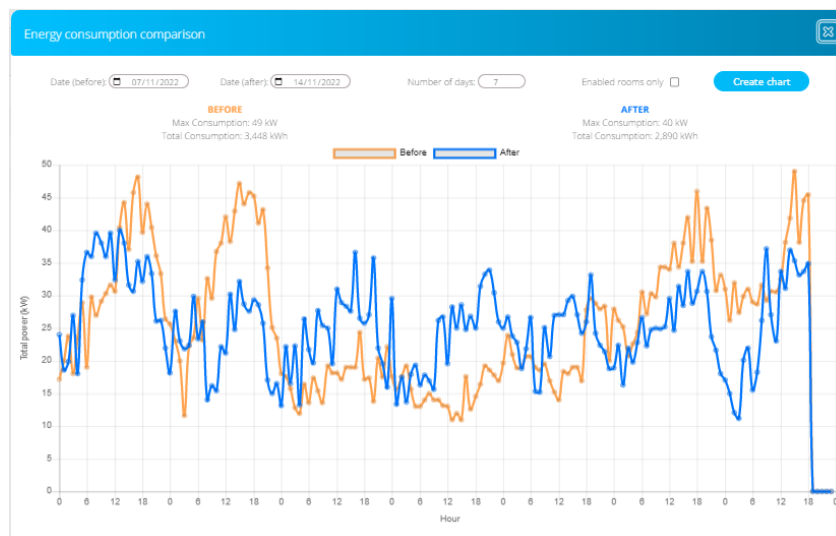


- ★ **Exceptions Report** - XL sheet listing all the malfunctioned controlled zones and their associated sensors, with troubleshooting instructions and an icon index.
- ★ **Peak Shave Report**

Automated Peak Shaving- a recurring Airkind change during peak hours (that can be manually overridden by the guests using room thermostats)- occurrence times and Airkinds are fully configurable.

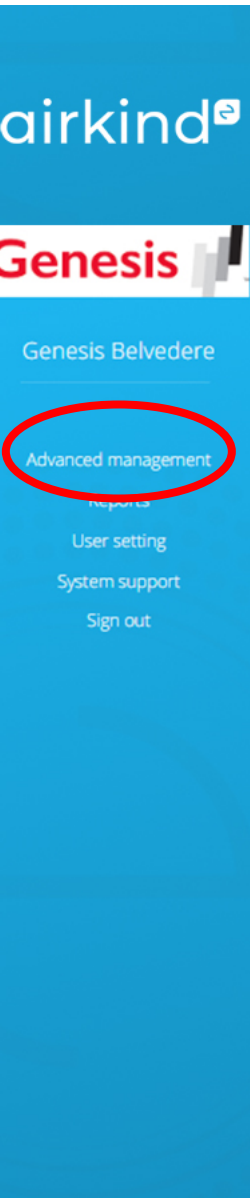
Peak Shaving AI- a machine learning algorithm, which analyses the HVAC consumption routines, and compares it with the room sensing layer and the ambient temperature- all to detect recurring peaks in demand. Once detected- this feature initiates pre-heating/pre-cooling and syncs HVAC units in real time to peak shave electricity demand.

Insert the desired dates and time period - Press “Create chart”



Climate Intelligence - Reports

Produces 4 types of reports and access them via this section and your email. The reports are saved in the dashboard and the user can access them anytime.



Date (GMT+02:00)	Report type	Recipients	Attachment
2023-01-18 12:27:24	Daniel: room and sensors	daniel.hefez@gmail.com	download
2023-01-05 16:32:51	Setpoint.AI ZES Office Exceptions Report	support@zerohelp.online; oleg@zero.energy	download
2023-01-03 12:25:01	sp00_Meeting: sensor only	dimitrip@setpoint.ai	download
2023-01-01 09:00:00	Setpoint.AI ZES OfficeFilters Cleaning Required	support@zero.energy	download
2023-01-01 01:00:53	Setpoint.AI ZES Office Exceptions Report	support@zerohelp.online; oleg@zero.energy	download
2022-12-27 09:53:54	Setpoint.AI ZES Office Exceptions Report	support@zerohelp.online; oleg@zero.energy	download
2022-12-27 09:53:49	Setpoint.AI ZES OfficeFilters Cleaning Required	support@zero.energy	download
2022-12-27 09:53:48	Setpoint.AI ZES Office VIP rooms report	support@zerohelp.online; oleg@zero.energy	download

- ★ **Exceptions** - Produce a report listing all devices requiring maintenance. Detailing the alert, actions to be taken, and the priority.
- ★ **Battery level** - Produce a battery analysis report for all battery-powered sensors on-site. Allows you to predict in advance when a battery should be replaced.
- ★ **Filter Cleaning** -Produce a full report, indicating the current state of the filters, color-coded to easily identify clean filters vs those due to be cleaned. Green - ok, Orange - need to be cleaned.
- ★ **A/C Performance** -Through machine learning, the system determines a proper performance for the A/Cs on-site. Once an A/C is detected to have decreased performance, an icon will display in the room row, alerting of the % of decrease. The report will list all controlled zones' performance status and trends.
- ★ **Paired Sensors** - A spreadsheet of all controllers installed on-site with their assigned sensors.

Filter Counter Report

Filter cleaning tracking (FCT) assistance is a monitoring tool to easily track the filter's state, allowing the user to change the cleaning date and adjust the number of hours till the next cleaning is due.

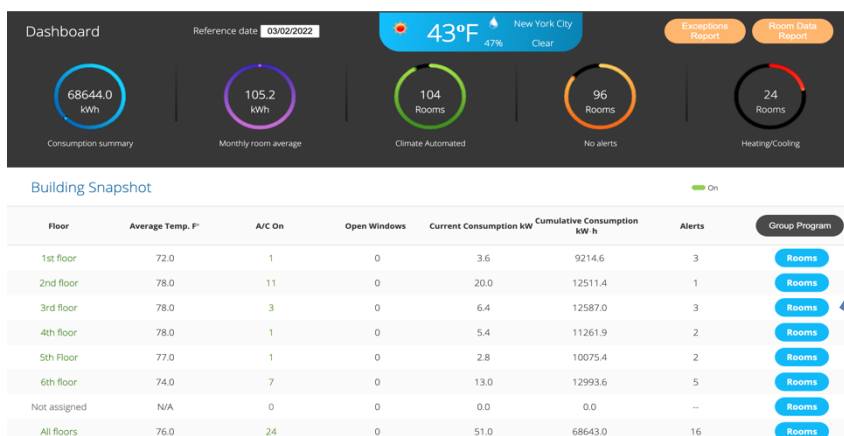
Benefits:

1. Filters the air for a healthier environment
2. Disallows Blocked filters which reduce A/C performance
3. Allow easy-to-use monitoring too
 - Single room
 - Group program
 - Produce up-to-date reports at any time for a color-coded list of all rooms and if they are in need to be cleaned
 - Automated report sent to the user's email
5. Feature parameters are adjustable (**user request**) - the number of working A/C hours will determine the due date; the default is 1000 hours.

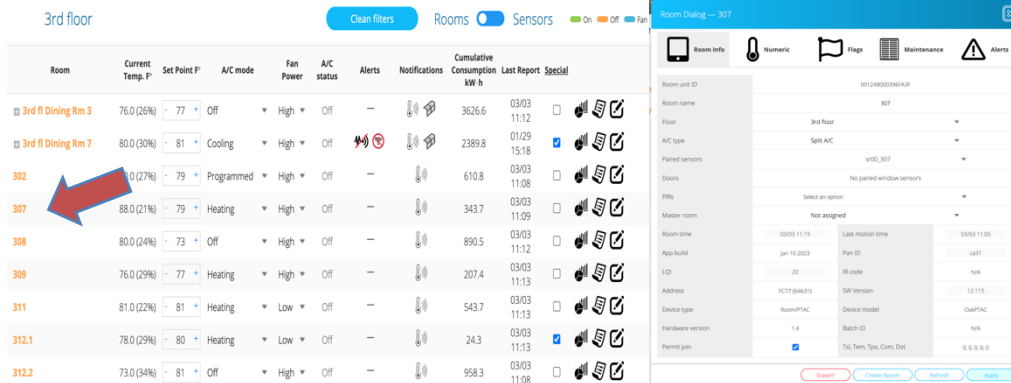
Single Room and Multiple Room Filter Counter

How to operate a Single Room

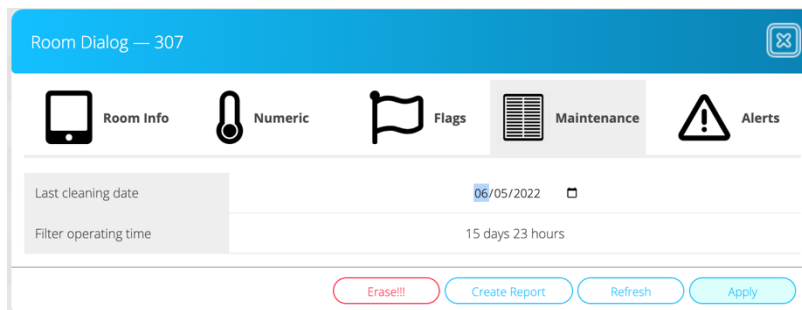
1. Choose the desired floor



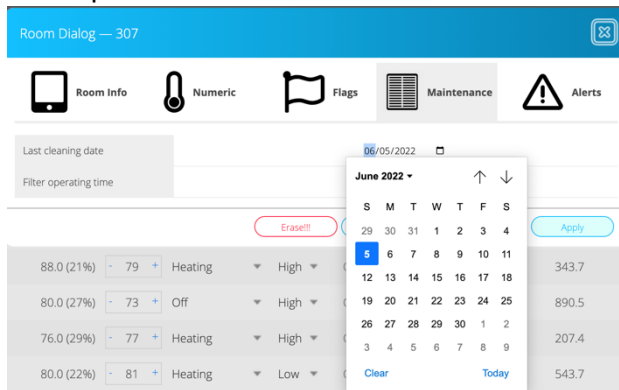
2. Open the room dialog for the desired room



3. Go to the Maintenance tab



4. Open the calendar feature and choose the last cleaning date



5. Press apply

Multiple room single counter -

1. Open the desired floor you would like to update the filter counter (refer to step 1 of a single room)
2. Press on the filter cleaning button

3rd floor Clear filters Rooms Sensors On Off Fan

Room	Current Temp. F	Set Point F	A/C mode	Fan Power	A/C status	Alerts	Notifications	Cumulative Consumption kW h	Last Report	Special
<input type="checkbox"/> 3rd fl Dining Rm 3	76.0 (26%)	- 77 +	Off	High	Off	—		3626.6	03/03 11:32	<input type="checkbox"/>
<input type="checkbox"/> 3rd fl Dining Rm 7	80.0 (30%)	- 81 +	Cooling	High	Off			2389.8	01/29 15:18	<input checked="" type="checkbox"/>
<input type="checkbox"/> 302	79.0 (30%)	- 79 +	Programmed	High	Off	—		610.8	03/03 11:27	<input type="checkbox"/>
<input type="checkbox"/> 307	88.0 (21%)	- 79 +	Heating	High	Off	—		343.7	03/03 11:30	<input type="checkbox"/>
<input type="checkbox"/> 308	80.0 (27%)	- 73 +	Off	High	Off	—		890.5	03/03 11:28	<input type="checkbox"/>
<input type="checkbox"/> 309	76.0 (29%)	- 77 +	Heating	High	Off	—		207.4	03/03 11:29	<input type="checkbox"/>
<input type="checkbox"/> 311	80.0 (22%)	- 81 +	Heating	Low	Off	—		543.7	03/03 11:32	<input type="checkbox"/>
<input type="checkbox"/> 312.1	78.0 (29%)	- 80 +	Heating	Low	Off	—		24.3	03/03 11:31	<input checked="" type="checkbox"/>
<input type="checkbox"/> 312.2	73.0 (34%)	- 81 +	Off	High	Off	—		958.3	03/03 11:28	<input type="checkbox"/>
<input type="checkbox"/> 313	78.0 (27%)	- 72 +	Cooling	Low	On	—		1818.4	03/03 11:32	<input type="checkbox"/>

3rd floor Clear filters Apply Change clean date Cancel Rooms Sensors On Off Fan

<input type="checkbox"/>	Room	Current Temp. F	Set Point F	A/C mode	Fan Power	A/C status	Alerts	Notifications	Cumulative Consumption kW h	Last Report	Special
<input type="checkbox"/>	3rd fl Dining Rm 3	76.0 (26%)	- 77 +	Off	High	Off	—		3626.6	03/03 11:32	<input type="checkbox"/>
<input type="checkbox"/>	3rd fl Dining Rm 7	80.0 (30%)	- 81 +	Cooling	High	Off			2389.8	01/29 15:18	<input checked="" type="checkbox"/>
<input type="checkbox"/>	302	79.0 (30%)	- 79 +	Programmed	High	Off	—		610.8	03/03 11:27	<input type="checkbox"/>
<input type="checkbox"/>	307	88.0 (21%)	- 79 +	Heating	High	Off	—		343.7	03/03 11:30	<input type="checkbox"/>
<input type="checkbox"/>	308	80.0 (27%)	- 73 +	Off	High	Off	—		890.5	03/03 11:28	<input type="checkbox"/>
<input type="checkbox"/>	309	76.0 (29%)	- 77 +	Heating	High	Off	—		207.4	03/03 11:29	<input type="checkbox"/>
<input type="checkbox"/>	311	80.0 (22%)	- 81 +	Heating	Low	Off	—		543.7	03/03 11:32	<input type="checkbox"/>
<input type="checkbox"/>	312.1	78.0 (29%)	- 80 +	Heating	Low	Off	—		24.3	03/03 11:31	<input checked="" type="checkbox"/>
<input type="checkbox"/>	312.2	73.0 (34%)	- 81 +	Off	High	Off	—		958.3	03/03 11:28	<input type="checkbox"/>
<input type="checkbox"/>	313	78.0 (27%)	- 72 +	Cooling	Low	On	—		1818.4	03/03 11:32	<input type="checkbox"/>

3. Select rooms for cleaning

3rd floor Clear filters Apply Change clean date Cancel Rooms Sensors On Off Fan

<input type="checkbox"/>	Room	Current Temp. F	Set Point F	A/C mode	Fan Power	A/C status	Alerts	Notifications	Cumulative Consumption kW h	Last Report	Special
<input checked="" type="checkbox"/>	3rd fl Dining Rm 3	76.0 (26%)	- 77 +	Off	High	Off	—		3626.6	03/03 11:32	<input type="checkbox"/>
<input checked="" type="checkbox"/>	3rd fl Dining Rm 7	80.0 (30%)	- 81 +	Cooling	High	Off			2389.8	01/29 15:18	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	302	79.0 (30%)	- 79 +	Programmed	High	Off	—		610.8	03/03 11:27	<input type="checkbox"/>
<input checked="" type="checkbox"/>	307	88.0 (21%)	- 79 +	Heating	High	Off	—		343.7	03/03 11:30	<input type="checkbox"/>
<input type="checkbox"/>	308	80.0 (27%)	- 73 +	Off	High	Off	—		890.5	03/03 11:28	<input type="checkbox"/>
<input checked="" type="checkbox"/>	309	76.0 (29%)	- 77 +	Heating	High	Off	—		207.4	03/03 11:29	<input type="checkbox"/>
<input checked="" type="checkbox"/>	311	80.0 (22%)	- 81 +	Heating	Low	Off	—		543.7	03/03 11:32	<input type="checkbox"/>
<input type="checkbox"/>	312.1	78.0 (29%)	- 80 +	Heating	Low	Off	—		24.3	03/03 11:31	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	312.2	73.0 (34%)	- 81 +	Off	High	Off	—		958.3	03/03 11:28	<input type="checkbox"/>
<input checked="" type="checkbox"/>	313	78.0 (27%)	- 72 +	Cooling	Low	On	—		1818.4	03/03 11:32	<input type="checkbox"/>

4. Press change the clean date and press apply.

Filter Report Management

To access the filter report, go to **Reports** in the dashboard and then proceed to **Filter Cleaning report**, you will be prompted to enter your email and you will receive a report similar to the following-

Filter cleaning report			
Report created 2023-03-03			
Floor	Room name	Recommended filter clean interval - 2000 hours	Last report time
1st floor	1st B Conference room	1663188844	2023-03-03 12:02
1st floor	Administrator	1654441759	2023-03-03 12:00
1st floor	Conference room	1654441759	-
1st floor	Director of admin	1654441759	2023-03-03 12:01
1st floor	Director of nursing	1654441759	2023-03-03 12:01
1st floor	Rehab 1	1675288400	2023-03-03 12:01
1st floor	Rehab 2 New	1675288400	2023-02-01 16:12
1st floor	Rehab 3	1654441759	2023-03-03 11:56
1st floor	Rehab 6	1654441759	2023-03-03 11:59
2nd floor	P01	1654441759	2023-03-03 11:58
2nd floor	P02	1654822819	2023-03-03 11:59
2nd floor	P03	1654441759	2023-03-03 11:59
2nd floor	P04	1654441759	2023-03-03 11:59
2nd floor	P05	1654441759	2023-03-03 11:58
2nd floor	P07	1654441759	2023-03-03 12:00
2nd floor	P08	1654822819	2023-03-03 12:01
2nd floor	P09-2	1654441759	2023-03-03 12:01
2nd floor	P10	1654441759	2023-03-03 12:00
2nd floor	P11	1675048800	2023-03-03 12:00
2nd floor	P12	1654822819	2023-03-03 11:59
2nd floor	P13	1654822819	2023-03-03 11:59
2nd floor	P14	1654822819	2023-03-03 11:57
2nd floor	P15	1663188844	2023-03-03 12:03
2nd floor	P16	1654822819	2023-03-03 12:01
2nd floor	P17	1654441759	2023-03-03 12:00

To automate filter reports to your email, go to **Advance management** in the dashboard and proceed to

Scheduled tasks

Email fridges reports ▼

Permit join all ▼

Filter cleaning calculation ▼ Start at ⌚

Filter cleaning request ▼ Day Start at ⌚

Abnormalities report sender ▼ Day Start at ⌚

Paired Sensors Report

Paired sensor report -

This feature gives users the ability to generate an excel report containing in each row a room and all paired sensors according to the dashboard.

Access -

Go to the report section of the dashboard



Click on reports then enter your email address, a copy of the report will be sent there



Example reports -

Only paired sensors

OAK Server					
Paired sensors report at 2022-08-17 08:27:30					
Room	Remote 1	Window 1	Temp 1	PIR 1	IAQ 1
100 - OW (00124B001D3DF7E0)					
102 - OPTAC (00124B00071B48FF)		sw00 (00124B000EAD763A)	st00 (00124B001BA81542)	sp00 (00124B001241FFAD)	
300 - OW3 (00124B001D4233B9)					
200 (00124B001D46F05D)					
910 (00124B000A62F0CF)	sr00_910 (00124B00234C9069)				
103 - OPTAC2 (00124B000985CE7D)					si_910 (00124B001F2B4A59)
200 (00124B001FB25F75)					

Mixed report

OAK Server			
Paired sensors report at 2022-08-17 08:42:50			
Room	Remote 1	PIR 1	IAQ 1
100 - OW (00124B001D3DF7E0)		sp00 (00124B001241FFAD)	
102 - OPTAC (00124B00071B48FF)			
300 - OW3 (00124B001D4233B9)			
200 (00124B001D46F05D)			
910 (00124B000A62F0CF)	sr00_910 (00124B00234C9069)		si_910 (00124B001F2B4A59)
103 - OPTAC2 (00124B000985CE7D)			
200 (00124B001FB25F75)			
Unpaired sensors			
Type	Sensor		
Temperature	st00 (00124B001BA81542)		
Window	sw00 (00124B000EAD763A)		

Only unpaired sensors

OAK Server	
Paired sensors report at 2022-08-17 08:22:40	
Room	No paired sensors
100 - OW (00124B001D3DF7E0)	
102 - OPTAC (00124B00071B48FF)	
300 - OW3 (00124B001D4233B9)	
200 (00124B001D46F05D)	
910 (00124B000A62F0CF)	
103 - OPTAC2 (00124B000985CE7D)	
200 (00124B001FB25F75)	
Unpaired sensors	
Type	Sensor
Window	sw00 (00124B000EAD763A)
Temperature	st00 (00124B001BA81542)
IAQ	si_910 (00124B001F2B4A59)
Remote	sr00_910 (00124B00234C9069)
PIR	sp00 (00124B001241FFAD)

Building Snapshot

This section interacts with the Spheres above, providing a breakdown of the system status per climate-controlled floor. The 'All Floors' row sums the data from all floors, as the spheres.

Each **floor snapshot** represents an area with **controlled zones**, colored either green or gray.

Green - On this floor 1 or more A/Cs are actively heating and/or cooling.

Gray - On this floor, all A/C units are currently OFF.

The number of floors and the floor names is adjustable at any time.

Building Snapshot On

Floor	Average Temp. F°	A/C On	Open Windows	Current Consumption kW	Cumulative Consumption kWh	Alerts	Group Program
Environmental	N/A	0	0	0.0	0.0	--	Rooms
Floor 1 North	76.0	7	0	31.8	38469.9	2	Rooms
Floor 1 South	75.0	4	0	16.8	41652.0	4	Rooms
Homestead	75.0	4	0	26.7	29686.3	--	Rooms
All floors	75.0	15	0	75.0	109808.0	6	Rooms

Average Temp per floor

A/C On - Number of A/C units actively heating and/or cooling

Light On - In the scenario the Airkind system controls additional auxiliary systems, such as the building light system or hot water system.

Open windows - Current indication of Open windows per floor.

Calculated consumption - Live current value.

Alerts - The number of alerts on a floor, indicating an OakDevice fault or OakSystem fault.

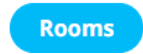
Peak Shaving checkbox - The checkbox must be engaged for the feature to be enabled

Floors snapshot

Introduction:

Each floor displays the rooms associated with it, introducing numerous abilities to review, manage and customize each room to its optimized operation.

Access a floor via the floor button found in the building snapshot



Room/Sensors toggle - selects between the display of rooms (which is actually each room's controller - OakPTAC, OakRoom, OakWall, OakSocket) and sensors (any multiple sensors installed in the room)



Following a change made on a specific room, the room line bar becomes orange.

701	71.0 (71%)	- 64	Cooling	High	On	Off	Off	Off	55.6	0	05/04 06:54		
702	71.0 (68%)	- 65	Auto	Low	On	Off	Off	Off	49.7	0	05/04 07:04		
703	69.0 (68%)	- 68	Cooling	High	Off	Off	Off	Off	5.1	0	05/04 06:56		

Stand with the cursor at the end of the page, and press **“Apply”** to incorporate the change. Be advised! If changes to a different room are made prior to pressing “Apply”, all changes will be lost and the newly selected room line bar will appear orange.



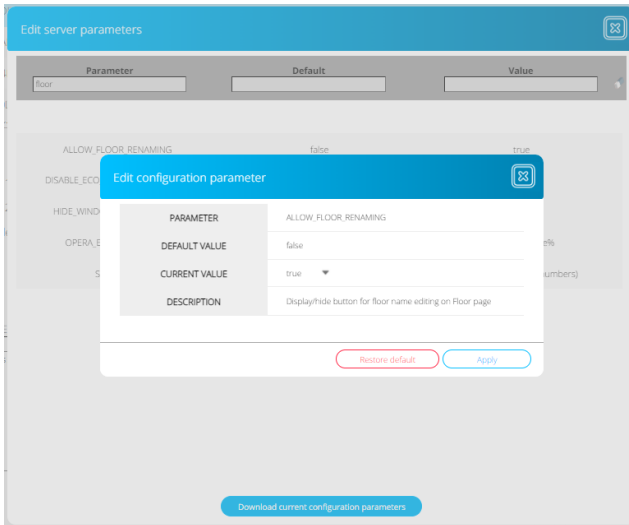
Back to main screen Refresh Floor 1 North, Genesis Belvedere

Floor 1 North Clean filters Rooms Sensors On Off Fan

Room	Current Temp. F°	Set Point F°	A/C mode	Fan Power	A/C status	Alerts	Notifications	Cumulative Consumption kWh	Last Report	Special
North dining	76.0 (30%)	- 73	Heating	Low	Off		—	403.3	11/25 06:19	
N. Lounge 1	76.0 (33%)	- 75	Heating	High	Off	—		4098.7	01/23 05:41	
N. Lounge 2	77.0 (34%)	- 75	Heating	High	Off	—		2697.4	01/23 05:41	
N. Lounge 3	78.0 (32%)	- 79	Heating	High	On	—		1697.7	01/23 05:41	
301	76.0 (32%)	- 74	Off	High	Off	—		682.0	01/16 11:02	
302	78.0 (42%)	- 78	Off	Low	Off	—		230.6	01/22 13:15	
304	76.0 (41%)	- 77	Auto	Low	Off	—		420.3	01/20 11:49	
305	73.0 (36%)	- 73	Off	High	Off	—		159.5	01/22 03:28	
307	73.0 (38%)	- 77	Heating	High	On	—		377.7	01/17 14:45	
308	78.0 (40%)	- 72	Off	High	Off	—		1072.4	01/19 19:47	
309	76.0 (33%)	- 72	Off	Low	Off	—		557.8	01/18 04:59	

Change floor name

1. Go to the Advanced Management page.
2. Open the 'Edit server parameters'.
3. Parameter name: ALLOW_FLOOR_RENAMING
Default value: false, to enable change value: true



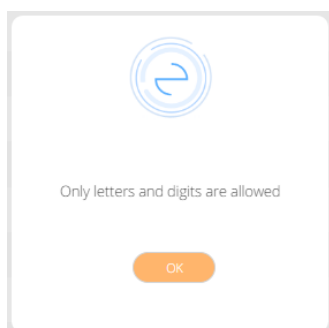
4. Go to the Climate dashboard
5. Open the floor you would like to change the name of (Press 'Rooms')
6. Next to the floor name, a new pencil icon will appear.

Floor 2 A Wing 

7. Press on the icon to open a text field, change the text, and press "Apply"



8. **Important** - **Once you are finished with making changes** - Change the parameter value to false via the Parameters section on the Advanced Management page.
9. The floor name can't contain special characters such as: " * - etc...





Rooms snapshot


Room	Current Temp. F°	Set Point F°	A/C mode	Fan Power	A/C status
------	------------------	--------------	----------	-----------	------------

A/C Settings and Operation

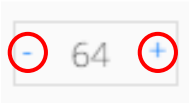
The A/C operation is reflected by the color of the room name, the color index is found on the top right corner of the page.

 On = A/C is actively heating or cooling - A/C Status will be ON

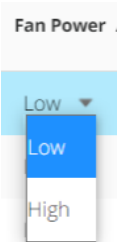
 Off = A/C is OFF - A/C status will be OFF

 Fan = A/C is actively Fanning - A/C status will be OFF

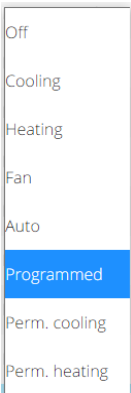
Current Temp - Each controlled zone has a temperature sensor providing live monitoring of the room current temperature and humidity.



Set point - Select the desired temperature



Fan Power - 2 levels available, Low and High.



A/C mode - Mode selection for optimal savings and comfort.

Airkind A/C mode logic

Heating - The A/C will actively heat to reach the desired set point, reflected in the Current temp. At this point, the A/C will automatically revert to OFF. The A/C will resume Heating once the room temperature is lower than the desired set point.

Room	Current Temp. F°	Set Point F°	A/C mode	Fan Power	A/C status
314	75.0 (37%)	- 77 +	Heating	High	On
314	76.0 (40%)	- 75 +	Heating	High	Off

Cooling - The A/C will actively cool to reach the desired Set point, reflected in the Current temp. At this point, the A/C will automatically revert to FAN. The A/C will resume Cooling once the room temperature is higher than the desired Set point.

Room	Current Temp. F°	Set Point F°	A/C mode	Fan Power	A/C status
218	72.0 (47%)	- 70 +	Cooling	High	On
218	72.0 (47%)	- 72 +	Cooling	High	Off

Auto - The A/C will actively Heat and Cool to maintain the desired Airkind, According to the Current temp. During the transition between Heating to Cooling, the A/C will revert to OFF or FAN.

For a clear indication if the A/C is actively Heating or Cooling an icon will be under the 'Notification' column.

Room	Current Temp. F°	Set Point F°	A/C mode	Fan Power	A/C status	Notifications
203 AC	75.0 (46%)	- 72 +	Auto	High	On	
203 AC	74.0 (45%)	- 77 +	Auto	High	On	

Unique Airkind A/C mode method

The following modes are available for testing functionality purposes only, allowing the A/C to ignore the Current temp of the room

Permanent Cooling - The A/C will automatically call for the lowest temperature available continuously, regardless of the Current temp.

Permanent Heating - The A/C will automatically call for the highest temperature available continuously, regardless of the Current temp.

Airkind Room information and monitoring

Alerts	Notifications	Cumulative Consumption kW·h	Last Report	Special
------------------------	-------------------------------	---------------------------------------------	-----------------------------	-------------------------

The 2nd section of the floor row provides live information on the system's devices' health and operation.

Cumulative Consumption - A live calculation of the controlled zone consumption.

The start of calculation begins once a controller is connected to the Climate system, during the installation phase. In the event a controller is replaced, the old controller consumption is saved in the system, and the new controller consumption is registered immediately.

Last Report - All Airkind devices send periodic reports to the system, allowing the climate dashboard to reflect a true and accurate state of the system.

The report time differs between devices and is set by default.

A device will stop reporting when it's disconnected from its power supply and/or the Zigbee network.

Power

The controller gets its power directly from the A/C.

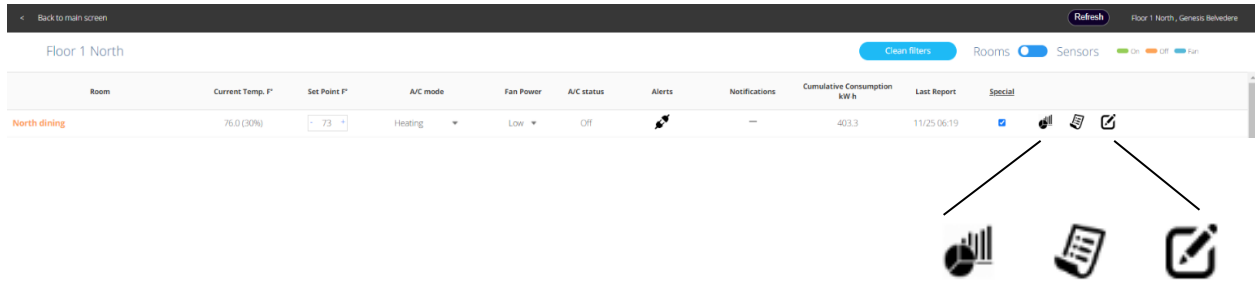
The wired sensor is communicating directly with the controller.

The wireless sensor gets its power from a battery.

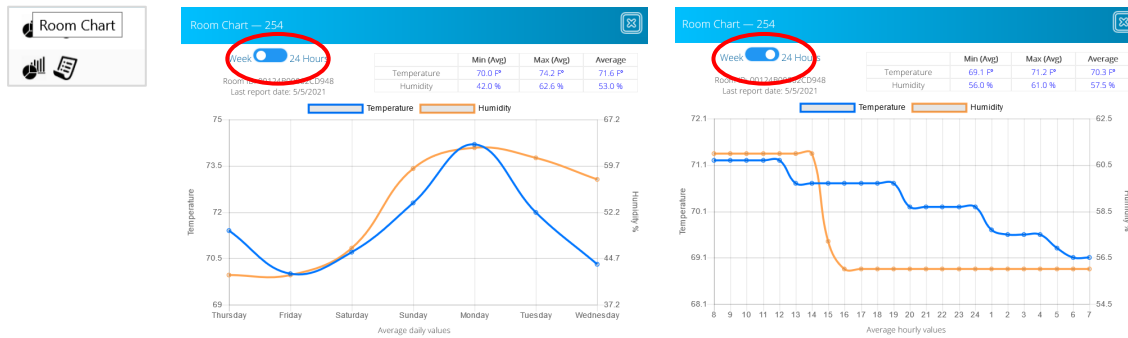
Communication to the Zigbee network

The controller mediates between the sensors and the OakGate. Subsequently, if a controller is disconnected, the sensor will disconnect soon after.

Room Chart & History



Room Chart - Click on the icon found at the end of each row, to review the Temp & Humidity readings of a controlled zone per week and per 24 hours.



History - displays the changes made to the room Settings and by Who.

Date	User	Source	Settings	Program
3.5.2021, 21:41	admin	Website	Target temp: 24 °C A/C state: Programmed Fallback mode: --	Not changed
3.5.2021, 19:23	Remote	Remote	Target temp: 18 °C A/C state: Cooling Fallback mode: --	Not changed
3.5.2021, 17:31	admin	Website	Target temp: 24 °C A/C state: Programmed Fallback mode: --	Changed
3.5.2021, 16:46	Remote	Remote	Target temp: 24 °C A/C state: Programmed Fallback mode: --	Not changed
3.5.2021, 16:45	Remote	Remote	Target temp: 24 °C A/C state: Programmed Fallback mode: --	Not changed
3.5.2021, 9:04	admin	Website	Target temp: 24 °C A/C state: Programmed Fallback mode: --	Changed
2.5.2021, 14:18	Remote	Remote	Target temp: 24 °C A/C state: Programmed Fallback mode: --	Not changed
2.5.2021, 5:34	admin	Website	Target temp: 24 °C A/C state: Programmed Fallback mode: --	Changed
29.4.2021, 9:05	admin	Website	Target temp: 24 °C A/C state: Programmed Fallback mode: --	Changed

Notes - Insert any relevant information to the Room note, edit, and apply.

Group Program

Introduction

The *Group Program* is a feature on the dashboard that allows the user to make large-scale changes on a floor, several floors, or the entire building as a whole.

The screenshot shows the 'Group Program' dashboard. It features a blue header with the title and a close icon. Below the header are two tabs: 'Numeric' (selected) and 'Flags'. The main content area is divided into several sections:

- A/C type:** A dropdown menu currently set to 'Split A/C'.
- Parameter Grid:** A table of adjustable parameters with numeric input fields and units.

Report period	5 min.	Window delay	0 min.
Remote fallback timeout	60 min.	PIR timeout	30 min.
Hyst delta A/C	2 F°	Hyst delta mode	1.8 F°
Min setpoint	70 F°	Max setpoint	81 F°
Keep min setpoint	0 F°	Keep max setpoint	0 F°
Temp compensation value	0 F°	Temp stabilisation time	0 min.
Setback delta	0 F°	Setback timeout	180 min.
Fan off offset	0 F°	Fan auto threshold	0 F°
2Stage Temp Delta	2 F°	2Stage Hyst Delta	0 F°
- BASIC SETTINGS:** Includes 'Target Temp. °F' (73), 'A/C mode' (Programmed), 'Light Mode' (Off), and 'Fan Power' (Low).
- UPDATE STATUS:** Shows 'Status' as Finished, 'Start Time' as 03/15,15:38, 'End Time' as 03/15,15:39, 'Rooms' as 41/41, and 'Failures' as 0.
- SELECT FLOORS TO UPDATE:** A list of checkboxes for floors 1st through 6th, and 'Not assigned'.
- SELECT UPDATE PROGRAM:** A list of checkboxes for 'Basic Settings', 'Daily Program', 'Advanced Settings', and 'Demand response'.
- Start Update:** An orange button at the bottom right.

Group Program Features

- **Basic Settings** - Room temp, A/C mode, Light mode (Aux system), and Fan Power.
- **Daily program** - Create and apply A/C scheduled programming (AC mode, Motion detection, Airkind)
- **Advanced Settings** - Room dialog parameters
- **Demand Response** - The "demand response" feature has similar functionality as "Daily Program" with select different weekdays, save/load presets, etc. The feature allows the scheduling of "pre-heating" and "pre-cooling" events to avoid peak hours of demand to save energy.

Additional Information

- There are no restrictions to the number of changes that can be made using the Group Program.
- Only the Super/Admin Users have access to the Group Program feature
- 3 feature can be applied for just one room if needed

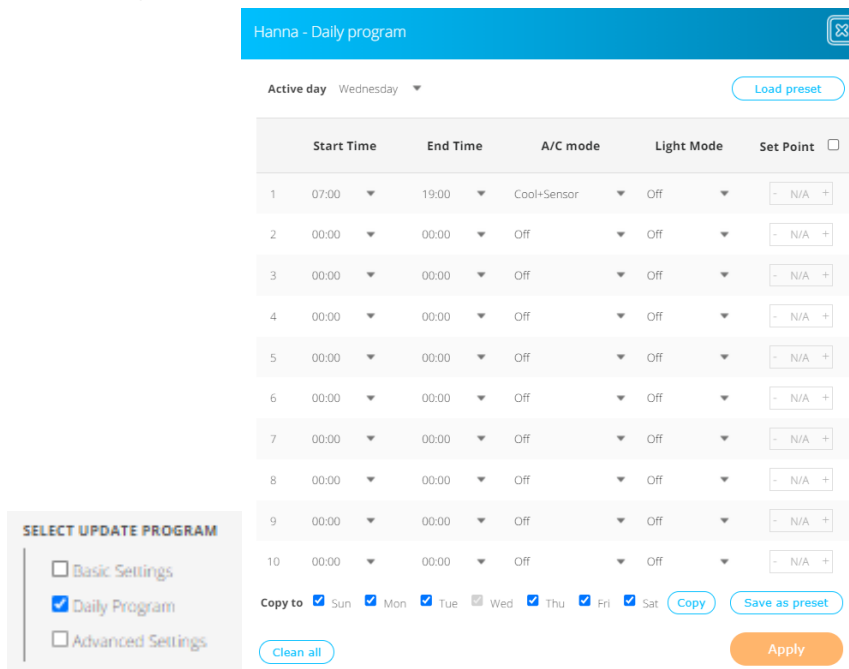
Advanced settings via the room dialog

Basic settings via the floor page - Adjust the desired settings via the room row

Daily program via the floor page - Daily Program button found at the end of the room row

Operation

Daily Program - Copy, Save preset, load preset, Clean day slots, Clean all, and Active day

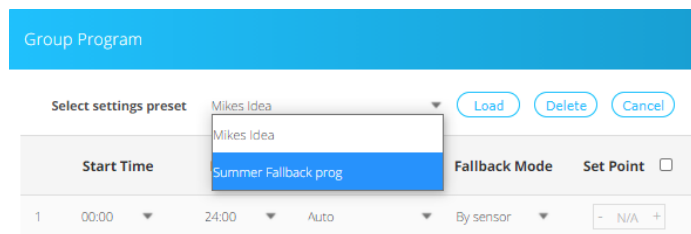


The screenshot shows the 'Hanna - Daily program' interface. At the top, there's a blue header with the title and a close icon. Below it, the 'Active day' is set to 'Wednesday' with a dropdown arrow, and a 'Load preset' button is visible. The main part of the interface is a table with 10 rows, each representing a time slot. The columns are 'Start Time', 'End Time', 'A/C mode', 'Light Mode', and 'Set Point'. The 'Set Point' column has a dropdown menu with '-' and '+' buttons. Below the table, there are 'Copy to' checkboxes for each day of the week (Sun, Mon, Tue, Wed, Thu, Fri, Sat), a 'Copy' button, a 'Save as preset' button, and an 'Apply' button. On the left side, there is a 'SELECT UPDATE PROGRAM' sidebar with three options: 'Basic Settings' (unchecked), 'Daily Program' (checked), and 'Advanced Settings' (unchecked).

	Start Time	End Time	A/C mode	Light Mode	Set Point
1	07:00	19:00	Cool+Sensor	Off	- N/A +
2	00:00	00:00	Off	Off	- N/A +
3	00:00	00:00	Off	Off	- N/A +
4	00:00	00:00	Off	Off	- N/A +
5	00:00	00:00	Off	Off	- N/A +
6	00:00	00:00	Off	Off	- N/A +
7	00:00	00:00	Off	Off	- N/A +
8	00:00	00:00	Off	Off	- N/A +
9	00:00	00:00	Off	Off	- N/A +
10	00:00	00:00	Off	Off	- N/A +

- Checkbox must be checked to change the requested temperature
 - "Copy to" - check requested days

- Acknowledge it by pressing “Copy”
- When all changes have been made
 - Press “Apply” to activate room program
- Once defined, a program may be saved as preset
 - Select “Save as preset” button
 - Enter program name and press “save” (or “cancel” to exit without saving)
 - Saved programs are in the cloud (not in the specific controller) and may be used throughout the site
 - Be Advised!
Deleting program presets is a one-action function (no “are you sure?” mechanism before the system deletes)
- Loading saved preset program
 - Select “Load preset” icon
 - Select required preset program
 - Press “Load” button



Additional information

- You need to exclude all the disconnected rooms before running any type of program by using the checkboxes on the floor page
- This needs to be done because the Zigbee sequence will be stuck

Basic Settings - Group programming

- Select the “Basic Settings” checkbox in the “SELECT UPDATE PROGRAM” section and the requested parameters in the “BASIC SETTINGS” section
- Target Temp -
- A/C Mode -
- Light Mode -
- Fan Mode -

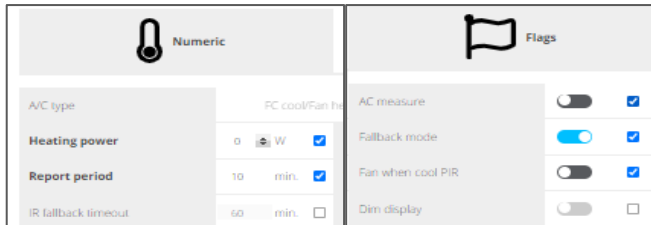
Advanced Settings - Group programming

Numeric		Flags	
A/C type	Split A/C		
Report period	5 min	Window delay	0 min
Remote fallback timeout	60 min	PIR timeout	30 min
Hyst delta A/C	2 F°	Hyst delta mode	1.8 F°
Min setpoint	70 F°	Max setpoint	81 F°
Keep min setpoint	0 F°	Keep max setpoint	0 F°
Temp compensation value	0 F°	Temp stabilisation time	0 min
Setback delta	0 F°	Setback timeout	180 min
Fan off offset	0 F°	Fan auto threshold	0 F°
2Stage Temp Delta	2 F°	2Stage Hyst Delta	0 F°

- Selection of “Advanced Settings” from the “SELECT UPDATE PROGRAM”

allows calibration of all “Numeric” and “Flags” settings

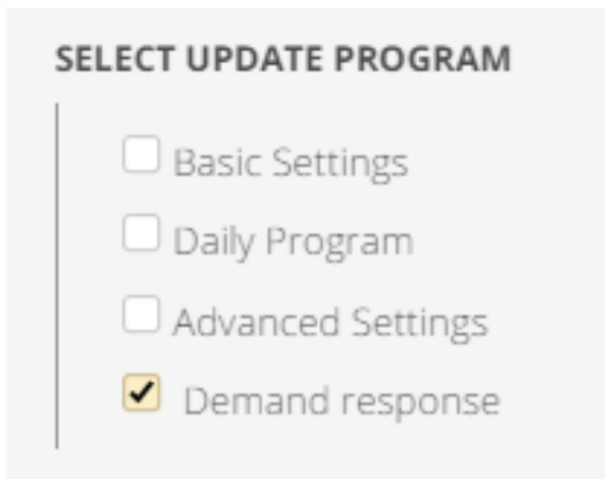
- For each parameter to be “group programmed” the checkbox needs to be highlighted



- When all changes have been made press “Start Update” to activate the group program

Demand Response

- On Group program window, appears additional checkbox ("demand response") for "Select update program" section



- When "Demand" view chosen, the left side of the window take next view:

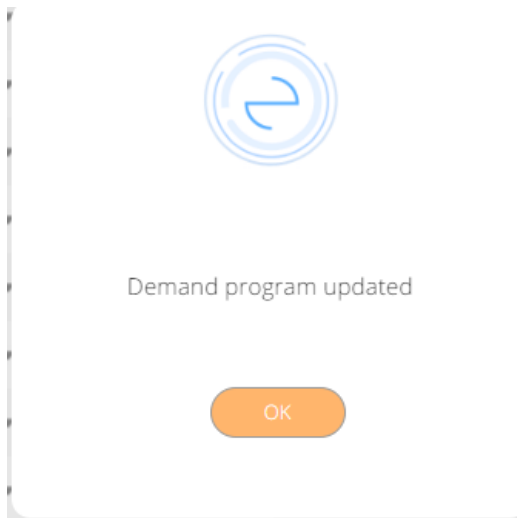
Active day Thursday Load preset

	Start Time	A/C mode	Fan Power	Set Point
1	00:00	Off	Low	- N/A + <input type="checkbox"/>
2	00:00	Off	Low	- N/A + <input type="checkbox"/>
3	00:00	Off	Low	- N/A + <input type="checkbox"/>
4	00:00	Off	Low	- N/A + <input type="checkbox"/>
5	00:00	Off	Low	- N/A + <input type="checkbox"/>
6	00:00	Off	Low	- N/A + <input type="checkbox"/>
7	00:00	Off	Low	- N/A + <input type="checkbox"/>
8	00:00	Off	Low	- N/A + <input type="checkbox"/>
9	00:00	Off	Low	- N/A + <input type="checkbox"/>
10	00:00	Off	Low	- N/A + <input type="checkbox"/>

Copy to Sun Mon Tue Wed Thu Fri Sat Copy Save as preset

Clean all Clean day slots

- After update all controllers on selected floors would be updating their settings according to the schedule.
- If the "demand program" checkbox has been selected, on success next modal window would be shown








Alerts and Notifications





Introduction:

As a visual indicator, the Room and Sensor page presents icons to reflect the device's health status, the Room climate status, and special features and abilities.







Under the “Alert” coulomb the icons will appear only when the system identified a device-related issue.







Room page alerts


Name	Icon	Description	
Communication problem		The controller is not communicating with the server	The controller is disconnected from power and/or the Zigbee network
Sensor timed out: _____ (Indicating the device type)		The sensor is not communicating with the server and its designated controller	1. Battery needs to be replaced And / or 2. The sensor needs to be reset
Temperature sensor fault		No temp indication from 'device name'	Consider which type of device is the temp indication, to choose the best method to troubleshoot (OakRemote, OakTemp, Wired temp sensor)
Window Sensor Disabled		The window sensor disabled flag is activated via Room Dialog → Flags tab	Disabling the window sensor manually could be done due to a malfunction or a specific need
Low battery		One of the paired sensors to the controller has low	Battery replacement

		battery	
Room unplugged		This controlled zone is not being climate automated	This is a manual alert feature - The 'communication' parameter has been disabled via the room dialog 'alert' tab Cause: To be used when a controller is disconnected and the cause is unrelated to the system and/ or the cause is known and will take time to be fixed.
Wrong room time		Device time is not properly set	May happen when a controller is connected after being disconnected <ol style="list-style-type: none"> 1. Automatic fix - server will fix it in 3 hours 2. Can be fixed manually via the advanced management page
Precise Occupancy Warning			The server will show the following relevant warnings: <ol style="list-style-type: none"> 1. First door communication timeout 2. Second door communication timeout 3. First PIR communication timeout 4. Second PIR communication timeout 5. Bad Settings
Door open warning		1st/2nd door opening warning	Door Open Warning





Room page Notifications




Wireless temp		Temperature reading received from a wireless temp sensor	When the temp indication to the controller is provided via a wireless sensor (OakRemote, OakTemp) the dashboard will present this icon
Door is open		Paired door sensor indicates the door is open	
Window is open		One of the window sensors paired to this controller indicates that the window is open	
Remote Override		Settings (Airkind, a/c mode) from remote control override program settings. Only shown if the unit is in programmed mode).	A/C state: <A/C mode> Airkind: <Target Temp> Override expires in <value> minutes
Setback mode		Room is in setback mode	This feature has a few conditions that need to be set in the room dialog, numeric tab
Keptemp mode		Room temperature went outside of allowed range, unit entered keep temp mode	The allowed temp range parameter is in the room dialog, numeric tab When identified the room is out of the allowed range: The A/C will cool/heat by 6 degrees

			F till restore comfortable room temp
Auto-heating		Unit is in "Auto" mode and is heating	A/C is currently heating
Auto-cooling		Unit is in "Auto" mode and is cooling	A/C is currently cooling
Preparation mode		Preparing the room before the guest arrives	A/C will automatically be activated (heating or cooling) to reach a comfortable room temp. This feature can be disabled/ enabled via the advanced management page, and server parameters.
Occupied room		Room is occupied	The Precise Occupancy feature has identified and determined the room is occupied by a guest. The end-user has full control of the A/C operation.
Second stage	2nd	2nd- stage cooling or heating activated	
Dehumidification on Algorithm Override		Dehumidification algorithm is active and overrides the default a/c mode or Airkind	The Dehumidification feature takes priority and overrides the A/C settings (A/C mode and temp).
Temporary settings active		Temporary settings are active at the unit	A/C state: <state> Airkind: <Airkind>

			Override expires in <value> minutes
A/C Diagnostics alert		A/C performance dropped below acceptable threshold	A/C <percent> decrease during <heating/cooling> The acceptable threshold can be adjusted via the advanced management page, server parameters.

Sensor page alerts

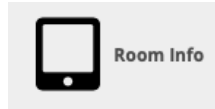
Name	Icon	Description	
Window open		Window is open	Window is open
Low battery		Battery is low (2.5V or below)	“Sensor name” + low battery You can get a full report on the sensors battery level via the report section, battery level report.
Communication problem		Sensor disconnected	The sensor is not reporting to the server and its designated controller The standard procedure <ol style="list-style-type: none"> 1. Replace the battery 2. Reset the sensor 3. Confirm the sensor is assigned to a controller
NV not loaded		The server was unable to load network information	This alert is ok if shown during the sensor installation/reset/battery

		from flash for the sensor.	replacement process. If randomly appears for an already installed sensor, can indicate a problem.
Sensor is not assigned		The sensor is not assigned controller	In general, all sensors provide indications to the controller to allow the system. Exceptions: External temp sensors (Birdhouses)
Precise Occupancy		The room is being monitored by the Precise occupancy feature.	
On-by occupancy		This feature allows keeping A/C in the room ON when the room is occupied and turning it off when the system decides that the room is not occupied anymore	The Precise Occupancy feature is working according to the motion sensor indication.

Room dialog

Table of Contents

- Info - informative & Setup



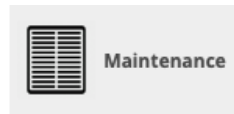
- Numeric - Operational values and features



- Flags - Activates and deactivates features for the end user



- Maintenance - Filter counter




- Alerts - Controllable Key Alerts



Airkind Service team



 Office: 414.867.2665 | Email: office@airkind.ai

Support Hours 7:00 am-5:00 pm Sunday through Friday

The room dialog

Introduction:

A room dialog is a management tool, that provides an informative and functional interface for each controlled zone.

- Available for user roles such as 'Super' and 'Admin'
- Accessible via the floor page/all floors page
- View and customize all available settings and configurations of the controller
- Enable or disable all available features
- Press on the desired tab to access each section

The screenshot displays the '2nd fl' floor page with a table of rooms. Room 201 is highlighted, and its details are shown in the 'Room Dialog — 201' window. The dialog has five tabs: Room Info, Numeric, Flags, Maintenance, and Alerts. The Room Info tab is active, showing various room parameters. At the bottom of the dialog, four buttons are visible: Erase, Create Report, Refresh, and Apply. To the right of the dialog, there are five separate icons representing the tabs: Room Info, Numeric, Flags, Maintenance, and Alerts.

Room	Current Temp. F°	Set Point F°	A/C mode	Fan Power	A/C status	Alerts	Notifications	Cumulative Consumption kWh	Measured consumption	Last Report	Special
201	77.0 (24%)	- 77 +	Heating	High	Off	—	🔊 📄 📄	100.0	0	03/12 04:09	🔊 📄 📄
202	73.0 (25%)	- 73 +	Heating	High	Off	—	🔊 📄 📄	1214.7	0	03/12 04:05	🔊 📄 📄

Room Dialog — 201

Room unit ID: 00124800028A7309

Room name: 201

Floor: 2nd fl

A/C type: FC cool/Fan heater

Paired sensors: sw00_201, sr00_201

Doors: sw00_201

PIRs: sr00_201

Master room: Not assigned

Room time: 03/12 04:09 | Last motion time: 03/12 03:35

App build: Mar 10 2022 | Pan ID: ca11

LQI: 98 | IR code: N/A

Address: 1C0C (7180) | SW Version: 12.112

Device type: Room/PTAC | Device model: OakPTAC

Hardware version: 1.4 | Batch ID: N/A

Permit join: | Tsl, Tem, Tpo, Com, Dot: 90, 20, 15, 60, 60

Buttons: Erase, Create Report, Refresh, Apply

Command buttons:

Erase - Delete the device (OakController) from the dashboard

Create Report - Opens Room Report dialog

Refresh - Send a request from server for the OakController latest status report

Apply - Incorporate all changes made and Execute

Room Dialog - Info Tab

Room Info

Numeric

Flags

Maintenance

Alerts

Room unit ID	Unique & Permanent identification of OakDevice 4B00028A7309
Room name	Manually done, typically the room number or occupancy
Floor	Manually done, The floor or zone name the room is associated with
A/C type	Setup for new OakController - A/C type: According to the A/C mechanism. PTAC unit
Paired sensors	Sensors installed in the room must be associated to the OakController to provide it with various
Doors	The door sensor will be "window" in default. Choose the desired sensor to function as a door sensor
PIRs	In the case of multi PIR's in a CZ, Choose the device to provide motion indication to the OakController
Master room	Multiple controllers receiving commands from single remote, Choose the desired OakControllers
Room time	Local and current time & Date
App build	The release date of the currently running application
LQI	Link Quality Indicator - Zigbee signal strength and quality indicator of OakDevices
Address	The OakDevice address in the network
Device type	OakController or OakSensor
Hardware version	The production version of the OakDevice
Permit join <input checked="" type="checkbox"/>	Enabled by default, The OakController will accept new OakSense devices to associate/ pair with it

Erase!!!

Create Report

Refresh

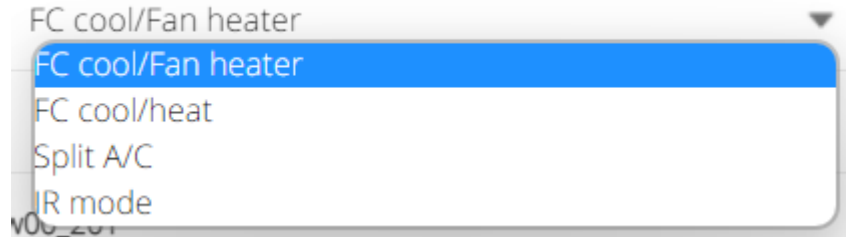
Apply

Last motion time	Last motion detected in a CZ by PIR indicator
Pan ID	Zigbee network identification
IR code	If the selected A/C type is IR - choose the correlating code to control the A/C unit
SW Version	The OakDevice program (FW) version
Device model	The specific OakController type
Batch ID	HW production batch number
Tsl, Tem, Tpo, Com, Dot	Precise Occupancy feature parameters & Values

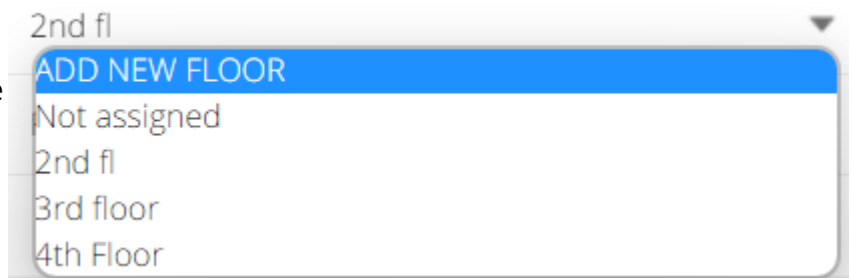
[Back to main page](#)

Room Dialog - Info Tab

A/C type: Choose the A/C type that correlates with the A/C unit in the room.



Floors:
Add a new floor - Press and name the new floor manually.



Not assigned - Controlled zones that have not been assigned to a floor will be found on this floor.

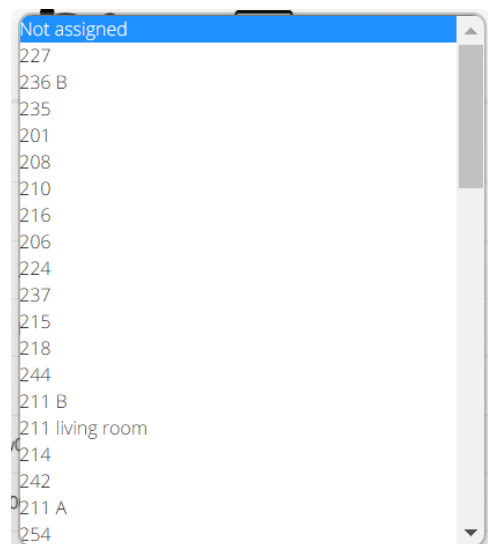
Paired Sensors:

Any sensor paired to the OakController will appear in the room dialog.
S - stands for "sensor"



W - stands for "window" or "door"
R -stands for "remote"

Master: Choose between 1 to multiple Controlled Zones to be operated according to a Master room. They will be performing the same commands as the Master.



Doors: Manually choose if the sensor will perform as a 'window' or a 'door' sensor.

PIRs:

If there's more than 1 motion indication in a controlled zone, Choose which sensor should indicate to the OakController.

Paired OakWindow:

sw00_212

sw01_212

Paired OakPIR/OakRemote:

sp01_317

sp00_317

Room Dialog - Info Tab

Command buttons

Erase!!!

Delete a CZ (OakController) from the dashboard

A safety dialog will open, press **ERASE**

Create Report

Generate 4 types of reports, each report presents a selective or full data every 5 minutes (according to the room report period parameter, found in the Numeric tab)

1. Full report - Full operational review of the CZ
2. Rooms Temp - Temp and Humidity
3. Sensor Only -
4. Air quality sensors only -Available when IAQ sensor is associated with the CZ

Refresh

“Call” for the most accurate status of the OakController, to expedite last commands and changes, or to get real-time information on the sensors status.

Apply

Press to implement changes made in the room dialog.

1. Will implement any number of changes across all tabs at the same time.
2. Once a change is made, a disclaimer will appear in the bottom of the room dialog, until implemented (Apply) or aborted (Close)

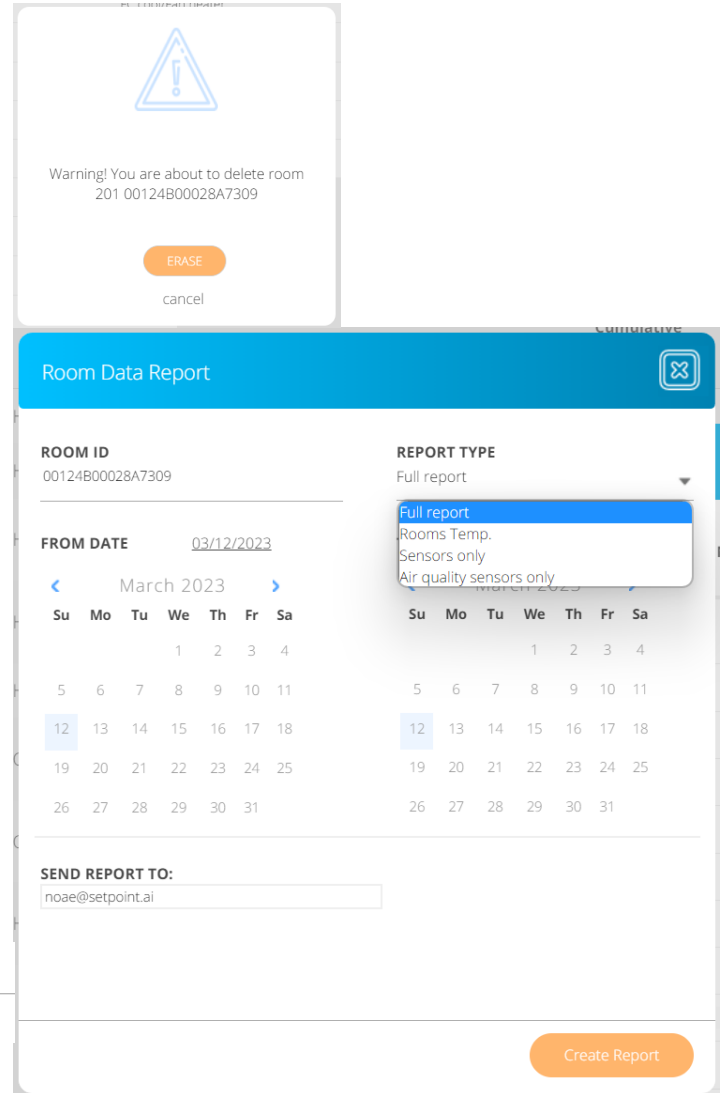
Parameters have been changed

Erase!!!

Create Report

Refresh

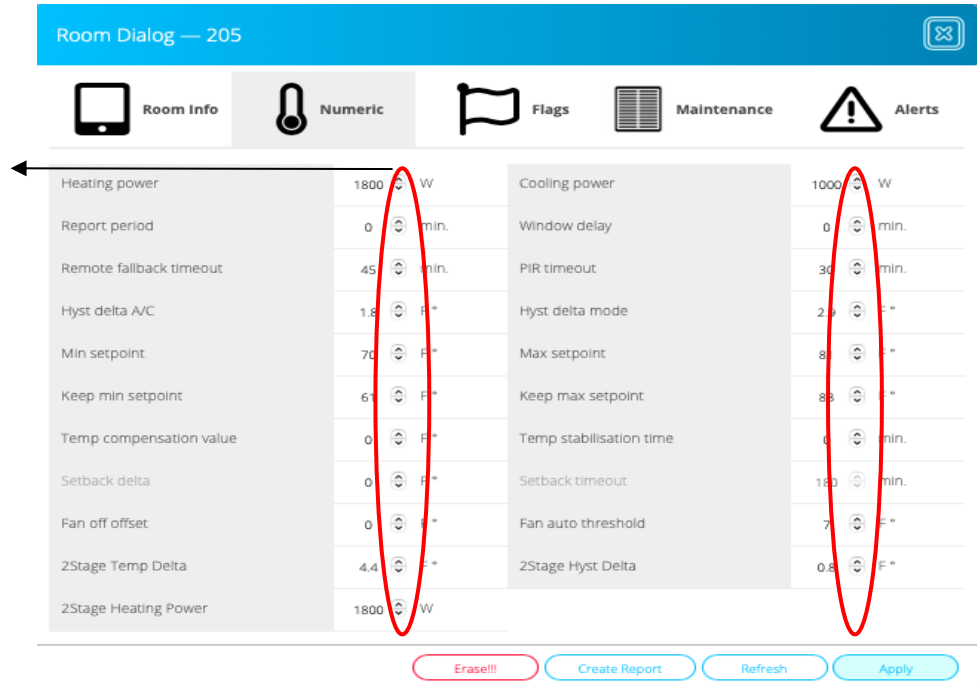
Apply



Room Dialog Numeric

All the parameters can be customized according to the A/C and End-user needs to optimize the A/C performance and end-user comfort.


Each parameter has its own values range - Use the arrows to choose the desired value.



- **Heating/Cooling Power** - The energy, by minutes, taken to heat or cool the controlled zone. The energy consumption is only reflected in Watts. The values are set on default and can be customized per the A/C type.

The calculated heating/cooling to minutes is processed into a “consumption report” available via the advance management section.

The information is available per building (main dashboard page), per floor (building overview), and per room (in the room row).

- **Report Period** - The time in minutes for controlled zones to send a report to the server.
- **Window delay** - Time, in minutes between 0 - X, for the A/C to shut down when the window is opened, and kick in when the window is closed.
- **Remote fallback timeout** - Time from a change made by any remote until the system reverts to climate automation. 
- **Min/Max Airkind** - the set minimum and maximum allowed temperatures for the end user to choose.
- **Keep min/Max Airkind** - A safety mechanism feature to protect the controlled zone integrity and end-user comfort. Once the system identifies the controlled zone ambient

has reached to lower or higher value, The A/C will automatically kick in to either cool or heat the room. The A/C will work until a delta of 3 degrees C is achieved.

- **Hyst Delta A/C** - The “distance” in degrees, between the desired Airkind and the room temp, to kick in the A/C to work.
- **Hyst Delta mode** - The “distance” in degrees, between the desired Airkind and the room temp, to kick in the A/C to work in AUTO mode.
- **Temp compensation value & Temp stabilization time** - When the temp sensor is embedded in the controller - OakWall - the temp measurement may be compromised due to the proximity of the electrical components and insufficient ventilation.
To “correct” the temperature reading deviation, insert the appropriate values.
 - The number of degrees needed to be reduced, and the number of minutes that the system will take to perform the “fix”
- **Setback feature:**
 - Setback delta & Setback timeout & PIR timeout** -
The advanced saving mechanism automatically adjusts the Airkind in a controlled zone according to motion detection.
 - PIR timeout - After X minutes the system determines the controlled zone is empty: no motion detected.
 - Setback delta - the value in degrees, by which the Airkind will be adjusted.
 - Setback timeout -
 - the time from the last PIR event to Setback activated
 - the time in minutes the A/C will work according to the new delta until motion is detected again in the controlled zone.
 - **PIR Timeout** - Time from the change made by the end-user via the remote (OakRemote, OakWall, etc) until the system reverts to climate automation.
 - **Temp Compensation Value** - Temperature measurement error by the controller due to self-heating
 - **Temp Stabilisation Time** - Period for error to influence temperature measurement
 - **Fan Off Offset** - An offset of measured Oakwall temperature in case the fan is not working
 - **Fan off offset** - For OakWall devices -
When the fan is OFF, and or due to reduced air circulation, the temp sensor may overheat and indicate a false room temp. The system can correct itself by decreasing the measured room temp.
 - **Fan auto threshold** - For OakWall devices -
When the difference between the desired Airkind and the room temp is high, the feature will automatically increase the FAN power to high to achieve the desired Airkind faster.

Room Dialog Flags

The flags tab has numerous features and abilities, allowing one to customize each room to its best functional performance and end-user comfort.

The screenshot shows the 'Room Dialog — 201' interface with the 'Flags' tab selected. The 'User interface' section contains several toggle switches. Annotations include:

- An arrow pointing to a toggle switch on the right with the text: "To **enable** a parameter - toggle to the right
- An arrow pointing to a toggle switch on the left with the text: "To **disable** a parameter - toggle to the left
- An arrow pointing to a list of expandable sections with the text: "Press on the arrow to open the desired section".

At the bottom of the interface are buttons for "Erase!!!", "Create Report", "Refresh", and "Apply".

User Interface & Block A/C modes

This section provides a detailed view of the 'User interface' settings. The following table summarizes the state of each toggle switch:



Parameter	State
Disable wireless win. sens.	Enabled (Right)
PIR polarity negative	Disabled (Left)
Ignore remote mode	Disabled (Left)
Fahrenheit UI	Enabled (Right)
Logo off	Disabled (Left)
Night mode reset	Disabled (Left)
Dim display	Disabled (Left)

- **Disable wireless window sensor** - The system will ignore the wireless window sensor. The window position (opened or closed) will not affect the A/C operation.
- **Logo off** - For OakRoom - The controller has a blue led indicating its functionality, the could inconvenience the end user during the night time or in general. Enable this parameter to disable the logo light.
- **PIR polarity negative** - Determines the signal polarity of the wired PIR sensor.
- **Night mode reset** - The A/C will revert to the automated climate program every day at 5 am, which could be changed by the end user via the remote.
- **Ignore remote mode** - The A/C will ignore any command the remote receives. The control and changes are done via the climate dashboard only.
- **Dim display** - For OakWall - The UI of the OakWall (The screen) will dim automatically when it's not being engaged and used by the end user.
- **Fahrenheit UI** - Celsius is the default temp measurement. Enable this parameter to revert to Fahrenheit measurement.

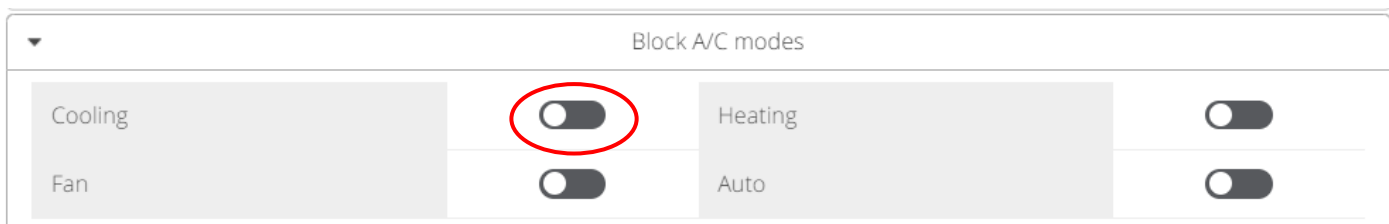


Block A/C mode

Block the end user from choosing one or a few A/C modes abilities.

When the toggle is enabled  mode is blocked
When toggle is disabled (Default)  - mode is available

The A/C mode button will not display the blocked A/C modes icons.



Various features & Functionality features

Various features			
Mugan logic	<input type="checkbox"/>	AC measure	<input type="checkbox"/>
Ext. power measure	<input type="checkbox"/>	Fallback mode	<input type="checkbox"/>
Block remote control	<input type="checkbox"/>	Fan when cool PIR	<input type="checkbox"/>
Invert HEAT	<input type="checkbox"/>	Disable wireless temp. sens.	<input type="checkbox"/>
No fan below setpoint	<input type="checkbox"/>	No-comm protection	<input type="checkbox"/>
Reset on watchdog	<input type="checkbox"/>	Automate Setback	<input type="checkbox"/>

- **Mugan logic** -

Modifies the OakController operation logic for assisted living clients as follows:

The controller zone default status will start in A/C mode "Off"

If the A/C mode is set to "Programmed", the IR remote will allow only on/off operation

If the A/C mode is set to "Off" via the IR remote, the OakController will never revert the A/C to ON

- **A/C measure** - Available for OakRoom only - Enables "measurement mode" for the OakController, to estimate the power consumption of the A/C unit while an external T-stat controls it.
- **Ext. power measure** - Measure the current ("live") power consumption of the A/C unit during operation (A/C state ON) and non-operation (A/C state OFF).
The installed system in the controlled zone must include an additional measuring component or a measuring OakController (OakSocket).
The measurements will be displayed in a new column on the floor page.
- **Fallback mode** - The Airkind system can control more than one system at a time. In the case that the system is "sharing" the control ability with an external T-stat, the feature will prevent both controllers to send commands simultaneously.
- **Block Remote control** - Disable the use of the remote, the system will ignore all IR commands. The control will be only via the Climate Dashboard.
- **Fan when cool PIR** - An advanced saving mechanism, the A/C will revert to FAN automatically when no motion is detected in the controlled zone. Once a motion is detected, the A/C will revert to its original settings.
- **Disable wireless temp sensor** - The OakController will not accept data from the wired temp sensor.

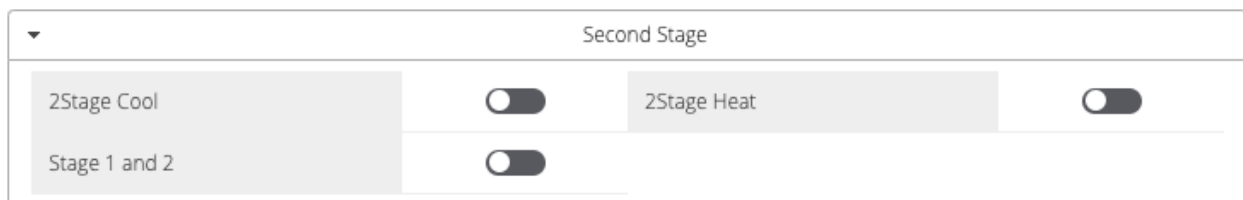
- **No fan below Airkind** - As default, During the Cooling event - the A/C will revert to FAN mode once it reaches the desired Airkind. When this flag is enabled, the A/C will revert to OFF once it reached the desired Airkind.
- **No-comm protection** - In the case that FALLBACK mode is enabled - If the

OakController fails, and the A/C control will revert to the external T-stat.

- **Reset on watchdog** - Automatic reset for the OakController in the case that communication with the server is lost.
- **Automated setback** - Advanced energy-saving mechanism - Allows energy saving by optimizing the desired Airkind when the room is determined to be not occupied (by the PIR). The system will perform the setback feature (mentioned above) automatically, instead of being managed manually via the "Numeric" section.
- **Reset on watchdog** - Automatic reset for the OakController in the case that communication with the server is lost.

Second Stage units - for multiple stages A/C

- **2stage Cool** - allowing the control of a 2nd stage of cooling
- **2stage Heat** - Allowing the control of 2nd stage of heat (for Heat pump units the 1st stage is the reversing valve and The Electric heat is the 2nd stage)
- **Stage 1 and 2** - Allowing the A/C to activate the 2 stages of heat/cool at the same time

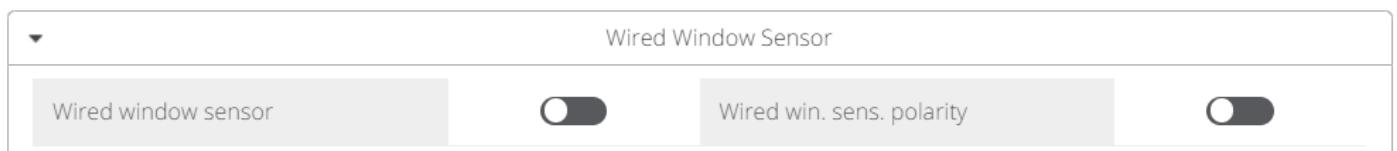


The screenshot shows a control panel titled "Second Stage". It contains three toggle switches. The first switch, labeled "2Stage Cool", is currently turned off. The second switch, labeled "2Stage Heat", is currently turned on. The third switch, labeled "Stage 1 and 2", is currently turned off.

Wired Window Sensor

Allows to connect and control an external (not Airkind) window sensor installed on-site. The sensor will be wired directly to the OakController.

Before installation, we need to identify the polarity of the sensor to choose the correct functionality logic.



The screenshot shows a control panel titled "Wired Window Sensor". It contains two toggle switches. The first switch, labeled "Wired window sensor", is currently turned off. The second switch, labeled "Wired win. sens. polarity", is currently turned on.

Features

The following flags section are features that need to be enabled both from the advanced management section and the room dialog.

Some of the features require specific devices to be installed as part of the Controlled Zone system.

Precise occupancy

The screenshot shows a settings panel titled "Precise Occupancy". It contains three rows, each with a label on the left and a toggle switch on the right:

- Row 1: "Occupancy By Program" with a toggle switch that is currently off.
- Row 2: "ON by Occupancy" with a toggle switch that is currently on.
- Row 3: "Precise Occupancy" with a toggle switch that is currently off.

Introduction

Advanced saving mechanism:

Relying on the decision outcome of the Complex Occupancy algorithm to determine A/C operation, which combines readings from Door and PIR sensors.

Operation (simplified):

The climate system identifies 2 scenarios, Vacant VS Occupied, turning the A/C On and OFF automatically.

1. Door is opened and closed (entering a room) + Motion detected in a room for X minutes = **Room is occupied.**
A/C will be ON according to the last settings.
2. Door is opened and closed (exiting a room) + Motion is not detected in a room for X minutes = **Room is vacant.**
A/C will be OFF.

Enabling procedure:

- ★ **Step one** - update settings for all relevant rooms

Update parameters per room via the "Advanced management" screen:

Select the room from the upper right corner.

The screenshot shows a form with two dropdown menus:

- Unit ID: [text input field] All units ▼
- floors: [text input field] All floors ▼

Go to the "Complex Occupancy Policy" section.

Fill in the values:

Tpo=5, Tem=7, Tsl=90, Com=300, Dot=60

Click "Update single".

Precise Occupation Policy

Tpo Tem Tsl

Com Dot

Status is unknown

Parameter index

1. Tsl = Time in minutes that the algorithm assumes *Occupied* before the transition to the *Sleeping* state - unless a PIR event was detected.
 2. Tem = Time in minutes that algorithm waits on a *Potentially Empty* state before making the transition to *Empty* state, unless a PIR event was detected.
 3. Tpo = Time in minutes that algorithm waits on the *Potentially Occupied* state before making the transition to an *Empty* state, unless a PIR event was detected.
 4. Tcom = Communication timeout value for PIR and Door sensor is specified by the parameter - `pir_door_comm_timeout_min` - default value = 60 minutes. The same value applies to both types of sensors.
 - Communication timeout occurs when no "info" is received from any "door" or PIR sensor for the specified communication timeout value.
 5. Tdot = Door open timeout is applicable for registered "door" sensors only, and is specified by the parameter - `door_open_timeout_min` - default value = 60 minutes. The same value applies to all doors.
 - Door open timeout occurs when no door close event is detected for the specified Tdot.
- ★ **Step two** - enable "Precise Occupancy" and "ON by Occupancy" for each room.

Click the room name to open the room dialog, Flags tab, "Complex Occupancy" section:

Enable "Complex Occupancy" and "ON by Occupancy", and press apply.

Precise Occupancy

Occupancy By Program	<input type="checkbox"/>	ON by Occupancy	<input checked="" type="checkbox"/>
Precise Occupancy	<input checked="" type="checkbox"/>		

Flags index

"Complex Occupancy" =defines whether the "On by Occupancy" feature will rely on the verdict of the algorithm or use PIR sensor readings only. When the "Complex Occupancy" flag is true, the algorithm will be used. Otherwise, PIR only will be used.

"ON by Occupancy" = enable the feature.

Dashboard feature presentation:

0 - Room is monitored by Precise Occupancy

Default Icon - PIR

Parameters and flags enabled.



1 - Room is occupied

Icon - Bed

Feature operation: Door opened and closed, motion detected once - AC will keep its original settings.



2 - Room is Vacant

Icon - No bed icon + Only PIR icon

Feature Operation: Door opened and closed, No motion detected - AC will revert to Off

Related icons:

Door is opened -



Door open warning -

Door is open for too long,
might indicate a door sensor problem.

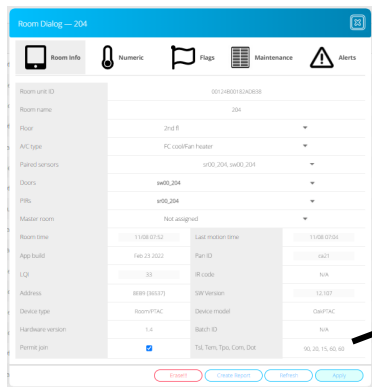


Precise Occupancy Warning -

Precise occupancy setup warning:
Might indicate the following problems:



- Door sensor communication timeout (low battery, the battery drained, sensor not paired/assigned)
- PIR communication timeout (low battery, the battery drained, sensor not paired/assigned)
- Bad settings - see image below



Correct settings


Tsl, Tem, Tpo, Com, Dot	90, 20, 15, 60, 60
-------------------------	--------------------

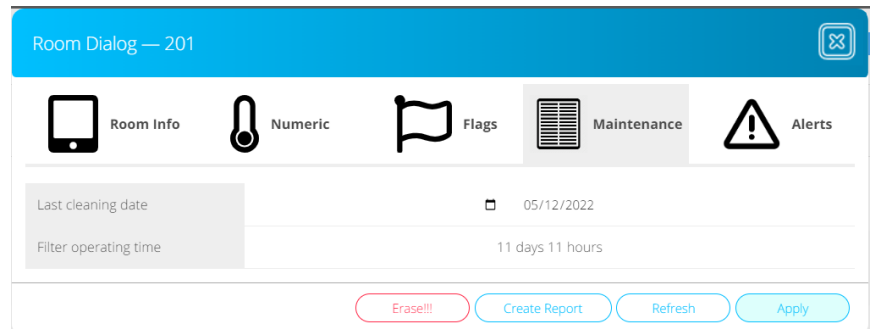
Wrong settings

Tsl, Tem, Tpo, Com, Dot	0, 0, 0, 0, 0
-------------------------	---------------

Filter Counter Feature

Filter cleaning tracking (FCT) assistance is a monitoring tool to easily track the filter's state, allowing the user to change the cleaning date and adjust the number of hours till the next cleaning is due.

The system will track the number of hours the A/C is used, and the number of hours can be customized to the user's needs. Once over the allowed number of hours, the filter cleaning icon  will display in the room row

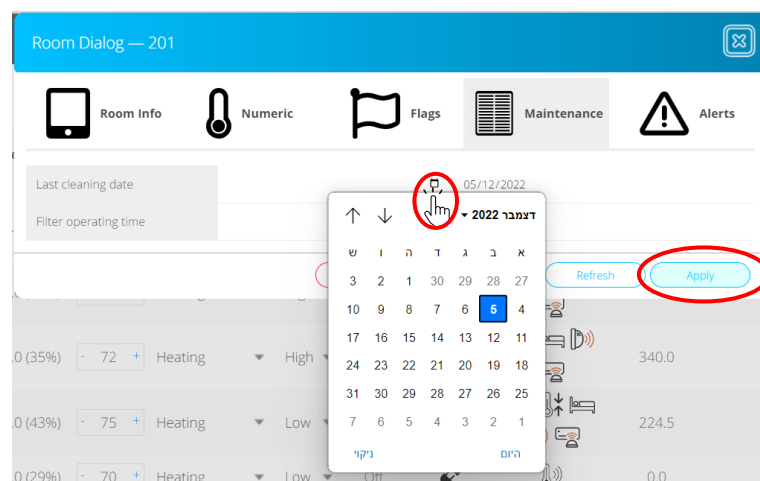


Benefits:

1. Filters the air for a healthier environment
2. Disallows Blocked filters that reduce A/C performance
3. Allow easy-to-use monitoring too
 - Single room (Room dialog)
 - Group program (Floor page)
 - Produce up-to-date reports at any time for a color-coded list of all rooms and if they are in need to be cleaned
 - Automated report sent to the user's email

The number of working A/C hours will determine the due date; the default is 1000 hours, which can be adjusted via advanced management.

Open the calendar feature and choose the last cleaning date



ג

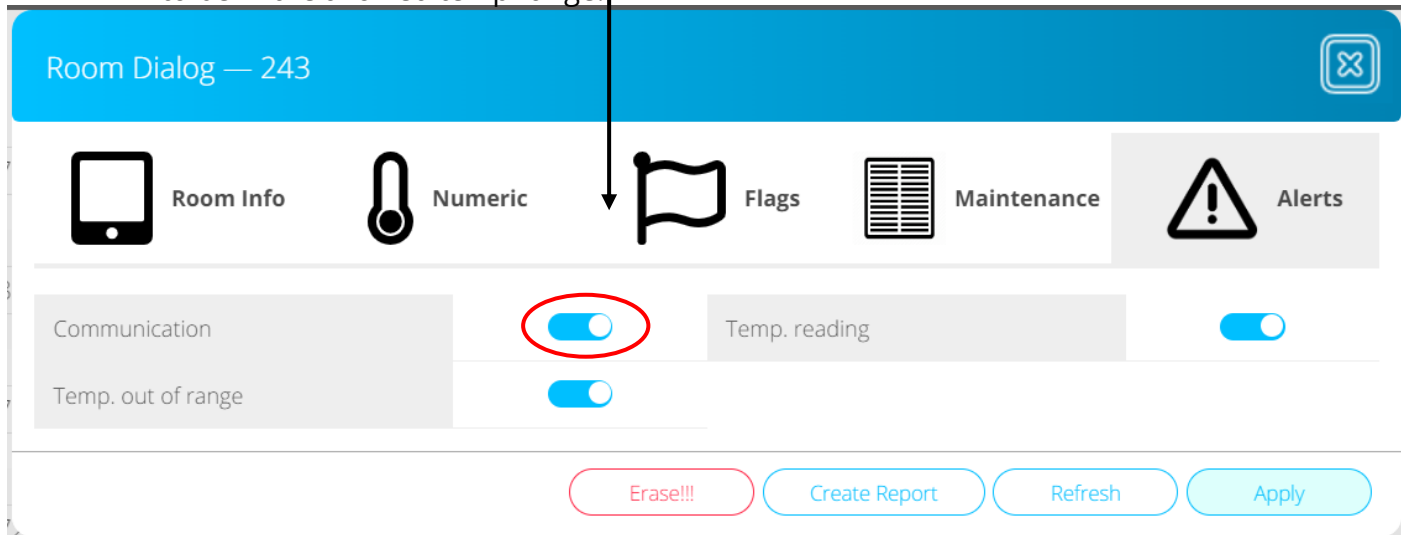
Alerts

The Alert tab displays the room’s key functionalities - communication, temperature reading (Temp.reading), and the room temperature (Temp. out of range).





The feature allows the user to easily manage the dashboard alerts and malfunctions. In the case that the user knows the cause of the malfunction, he may disable the toggle to remove the alert, which will automatically reduce the number of alerts, as seen in the main mage.

For example: If an A/C unit is being replaced, the OakController will be disconnected. In this case, it is not a communication issue but a logistic procedure - The communication toggle can be disabled.

The 3 parameters toggles are enabled by default - indicating the room is connected and communicating, receiving temp indication and monitoring the room to be in the allowed temp range.

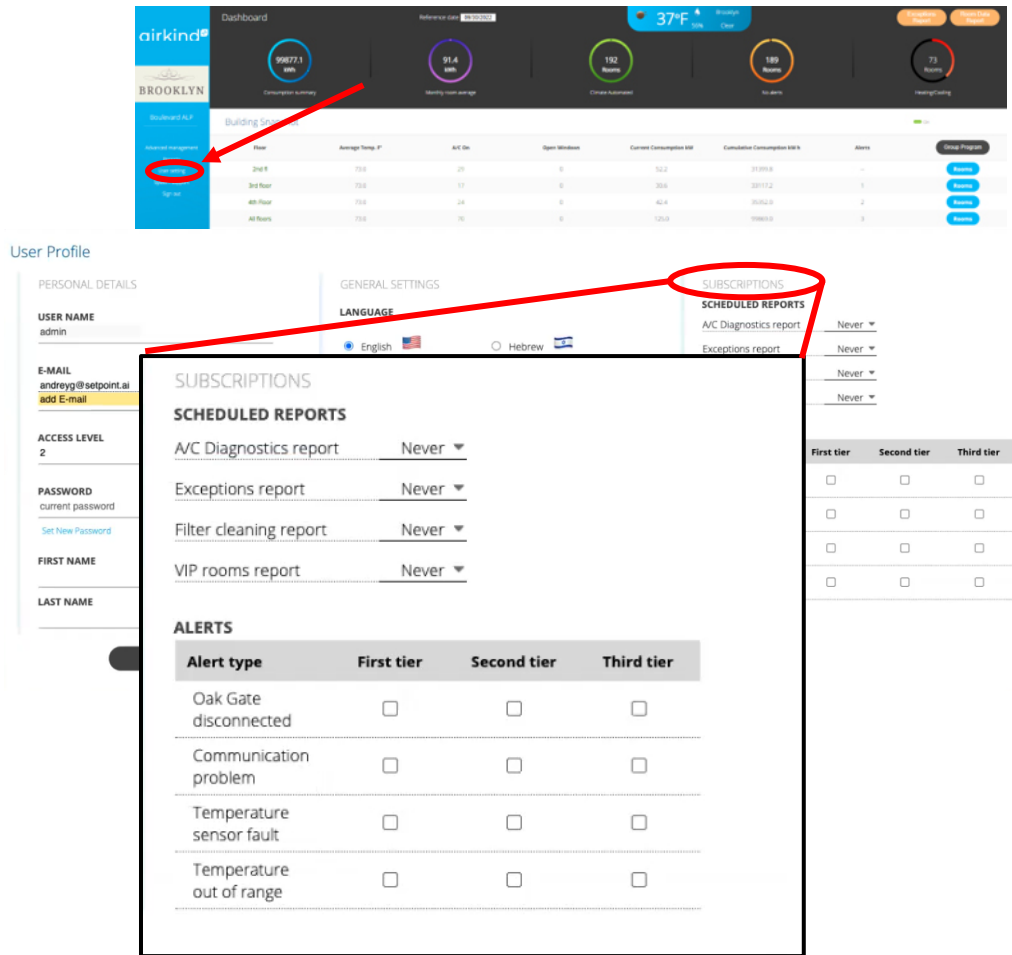


Corresponding alerts-

-  **Controller is disconnected** ---->  **Controller is unplugged**
-  **Temp. reading is not available** -----> **The alerts icon will not display**
-  **Room temp is out of the allowed range** ----> **In development**

Reports & Alerts subscription feature

Introduction



An automated reports and alerts notification system for Climate management, structured according to site staff hierarchy with an adjustable schedule.

1. Define the site staff hierarchy to be notified, a total of 3 tiers - from 1st to be notified to last.
2. Subscribe each user to the relevant notifications.
3. Determine the schedule (interval) of notifications deployed for each tier.

Available reports to schedule

Available on Default:

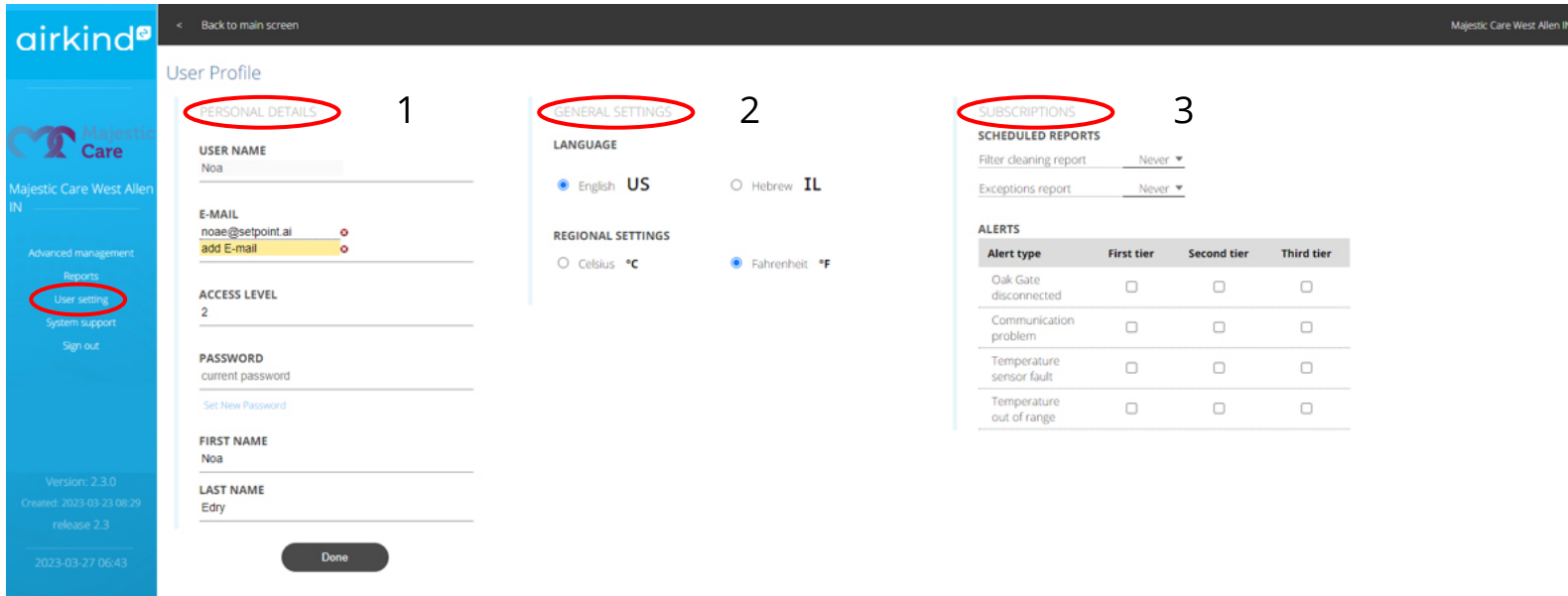
- 1. Filter cleaning report** - Monitoring tool for the user to track and plan the A/C filter cleaning task according to 3 key parameters, all adjustable to customize the user's needs. Defining the due date for filters to be cleaned according to the A/C running time (Recommended 1000 hours), Notifying the user when the A/C should be cleaned according to an automated report sent to the user & presenting an icon next to the controlled zone, and managing when a specific controlled zone or floor have been cleaned by a group program feature in the climate platform.
- 2. Exceptions report** - The Airkind climate system monitors the OakDevices thoroughly, enabling a fast notification ability repeatedly and frequently by the server. Produce a report listing all devices requiring maintenance, detailing the alert, actions to be taken, and the priority.

Can be added if desired:

- 3. VIP report** - To promote savings, the user can condition the allowable temperature range the end-user can choose from via the Tstat. To ensure guest comfort and satisfaction, the VIP feature allows defining an extended/ spacial temp range for VIP guests, while maintaining the standard range for regular guests.
- 4. A/C diagnostic** - Through machine learning, the system determines the proper performance for the A/Cs on-site. The performance of each Airkind controlled A/C is measured during cooling and heating events, Identifying the temperature changes per minute. The system calculates the data to determine a standardized profile for A/C performance. According to that room profile value, the system will identify & alert a decrease in performance. Once an A/C is detected to have decreased

performance, an icon will display in the room row, alerting of the % of decrease.

User Settings Page - Scheduled Reports

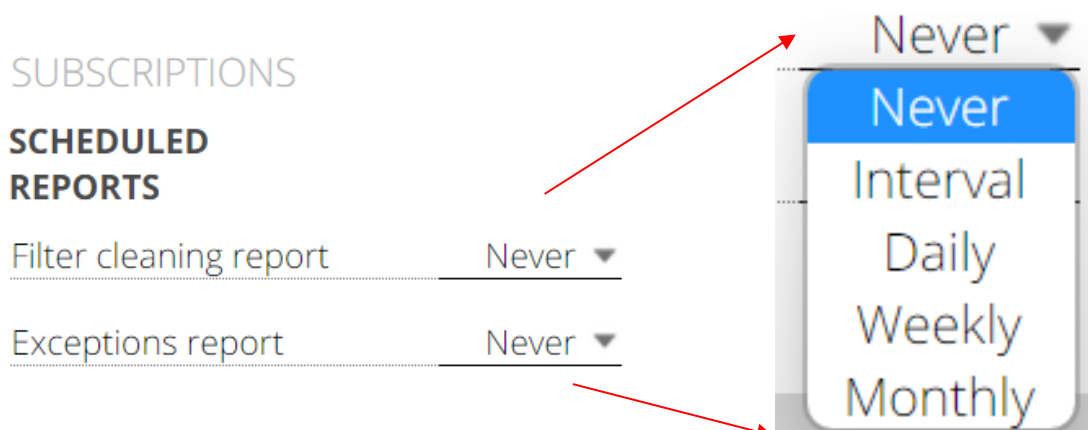


1. **Personal Details** - The user can edit his personal details and/or add another email address.

Sections not available for change: User Name, Password

2. **General Settings** - The user can change and choose the available language and Settings.

3. **Subscriptions** - The user can subscribe to 2 functions:



[Back to main page](#)

Scheduled Reports:

Interval - Schedule a repetitive report, from 1 second and up to 24 hours

Filter cleaning report Interval Repeat every Second

Exceptions report Never

Second
Minute
Hour

Daily - Schedule a report to be received at the same time everyday

Filter cleaning report Daily Start at

14	37
15	38
16	39
17	40
18	41
19	42
20	43

Weekly - Schedule a weekly report to be received at the same day and time

Filter cleaning report Weekly Every SUN. Start at

SUN.
MON.
TUE.
WED.
THU.
FRI.
SAT.

15	01
16	02
17	03
18	04
19	05
20	06
21	07

Monthly - Schedule a report to be received once a month at the same date and time

Filter cleaning report Monthly Day 1st Start at

1st
2nd
3rd
4th
5th
6th
7th
8th
9th
10th
11th
12th

15	14
16	15
17	16
18	17
19	18
20	19
21	20

Alerts

ALERTS

Alert type	First tier	Second tier	Third tier
Oak Gate disconnected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Communication problem	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Temperature sensor fault	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Temperature out of range	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Alert types associated with the notifications:

Critical device/event malfunction

- Controller disconnected - OakPtac, OakWall, OakSocket.
- OakTemp sensors disconnected - OakRemote, Oak126, OakTemp (Birdhouses).
- Out of temp range - CZ's reported temperature out of the allowed min/max Airkind.
- OakGate disconnected - Zigbee communication box.

Email alert notification logic

- A single email alert notification will be sent for each critical device/event malfunction.

For example, in the scenario that 2 controllers are disconnected - 2 separate emails will be sent.

- If an OakGate is disconnected - The email notification sent will only refer to the OakGate, no emails will be received for the associated controllers, as it is a given that when an OakGate is disconnected -

controllers will be disconnected.

Tiers logic

To best reflect and accommodate a site's staff's daily operation, the feature allows defining when a user will be notified of each alert, offering a hierarchy-based notification system. **The 1st tier** will be notified first, generally aimed at the maintenance team, as they are the first to respond and attend to climate malfunctions. In the case that an alert is not resolved in X amount of time, the system will escalate the alert to the **2nd tier**, generally aimed at a Supervisor team, followed by the **3rd tier**, generally aimed at the management team.

- The user can subscribe to be notified of only one, a few, or all the alerts.
- The user can subscribe to different tiers per type of alert.
- The number of the tier will determine when the user will be notified.

Housekeeping Routing

Manage and optimize the Housekeeping process with Airkind's new app. Customized to your property specifications by extracting information from the PMS system, considering the building layout, occupancy, and department goals.

The feature includes two separate applications to accommodate the different roles, The [Supervisors](#) and the [Housekeepers & Inspectors](#).

The [supervisor](#) application provides real-time information about the current building cleaning status. The Supervisor is able to manage floor schemas and assignment of the rooms to the team while monitoring their time and efforts.

The [Housekeeper & Inspector](#) application allocates rooms to be cleaned and reviewed, with a customized checklist feature that makes cleaning easier and communicating information clearer.

The “next room” is assigned automatically according to the cleaning rank of the rooms. This rank is calculated automatically based on the room cleaning state, the occupancy of the room, and the physical distance to the last-cleaned room.

PMS integration

The feature allows communication with third-party Property Management systems, receiving information about the room statuses, and switching the room settings, according to the room statuses and seasonal settings.

The climate control system modifies the operation of the room according to the building occupancy, focusing on 2 scenarios:

Room is checked in - The climate system activates the “prep mode”, to ensure comfortable room temp for the new guest. The end-user has full climate control until he is checked out.

Room is checked out/ vacant - The climate system will turn the AC OFF, with a motion detection-based program.

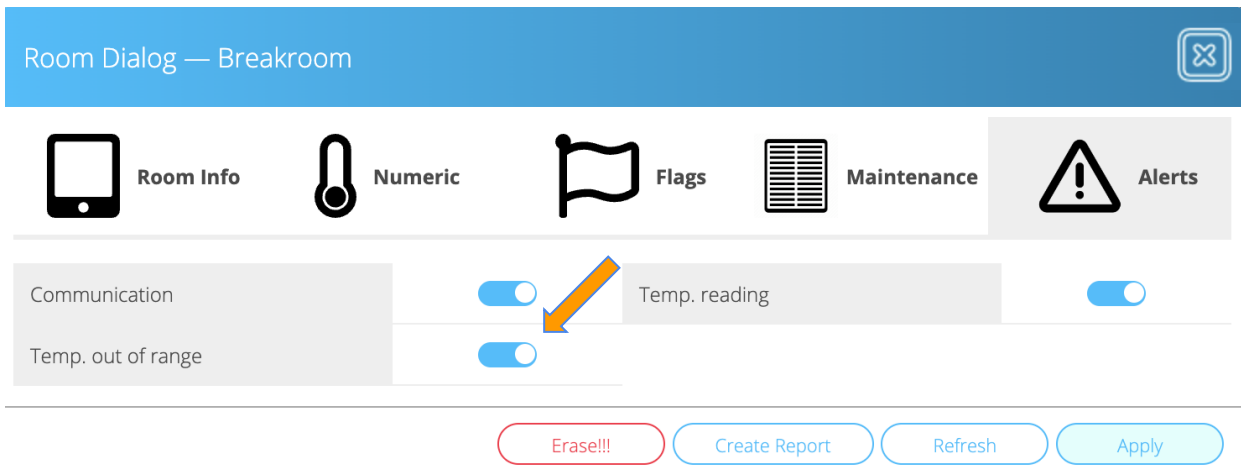
Room is manually not integrated with the Airkind control

Out-of-temp range alert

In certain institutions such as nursing homes or hotels, a push alert is required for the user to receive a timely notification in case the temperature in the room(s) goes beyond the pre-defined limit. Excessively high or low temperatures can threaten tenants' health or cause damage to the building infrastructure such as plumbing.

This feature automatically notifies the user via e-mail when the temperature in any room, at any time, crosses the upper limit or when the temperature drops below the lower limit.

[Email alert:](#) the flag is enabled in the room dialog alert section as a default.



Temp ranges: Per customer request

- Min: X F and Lower
- Max: X F and higher

Notifications are scheduled to be sent every hour the email includes list of all rooms out of temp range., the timing can be changed via the backend parameter - ROOM_TEMP_ALERT_MAIL_DELAY_MIN

First, click on the advanced management tab on the server

Second, Locate Edit server parameters on the lower right-hand side, and enter the parameter you would like to change

Server parameters

PMS Integration : Disabled



Edit PMS configuration

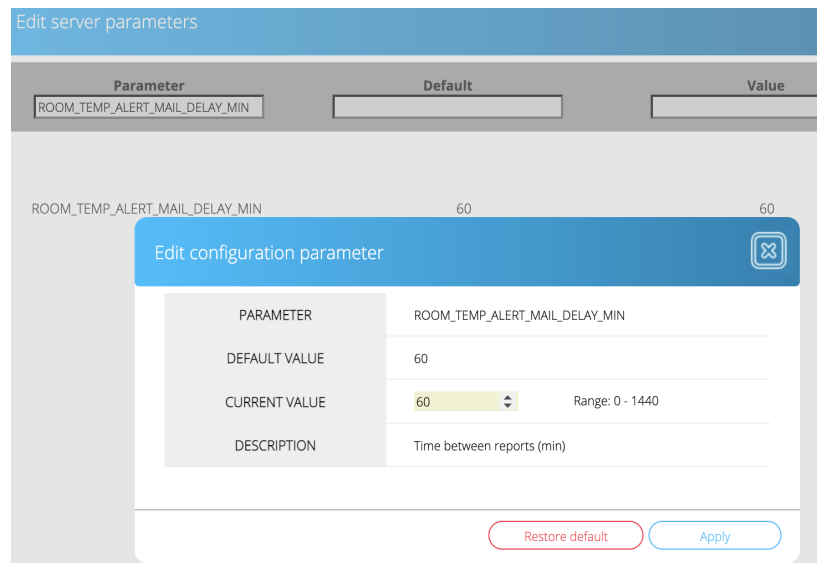
EDIT SERVER PARAMETERS

Alert settings

Manage users

Manage companies

After selecting Edit Server Parameters choose desired time



Parameter	Default	Value
ROOM_TEMP_ALERT_MAIL_DELAY_MIN	60	60

Edit configuration parameter

PARAMETER	ROOM_TEMP_ALERT_MAIL_DELAY_MIN
DEFAULT VALUE	60
CURRENT VALUE	60 <small>Range: 0 - 1440</small>
DESCRIPTION	Time between reports (min)

[Restore default](#) [Apply](#)

Alert Recipient:

- The username must be "admin" or "super".
- The username must be in small letters.
- The email address associated with the user must be relevant to the customer.

User: daniel

USER PROFILE	E-MAIL	LANGUAGE
<input type="text" value="daniel"/>	<input type="text" value="danielh@setpoint.ai"/>	<input checked="" type="radio"/> English <input type="radio"/> Hebrew
FIRST NAME	LAST NAME	REGIONAL SETTINGS
<input type="text"/>	<input type="text"/>	<input checked="" type="radio"/> Celsius <input type="radio"/> Fahrenheit
ROLE	PASSWORD	COMPANY
Admin	<input type="text"/>	No company
		FLOORS:
		All

New server parameters added to the backend (Advanced management page):

- ROOM_TEMP_ALERT_ENABLE

Default value - > **False - Feature disabled**

Edit server parameters

Parameter	Default	Value
ROOM_TEMP_ALERT_ENABLE	false	false

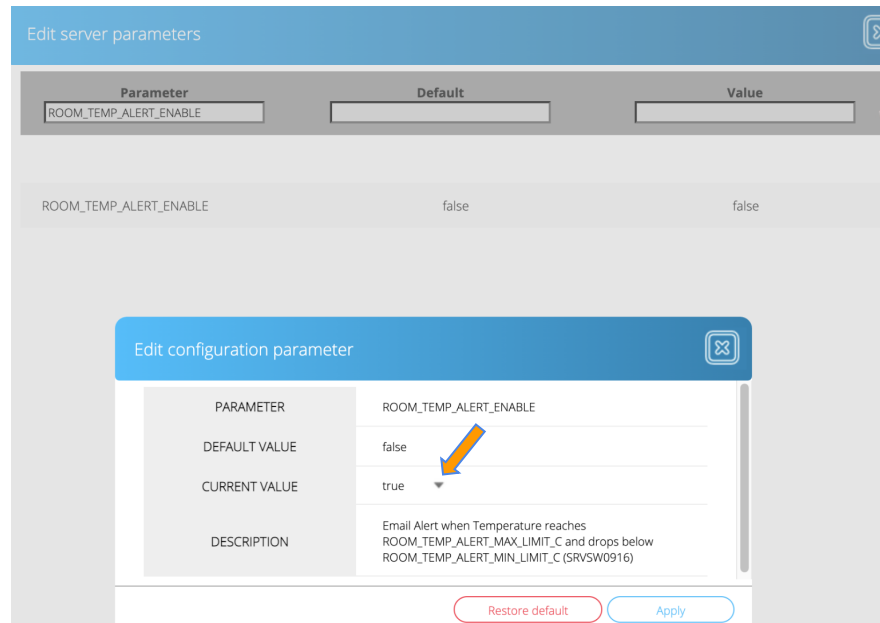
Edit configuration parameter

PARAMETER	ROOM_TEMP_ALERT_ENABLE
DEFAULT VALUE	false
CURRENT VALUE	false
DESCRIPTION	Email Alert when Temperature reaches ROOM_TEMP_ALERT_MAX_LIMIT_C and drops below ROOM_TEMP_ALERT_MIN_LIMIT_C (SRVSW0916)

Default

- ROOM_TEMP_ALERT_MAX_LIMIT_C = 27 C = 81 F
- ROOM_TEMP_ALERT_MIN_LIMIT_C = 22 C = 71 F

Manually change value - > **True - Feature enabled**



Changing desired max and min

- Proceed to Edit Server Parameters (shown above)
- Enter the ROOM_TEMP_ALERT_MAX_LIMIT_C or ROOM_TEMP_ALERT_MIN_LIMIT_C parameter, then choose your value

