OGTECH

Oil & Gas Technologies

GasViewer   FlamViewer   OilViewer

OilViewer
Monitoring Software

Oil&Gas Technologies   www.og-tech.fr

Presentation

OG-Tech was established in 2011 in Aix-en-Provence, South of France, to serve customers of the Petroleum, Petrochemical and Power industries in France (Total, Petro Ineos, Lyondel Basel, Kem one, Elengy…).

OG-Tech first specialized in portable IR cameras for Gas detection (OGI cameras), under our brand GasViewer.
Then, we expanded our range of product with fixed OGI cameras showing the gas cloud and its flow rate in real time, in your control room.
And later, we added flames detection and hot spot monitoring, as well as flare monitoring to our portfolio, under our brand FlamViewer.

Today, we supply portable cameras as well as gas leaks/flames monitoring full turnkey fixed solutions.
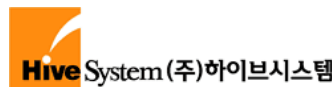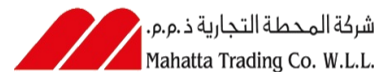
Paris

Oil & Gas Technologies
GasViewer
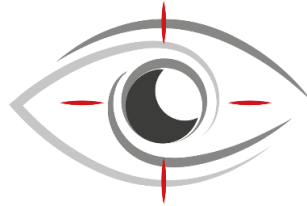Aix en Provence – France -

Some of our references

OG Tech products range

GV-P-3234 Gen3 - VOC
GV-P-4547 – CO/CO2

GV-P-714
NH3 + SF6 + cooling gases

Gas Viewer

Optical Gas Imaging
Cameras
(portable and fixed)

GV-F-3234 - VOC
*GV-F-714 – Some VOC + NH3 + SF6
Fixed cameras

GV-Q-3234
Quantification
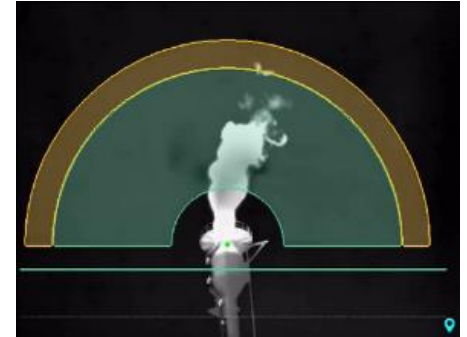software for
portable or
fixed camera

OG Tech products range

Hot spot & Flame detection
(including H2, methanol
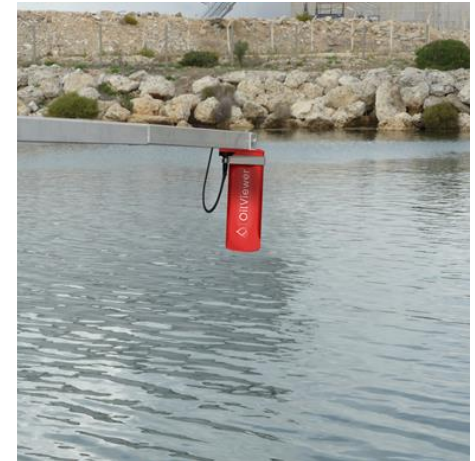and sulfur)

FlamViewer
Flames detection

Flare Monitoring
solution

Light and
heavy oil
touchless
detection
on water
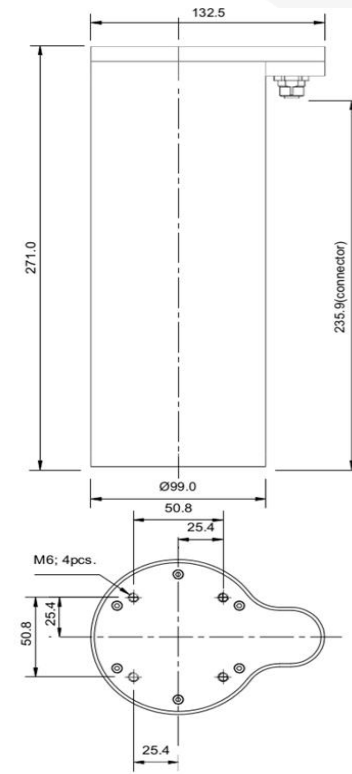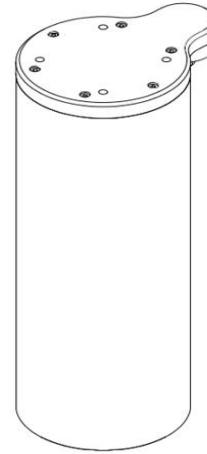

OilViewer
Oil on water detection

01
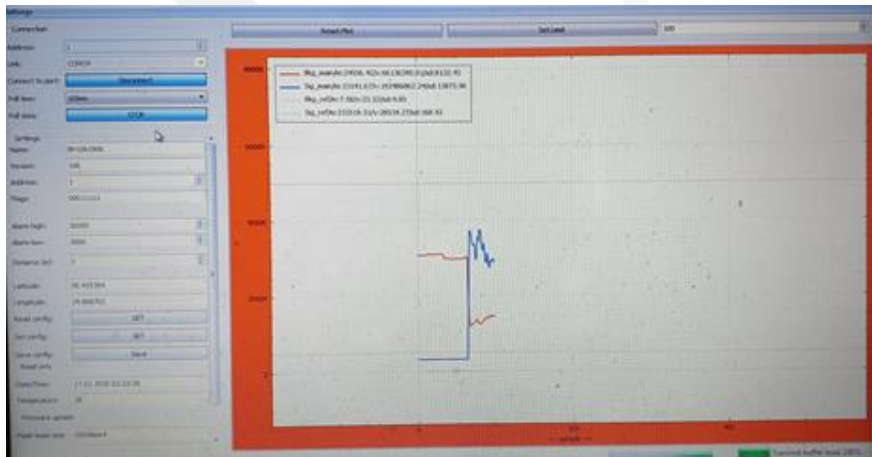
OILVIEWER
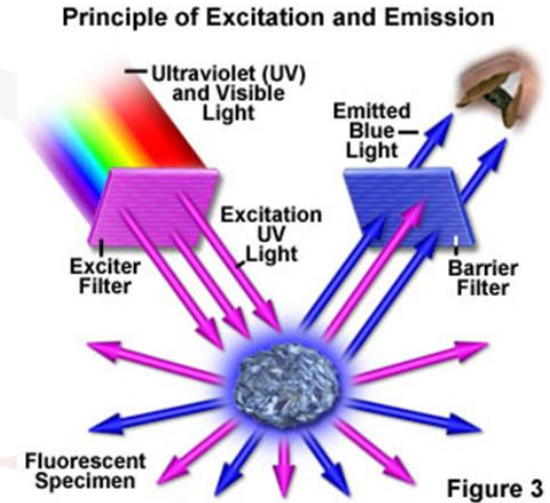

OilViewer
Presentation

1-A - Location mapping

OilViewer, touchless oil detection on water

1-B – How it works

Our OilViewer technology is based on Ultra-Violet Light Emitting Diode (UV LED).
The UV light excites the oil molecules electrons which drop from an upper stage to a lower stage liberating a photon. Our OilViewer detects this photon as fluorescence.

**Principle of Excitation and Emission**

Figure 3

Through a user-friendly set up software, we determine the range of thresholds (max and min) in which the alarm has to be triggered thus making our OilViewer insensitive to any other substances in water except oil products and reducing false alarms.

1-C – Detection distances
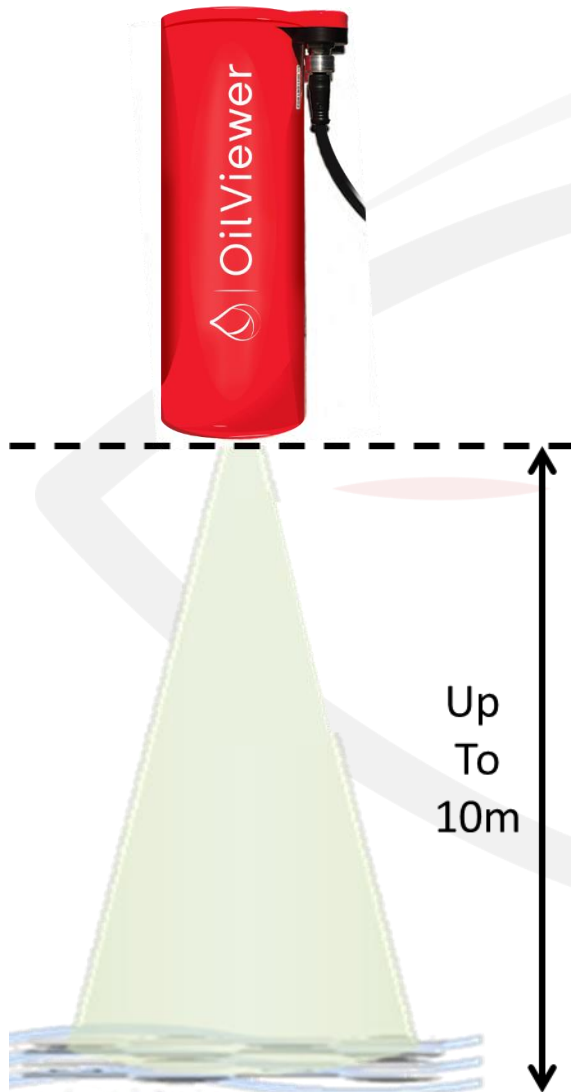
This technology allows us to detect oil film with minimum thickness from 1 to 10*m (depending on the type of oil product) from a distance up to 10m (recommended distance being 3m).


Up To 10m
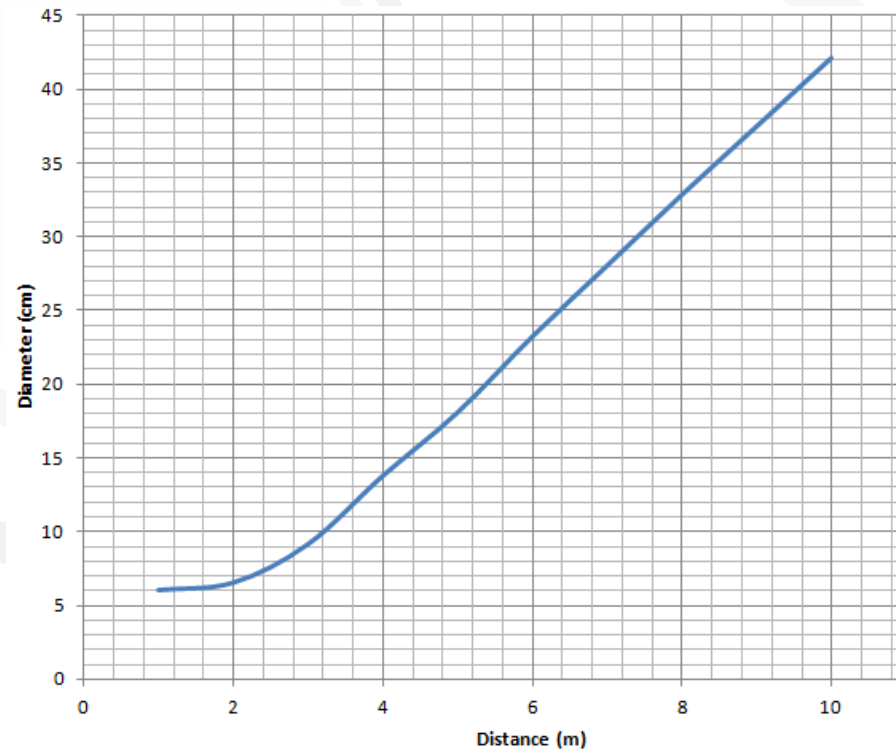
1-D – Technical data

- 2 differents units, depending on the product you need to detect :
  - *UV-A, with UV lamp emitting at 365 nm*
    To detect crude oil, fuel oil, motor oil, turbine oil, hydraulic oil….
  - *UV-B with UV lamp emitting at 280 nm*
    To detect benzene, kerozene, light diesel, gasoline, jet fuel and other very light refined products

- 2 outputs possible :
  - 4-20 mA
  - Dry contact (normally open or normally closed, as per your request)

- Sampling rate : 100 Hz

- ATEX enclosure

- UV lamp lifetime: 5 years, with control of aging life of light source (to avoid false alarm when lamp strats to deteriorate)

1-D – Technical data

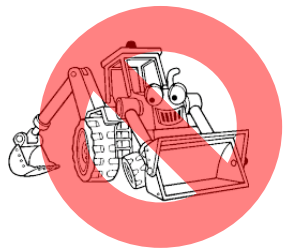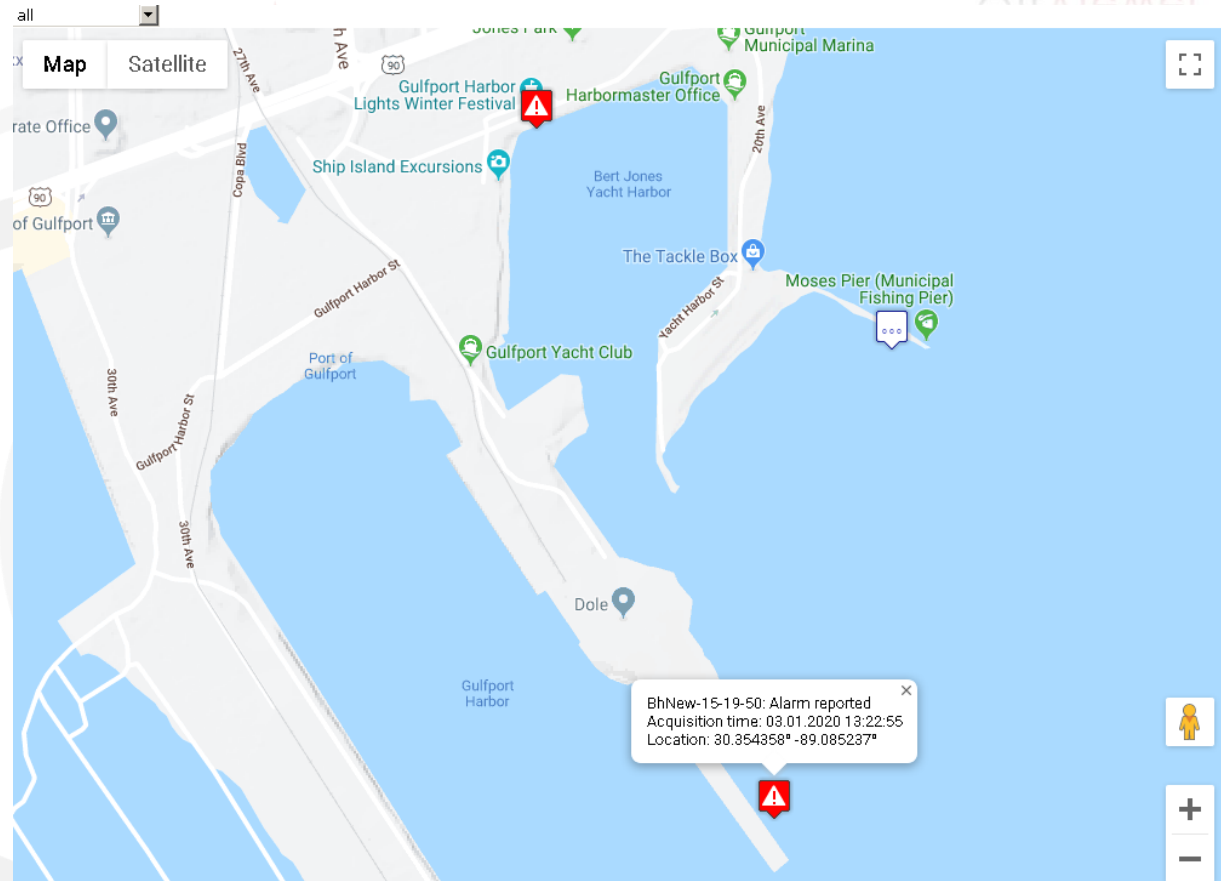- Adjustment of alarm triggering delay to reduce false alarm
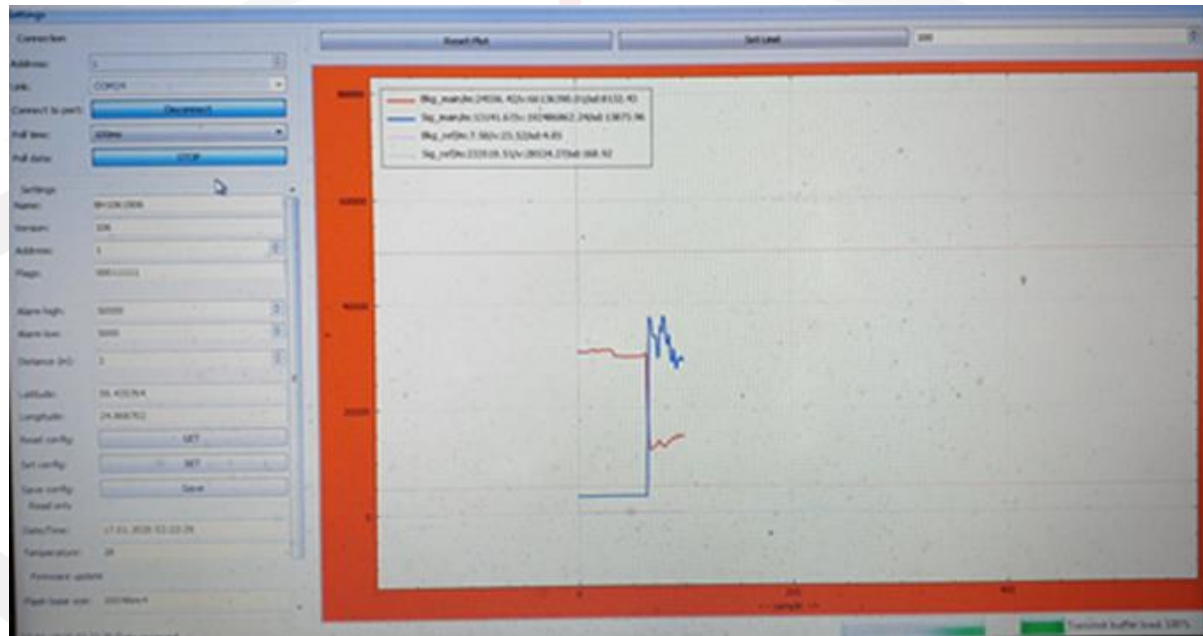
- Low power consumption : 5W

- At 3 meters, variation of distance, between detector and water surface, of up to 20 % will not affect the detector readings, thus avoiding false alarm in case of moderate waves

1-E – Full turnkey solution

In addition to supplying the bare units, we can provide a full solution showing each detector location on a google map.

In case of alarm, the detector status switches from green to red (as shown on screenshot).

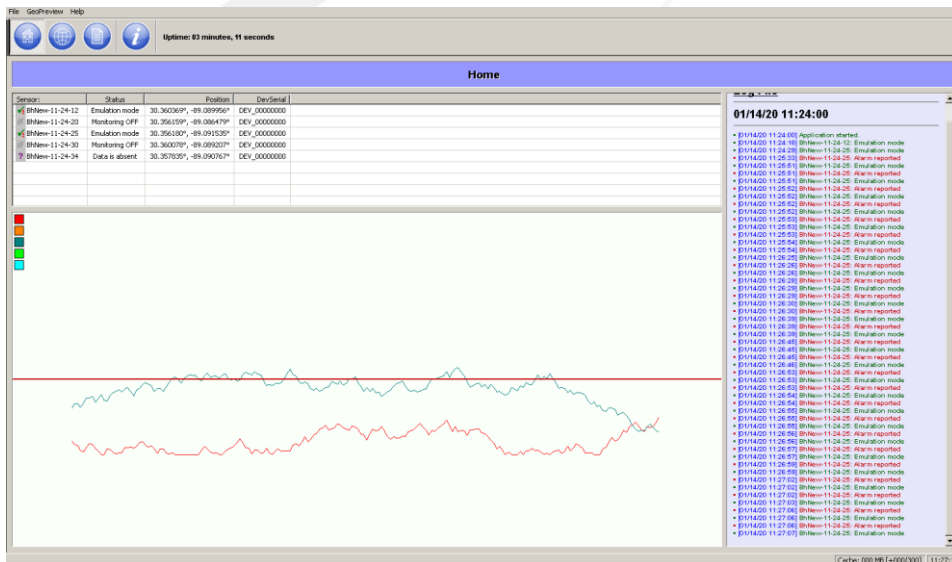Clicking on the detector will open additional information.

BhNew-15-19-50: Alarm reported
Acquisition time: 03.01.2020 13:22:55
Location: 30.354358° -89.085237°

And, to avoid additional cost of digging tranches and pulling cables from the units to the control room, we can provide a wireless solution.

1-F – Data logger

In addition, our monitoring software allows you to keep track of every detector connected and to store a log of passed alarms

02

OILVIEWER

OilViewer

OilViewer
Monitoring Software

2-A – MOMS main window

In order to monitor multiple OilViewers and locate more precisely the origin of an alarm, we propose our Multiple OilViewers Monitoring Software (MOMS).
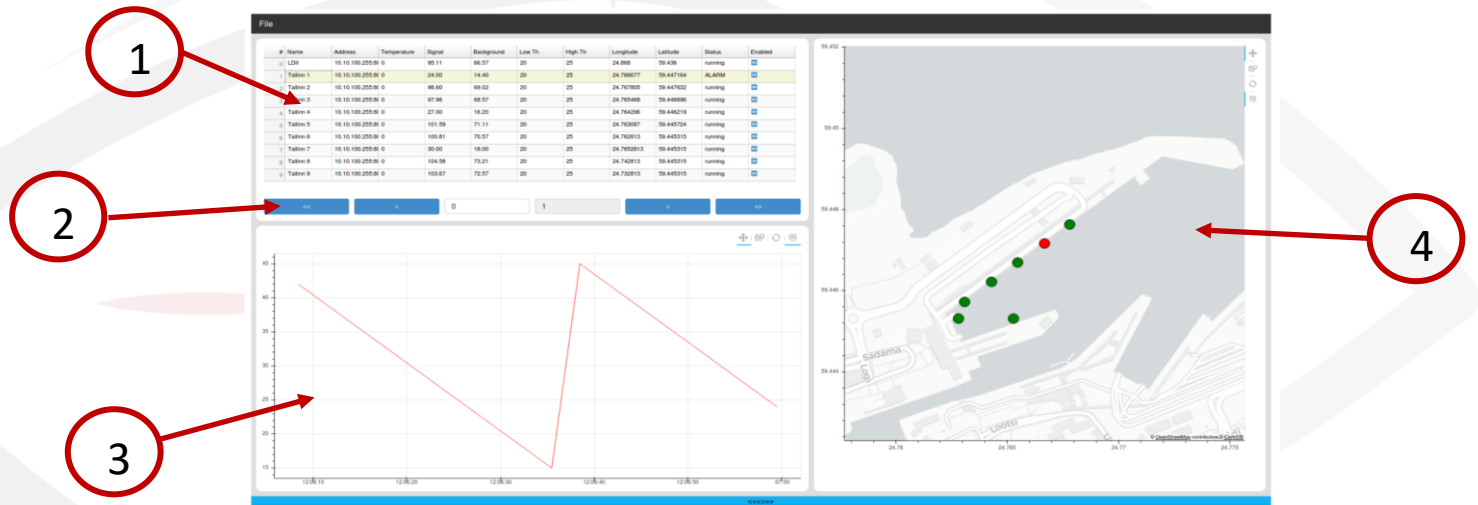
1 - Devices table – shows the list of devices connected to our software and display their parameters

2 - Table controls – to navigate through the list of devices

3 - Signal chart – when a device is selected in the devices table, chart is populated with signal information, over time, from this device

4 - Location map – when a device is selected in the devices table, the map is zoomed onto selected device location, and provides information in pop-up window, if mouse is hovered over the device

15

2-B – Devices table

| #	Address	Temperature	Signal	Background	Low Th	High Th	Longitude	Latitude	Status	Enabled
0	10.10.100.255:8{	0	95.11	66.57	20	25	24.868	59.436	running	OK
1	10.10.100.255:8{	0	24.00	14.40	20	25	24.766677	59.447164	ALARM	OK
2	10.10.100.255:8{	0	98.60	69.02	20	25	24.767805	59.447632	running	OK
3	10.10.100.255:8{	0	97.96	68.57	20	25	24.765468	59.446696	running	OK
4	10.10.100.255:8{	0	27.00	16.20	20	25	24.764296	59.446219	running	OK
5	10.10.100.255:8{	0	101.59	71.11	20	25	24.763087	59.445724	running	OK
6	10.10.100.255:8{	0	100.81	70.57	20	25	24.762813	59.445315	running	OK
7	10.10.100.255:8{	0	30.00	18.00	20	25	24.7652813	59.445315	running	OK
8	10.10.100.255:8{	0	104.58	73.21	20	25	24.742813	59.445315	running	OK
9	10.10.100.255:8{	0	103.67	72.57	20	25	24.732813	59.445315	running	OK

For each OilViewer device connected to our software, the following data is shown in the table:

- name (user defined)
- address (connection address, i.e. IP or COM port, etc...)
- temperature
- signal (measured fluorescence)
- background (ambient light signal)
- low threshold (low signal level of alarm)
- high threshold (high signal level of alarm)
- longitude coordinate
- latitude coordinate
- status ("running", "connected", "disconnected", etc...)
- enabled (OK if send signals)

2-B – Devices table
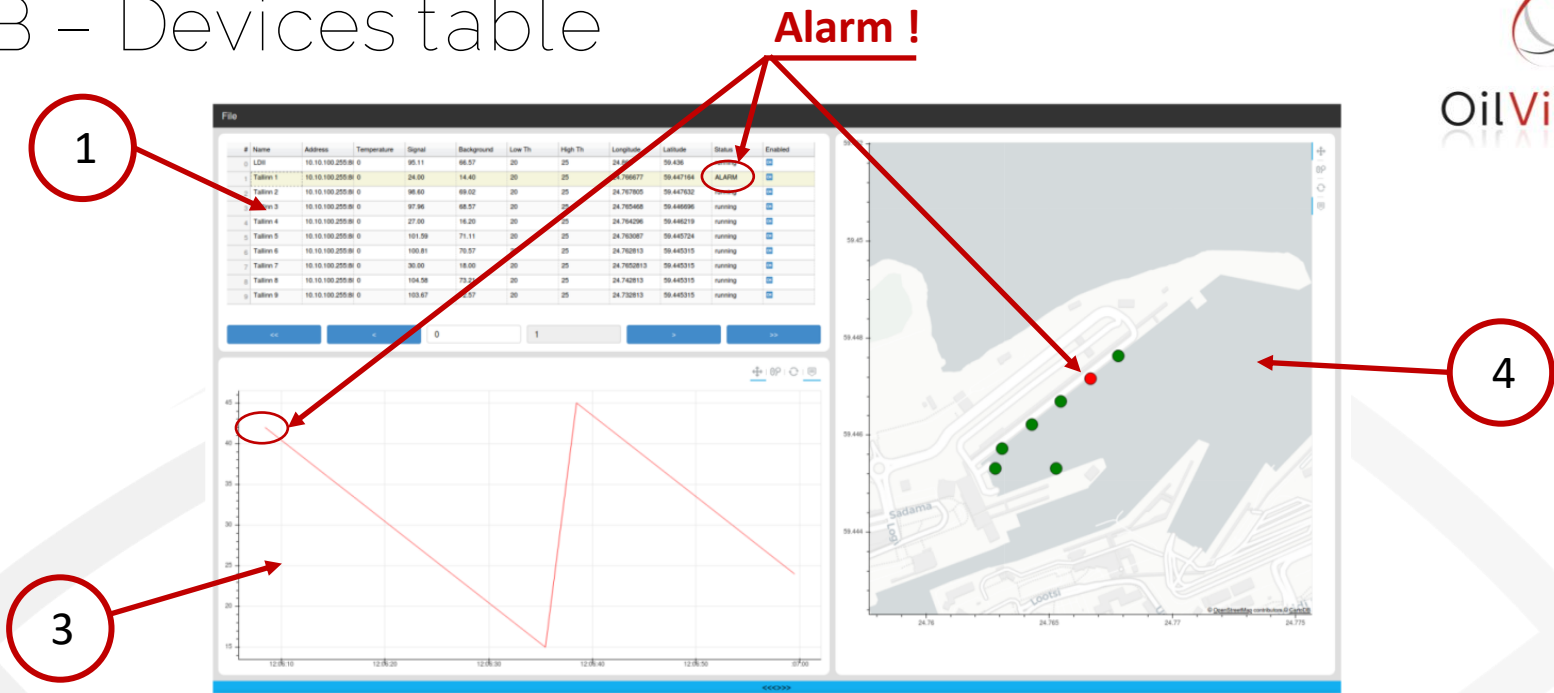
When you click on a device listed in the table (1), the selection is highlighted in yellow color.
The device signal history log is shown in the signal chart (3) and device location is shown with zoom on the location map (4).

In the screenshot above, it can be noted that the highlighted device is in alarm state ("ALARM" being mentioned on the device line). The signal log shows the alarm signal and the device is switched from green to red on the map.

2-C – Table control buttons

A maximum of 10 devices can be shown on a single page of the devices table. If you connect more than 10 devices to our software, then they will be shown over multiple pages. To navigate from one page to another, you'll use the "table control buttons" shown below.
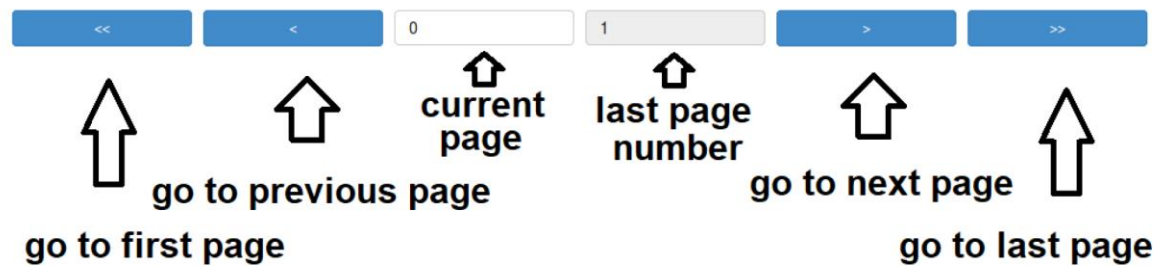

On the example above, table has two pages. Pages always start with 0 numbering. So here is pictured that current user is on page 0 and last page is 1. There are 2 pages in total.

For example, if last page is showing 19, there are total 20 pages and between 190 to 199 devices overall.

2-D – Alarm signal history log

Signal chart shows signal data history log over time for the selected device in the table.
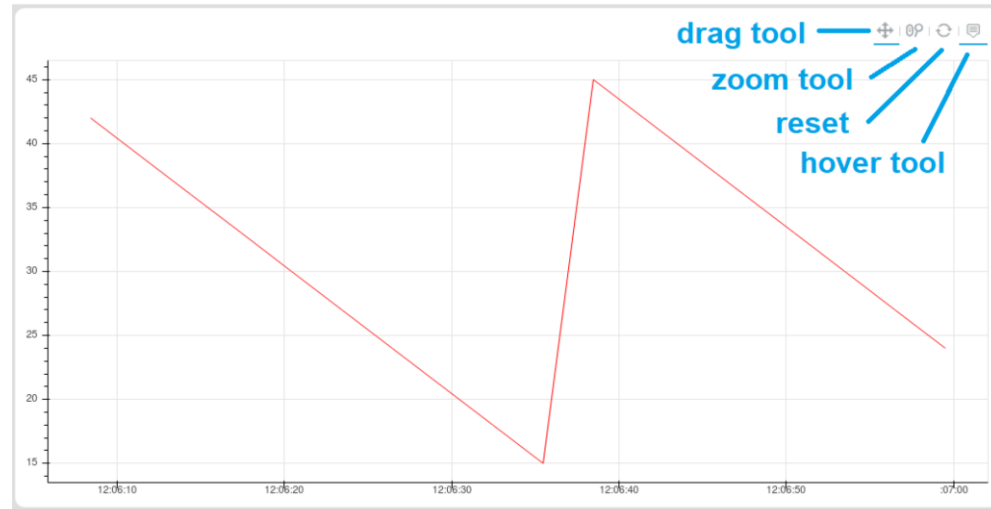
- Drag tool is used to drag map in any direction.
- Zoom tool is used to zoom in or zoom out the map.
- Reset – click onto the icon to reset plot to default settings
- Hover tool is used to see the signal level, if mouse is hovered over signal plot, the data is displayed on screen pop-up info window.

FYI - You'll notice those functions are enabled when you see a small blue horizontal line under tool icon. Click on tool icon to activate them and to disable, click again on the icon.

2-E – Location mapping

Location map is seen on the right-hand side of the application. Devices listed in the devices table will be shown as circles of different color on the map.

- Drag tool is used to drag map in any direction.
- Zoom tool is used to zoom in or zoom out the map.
- Reset – click onto the icon to reset map to default setting (whole world)
- Hover tool is used to see the information about each device, if mouse if hovered over a device (circle presenting the device). If enabled, information about this device is displayed on screen.

FYI - You'll notice those functions are enabled when you see a small blue vertical line on the left side of the tool icon. Click on tool icons to activate them, to disable, click again on the icon.
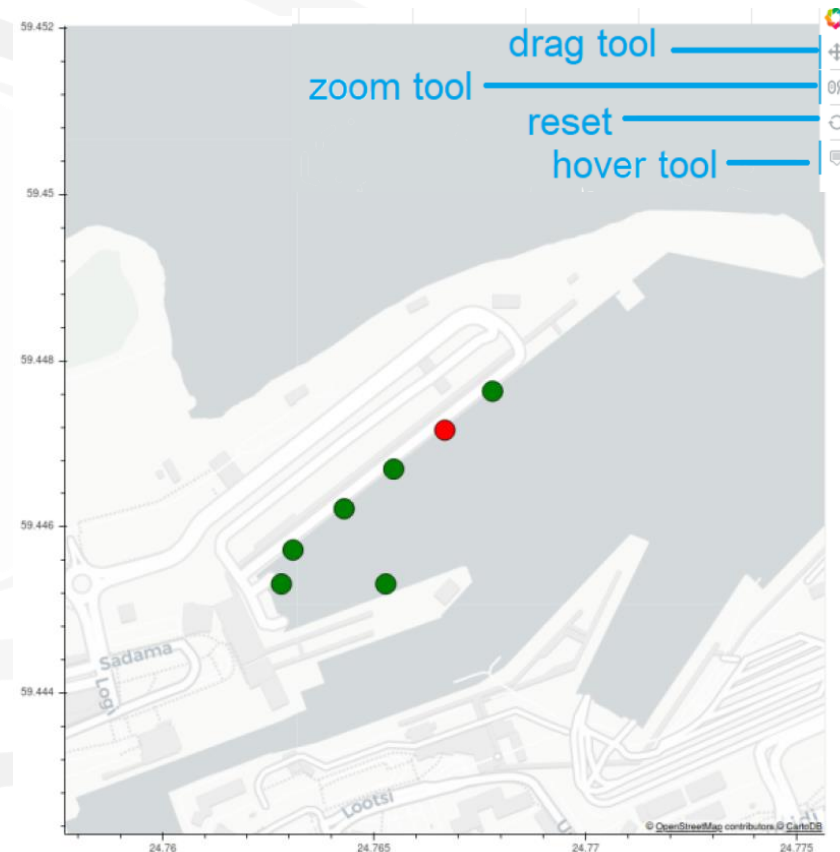
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