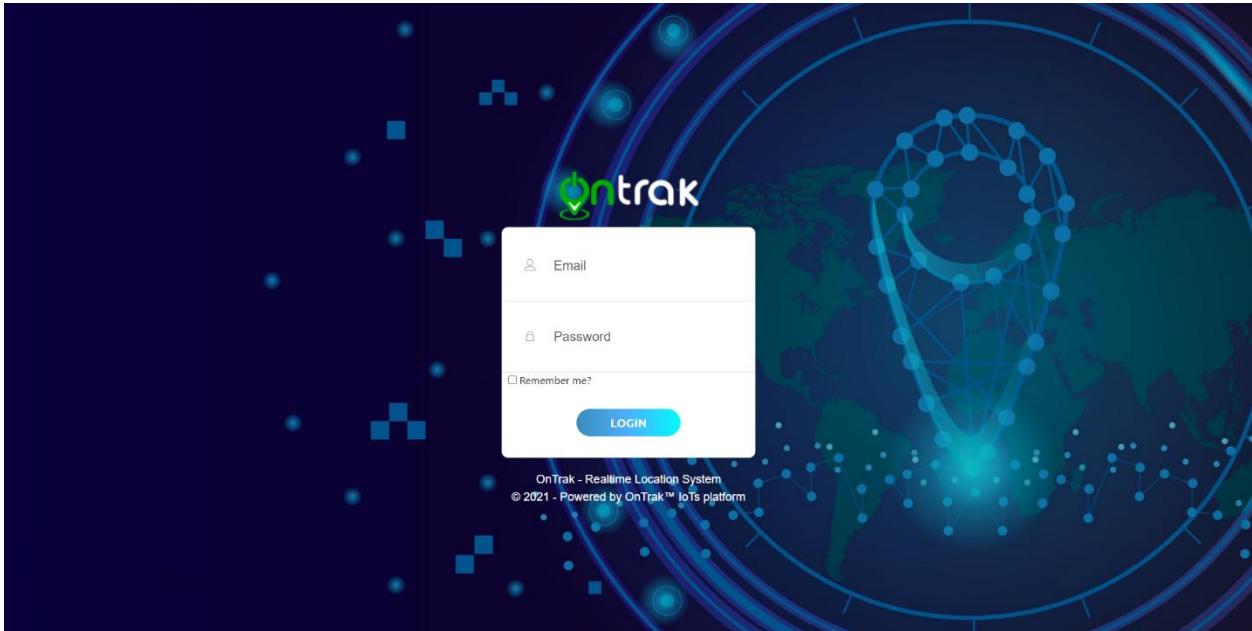


OnTrak Realtime Location System

Software User Manual



OnTrak RTLS website supports English and Vietnamese, it's possible to add other language package (if required)

Main menu:

DASHBOARD: Overview the summary of the OnTrak RTLS which the factory is using.

MAPS: Display the real-time location of the tracked objects on the map and all real-time events happen.

PHOTO MAPS: Display the photos taken by the smartphone of the users who using the OnTrak RTLS system in map view and list view format.

POWER MANAGEMENT: Display the power management page of the assets/machines in the factories which are connected to OnTrak RTLS system by asset tags connected to power sensor.

MESSAGE CENTER MANAGEMENT: Display the status of the synchronized LED panel and text/voice message which is connected to OnTrak RTLS system.

HISTORY: Display the history of the tracked objects in the specific time period (from time to time)

HEATMAPS: Analyze the heatmap of tracked objects in the specific time period (from time to time)

SETUP: System setup (map, base station, tag) and config the time center, the text message, voice message, set the schedule, alarm (*Advanced function*)

UPDATE: Update the firmware program for the base station over the air - OTA (*Advanced function*)

REPORT: The system report for applications and objects (worker, asset, robot...)

COVID-19: Display the history moving of a suspected person during a suspected period and export a list of employees who were contacted with suspected person .

SYSTEM INFO: Summary the working status of the base station and the position tags which are using in the system (*Advanced function*)

DEVELOPER: Manage the API key and application (ERP, WMS, BMS...) are connected to the OnTrak RTLS system (*Advanced function*)

USER: Account management and authorize (*Advanced function*)

Smart Factory

Visualization & Analytics

#nRTLS #IoT
Nhatrang Hitech



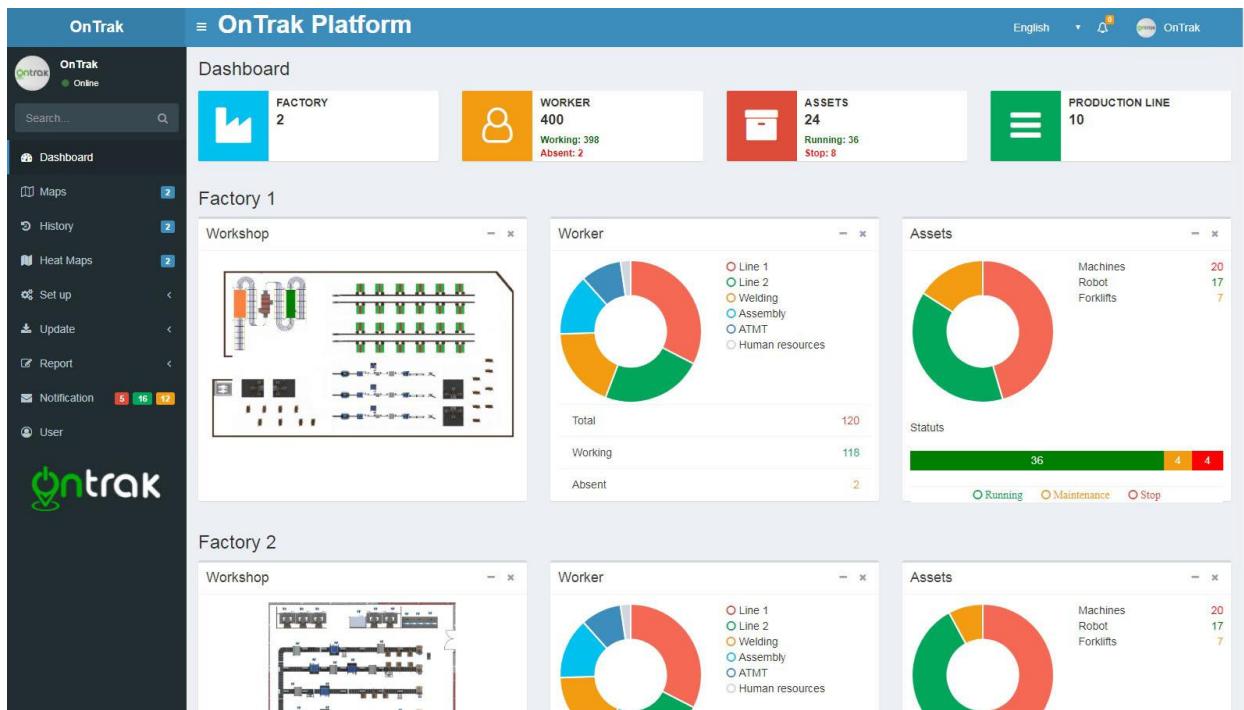
Main menu

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NHTC
Nhatrang Hitech

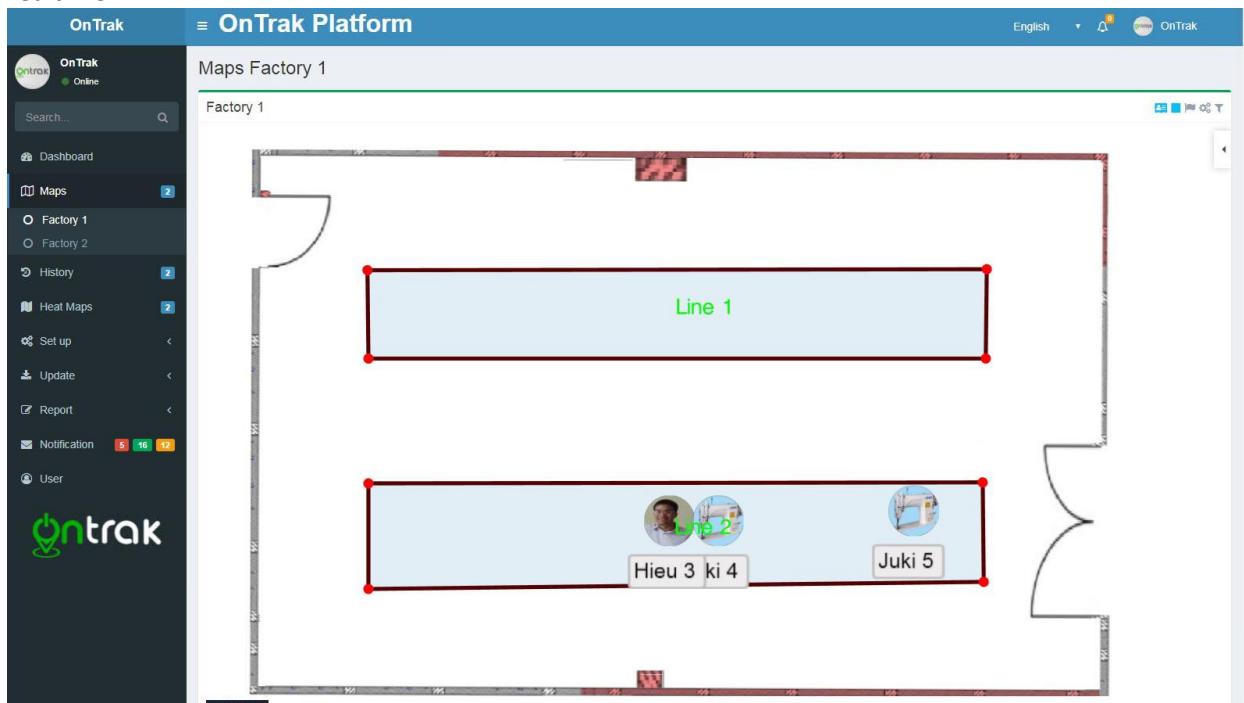
I. Dashboard

1. Display the overview of the company:
 - ✓ Number of factories
 - ✓ Human resource: total employee, working/absent
 - ✓ Assets: total assets, running, maintenance...
2. Detail statistics for each factory:



II. Maps

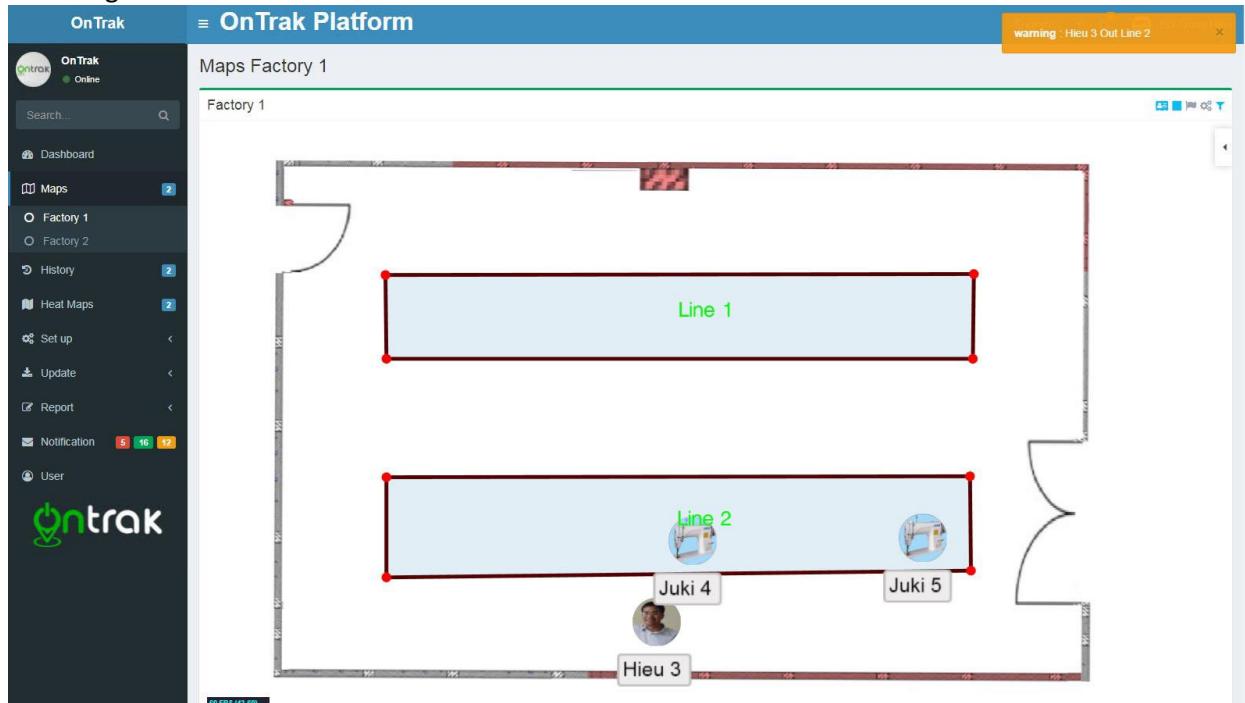
Display the position of the tracked objects (worker/asset/forklift...) of the factories/workshops in the realtime.



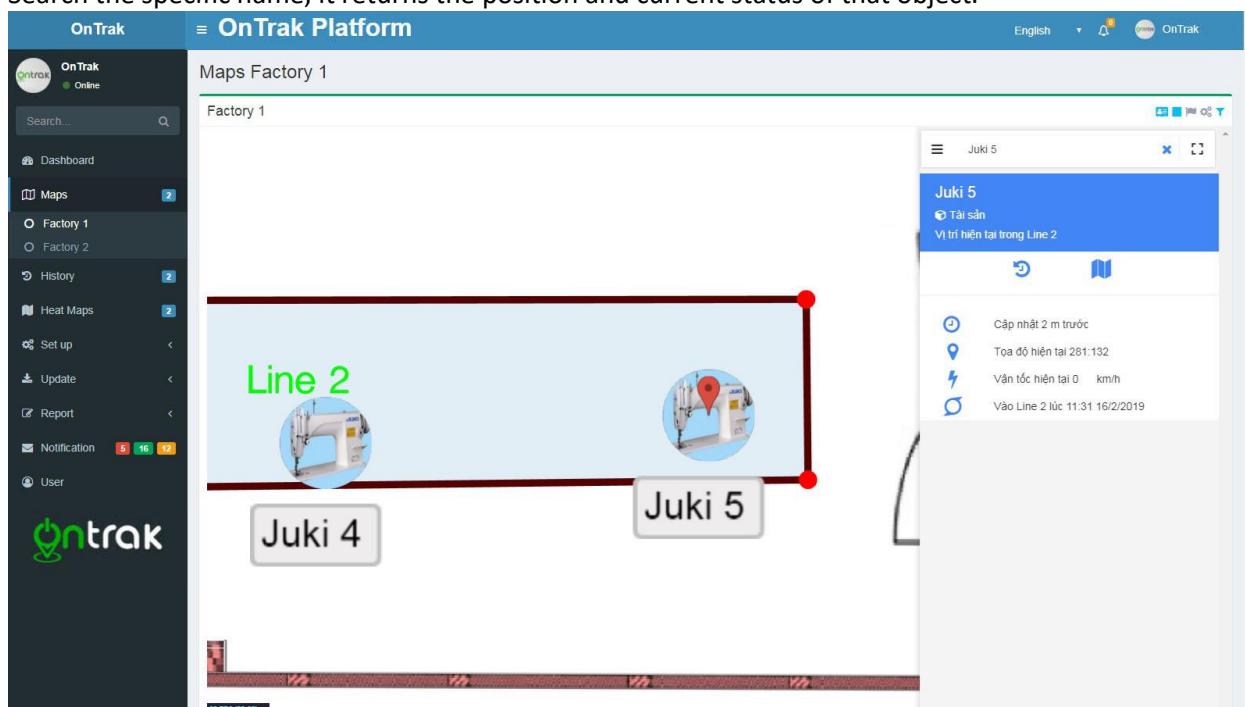
Allow to turn on/off displaying label of the tracked objects and the geofence in the maps.



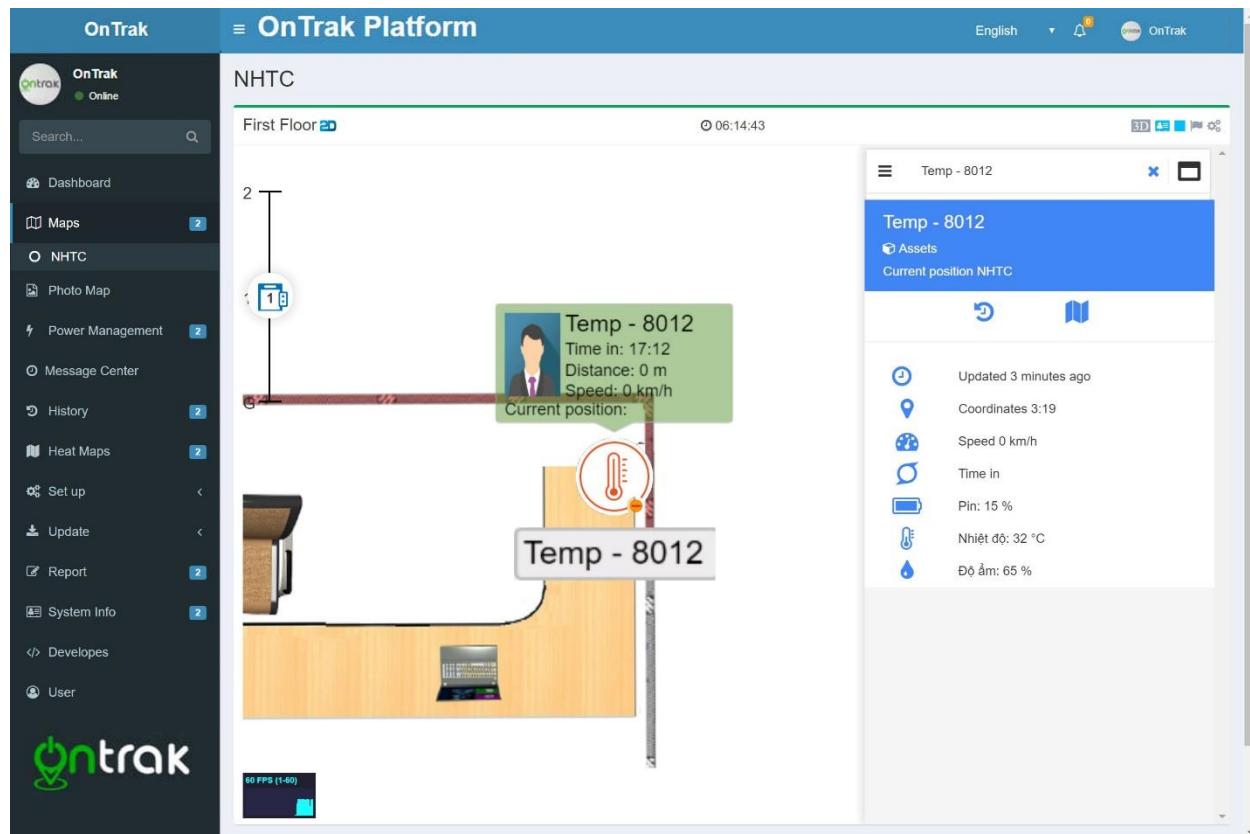
When the tracked objects go in/out of the geofence, there are the notification and also record to the event log.



Search the specific name, it returns the position and current status of that object.

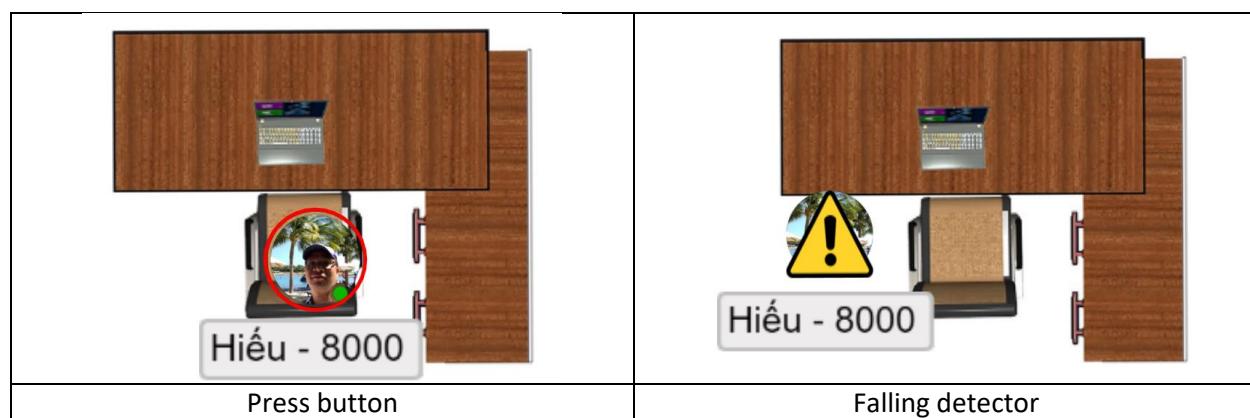


With the object connected to other sensor, such as temperature, humidity, power sensor,... it also display the temperature value, humidity value, power status, battery status... together with the current position of the object.



If the worker press the button (emergency/panic button) on the tag, there is the red circle cover the avatar of that worker in the map. User can config that button for some other purposes (such as start counting the timer, display the Emergency message on the LED....)

If the falling is detected, there's alarm and warning icon on the avatar of the object.



III. Photo Maps

Display the photos taken by the On Trak RTLS smartphone application of the user at the specific location inside the factory in map view and list view in the specific time period (from time to time):

OnTrak Platform

Photo maps

Time: 10/5/2018 10:19:00 - 20/5/2018 06:19:42 | Maps: NHTC First Floor | View

First Floor

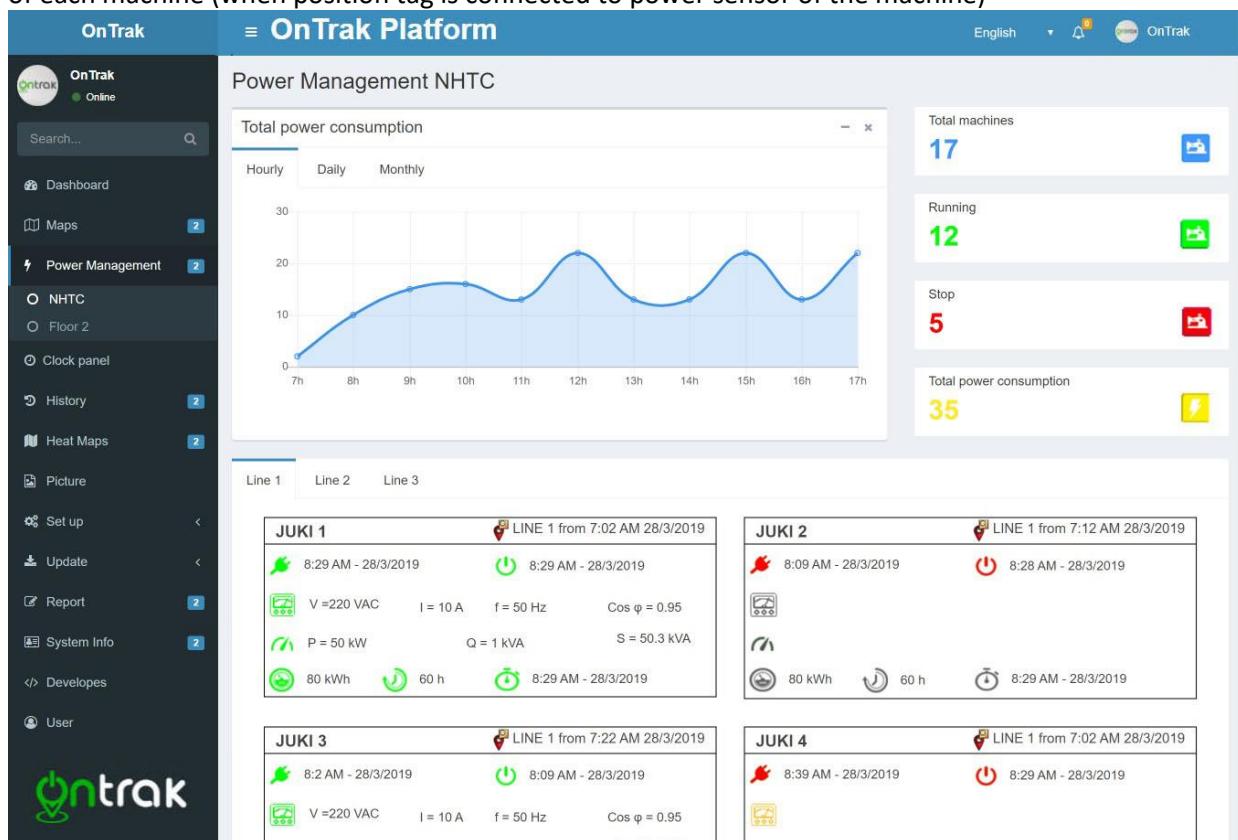
List pictures

Show 10 entries | Search:

ID	X	Y	Map name	Img	Mess	User	Time
167368	2360	560			2360 560/images/1574753728_30_1.png	Thien	2018/12/15 99:46:35
167369	-520	-9020			-520 -9020/images/1574753909_30_1.png	Thien	2018/12/15 99:44:35
167370	410	312			410 312/images/1574754706_30_1.png	Thien	2018/12/15 197:36:25

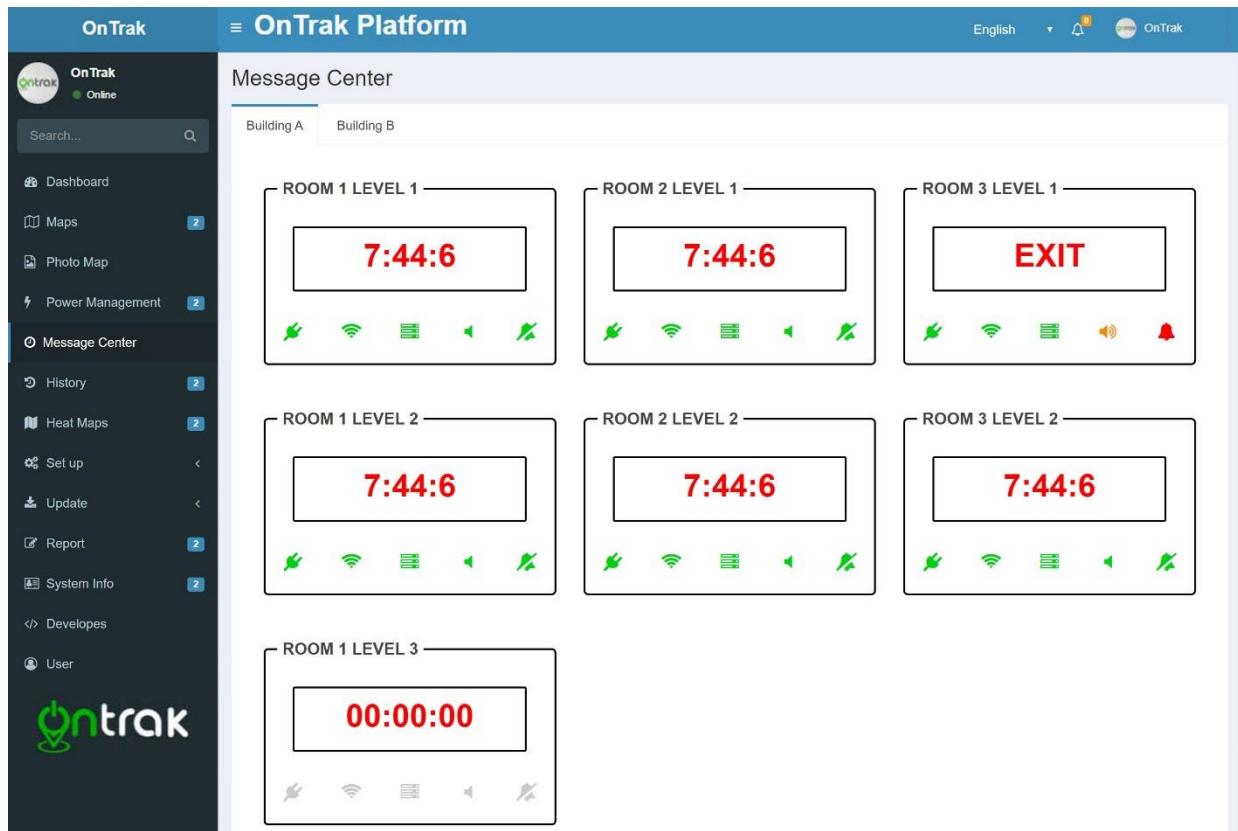
IV. Power Management

Display the total power consumption of the machines in the factory, and the power consumption status of each machine (when position tag is connected to power sensor of the machine)



V. Message Center

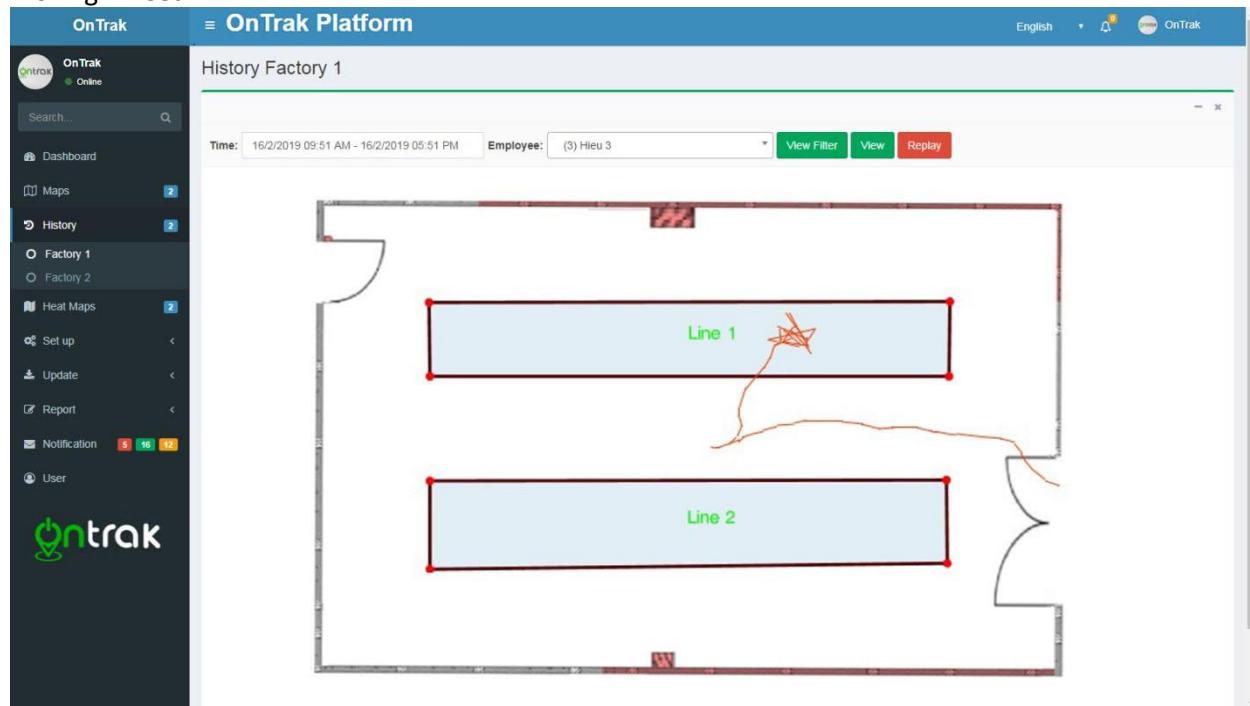
Display the status of the synchronized LED panel and text/voice message which is connected to OnTrak RTLS system



The time server, message server, voice message, display content and scenario are config in the Set up → Message Center Config

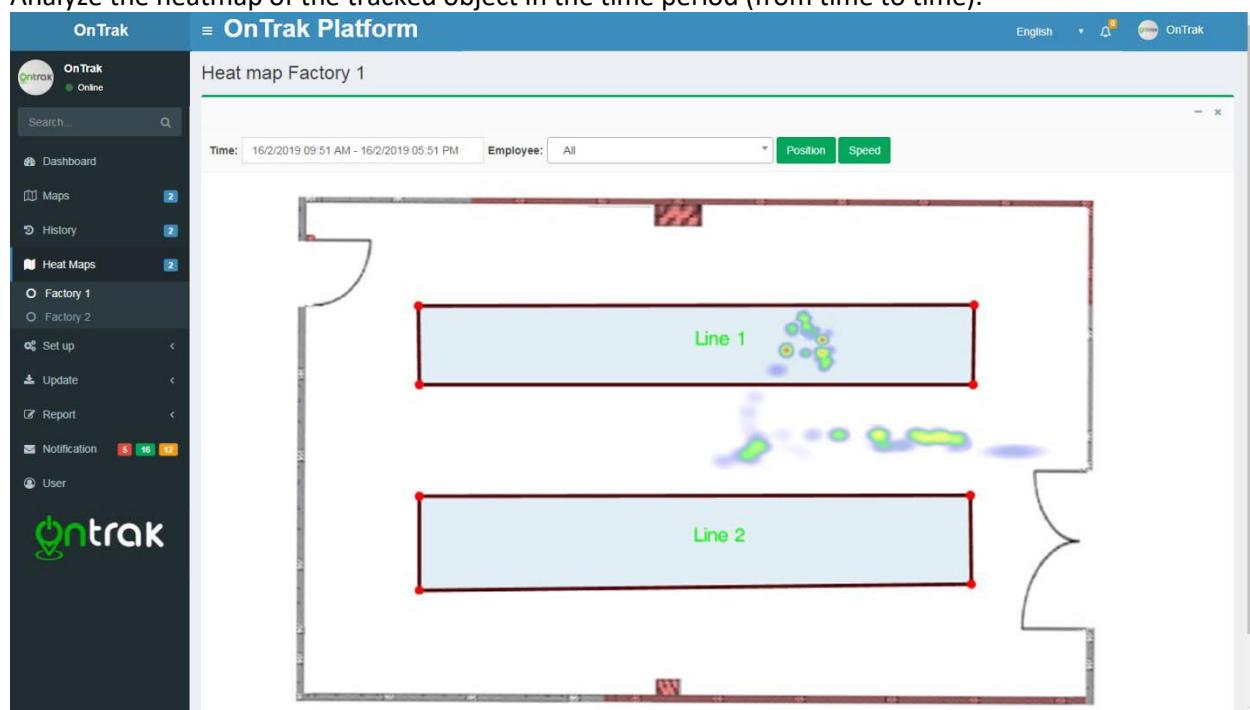
VI. History

Display the history of the tracked objects in the specific time period (from time to time). Replay that moving if need.



VII. Heatmaps

Analyze the heatmap of the tracked object in the time period (from time to time).



VIII. Setup

Map

Display the list of the managed maps, edit the map layout, geofence area, visible area.

The screenshot shows the 'OnTrak Platform' interface with the title 'Setup Map'. On the left is a dark sidebar with various navigation options. The main area displays a table titled 'List maps' with two entries:

Map name	Img	Total Tag	Total geofencing	Map name Cloud	Actions
NHTC		44	1	nhtc 22	<button>Edit map</button> <button>Rebuild manual</button> <button>Geofencing</button> <button>Edit value</button> <button>Rebuild</button> <button>Visible area</button>
Floor 2		18	0	nhtc 23	<button>Edit map</button> <button>Rebuild manual</button> <button>Geofencing</button> <button>Edit value</button> <button>Rebuild</button> <button>Visible area</button>

At the bottom, it says 'Showing 1 to 2 of 2 entries' and has 'Previous' and 'Next' buttons.

When setup/edit map, create/edit the geofence and assign what position tags belong to what geofence, when the position tag go in/out of that geofence, there is the notification in the realtime, also record to the system to calculate the total time which that position tags have spent in each geofence.

The screenshot shows the 'OnTrak Platform' interface with the title 'Add Geofencing'. On the left is a dark sidebar with various navigation options. The main area shows a floor plan with a red rectangular geofence drawn on it. To the right, a modal window titled 'Select Tag in geofencing' lists 11 position tags:

Name	Type	Time Delay (minutes)
(1) Van Thien	In / Out	
(2) Dinh Thuy	In / Out	
(3) Hieu 3	In / Out	
(4) Juki 4	In / Out	
(5) Juki 5	In / Out	
(6) Nam	In / Out	
(7) Yen	In / Out	
(8) Trieu	In / Out	
(9) Huy	In / Out	
(10) Huong	In / Out	
(11) Thien	In / Out	

Base

Display the list of Hardware ID, coordinates, hardware version and firmware version of each Base station, and that Base station is installed in what map.

Hardware BaseID	Map	X	Y	Z	Hardware version	Firmware version	Create date
205	Factory 1	-43	-43	10	1.1.24	0.1.27	2018/12/27
206	Factory 1	-45	789	10	1.1.24	0.1.27	2018/12/27
207	Factory 1	368	785	10	1.1.24	0.1.27	2018/12/27
208	Factory 1	370	-42	10	1.1.24	0.1.27	2018/12/27

Create new Base station by adding manual or import from the excel list.

Add new base

Base ID	Map	
X (cm)	Y (cm)	Z (cm)

Tag

Display the list of managed position tags.

The screenshot shows the 'OnTrak Platform' interface with the title 'Setup Tags'. The left sidebar includes 'Dashboard', 'Maps', 'History', 'Heat Maps', 'Set up' (selected), 'Map', 'Tag' (selected), 'Base', 'Update', 'Report', 'Notification' (with 5, 16, 13 notifications), and 'User'. The main area displays a table titled 'List Tags' with columns: Tag type, Hardware Tag ID, Icon, Tag name, Create date, Firmware version, Map, and Edit button. The data shows 10 entries from 1 to 10, all categorized as 'Employee'. The last entry is 'Huong' from 2019/01/03. A search bar and pagination buttons (Previous, 1, 2, Next) are at the bottom.

Create new Tag by adding manual or import from the excel list.

The screenshot shows the 'TAG INFO' configuration page. The left sidebar is identical to the previous screenshot. The right side has sections for 'Hardware version' (empty), 'Firmware version' (empty), 'Tag ID' (11), 'Tag name' (Tuan - 11), 'Tag type' (Employee selected), 'Map' (NHTC selected), 'Department' (RD Dept), 'Icon' (choose from a grid of icons), 'Import Icon' (choose from a grid of icons), and 'Stock time (min)' (50000). Below these are sections for 'TIME CONFIG' and 'ALERT CONFIG'.

Input the **TagID** (Hardware ID) → **Tag name** → Select the **Tag type** (Employee, Assets, Forklift), the different type will affect the display and report → Select the **map** which the position tag will display on → Select the **icon** (avatar) of the position tag. Select the available icon or import from other sources (such as the photo of the employee)

ALERT CONFIG:

Config for the position tag which has button, when press button, start counting the timer, and once reach the “**Stock time**” will send the message with the content in “**Alert content view**” to the “**Managed by (email address)**”, also can trigger the alarm or LED message (see the config in Message Center Config)

Message Center Config

Emergency scenario

Setup the emergency scenario for the system, combine button on the position tag and other input resources, and trigger the LED panel to display the content or sound, audio, siren, alarm.

The screenshot shows the OnTrak Platform interface with the 'Emergency scenario' configuration page. The left sidebar includes options like Dashboard, Maps, Photo Map, Power Management, Message Center, History, Heat Maps, Set up (with sub-options Map, Tag, Base, Departments, Message Center Config, Emergency scenario, Emergency message, Compose message), Update, Report, and System Info. The main content area has two sections: 'Emergency scenario' and 'Add emergency scenario'. In the 'Emergency scenario' section, there are three rows of controls for SOS button levels 1, 2, and 3, each with a toggle switch and dropdown menus for 'Scenario 1' or 'Scenario 2'. In the 'Add emergency scenario' section, there are fields for 'Building A', 'Text message display', 'Audio message', a toggle switch, a duration input ('3 minute'), and a green 'Add new' button.

Compose Message

Compose and send the text message or voice message to the specific LED panel, setup the schedule to display/sound and the duration for that event happen.

The screenshot shows the OnTrak Platform interface with the 'Compose Message' configuration page. The left sidebar is identical to the previous screenshot. The main content area has sections for 'Recipient(s)', 'Content' (with tabs for Building A and Building B, and a text area containing 'Good'), 'Display duration' (set to 3 minutes), and checkboxes for 'Turn ON ALARM', 'Display immediately' (which is checked), and 'Schedule'. There is also a green 'Add new' button.

IX. Update

Update Base Station: Manage the hardware version and firmware version of the base station.

Manage the update firmware over the air for the devices.

The screenshot shows the OnTrak Platform interface. On the left is a dark sidebar with various navigation options like Dashboard, Maps, Photo Map, Power Management, Message Center, History, Heat Maps, Set up, and Update. Under Update, there are two options: 'Update Base Station' (selected) and 'Firmware'. The main content area has a header 'OnTrak Platform' and a sub-header 'Update base station'. It displays a 'Version' section with a thumbnail of a product box labeled 'nRTLS KIT Version 0.1.51 Nhatrang Hitech'. Below it is a green box titled 'NEW FEATURE' with bullet points: 'Speed up data updates' and 'Update over the air'. A table lists four firmware versions with columns: #, Firmware Version Name, File size, Min Hardware Version, and Date update. The table data is as follows:

#	Firmware Version Name	File size	Min Hardware Version	Date update
1.	0.1.51	881 KB		2020/03/05 08:49:00
2.	0.1.50	881 KB		2020/03/05 04:55:00
3.	0.1.49	869 KB		2020/01/13 04:40:00
4.	0.1.46	866 KB		2019/11/27 07:08:00

Below this is another section titled 'List base station' with a table having columns: #, Base ID, Hardware version, Firmware Version, File Update, and Update.

Firmware: the current firmware version of the base station, support to update the new one (advanced function)

The screenshot shows the OnTrak Platform interface. The sidebar and main content area are identical to the previous 'Update base station' screenshot, but the main content area now has a header 'Firmware'. It features an 'Upload firmware' section with a file input field, a 'Select file' button, and a 'Phát hành' (Publish) button. Below this is a 'List firmware' section with a table showing four entries. The table columns are: ID, Name, Firmware Version Name, File size, Min Hardware Version, and Create date. The data is as follows:

ID	Name	Firmware Version Name	File size	Min Hardware Version	Create date
	nRTLS_Wifi.ino_V.0.1.46.bin	0.1.46	866 KB		2019/11/27 07:08:00
	nRTLS_Wifi.ino_V.0.1.49.bin	0.1.49	869 KB		2020/01/13 04:40:00
	nRTLS_Wifi.ino_V.0.1.50.bin	0.1.50	881 KB		2020/03/05 04:55:00
	nRTLS_Wifi.ino_V.0.1.51.bin	0.1.51	881 KB		2020/03/05 08:49:00

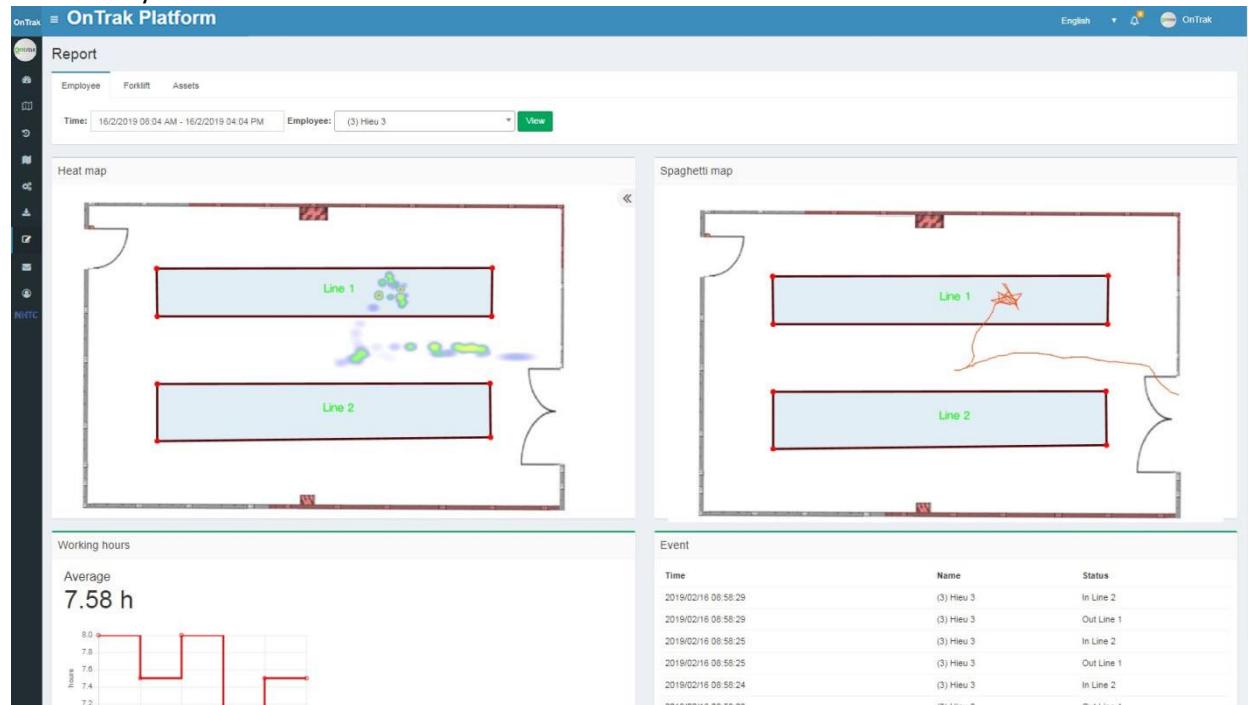
X. Report

The system report for the specific application and object.

There are 3 type of report, for employee/forklift/asset

(1) Employee:

- ✓ Heatmap and spaghetti map
- ✓ Total time spent in each geofence (workshop or production line)
- ✓ Total travelled distance
- ✓ In/out geofence trigger log time.
- ✓ Any event occur

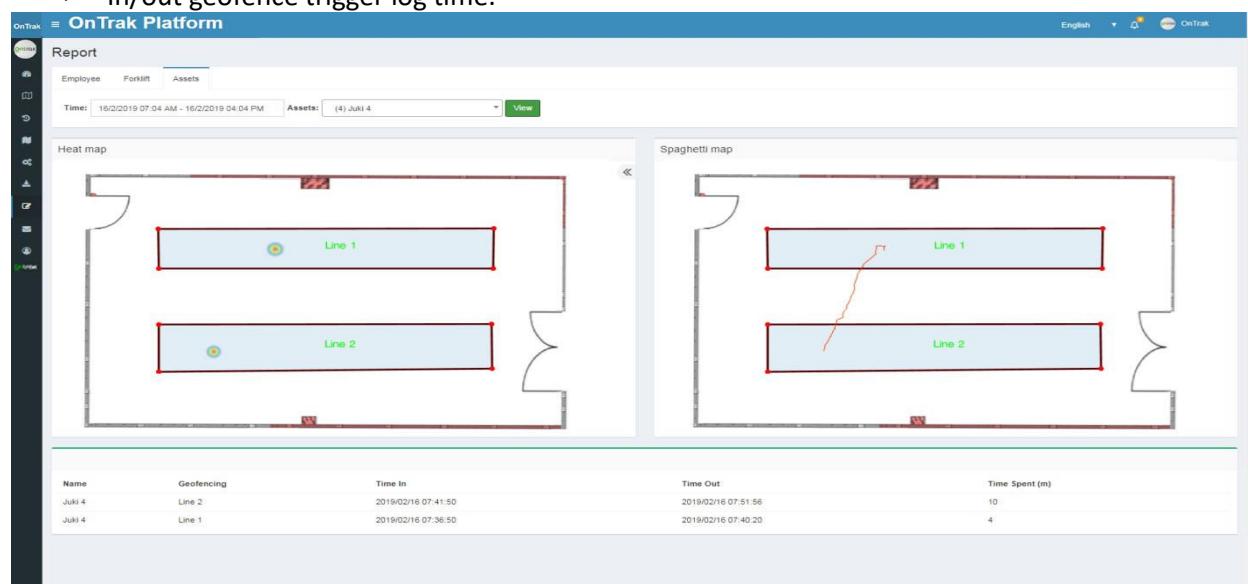


(2) Forklift:

- ✓ Heatmap and spaghetti map
- ✓ Working hours
- ✓ Average speed
- ✓ Total travelled distance

(3) Asset:

- ✓ Heatmap and spaghetti map
- ✓ Total time spent in each geofence (workshop or production line)
- ✓ In/out geofence trigger log time.



XI. COVID-19

Display the history of moving of a suspected person during a suspected period and export a list of employees who were contacted, where, when and how long the contact was made, list of direct contact personnel and sub levels to monitor and isolate.

The screenshot shows the OnTrak Platform interface. The left sidebar contains navigation links: OnTrak (Online), Search..., Dashboard, Maps (2), Photo Map, Power Management (2), Message Center, History (2), Heat Maps (2), Set up, Update, Report (3), COVID-19, System Info (3), and Develops. The main header is "OnTrak Platform". The top right includes English, a bell icon, and the OnTrak logo. The main content area has a "Direct contact" section with filters: Time: 20/4/2020 02:24:30 - 20/4/2020 18:24:30, Maps: NHTC First Floor, Employee: Thiên - 8008, and a "View" button. Below this is a "First Floor" map showing several red circles indicating contact points. The bottom section is titled "Direct contact list" with a table:

Device ID	Name	Duration (s)	Time
12353	Van Thinh	265	20/04/2020 8:12:43
12421	Đức Xuân	542	20/04/2020 8:42:62
12323	Hoàng Anh	675	20/04/2020 9:22:2
12412	Duy Đỉnh	532	20/04/2020 13:02:3
12086	Mạnh An	128	20/04/2020 15:10:2

Show 10 entries, Search: [input], Showing 5 to 5 of 5 entries, Previous, Next.

XII. System info

Summary the working status of the base station and the position tags which are using in the system (*Advanced function*)

XIII. Developer

Manage the API key and application are connected to the OnTrak RTLS system (*Advanced function*)

The screenshot shows the OnTrak Platform interface with a sidebar on the left and a main content area on the right.

Left Sidebar:

- OnTrak logo with status "Online".
- Search bar.
- Dashboard
- Maps (2)
- Photo Map
- Power Management (2)
- Message Center
- History (2)
- Heat Maps (2)
- Set up
- Update
- Report (2)
- System Info (2)
- Developers
- User

Right Content Area:

API Keys

Add new

Name	EmbedTypeID	MapID	Domain name	Link	Request	Edit
api2	History	Floor 2	nhtc.com.vn	http://rtls.vn/Map/HistoryEmbed?token=DTS7t18DyRdzL4DIWnCU	4	Edit
Api1	MapView	NHTC	rtls.vn	http://rtls.vn/Map/ViewMapEmbed?token=kJ7grKVJDjbVTCvei23Nt	15	Edit
Api3	MapView	Floor 2	rtls.vn	http://rtls.vn/Map/ViewMapEmbed?token=7SwRp8avH8DrKZjoGDDq	2	Edit
Api3	HeatMaps	NHTC	rtls.vn	http://rtls.vn/Map/HeatMapEmbed?token=DDDGw2lFVg1WD9L0sqGQ	0	Edit

Show 10 entries Search:

Showing 1 to 4 of 4 entries Previous 1 Next

XIV. User

Manage the user account and authorize