

PMD100 Personal Monitoring Device

PRODUCT BROCHURE





Letter from Scentroid's CEO

Scentroid's mission is to empower our clients with vast in-depth knowledge, state-of-the-art instruments, and the most extensive customer support. To this end, we strive in every aspect of our operation to put our client first and to use our research expertise to develop the most innovative and effective products and services in the sensory industry. We envision a future where environmental impacts will be easily and accurately measured and mitigated.

Dr. Ardevan Bakhtari
CEO, Scentroid

INTRODUCTION	03
Why Choose the PMD100?	03
PMD100 Overview	04
Specifications	05
Device Features	06
SYSTEM OVERVIEW	07
Personalized and Portable Monitoring	08
Environmental Monitoring	09
SOS Signal Capabilities	10
Fire Reporting Capabilities	11
Fall Detection	12
Logging Events	13
SIMS3 PMD Tracking	14
1 Year Battery Lifespan	15
DATA SERVER & COMMUNICATION PROTOCOL	16
Cloud-Based Hosting	17
INTRODUCING SIMS3	18
SIMS3 Overview	19
Timeline Control & Navigation	20
Identify Unknown Sources	21
Weather & Complaint Forecasting	22
Event & Notification Log	23
Robust User Analytics	24
SUPPORT	25
Training	25
Technical Support	25

Why Choose the PMD100?

The Scentroid PMD100 is the **most powerful personal monitoring device available**. It offers several compelling reasons for personal air quality monitoring, including personalized and portable tracking, enhanced safety features like SOS alerts and built-in alarms, flexibility and customization, and long battery life.

- **Provides real-time ambient air quality readings** and warns the user of hazardous pollutant concentration through the use of an audible, visual, and haptic alarm system
- Variety of **Emergency SOS Alerts** including fire, biological, and generic SOS, all can be activated with the click of a button
- **2-Way communication** between a SIMS3 facility operator and PMD devices, data is sent to SIMS3
- Efficient Tool for real-time ambient air quality analysis, can be used as a portable device or left in a designated location as a stationary monitor (Sentry Mode)
- Contains **built-in location tracking** through the use of a powerful hub-network
- **Event Tracking** can be used to log specific moments in time. Will also notify facility management if a user falls
- With real-time data tailored to individual needs, the PMD100 becomes an indispensable part of daily routines, effortlessly carried wherever one goes.



Please contact us to learn more at
info@scentroid.com OR call us at **+1.416.479.0078**

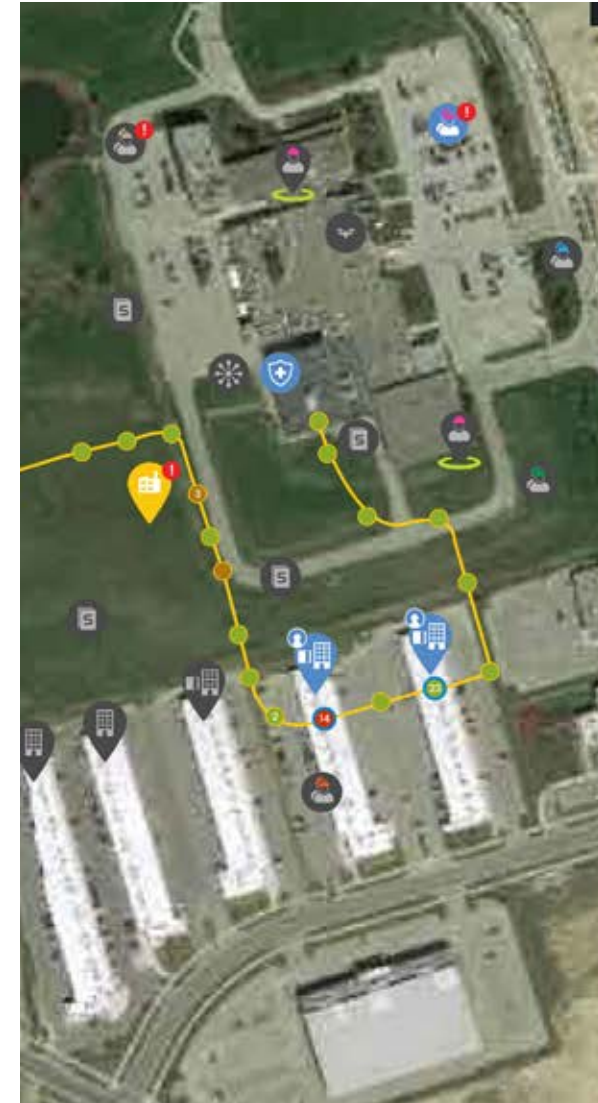
PMD100 Overview

Scentroid's personal monitoring device, the PMD100, introduces an unprecedented combination of **air quality monitoring and safety features**. Never before has a single device seamlessly integrated both aspects, offering a groundbreaking solution for high accuracy environmental monitoring and enhanced safety. With **advanced tracking capabilities**, this innovative device not only monitors air quality, but also serves as a reliable environmental monitor, providing valuable insights into pollution levels in various settings.

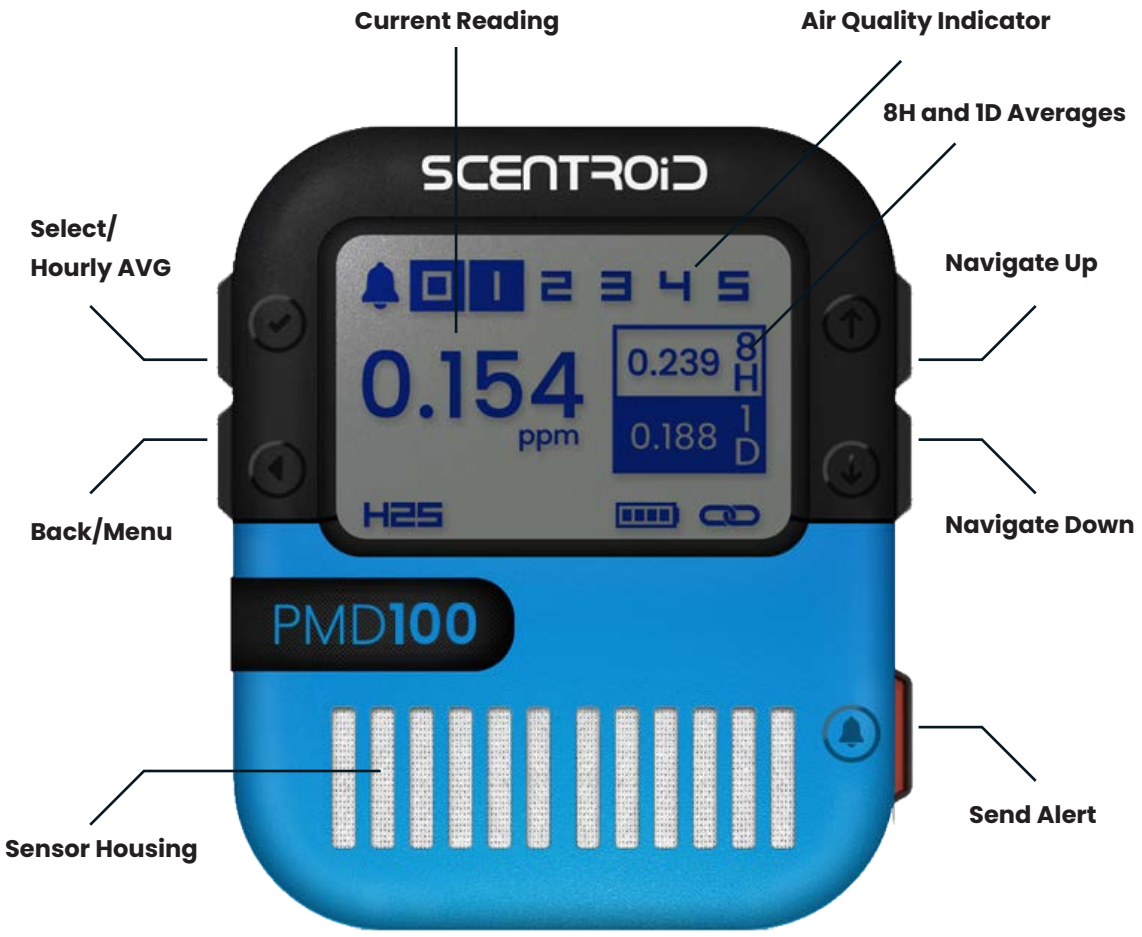
Safety takes precedence with the Scentroid PMD100, as it offers a range of enhanced safety features. **Live location tracking** empowers organizations to monitor employees in real-time, ensuring their well-being in potentially hazardous environments. The device's **fall detection** feature is a game-changer, promptly identifying emergencies and triggering alerts to summon help. Additionally, two-way communication facilitates immediate response and coordination, further strengthening safety protocols and incident management.

When it comes to air quality monitoring, the Scentroid PMD100 excels with its unparalleled precision. Its sensors can **measure air quality at ppb (parts per billion) levels, offering exceptional accuracy** in detecting pollutants. The device's capabilities extend beyond data collection, enabling users to **create detailed heat maps, identify pollution source locations, and gain valuable insights into air quality patterns**, allowing organizations to make quick data-driven decisions.

The Scentroid PMD100 is not just an individual device; it's part of an **integrated solution for comprehensive air quality management**. In conjunction with stationary monitors and indoor air quality monitors, it forms a cohesive network that provides a holistic understanding of air quality across different locations. Additionally, the PMD100 leverages powerful AI Software to process and analyze data, delivering meaningful insights for facility decision makers.



Specifications



Product Name	Scentroid PMD100 Personal Monitoring Device
Maximum # of Sensors	2
Type of Sensors	2x EC, Temperature, Relative Humidity, Ambient Pressure
Weight	< 220 g
Size	6 x 7 x 3 cm
Screen Dimensions	24 x 47 mm
Communication	Bluetooth low energy
Power Requirement	Replaceable Lithium Battery
Typical Lifespan	Up to 1 working year
Cloud Server	SIMS3 - included by default
Alarm Equipped	Audio level 95 dB, Visual: LED RED strip surround
Haptic	Vibration feedback
Temperature Range	-20 °C to 55 °C
Relative Humidity	5 - 95%
Casing	IP54
Sensor Replacement	Sensor dependent - first year covered by warranty
Back Clip	Mountable using mounting bracket/stand, alligator clip to connect to clothing

Equippable Sensors (x2):			
Volatile Organic Compounds	Carbon Monoxide	Hydrogen Sulfide	Formaldehyde
Hydrogen	Oxygen	Nitrogen Dioxide	Sulfur Dioxide
Chlorine	Ozone	Hydrogen Cyanide	Ammonia
Chlorine Dioxide	Arsine	...And more! Plus, All units pre-equipped with Temp, Pressure, and Humidity	



Mobile Ambient Air Quality Monitor

Personal Monitoring	Gas Exceedance Notifications	Perform Environmental Monitoring
View Humidity and Temperature	View Different Averaging Periods	Can be used as a stationary monitor

SOS Send and Receive SOS Signals

Report Facility Fire and Receive Facility Fire Notifications	Report Facility Bio. Alert and Receive Facility Bio. Alert Notifications	Send SOS alert to all local PMD Devices and SIMS3
--	--	---

Event Logging

Detect and Report User Falls	Built-in Event Log	All Events traceable in SIMS3
------------------------------	--------------------	-------------------------------

Device Tracking

Track employee locations	Track Employee Exposure	Find Lost Devices
--------------------------	-------------------------	-------------------

System Notifications

Low & Critical Battery Notifications	Calibration Due Notifications	Local Exceedance Alarms, Lights and Vibrations
--------------------------------------	-------------------------------	--





System Overview

Personalized and Portable Monitoring

This device is designed to fit seamlessly into your daily routine, making air quality monitoring a breeze. **You can clip it onto your clothing, belt, or accessories**, and you're good to go!

But don't let its small size fool you. The powerful **PMD100 is equippable with a selection of extremely accurate sensors that you can customize to meet your specific monitoring needs.** The sensor flexibility empowers you to gather precisely the data you require for your unique environment or industry standards.

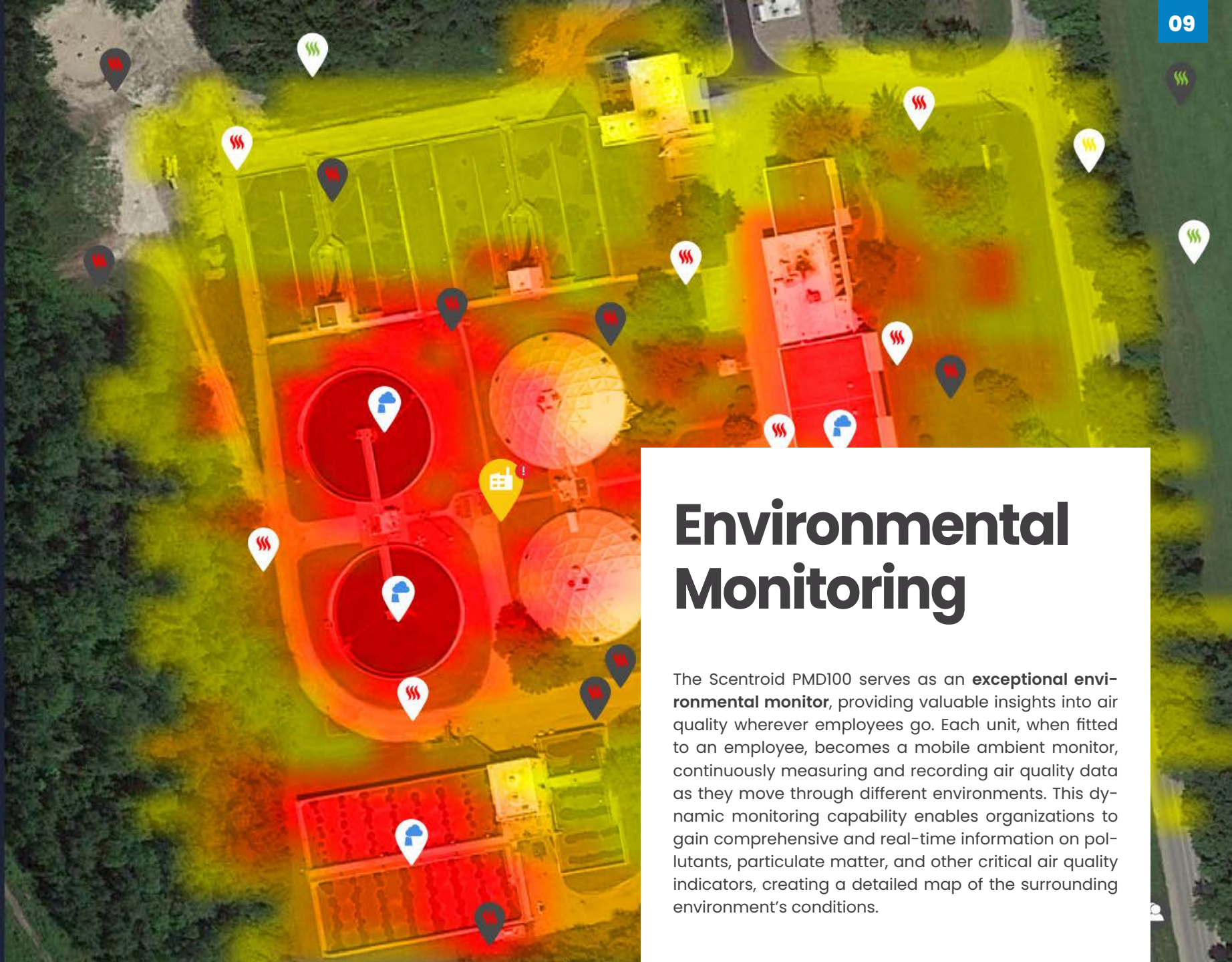


Dust Event Group
 Facility: FacilityName
 Events: 224
 Justified: 24
 Not Justified: 100
 Not Yet Justified: 100



Event Notifications

-  SO2 | 12.24.2021 23:00 - 12.24.2021 23:45
Bad smell, almost musty. Like Matches
-  NO2 | 12.24.2021 22:45 - 12.24.2021 23:34
Noticed reddish-brown stain on tank
-  NO2 | 12.24.2021 22:35 - 12.24.2021 22:45
Bad coughing fit, air felt heavy
-  SO2 | 12.24.2021 21:45 - 12.24.2021 23:34
Trouble Breathing, odour was very heavy
-  System | 12.24.2021 21:24 - 12.24.2021 21:24
NO2 levels moderate
-  SO2 | 12.24.2021 18:40 - 12.24.2021 18:50
Recieved complaint
-  NO2 | 12.24.2021 17:45 - 12.24.2021 19:20
Recieved complaint
-  SO2 | 12.24.2021 15:30 - 12.24.2021 15:30
Smelled bad on roadway this morning
-  NO2 | 12.24.2021 15:28 - 12.24.2021 17:30
Itchy eyes
-  System | 12.24.2021 15:20 - 12.24.2021 16:34
NO2 Levels High
-  SO2 | 12.24.2021 15:20 - 12.24.2021 15:55
Recieved complaint of poor smells from 6th...
-  NO2 | 12.24.2021 15:15 - 12.24.2021 15:30
Received complaint from Edrick
-  NO2 | 12.24.2021 13:45 - 12.24.2021 16:34
Acrid, ammonia-like odor near tank 5
-  System | 12.24.2021 13:45 - 12.24.2021 16:20
SO2 levels high
-  System | 12.24.2021 12:45 - 12.24.2021 12:50
NO2 Levels moderate
-  NO2 | 12.24.2021 11:30 - 12.24.2021 12:50
Smelled a bit like cleaning products?
-  SO2 | 12.24.2021 11:20 - 12.24.2021 12:25
Hard to breathe due to smell
-  NO2 | 12.24.2021 10:20 - 12.24.2021 14:34
Smell lingering in wind
-  NO2 | 12.24.2021 09:45 - 12.24.2021 9:45
Windy day today, ammonia smell in air
-  SO2 | 12.24.2021 8:50 - 12.24.2021 12:00



Environmental Monitoring

The Scentroid PMD100 serves as an **exceptional environmental monitor**, providing valuable insights into air quality wherever employees go. Each unit, when fitted to an employee, becomes a mobile ambient monitor, continuously measuring and recording air quality data as they move through different environments. This dynamic monitoring capability enables organizations to gain comprehensive and real-time information on pollutants, particulate matter, and other critical air quality indicators, creating a detailed map of the surrounding environment's conditions.

PMD100 Stouffville
 PMD100 Group
 Sub Groups: 6
 Devices: 14
 Currently Active: 10
 New Notifications: 35



Active Groups

- Name: Main Group
Active Devices: 2
Total Devices: 8
- Name: Management
Active Devices: 4
Total Devices: 4
- Name: South Perimeter
Active Devices: 2
Total Devices: 4
- Name: East Plant
Active Devices: 1
Total Devices: 4
- Name: Weekend Group
Active Devices: 0
Total Devices: 10

PMD Network Messaging Center

Enter Text

PMD Warning | 12.24.2023 13:45 SOS
Sent out warning for SOS

PMD Warning | 12.24.2023 12:45
Sent out warning for HIGH READING

PMD Warning | 12.24.2023 12:45
Sent out warning for HIGH READING

PMD Warning | 12.24.2023 12:45
Sent out warning for HIGH READING

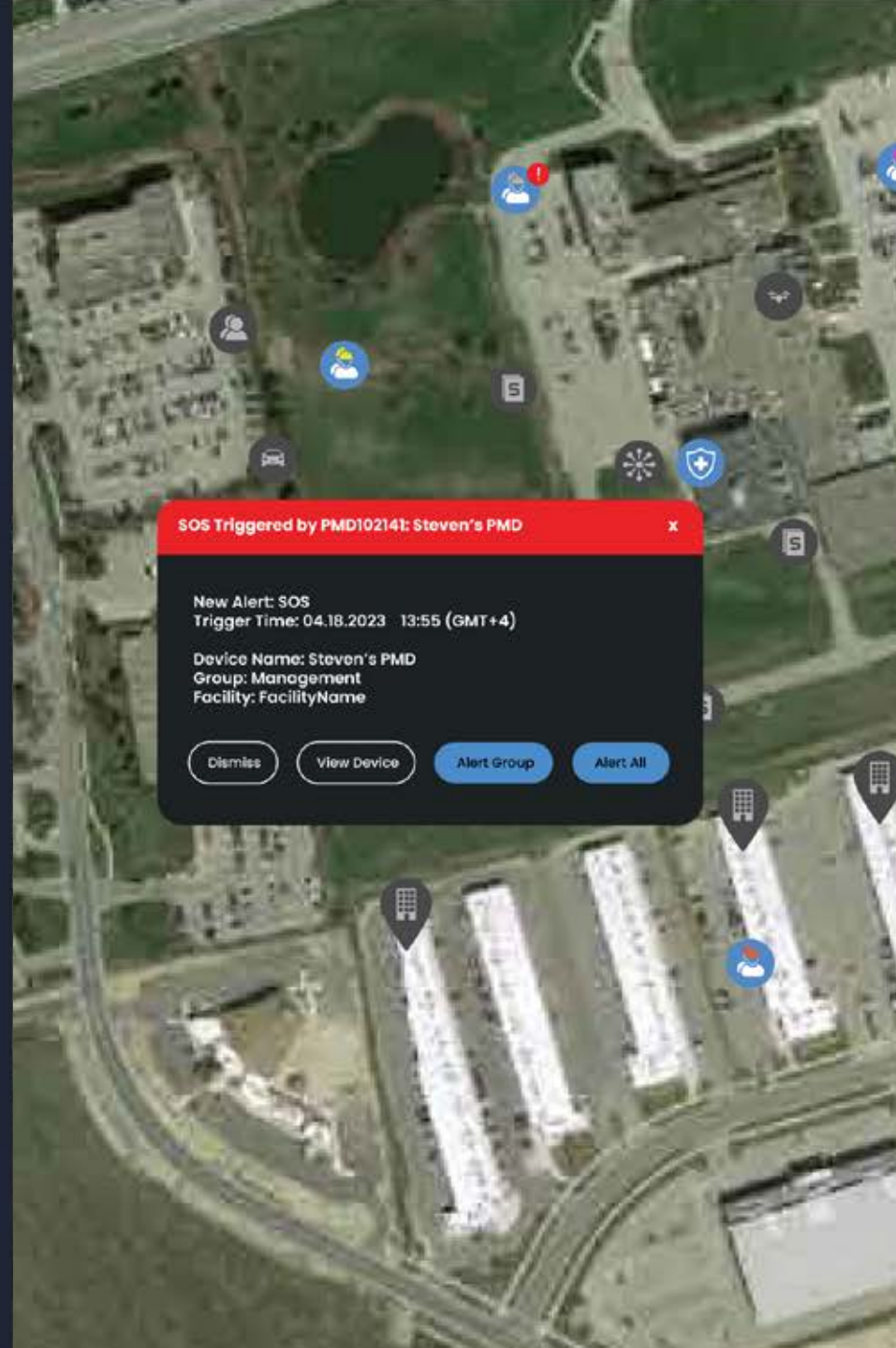
View Event Notifications

Headache | 12.24.2021 13:45 - 12.24.2021 16:34
staff member on 6th floor felt dizziness and...

Odour | 12.24.2021 13:45 - 12.24.2021 16:34
Received complaint of foul odour from 6th f...

Exceedance | 12.24.2021 13:45 - 12.24.2021 16:34
Very high H2S Exceedance recorded at 13:45...

Back



User Triggered SOS

The PMD100's emergency signal system provides users with **swift and reliable means of calling for help when facing critical situations**. In moments of distress or danger, users can activate the SOS signal on the PMD100, initiating an urgent alert broadcasted immediately to nearby PMD devices within the network range. This local alert system ensures that **nearby colleagues or personnel are promptly notified** of the emergency, enabling them to respond and provide assistance promptly.

Should recorded ambient air quality measurements exceed pre-set alarm threshold values, the **PMD100 will automatically alert the user and facility management**.

However, the SOS notification options do not end there. The PMD100 features advanced connectivity, allowing SOS alerts to seamlessly transfer to the cloud-based SIMS3 platform. This integration enables emergency notifications to reach designated responders and safety personnel, even if there are no nearby PMD devices. **This cloud-based transfer ensures that crucial SOS signals are seen, enhancing the device's emergency response capabilities.**

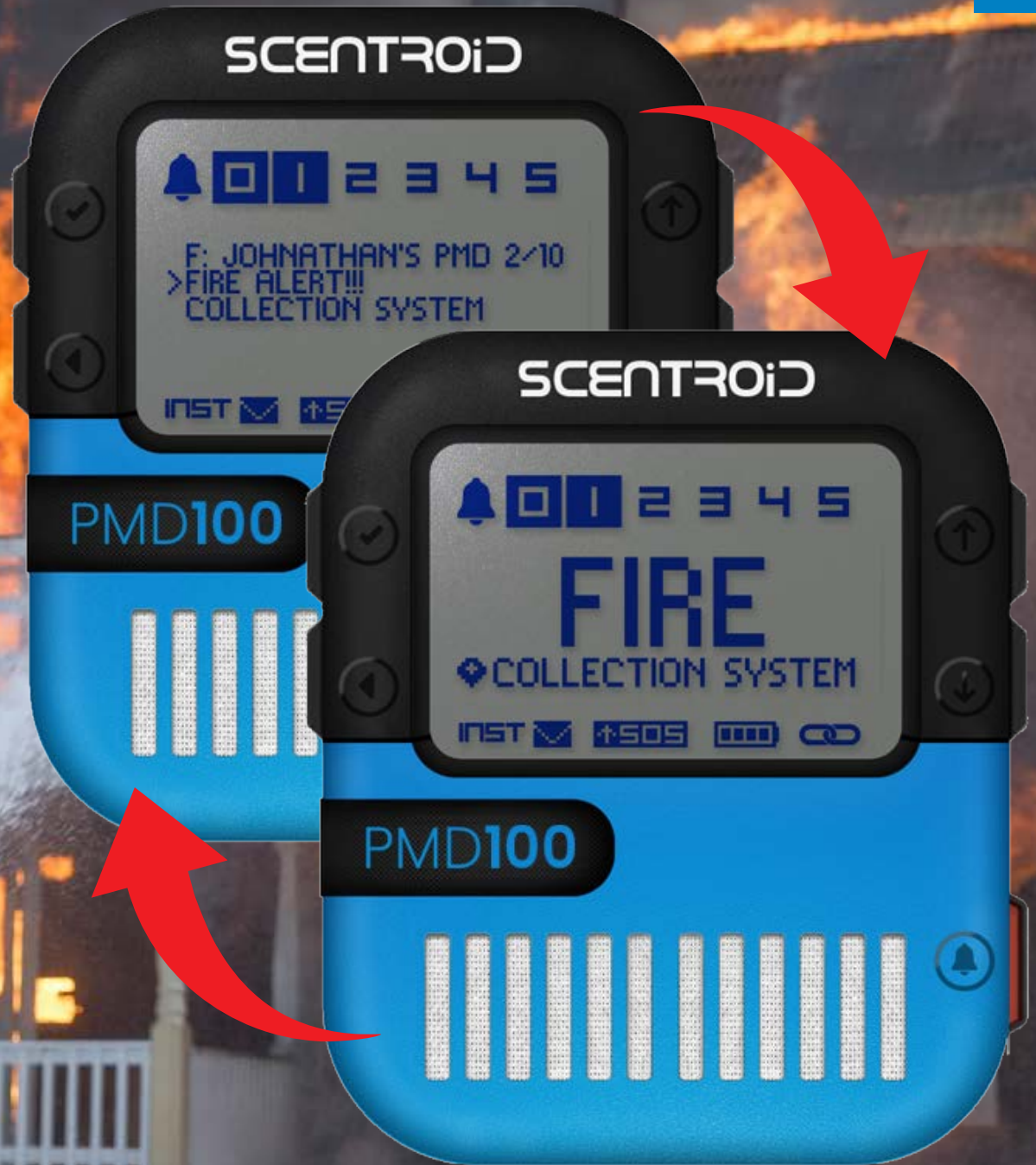
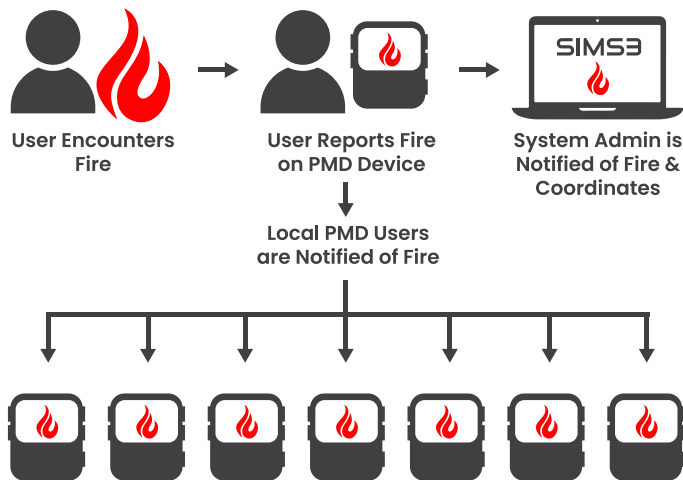
To further enhance the effectiveness of the SOS signal, the **PMD100 is equipped with audible and visible alarm systems, as well as a vibration system**. When the SOS signal is activated, the device emits a loud and distinct audible alarm, catching the attention of anyone nearby. Additionally, a visible flashing light alarm ensures the SOS alert is noticeable even in challenging lighting conditions. Furthermore, the vibration system provides haptic feedback, should the user not hear/see the audible and visual alarm.

Fire Reporting Capabilities

Users can trigger a "Fire" alert in two simple ways: either by holding the alert and back buttons simultaneously for 3 seconds or by holding the alert button to initiate a basic alert and then selecting the "Fire" alarm type by pressing up/down or select.

As soon as the alert is activated, the device records the location of the incident, ensuring accurate tracking and response coordination. A full-screen warning of the fire alert takes precedence on the device's display until the user cancels it. To signal the outgoing SOS alert, an icon appears on the screen, ensuring that emergency responders are promptly notified.

Emergency notifications are also sent to central command (SIMS3) to be processed and investigated.

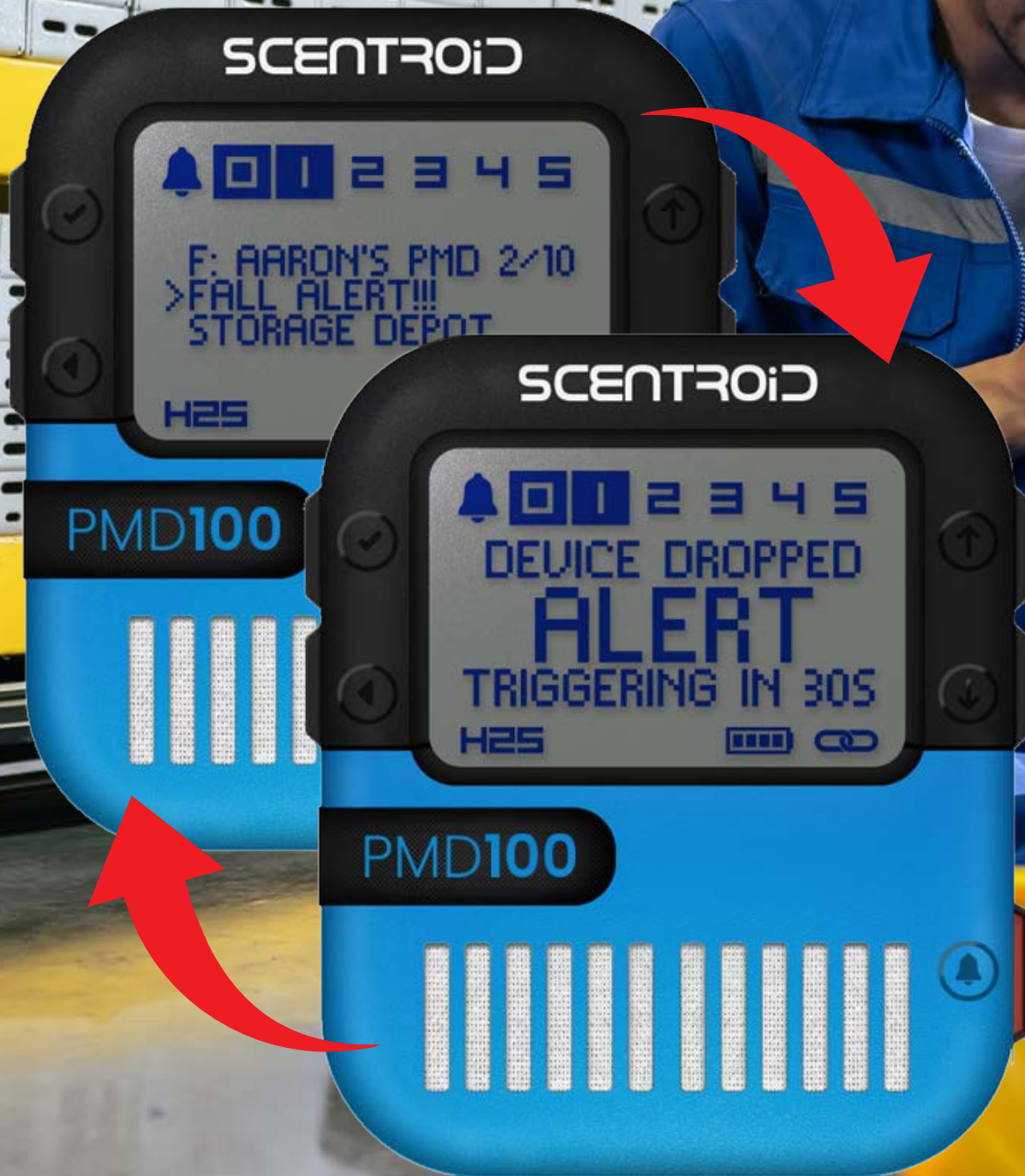


Fall Detection

The fall detection system **promptly identifies and responds to situations where an employee becomes incapacitated** due to a fall or other medical emergencies. By utilizing advanced motion sensors and algorithms, the PMD100 accurately detects sudden changes in movement patterns indicative of a fall.

When a fall is detected, the PMD100 triggers an **automatic alert**, notifying nearby personnel or designated responders. These alerts are **sent directly to the cloud-based SIMS3 platform**, ensuring that real-time information reaches the appropriate individuals responsible for managing safety incidents. The SIMS3 platform plays a pivotal role in centralizing and processing data from multiple PMD100 devices, facilitating efficient and seamless communication between the device and personnel.

Fall detection technology is especially crucial in industrial or work environments with potentially hazardous air quality, where accidents can happen unexpectedly, and immediate assistance is vital. In such settings, rapid response times can make a significant difference in preventing further injuries and mitigating the severity of accidents.



Logging Events

Users can create bookmarks of any location and its corresponding readings by accessing the menu and selecting "create event." The device records the location, ensuring accurate data association. Once the event is logged, users receive a confirmation notification, and the new event data is seamlessly uploaded to the cloud-based SIMS3 platform.

This streamlined event logging feature not only enables users to keep track of significant locations and readings but also ensures that data is readily available on the SIMS3 platform for comprehensive environmental monitoring and analysis.



• Steven's PMD

PMD100 Group
Subgroup: Management
Lost: 14.3.2023 18:23
Currently Active: 10
New Notifications: 35



Current Sensor Data

Sensor: H2S - LC

0.942 ppm



Sensor: CO2

101.931 ppb



Connected Hub as of 12.23.2024 7:23



Name: Hub 02
Connected Units: 7



Name: Hub 02
Connected Units: 7



Steven's PMD Messaging Center

Enter Text



PMD Warning | 12.24.2023 13:45
Sent out warning for HIGH READING

PMD Warning | 12.24.2023 12:45
Sent out warning for HIGH READING

PMD Warning | 12.24.2023 12:45
Sent out warning for HIGH READING

PMD Warning | 12.24.2023 12:45
Sent out warning for HIGH READING

View Event Notifications

Headache | 12.24.2021 13:45 - 12.24.2021 16:34
staff member on 6th floor felt dizziness and...

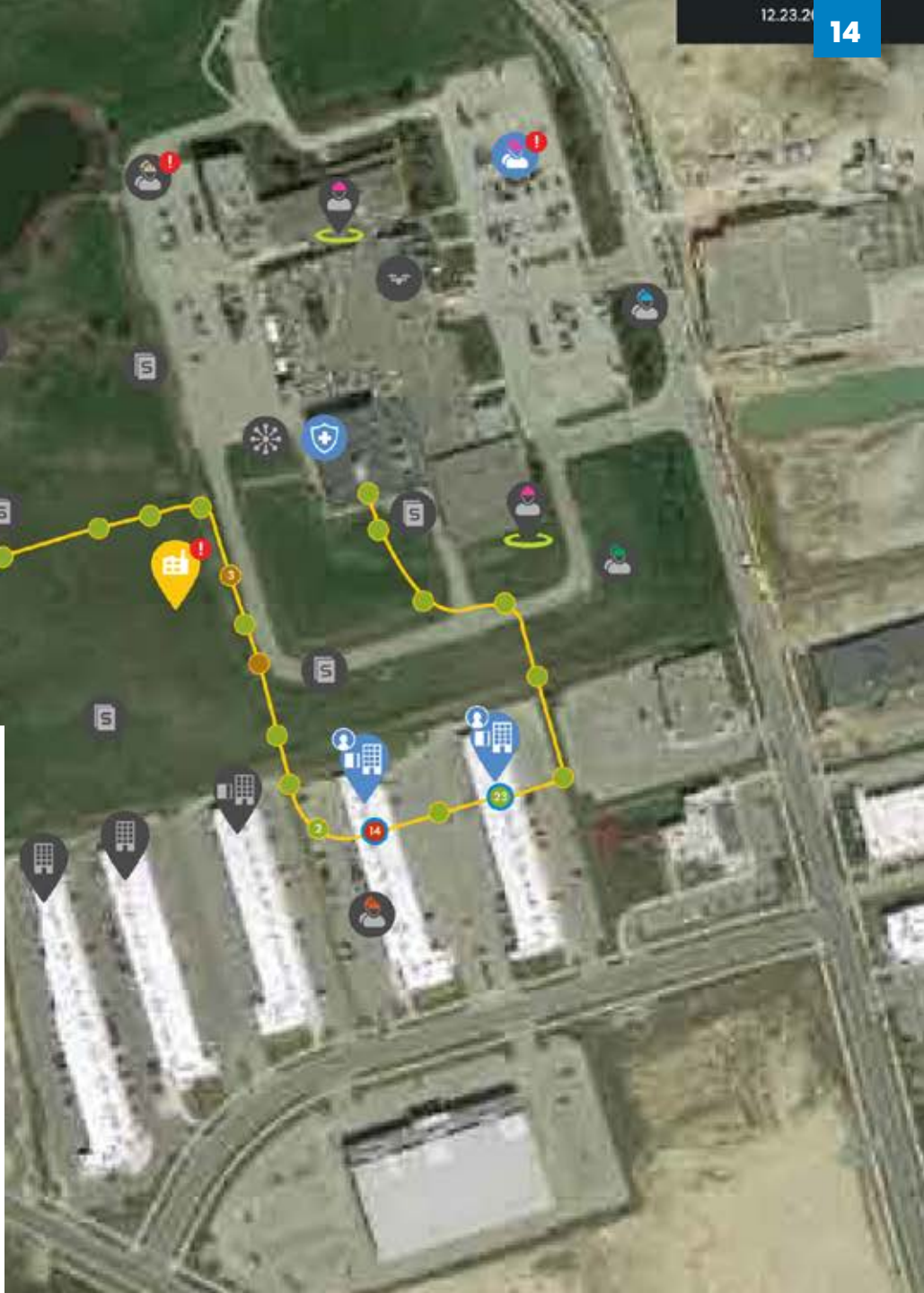
Odour | 12.24.2021 13:45 - 12.24.2021 16:34
Received complaint of foul odour from 6th f...

Exceedance | 12.24.2021 13:45 - 12.24.2021 16:34
Very high H2S Exceedance recorded at 13:45...

Back

SIMS3 PMD Unit Tracking

PMD Tracking in SIMS3 allows facility managers to **track employee trips and mobile analyzer data**. Through clicking on mapped 'nodes', users will see direct sensor statistics for that instance, along with images taken by the device camera. An AQS or Air Quality Score indicates the current air quality for that moment of time, and a reference card displaying all related event notifications.



1 Year Battery Lifespan

The Scentroid PMD100 boasts an impressive **battery lifespan**, ensuring up to **1 year of long-lasting and reliable performance**. With the PMD100's extended battery lifespan, users can confidently rely on continuous air quality monitoring for extended periods without interruption.

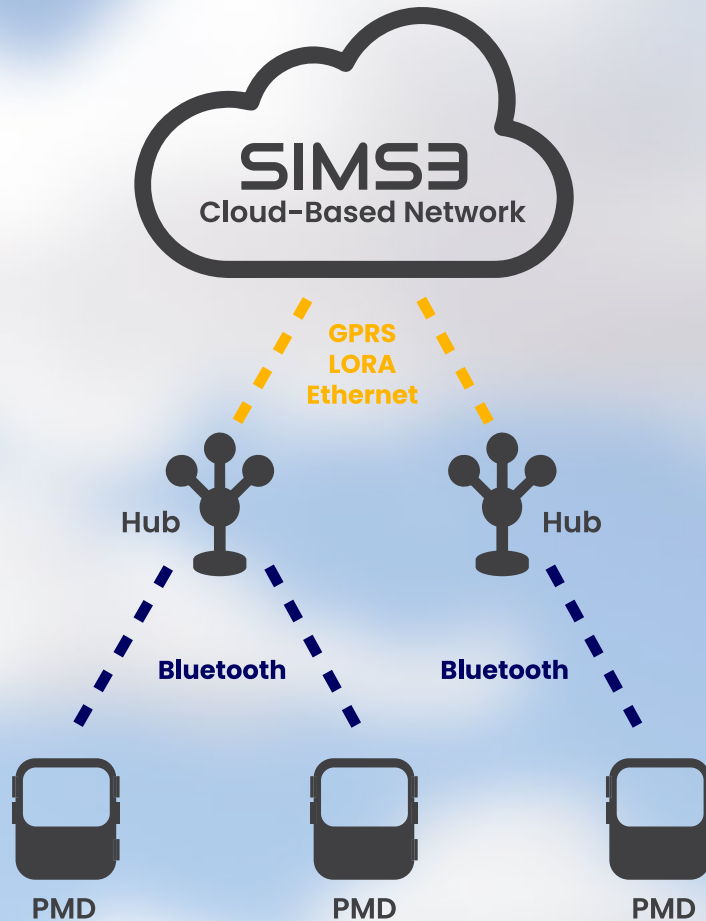




Data Server & Communication Protocol

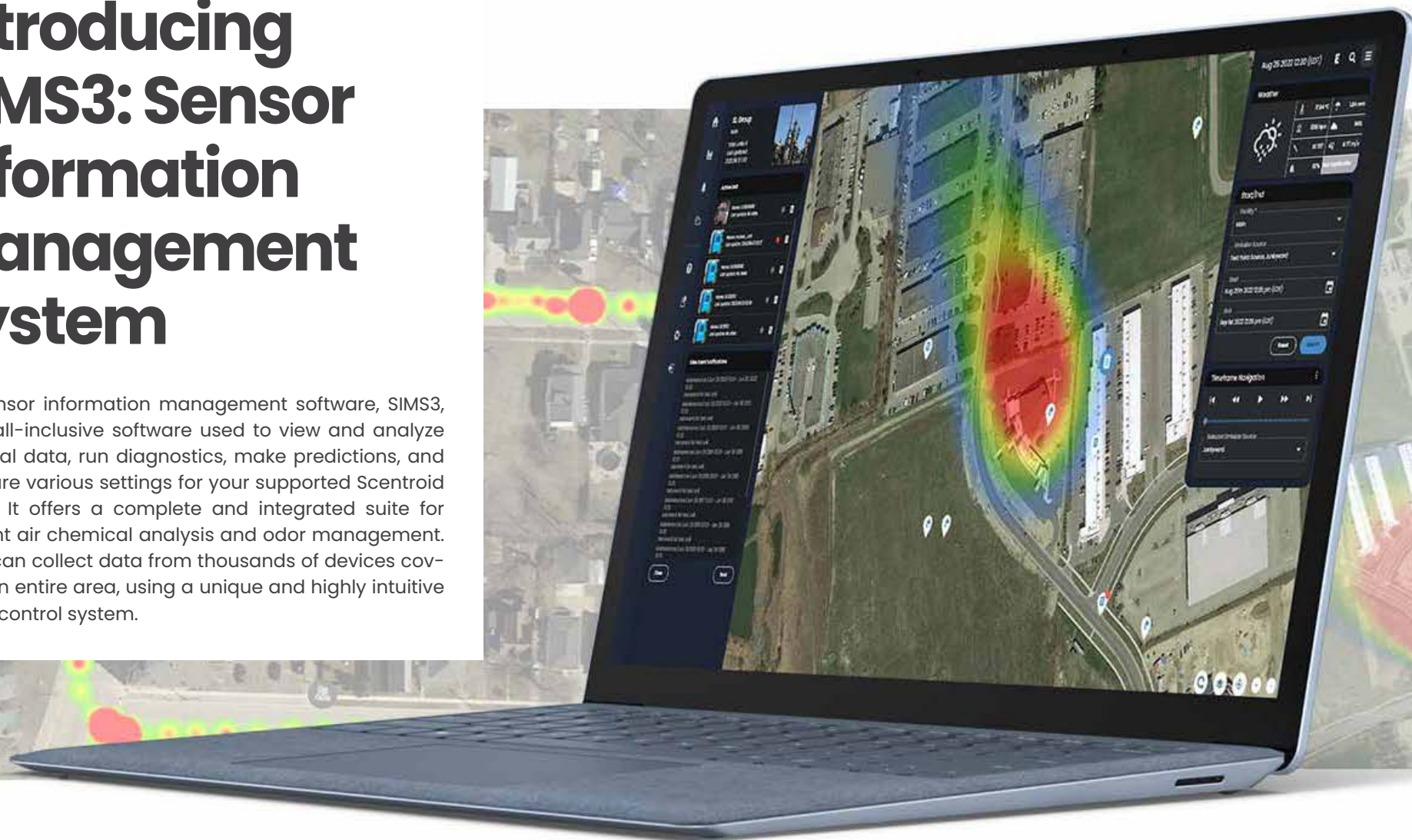
Cloud Based Hosting

The Scentroid PMD100 integrates seamlessly with the cloud-based SIMS3 platform, offering a cutting-edge solution for streamlined air quality management. This integration enables efficient data transmission, allowing each device to engage in two-way communication with SIMS3. Notably, facility managers assume a pivotal role in operating SIMS3, leveraging its capabilities to access real-time data, track device locations, and receive alerts. This cohesive synergy between the PMD100 and SIMS3 empowers organizations to proactively manage air quality conditions, make informed decisions, and ensure the well-being of individuals in various environments.



Introducing SIMS3: Sensor Information Management System

The sensor information management software, SIMS3, is our all-inclusive software used to view and analyze historical data, run diagnostics, make predictions, and configure various settings for your supported Scentroid device. It offers a complete and integrated suite for ambient air chemical analysis and odor management. SIMS3 can collect data from thousands of devices covering an entire area, using a unique and highly intuitive facility control system.





Facility Organization

All facilities are separately organized so that the users of each will only see data from their own units. Regulators will have an overall view of all facilities within their monitoring scope.

SIMS3 AI

SIMS3 AI utilizes both continuous pollution monitoring and live weather data to calculate a real-time odor plume model, displaying an exact location and spread of odor emissions.

Complaint Designation

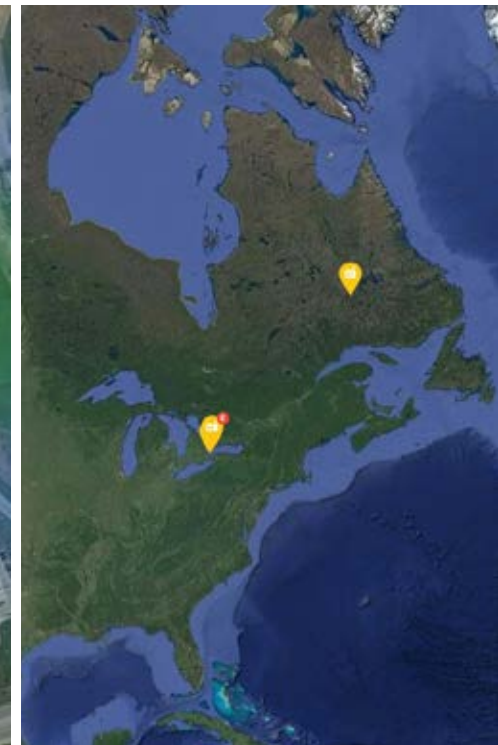
Nearby complaints are automatically assigned to facilities, and even sources within facilities, so that the system provides a perfect blend of real-time odor impact estimation, with the registration and further management of odor complaints from neighboring residents.

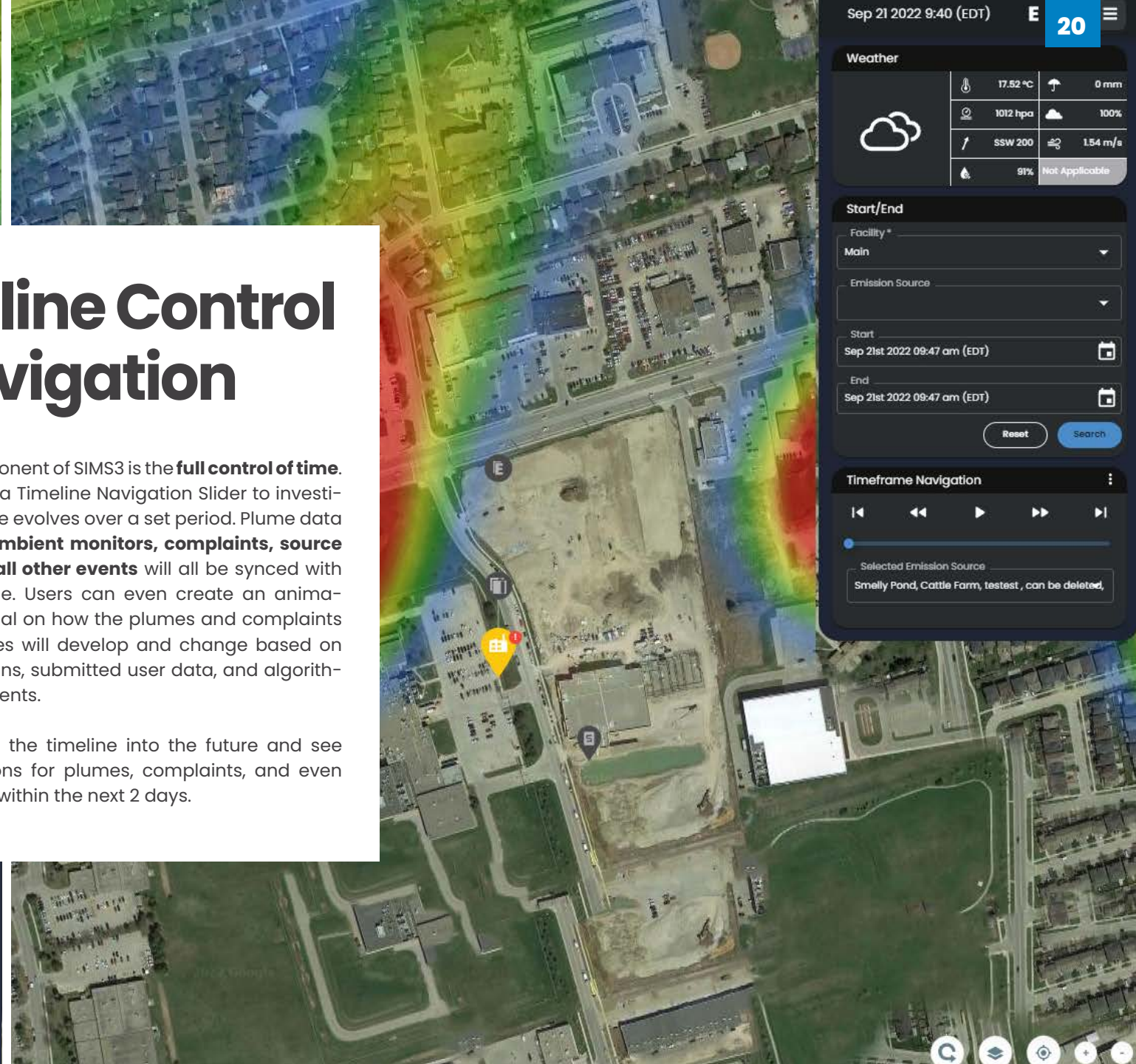
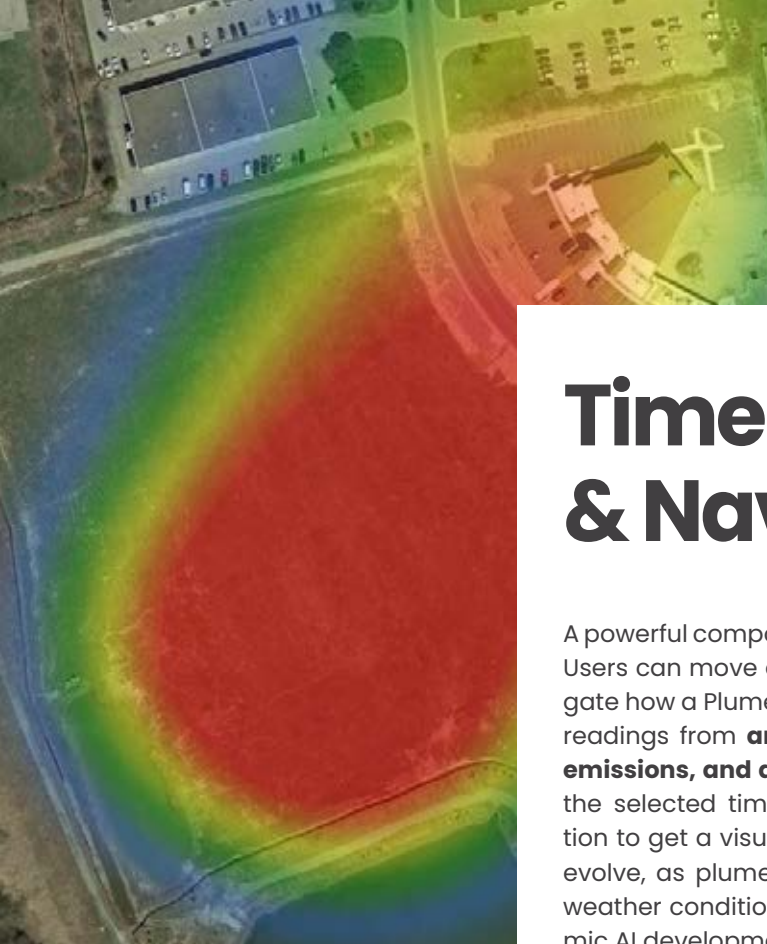
Modules

The map module itself displays a wealth of information including locations of your air quality monitoring devices, their live sensor readings, the location of sensitive receptors, odor complaint locations, and their justification status. The map module is complemented by a diverse series of user analytics to assist you with determining a wealth of parameters with the click of a button!

User Settings

The system is further supported by a robust settings component, allowing the quick change of user permissions, access privileges, notifications settings and more, all in one convenient window!





Timeline Control & Navigation

A powerful component of SIMS3 is the **full control of time**. Users can move a Timeline Navigation Slider to investigate how a Plume evolves over a set period. Plume data readings from **ambient monitors, complaints, source emissions, and all other events** will all be synced with the selected time. Users can even create an animation to get a visual on how the plumes and complaints evolve, as plumes will develop and change based on weather conditions, submitted user data, and algorithmic AI developments.

Users can move the timeline into the future and see SIMS3's predictions for plumes, complaints, and even sensor readings within the next 2 days.

Sep 21 2022 9:40 (EDT) E 20

Weather

	17.52 °C		0 mm
	1012 hpa		100%
	SSW 200		1.54 m/s
	91%	Not Applicable	

Start/End

Facility *
Main

Emission Source

Start
Sep 21st 2022 09:47 am (EDT)

End
Sep 21st 2022 09:47 am (EDT)

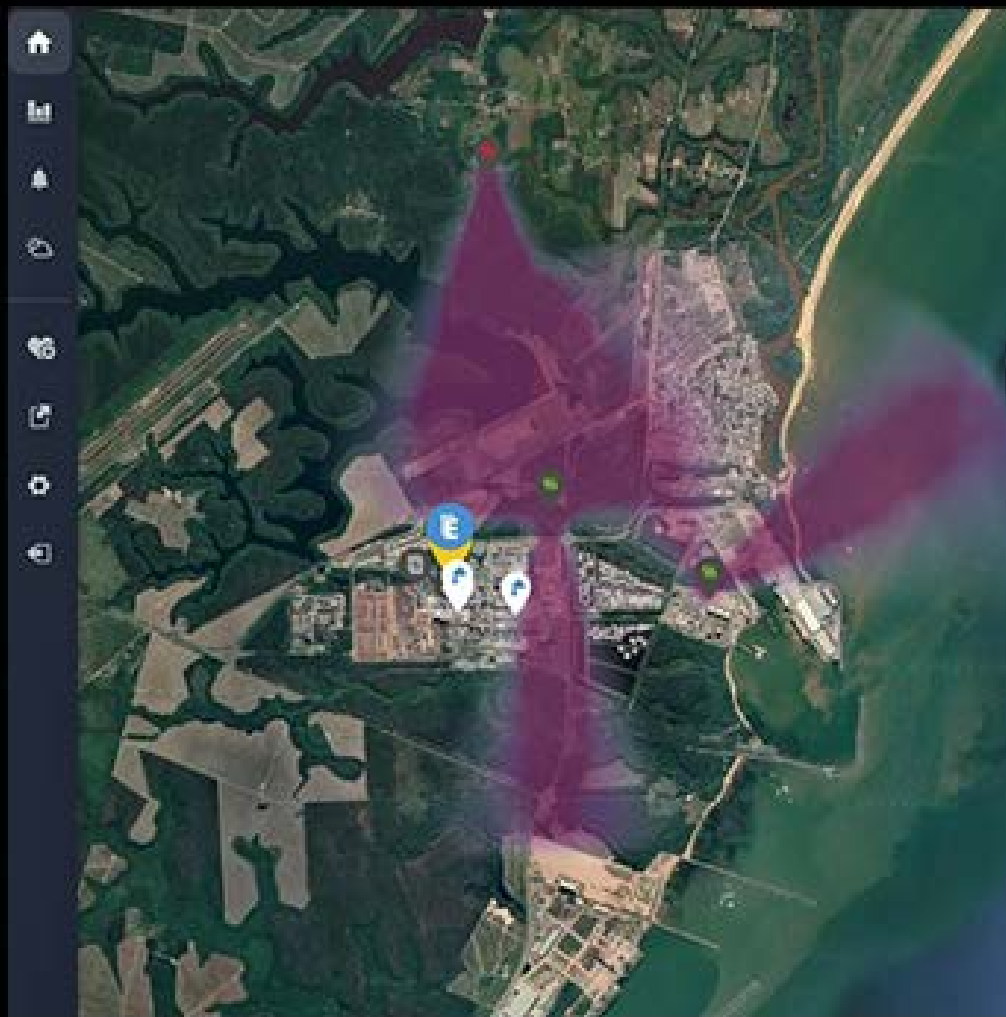
Reset Search

Timeframe Navigation

Selected Emission Source
Smelly Pond, Cattle Farm, testest , can be deleted,

Timeframe Navigation

Selected Emission Source
Cattle Farm



Identify Unknown Sources

If you are trying to determine the location of potentially unknown sources, SIMS3 offers a triangulation mode and identifier to assist you with pinpointing unknown sources.

SIMS3 is capable of updating of the estimated emission rate of all known sources based on real ground-level odor and air pollution measurements. Once an odor source has been tagged and monitored, SIMS3 will begin to compare estimated odor levels from dispersion modeling to the actual measurements collected with odor monitoring equipment. The AI will adjust and update its emission rates to compensate.

Ground level readings are then used by SIMS3 to conduct back-trajectory to identify unknown sources. Continuous pollution data and field olfactometric data are used along with meteorological data to triangulate the exact location of an odor source.



Weather & Complaint Forecasting

The **built-in weather forecasting module** allows the user to see any future weather events, determine complaint risk probability, view temperature, and more. **Complaint risks are displayed underneath each individual forecast**, whether daily or hourly, to assess the potential of receiving an odor complaint at that time, or for that date. Clicking on any date within the forecasted period will let the user **generate a plume** based on changing weather patterns, along with a complaint risk probability rating.



- Odor: 35
- OCU Maint.: 19
- Sludge Delivery: 15
- Settling Tank Mnt.: 17
- Mister 1: 8
- Mister 2: 4

46

New Events

23

29

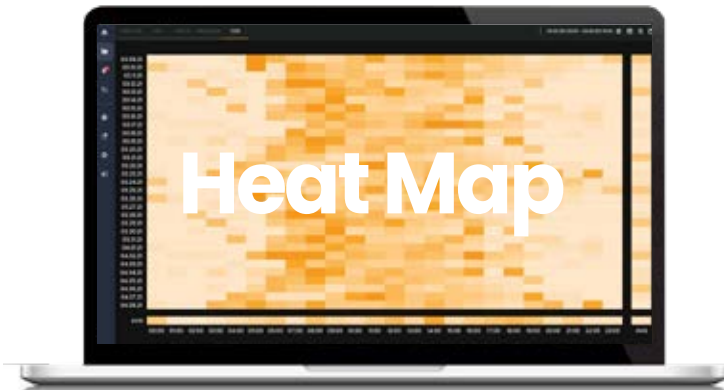
Events

Event & Notification Log

The SIMS3 **Event Log** contains event data, time frame, justification, occurrences, intensity, and a brief description. At a glance, users can determine the **most logged event types**, determine the weekly **frequency of logged events**, and track the **most active day, most active time**, and **total events registered**. A series of filters allows users to quickly find a specific event, notification, event type, new or read status, event time, justification status, occurrences, intensity, and more.

Our **notification center** allows you to quickly view your instrument's alarms through a clean and organized interface. Here, you can access your device, look up a specific sensor, display all of your established alarms, and obtain a detailed breakdown of your alarm status.

Event Notification List									
Status	Type	Registrant	Event Time	Justification	Correlation	Description	Occurrences	Intensity	mark
New	Odour	SR: Stanley Homes	2022.06.14 7:30 - 14:25	Manual Not Justified	View Correlation	Stanley Homes re sensitive recept	1	5	<input checked="" type="checkbox"/>
New	Alarm: H2S	System	2022.06.16 14:05 - 15:30	Manual justified	None	Exceedance alarm consecutively wi	1	N/A	<input checked="" type="checkbox"/>
New	OCU Maint.	Benjamin	2022.06.16 15:00 - 17:00	Auto Justified	View Correlation	Scheduled main	1	N/A	<input checked="" type="checkbox"/>
New	OCU Maint.	Benjamin	2022.06.17 5:00 - 7:30	Auto Justified	View Correlation	Emergency main	1	N/A	<input checked="" type="checkbox"/>
New	Sludge Del...	Benjamin	2022.06.18 18:30 - 20:30	Auto Justified	View Correlation	Scheduled proce	1	N/A	<input checked="" type="checkbox"/>
New	Settling Ta...	Benjamin	2022.06.21 8:45 - 11:00	Auto Justified	View Correlation	Scheduled weekly maintenanc	1	N/A	<input checked="" type="checkbox"/>
New	Odour	SR: Stanley Homes	2022.06.21 9:30 - 14:25	Manual not yet justified	View Correlation	Stanley homes filed a complaint, recorded immediately.	1	4	<input checked="" type="checkbox"/>
Read	Odour	EXT: Leslie	2022.06.21 9:40 - 17:00	Auto Justified	View Correlation	HI It smell bad outside today very hot day pls remove smell thank you	1	7	<input checked="" type="checkbox"/>
Read	Odour	EXT: Paolo	2022.06.21 10:20 - 13:20	Auto Justified	View Correlation	Automatically provided by: Neighborhood Odor Watch App	1	4	<input checked="" type="checkbox"/>



For more details on our SIMS3 platform, please see our [SIMS3 Brochure](http://www.Scentroid.com) available at www.Scentroid.com

Robust User Analytics

The **SIMS3 analytics module** provides you with the tools you need to make informed decisions regarding your monitoring projects. This module allows you to view data in several formats including **temporal view, statistical view, AQI Analysis view, and heat map**. Take your analytic capabilities even further by analyzing your **recorded events, event types, and overall event activity**.

Training

Scentroid provides worldwide training programs for our clients and distributors. Training can be conducted by Scentroid or your local distributor. Scentroid training tools include: online training, videos, brochure, operation manual and on-site workshops. We also offer a hands-on training program using our high-tech simulation room. Scentroid's state of the art simulation room is located at our headquarters in Toronto, Canada. You are more than welcome to visit us and meet with the people behind these products



Technical Support

We are responsible for any products that exit from our manufacturing warehouse! Our support team offers different ways to help you. Choose the one most convenient for you below!



Local Support

We have developed a vast growing network of distributors and repair facilities. To find your local support please check our distributors map.



Phone Support

Our highly professional customer services are here to serve you, for any technical issue reach them easily via phone: 416.479.0078 – Ext 210



SME Support

Connecting you to the Subject Matter Experts! Our customer support is unique in that you can talk directly to the designer or programmer of each product.



Live Chat

If you feel more convenient to solve your technical issue via chat, No problem! Reach our highly professional customer services through our website-hosted Live Chat.



Email Support

For any technical issue you our engineers are happy to assist via email. For fast and efficient support, simply email our team at support@scentroid.com

LET'S
BUILD OUR
NETWORK

[linkedin.com/company/
scentroid](https://linkedin.com/company/scentroid)



DO YOU
FOLLOW
US YET?

[@Scentroid](https://twitter.com/Scentroid)



GET THE
FULL
PICTURE

[@Scentroid](https://www.instagram.com/Scentroid)



LIKE
SHARE
COMMENT

facebook.com/scentroid



WATCH
FOLLOW
SUBSCRIBE

youtube.com/scentroid



SCENTROID
Future of Sensory Technology

Scentroid (Division of IDES Canada Inc.)

70 Innovator Avenue, Units #6-8 | Toronto, ON, L4A 0Y2

T: 416. 479.0078 or 1.888.988.IDES (4337)

info@scentroid.com | www.scentroid.com