

ATS

Advanced Technologies & solutions GPS Tracking system

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Technical Document

Executive summary:

We provide GPS based vehicle tracking solutions with a combined platform of high-performance fleet management system and robust GPS devices. We are dedicated to meet your objectives in critical vehicle tracking solutions. We offer powerful solution to satisfy your industrial needs.

Our flagship web tracking systems (T-Qat) have been developed to help you manage your vehicles, whether you run a limousine service or a trucking company. The updated version of T-Qat vehicle tracking system is available on www.t-qat.net. This professional edition of T-Qat web server will be more user friendly than our existing system. It enables you the ease of operation and it became one of your more convenient business tools for your future transportation needs. See Figure 1 for login face page.

T-Qat Vehicle Tracking System enables users to view movements of a vehicle or any moving object on maps (like Google Maps, Open Street and Microsoft Maps) on computer screen. It is an ultimate solution for tracking cars, jeeps, buses, trucks, tailors, boats, heavy equipment's, etc to improve fleet productivity, accountability and profitability. In case of vehicles, T-Qat displays the location route, stop points and speed status etc. With this real-time vehicle tracking system, a dispatcher, within seconds, may see where the fleet is and may re-route a driver to a new call in the neighborhood saving time, fuel and money.

Scope:

This proposal provides some basic information about T-Qat Gps Tracking System.

- 1) Locate the exact position of a vehicle.
- 2) Analyze accurate speed, distance covered, mileage etc.
- 3) Report Generations.
- 4) Vehicle/User account with different privileges..

Purpose:

The purpose of this document is to provide basic Technical Specification for the GPS enabled Vehicle Tracking System and also provide functional requirement of the system.

Device Features:

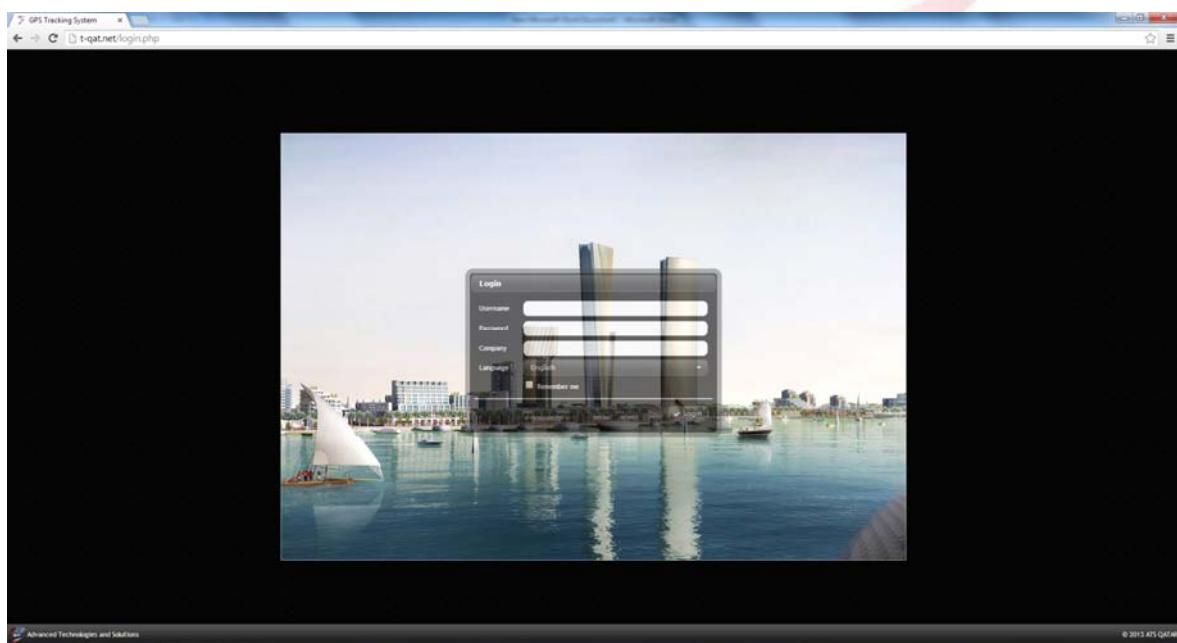
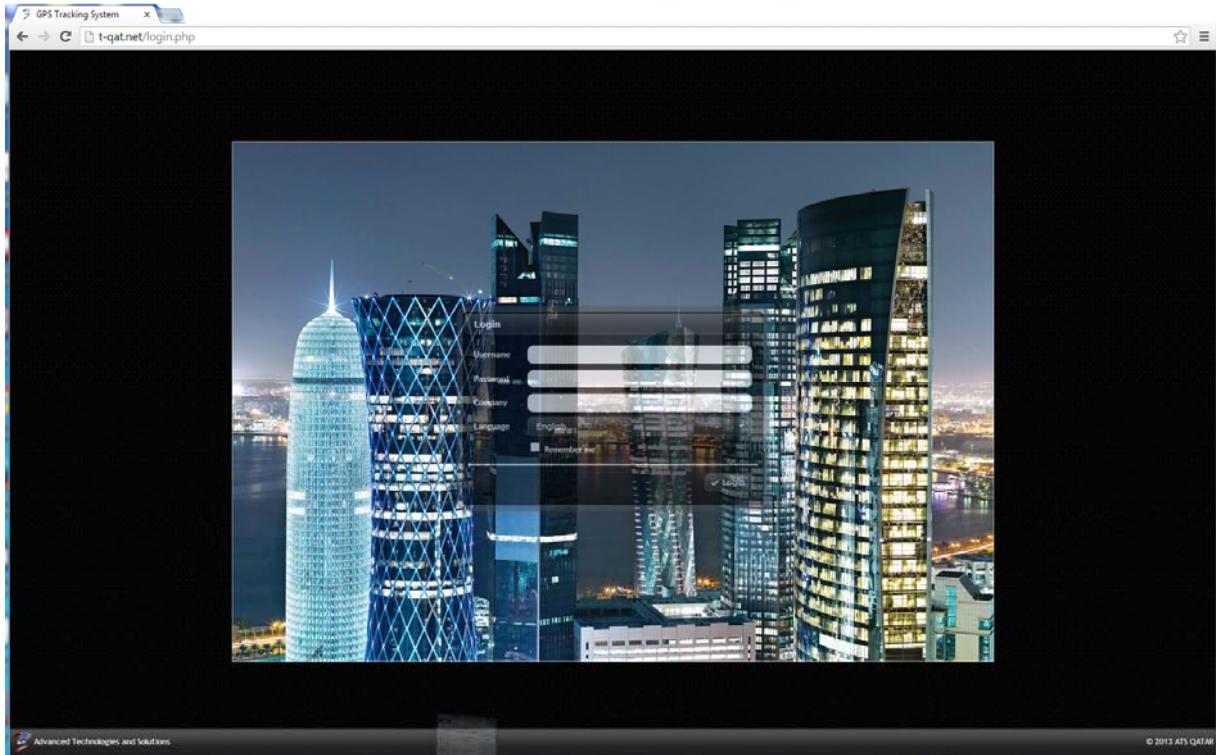
- Small size, skilful design, firm case
- GPS/GPRS real time tracking; SMS remote tracking.
- ACC (Ignition) status detection.
- Reboot device remotely.
- Support T-Qat camera, GPS Navigation T-Qat LCD screen.



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Login to www.t-qat.net.The face login page will be as shown below





The demonstration account will be available with the following credentials.

User Name: admin

Password: ****

Company Name: ats

You can select the interface language also for your convenience.

- Enter the Username and password.

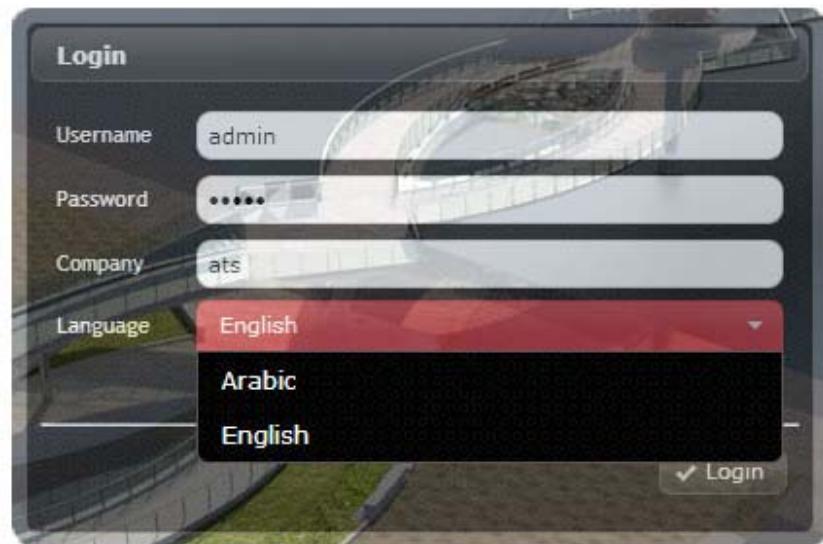
Login

Username	admin
Password	*****
Company	ats
Language	English
<input type="checkbox"/> Remember me	
<input checked="" type="checkbox"/> Login	

- Select the language you want to select as shown in the figure below.

Login

Username	admin
Password	*****
Company	ats
Language	English
Language	Arabic
Language	English
<input checked="" type="checkbox"/> Login	

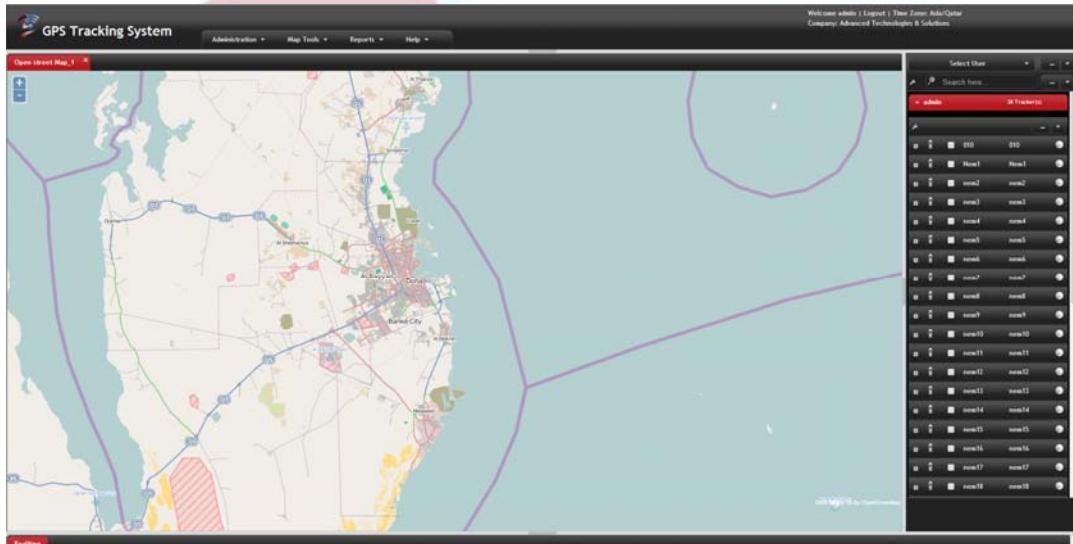


- Click on 'Login' button to enter in to 'GPS Tracking System' control panel.





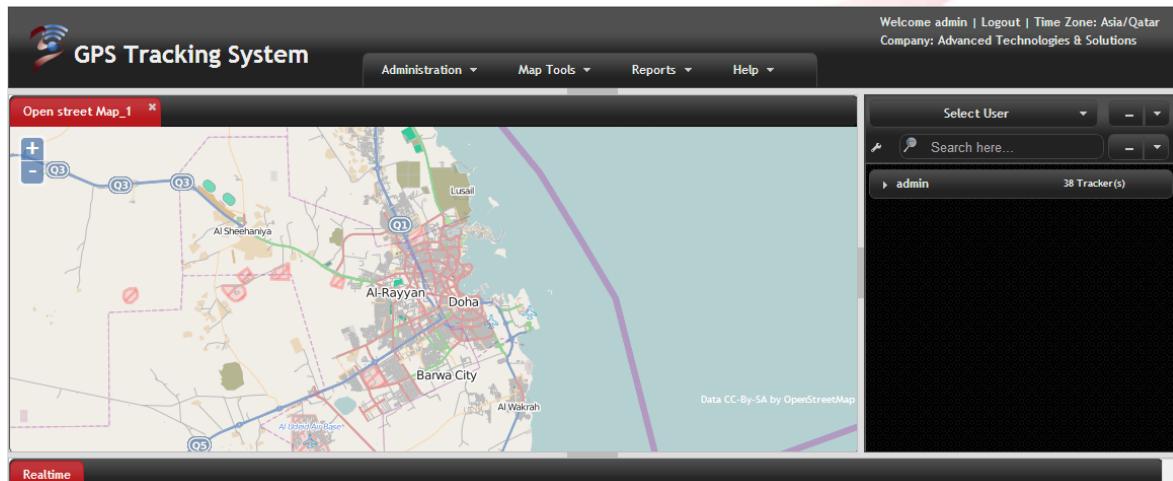
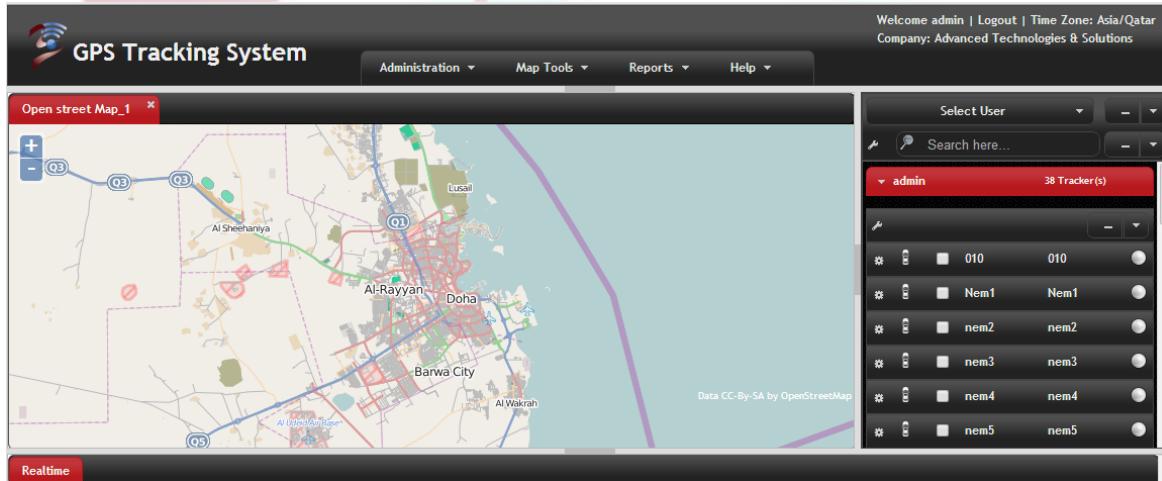
- Once you logged in with the earlier mentioned credentials, you can enter into the tracking system control panel. The centrally aligned expandable map will show your vehicles position as shown in the figure.



TRACKING

Live Tracking

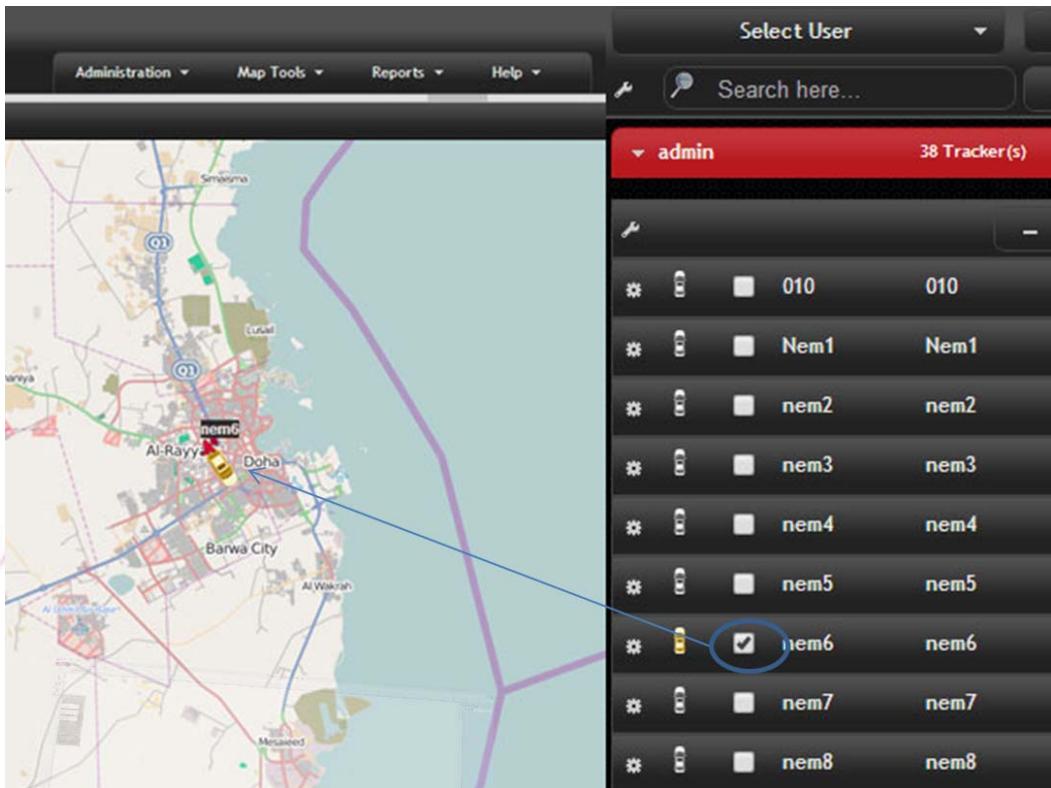
This option enables the user to check the list of vehicles in the right side panel under user name. There is more filter option for selecting vehicles by group, by user etc. There is user logout and time zone mentioned on the top panel of the T-Qat web server.



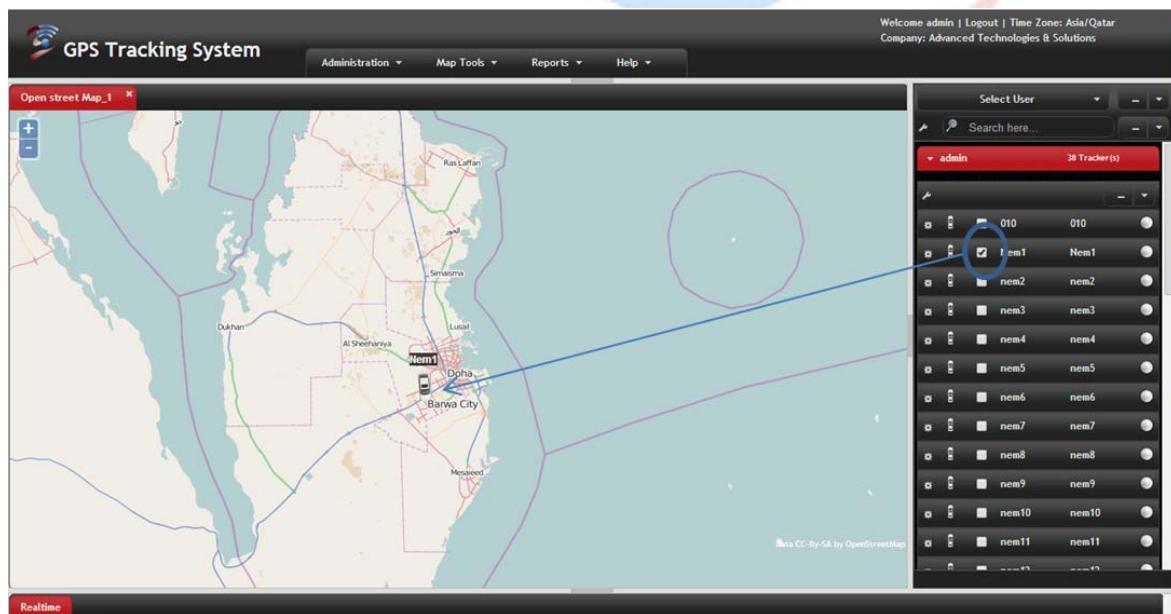
- Once you click on your user name, it will be listed the vehicles name and its controls. Here shows the list of vehicles under the user "admin".



- Check the vehicles name list (see Highlighted checkbox in the image) to find the real-time data of the corresponding vehicles.
- Here GPS signal is **off** so, vehicle is in yellow color



- The below shown figure, GPS signal is **on** so the vehicle changes its color to **Black**



- Click on 'Real-time' red color button at the left bottom side panel (as shown in the image below) enables you to find the administrative criteria of a vehicle including Time



interval, speed, Driver name, Vehicle Registration, Address, GPS signal, GPS state, Power, Acc etc.

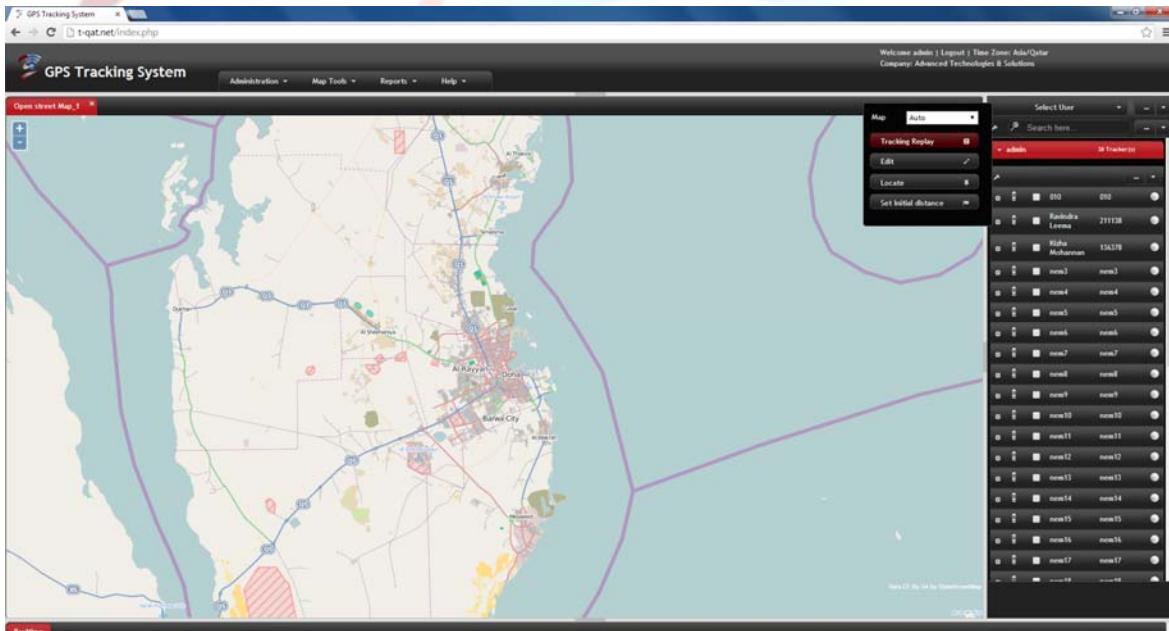
Realtime									
Driver Name	Vehicle Reg	Time	Address	Speed	GPS Signal	GPS State	Power	Urgent	Acc
Fedrico - S.Water	240668	10/02/2014 12:10:59	Double Click	10	on	Normal	n/a	off	on
vijay	234839	10/02/2014 12:14:29	Double Click	79	on	Normal	n/a	off	on
Darmandra - Sewage	211671	10/02/2014 12:14:34	Double Click	23	on	Normal	n/a	off	on
Tik Bahadur - Sewage	208867	10/02/2014 12:14:32	Double Click	0	on	Normal	n/a	off	on
Boni	94092	10/02/2014 12:14:40	Double Click	0	on	Normal	n/a	off	off
Winson	139828	10/02/2014 12:14:45	Double Click	0	on	Normal	n/a	off	off
GIRIRAJ - sewage	185936	10/02/2014 12:14:31	Double Click	0	on	Normal	n/a	off	off

Columns Clear Stop Resume Group by Unit Tracker(s): 7

TRACKING REPLAY

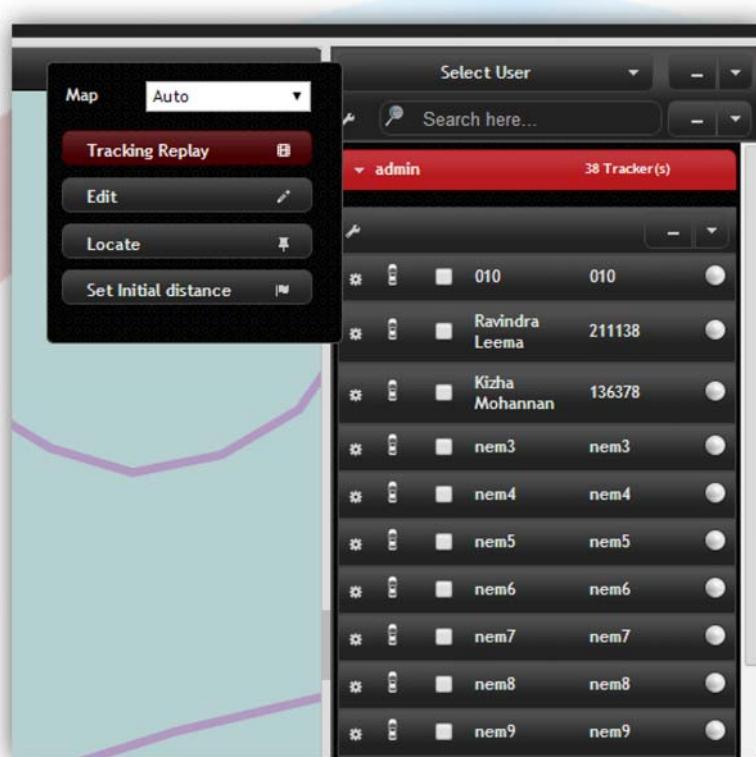
The user can access their stored data at any time. Those data will be helpful to analyze the work time, performance ratio, salary etc. This ensures more data security also.

- Click on the **Settings** button and click on ‘Tracking Relay’ button from the menu to enter into Tracking Relay Window as shown in the figure below.

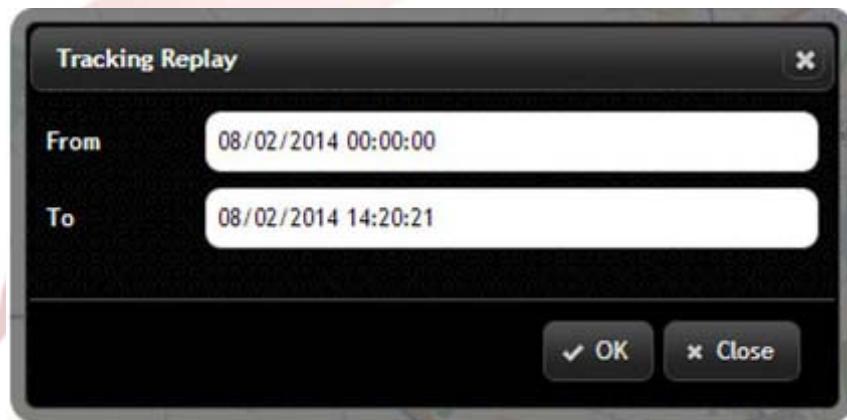




- Click on Tracking Relay.



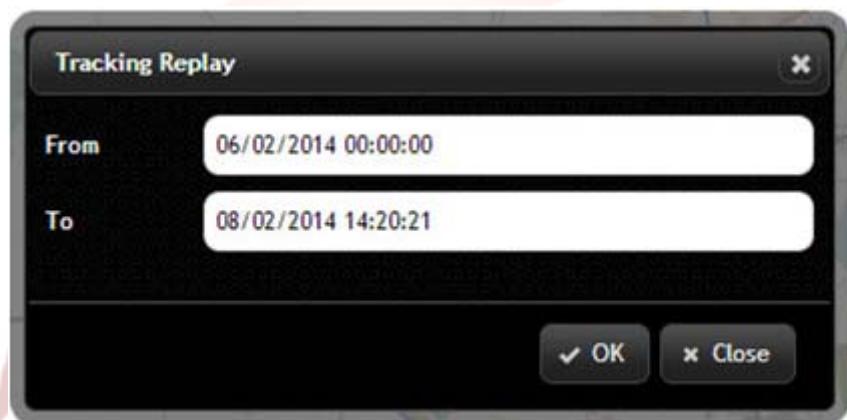
- Tracking Relay window will open and displays two text boxes to be selected by the user.
- Click on the field range which enables the user to get a sub option easier time and date mode selection.



- Click on ‘From’ Text box, then dropdown calendar menu will open and select the appropriate date you want.



- Click on ‘To’ text box and select the appropriate date from the dropdown calendar and click **OK**.



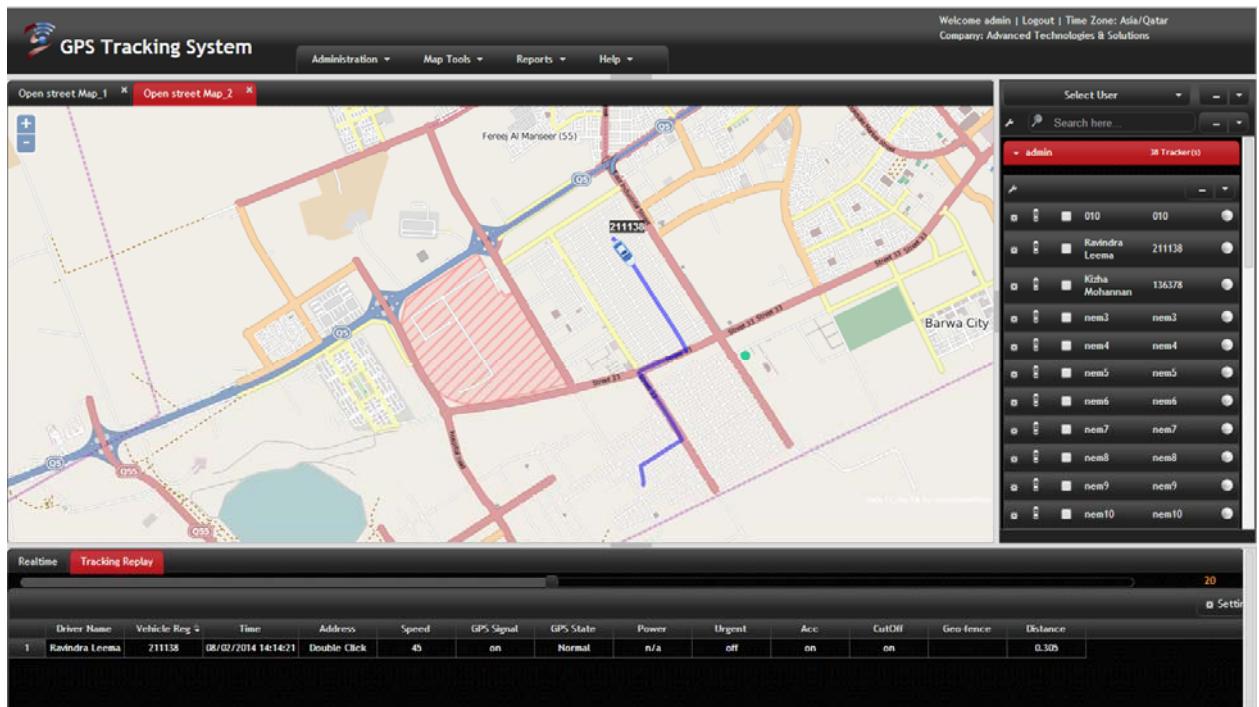


- GPS tracking system will display the entire map where the vehicles have travelled from the date range selected.

The screenshot displays the GPS Tracking System interface. At the top, there is a navigation bar with links for Administration, Map Tools, Reports, and Help. The main area features a map titled "Open street Map_4" showing a vehicle's travel route. The route is highlighted in blue and orange, indicating different segments or states. A green dot marks the current location of the vehicle. The map also shows various geographical features like Barwa City and Street 33. To the right of the map is a sidebar titled "Select User" which lists "admin" and "38 Tracker(s)". Below the map is a table titled "Realtime" showing vehicle details:

Driver Name	Vehicle Reg	Time	Address	Speed	GPS Signal	GPS State	Power	Urgent	Acc	CutOff	Geo-fence	Distance
1 Ravindra Leema	211138	08/02/2014 14:01:26	Double Click	0	on	Input2 active	n/a	off	on	on	0.127	

- Here map shows the Vehicle travelled from the date specified by the user.



Multimedia options like play, pause, stop, speed and bar available on the bottom panel once you selected the track replay options. You can find the digital record of each moment also along with the replay options as shown in the figure below.



GPS Tracking System

Welcome admin | Logout | Time Zone: Asia/Qatar
Company: Advanced Technologies & Solutions

Open street Map_1 * Open street Map_2 *

Administration Map Tools Reports Help

Select User admin 28 Tracker(s)

Realtime Tracking Replay

Driver Name: Ravindra Leema, Vehicle Reg: 211138, Time: 08/02/2014 14:22:27, Address: Double Click, Speed: 69, GPS Signal: on, GPS State: Normal, Power: n/a, Urgent: off, Acc: on, CutOff: on, Geo-fence: nem1, Distance: 5.556

enqat.net/index.php#

- Here Tracking Relay tab displays entire information about the Vehicle.

Realtime Tracking Replay

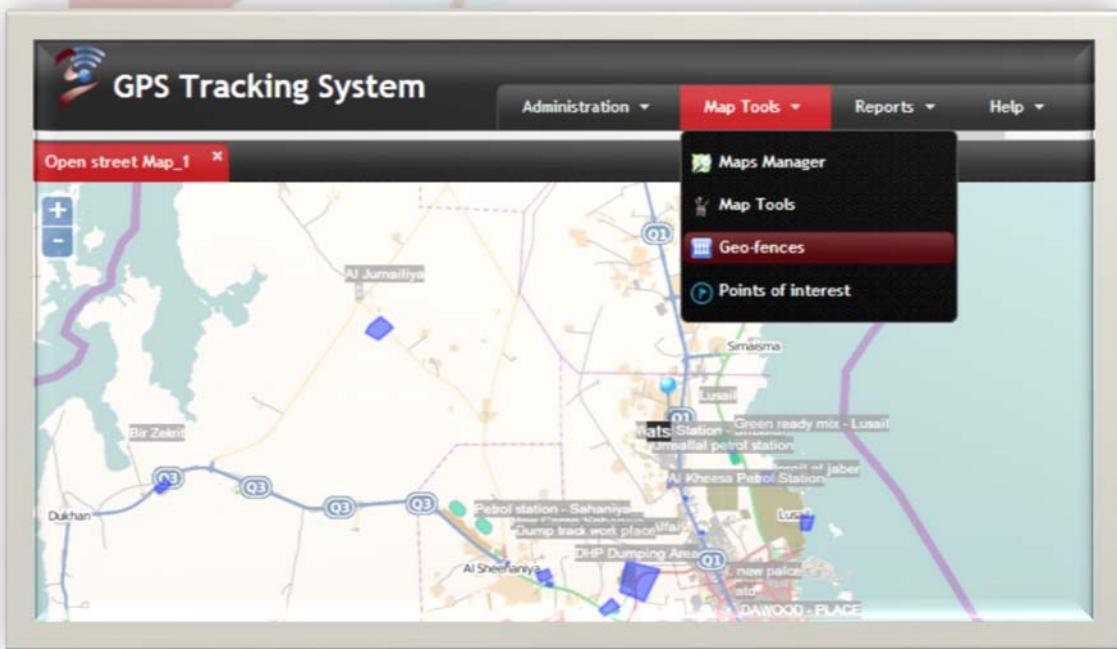
Settings Columns Play Pause Stop Clear

Driver Name: Lok B. - Dumptrack, Vehicle Reg: 201151, Time: 10/02/2014 00:01:25, Address: Double Click, Speed: 0, GPS Signal: on, GPS State: Normal, Power: n/a, Urgent: off, Acc: off, CutOff: on, Geo-fence: nem1, Distance: 23401.761

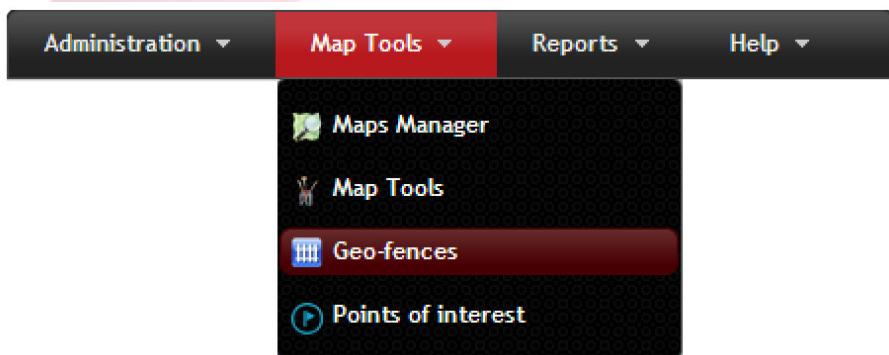
ADD/EDIT GEO FENCE – POI'S

Geo-Fence:

Click on the “Geo-fence” tab which is at top panel in Map tools tab in which we can restrict or controlled our fleets. Click “Add” button to register new Geographical Zone on the map. You can draw the areas either using freehand or by Polygon.



- Click on ‘Map Tools’, and then drop down Menu will open and then click on ‘Geo-fences’.

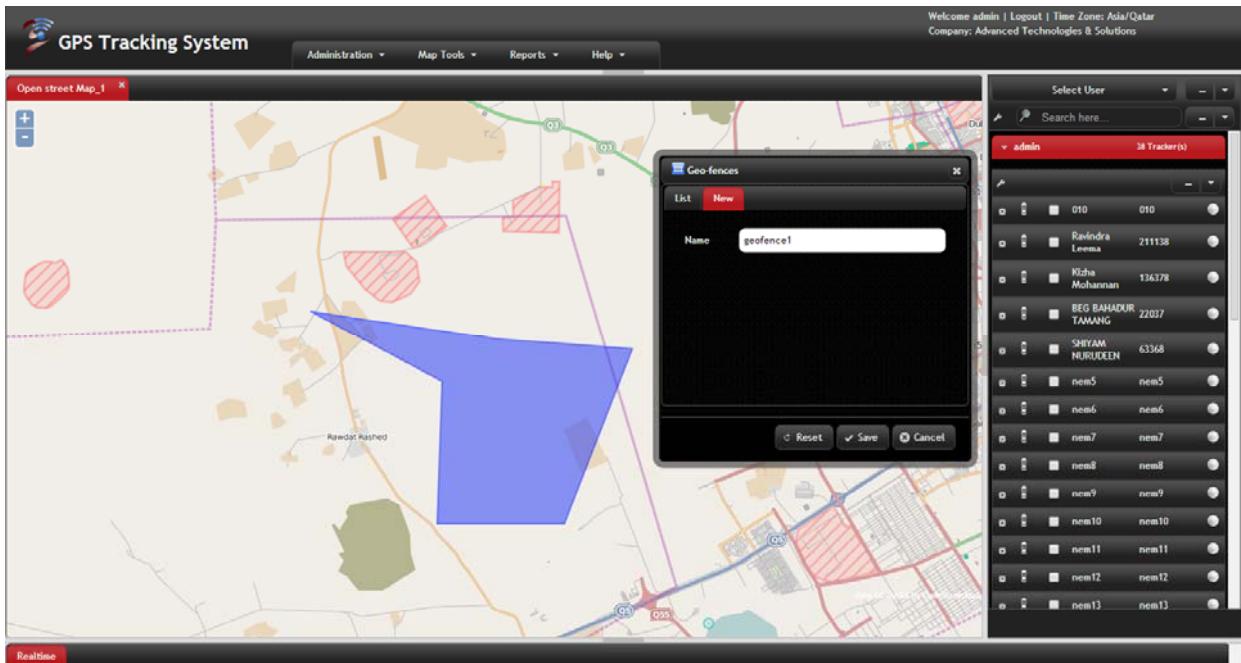




- Geo-fences window will open and displays the list of Geo-fences.
- Click on ‘New’ Button to create new Geo-fences as shown in the figure below



- New geo-fence tab will open and enter the geo-fence name e.g.: geofence1 as shown in the figure below.
- Click on the map to create a geo-fence. Drag a mouse and create a geo-fence where ever you want to create by double clicking the mouse button.



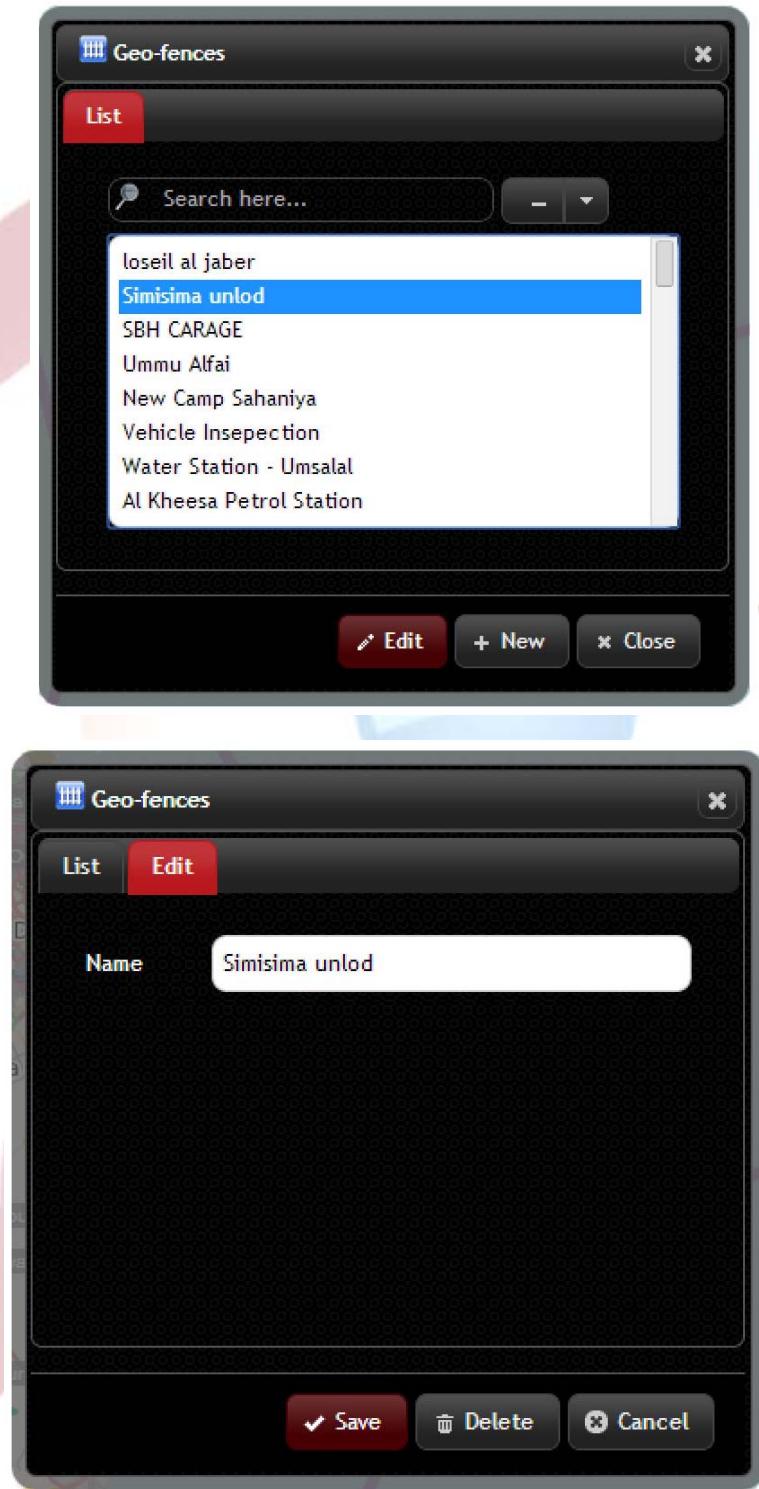
- After creating geo-fences we can edit the geo-fence which will display in the list as shown in the figure below.



- Select the Geo-fence name from the list as shown in the figure below.



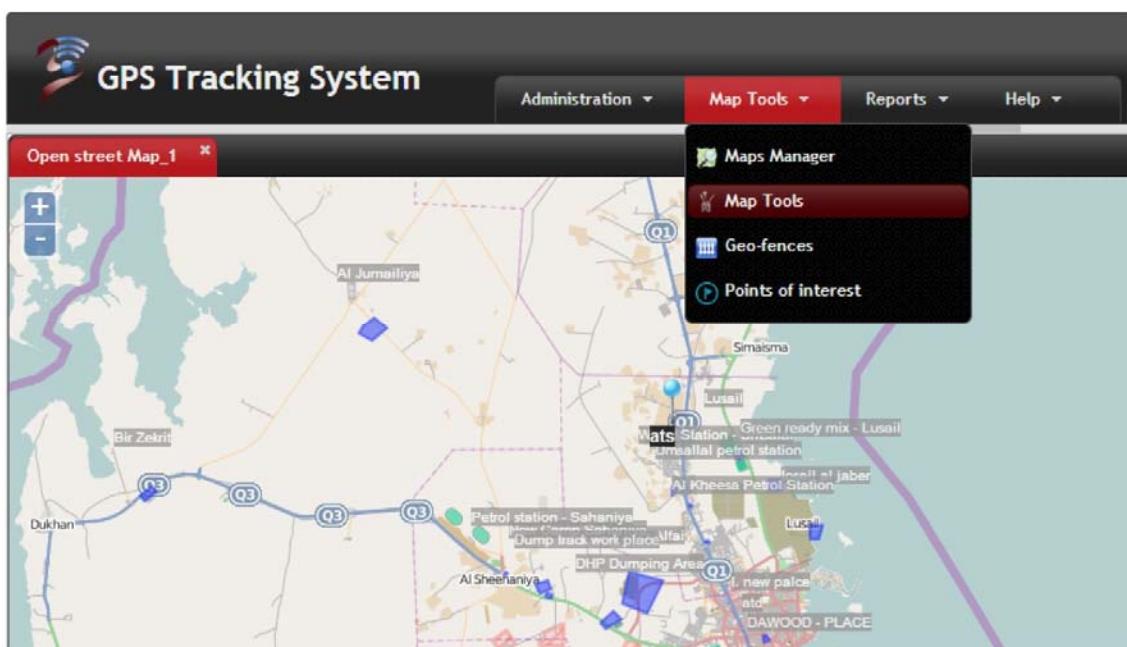
Click on ‘Edit’ button as shown in the figure below. You can edit a geo-fence name and the map.



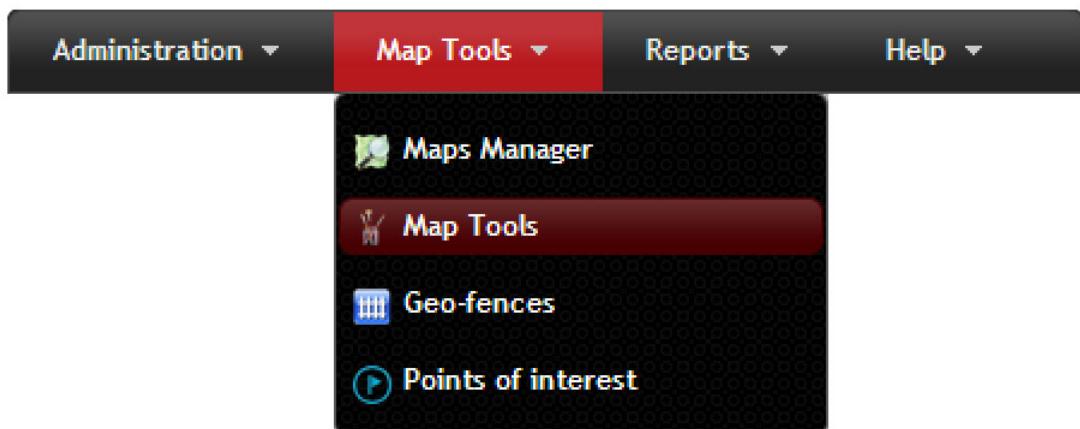


MAP TOOLS

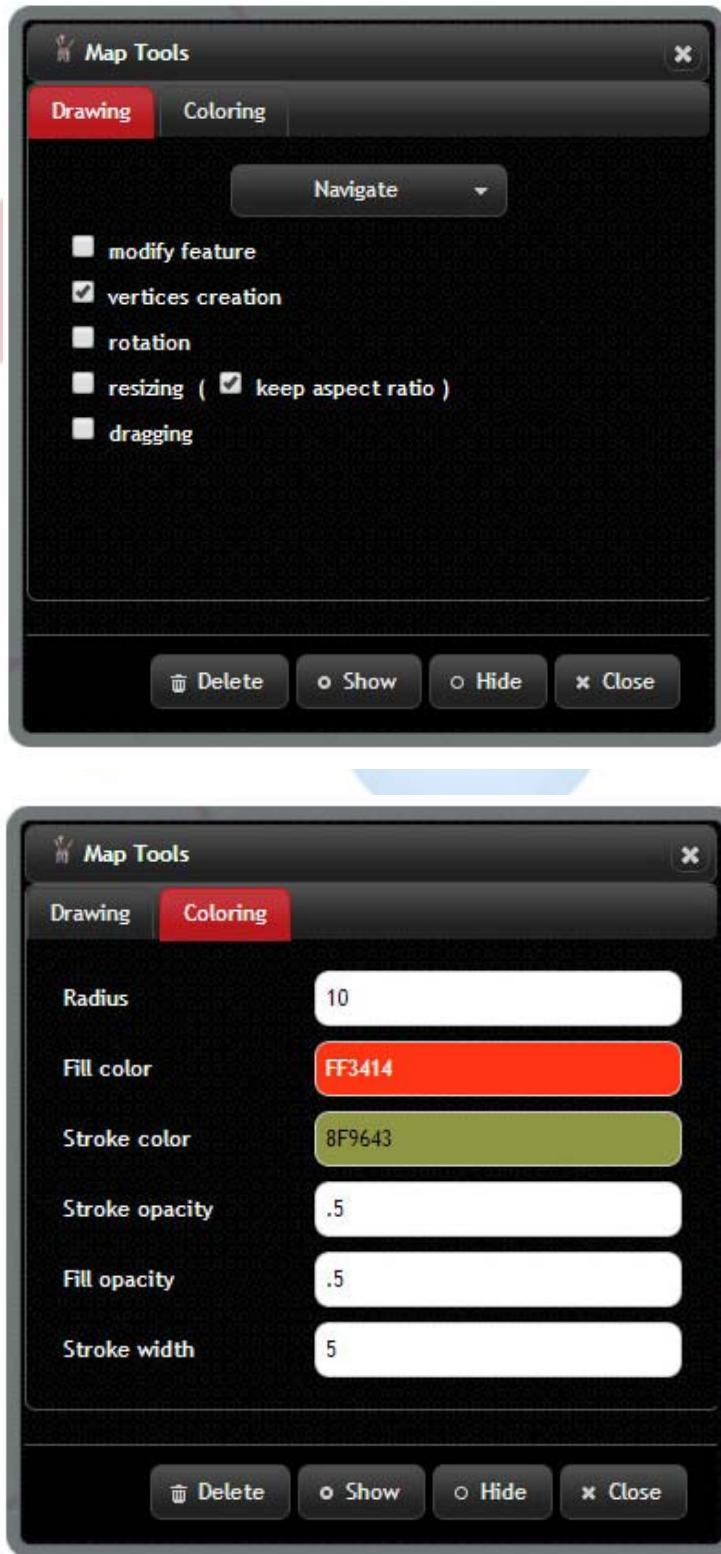
This option enables the user to create and edit their sub users.



- Click on **Map Tools** and select '**Map Tools**' from the dropdown list.



- Drawing and coloring tab will enable the user to edit the users.





TRACKER

This is used to show the list of tracking vehicles. User can edit the specific options from the list of trackers.

Edit Tracker

- Click on **Administration** and select ‘**Trackers**’, select ‘**Show All Trackers**’ from the Trackers dropdown list.

The screenshot shows a software application window with a dark theme. At the top is a navigation bar with four items: 'Administration', 'Map Tools', 'Reports', and 'Help'. Below this is a vertical sidebar containing several menu items with icons: 'Users' (person icon), 'Collections' (folder icon), 'Trackers' (GPS receiver icon, highlighted in red), 'My Account', 'Company Info', 'Commands' (lightning bolt icon), 'Options' (gear icon), 'Themes' (color palette icon), and 'Logout'. A dropdown menu is open under the 'Trackers' item, showing two options: 'Show All Trackers' (highlighted in red) and 'Distribute'.

Trackers Window will open which is use to display all the trackers available in the list.

- User can edit the tracker by clicking on **Edit** as shown in the figure below.

		Vehicle Reg	Driver Name	Owner name	Model	Tracker ID	Sim No	Speed Limit	Mileage Limi
1	Edit	nem10	nem10			86107402027217	00000	80	5000
2	Edit	nem11	nem11			86107402027287	00000	80	5000
3	Edit	nem12	nem12			86107402027313	000000	80	5000
4	Edit	nem13	nem13			86107402027215	000000	80	5000
5	Edit	nem14	nem14			86107402104198	00000	80	5000
6	Edit	nem15	nem15			86107402027256	00000	80	5000
7	Edit	nem16	nem16			86107402027267	00000	80	5000
8	Edit	nem17	nem17			86107402027220	00000	80	5000
9	Edit	nem18	nem18			86107402027205	00000	80	5000
10	Edit	nem19	nem19			86107402027227	00000	80	5000

Freeze columns Group by Clear

Page 1 of 3 View 1 - 10 of 28

Columns Search Reload Export Close



Edit tracker

General Parameters

Vehicle Reg	nem15	Users	↳ admin
Driver Name	nem15	Collections	↳
Owner name		E-mails	↳ admin
Model			
Vehicle Image			

Save Delete Close

Edit tracker

General Parameters

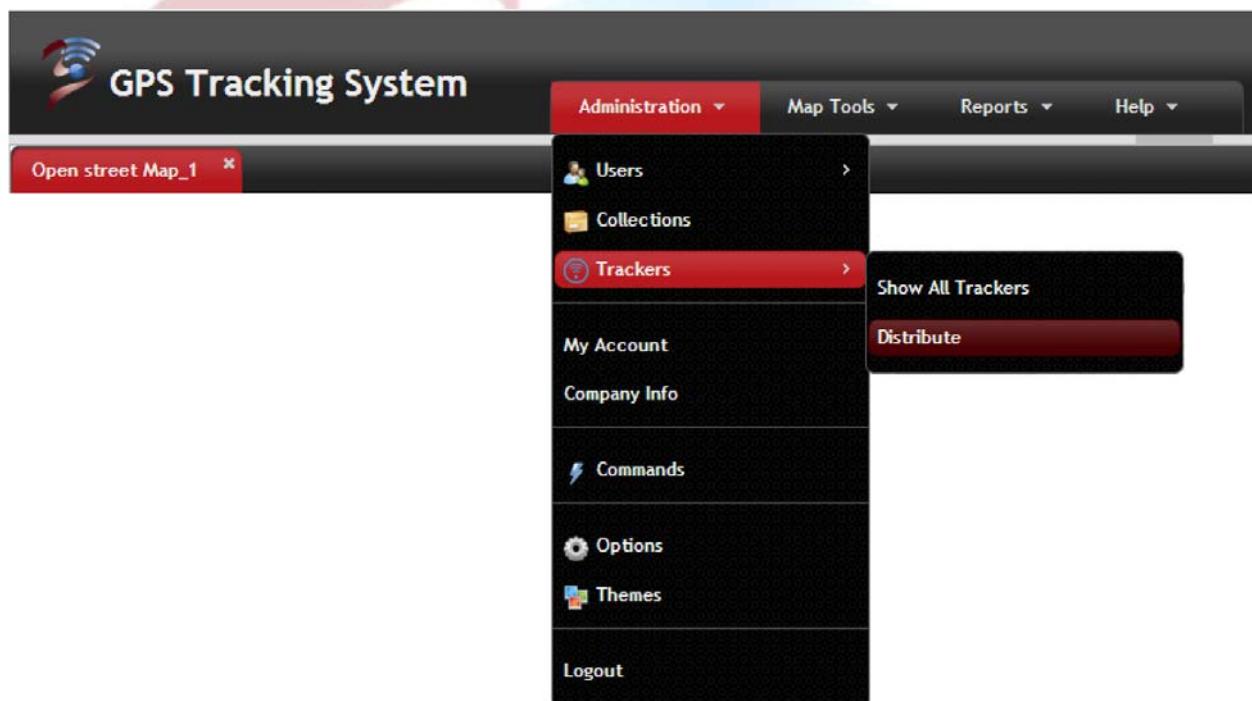
Speed Limit	80	MileageLimit	5000
Initial Mielage	0	Vehicle reg Expiry	
Idling Time	5		
Note			

Save Delete Close

Distribute

This option enables the user to distribute the trackers to appropriate user according to the requirements.

- Click on ‘Administration’ →‘Trackers’ and then select ‘Distribute’ from the sub menu.



- User can edit the Tracker and click on ‘General’ and ‘Parameters’ tab to edit the changes.



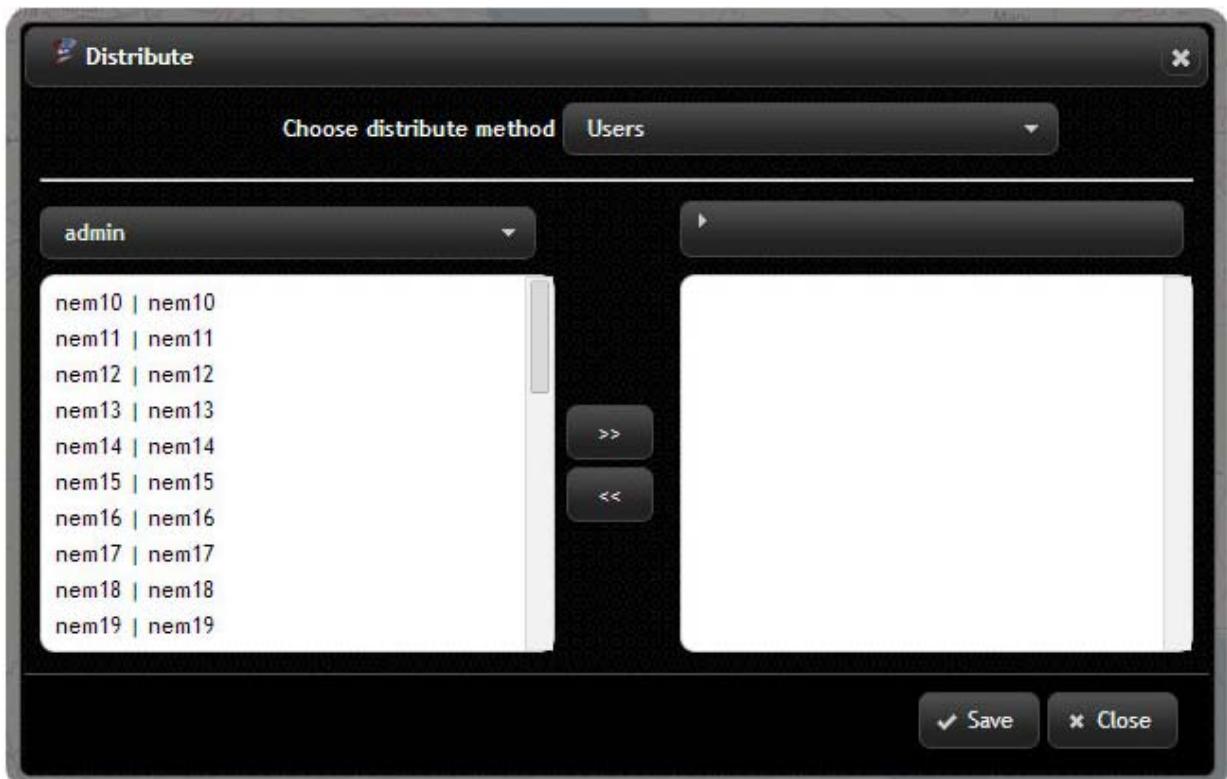
- User can distribute the list of trackers to the appropriate user by clicking on the arrow buttons as shown in the figure below.

Edit tracker

General Parameters

Speed Limit	80	MileageLimit	5000
Initial Mielage	0	Vehicle reg Expiry	
Idling Time	5		
Note			

Save Delete Close





COMPANY INFORMATION

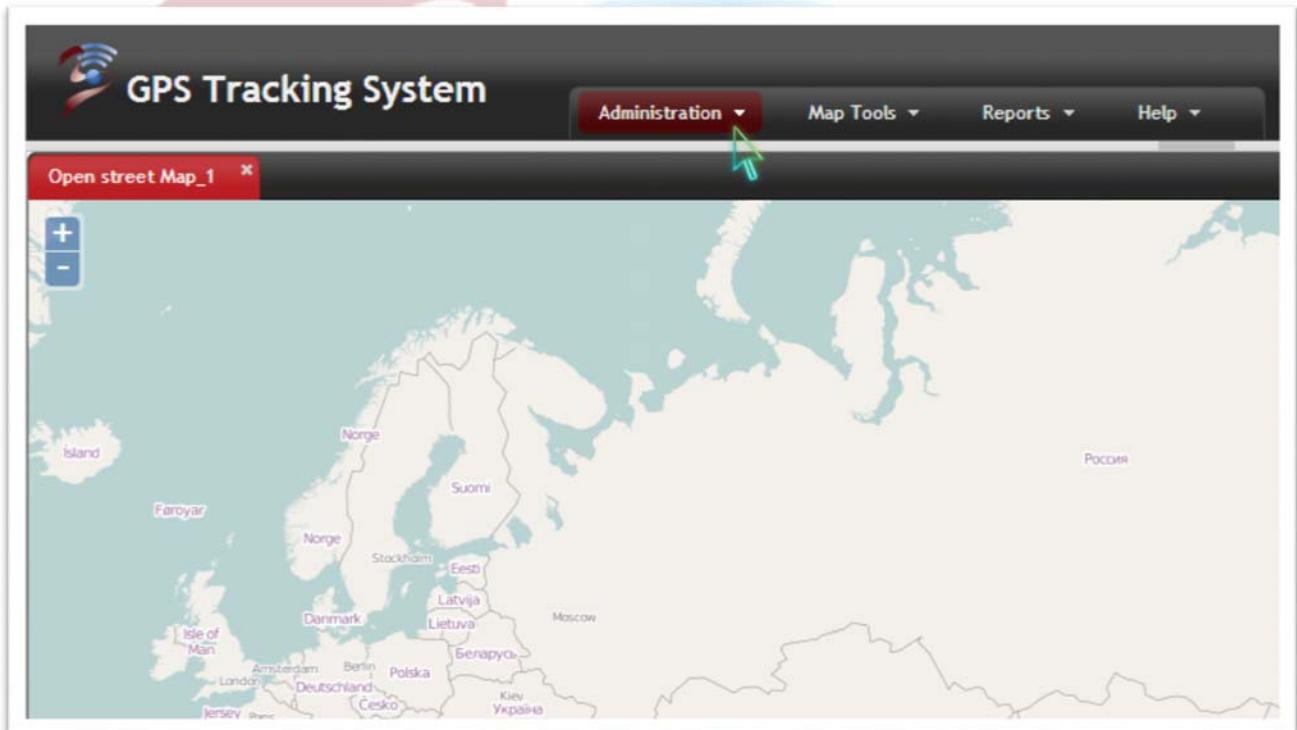
This option enables the user to add company information

The screenshot shows the GPS Tracking System interface. At the top, there is a navigation bar with the title "GPS Tracking System" and icons for Administration, Map Tools, Reports, and Help. A sidebar on the left contains links for Users, Collections, Trackers, My Account, Company Info (which is highlighted with a red background), Commands, Options, Themes, and Logout. Below the sidebar, a modal dialog box titled "Company Info" is open. This dialog box contains fields for Account (value: "ats"), Display Name (value: "Advanced Technologies & Solutions"), E-Mail (value: "info@ats-qatar.com"), Phone No (value: "44876611"), Mobile No (value: "77711003"), and Address (value: "PO Box:16938"). At the bottom of the dialog box are two buttons: "Save" (with a checkmark icon) and "Close".

ADD/ EDIT USERS

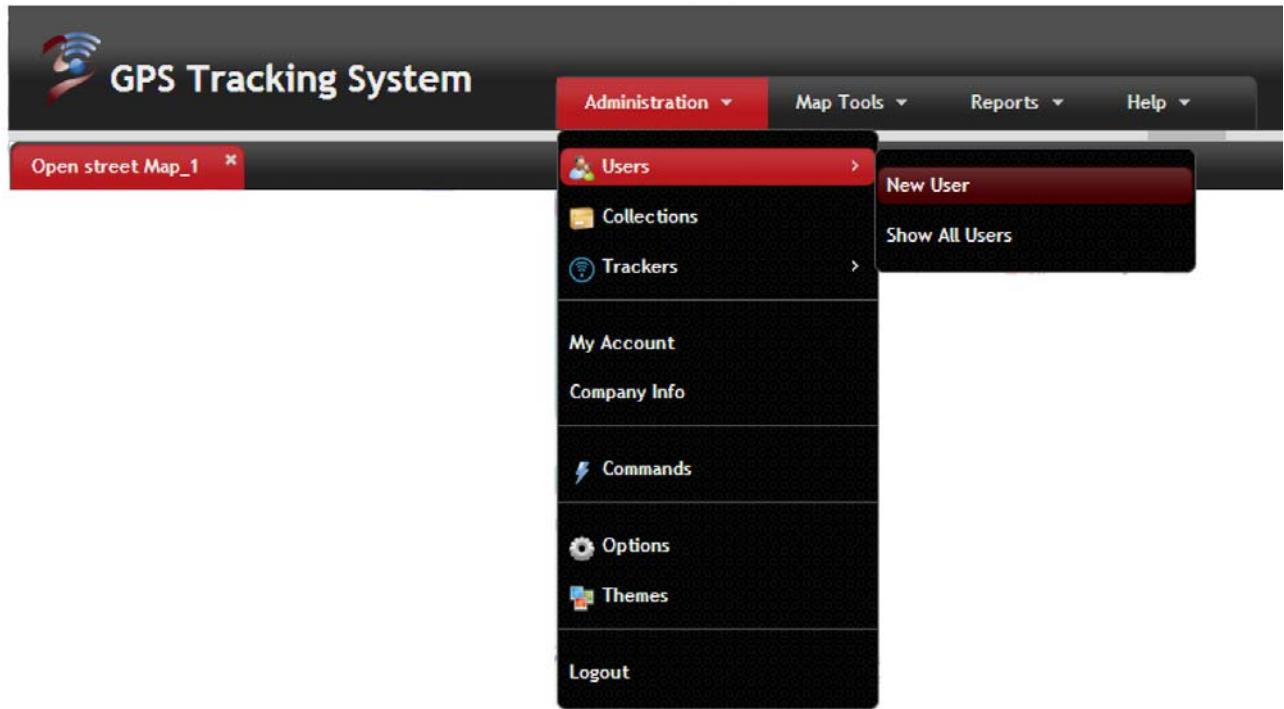
This option enables the user to **Add/Edit** the users according to the requirement.

- Click on the administration tab from the menu as shown in the figure below.





- Click on 'Users' and select 'New User' from the sub menu to add the new user.



- Enter the user information and click on save as shown in the figure below.

 Add user

User name	
Password	
E-mail	
Relation	admin
Time Zone	(GMT+03:00) Doha
Privilege	Normal
Expire date	
Active	yes

Save Reset Close

- Click on 'Save' and click on 'close' button.



Add user

User name	manager
Password	*****
E-mail	manager@gmail.com
Relation	admin
Time Zone	(GMT+03:00) Doha
Privilege	Normal
Expire date	04/03/2014
Active	yes

Save Reset Close

Edit User

This option enables the user to edit the user information by clicking on “Show All Users”.

The screenshot shows a table titled "Users" with columns: User name, E-mail, Relation, Privilege, Time Zone, Expire date, and Action. The "User name" column is sorted. There are two rows:

	User name	E-mail	Relation	Privilege	Time Zone	Expire date	Action
1	Edit	admin	master	Admin	Asia/Qatar		
2	Edit	manager	manager@gmail.com	Normal	Asia/Qatar	04/03/2014	

Below the table are buttons for "Freeze columns", "Group by", and "Clear". At the bottom are navigation buttons for page 1 of 1, and a status message "View 1 - 2 of 2".

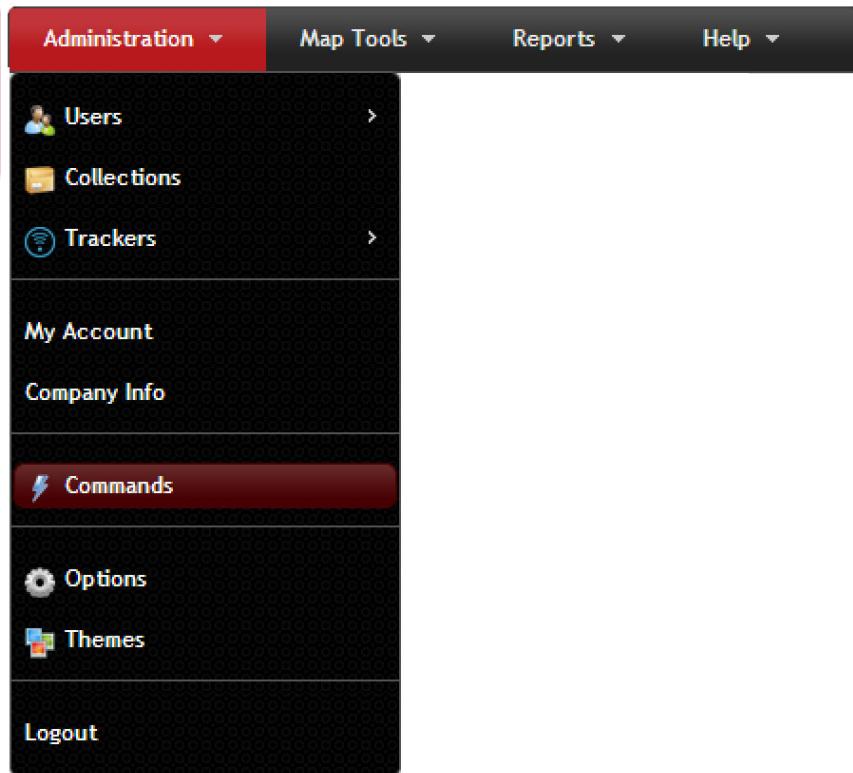
The screenshot shows an "Edit user" dialog box with fields for User name (manager), Password (redacted), E-mail (manager@gmail.com), Relation (admin), Time Zone ((GMT+03:00) Doha), Privilege (Normal), Expire date (04/03/2014), and Active (yes). Below the dialog are buttons for Save, Delete, and Close. The background shows the same "Users" list as the previous screenshot.



COMMANDS

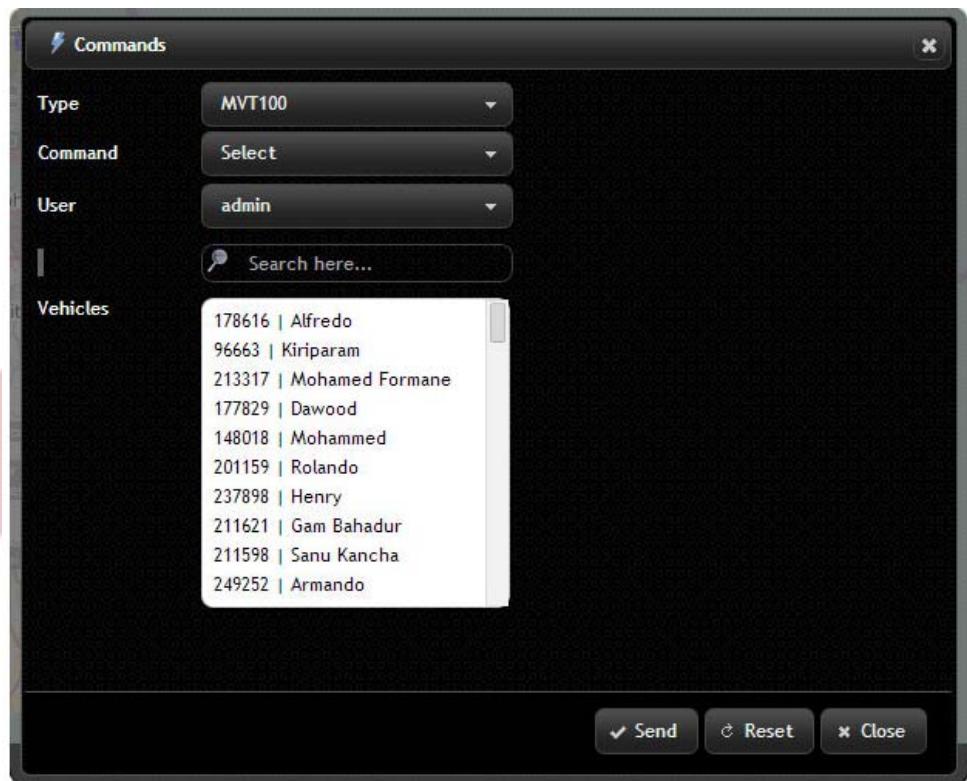
Commands

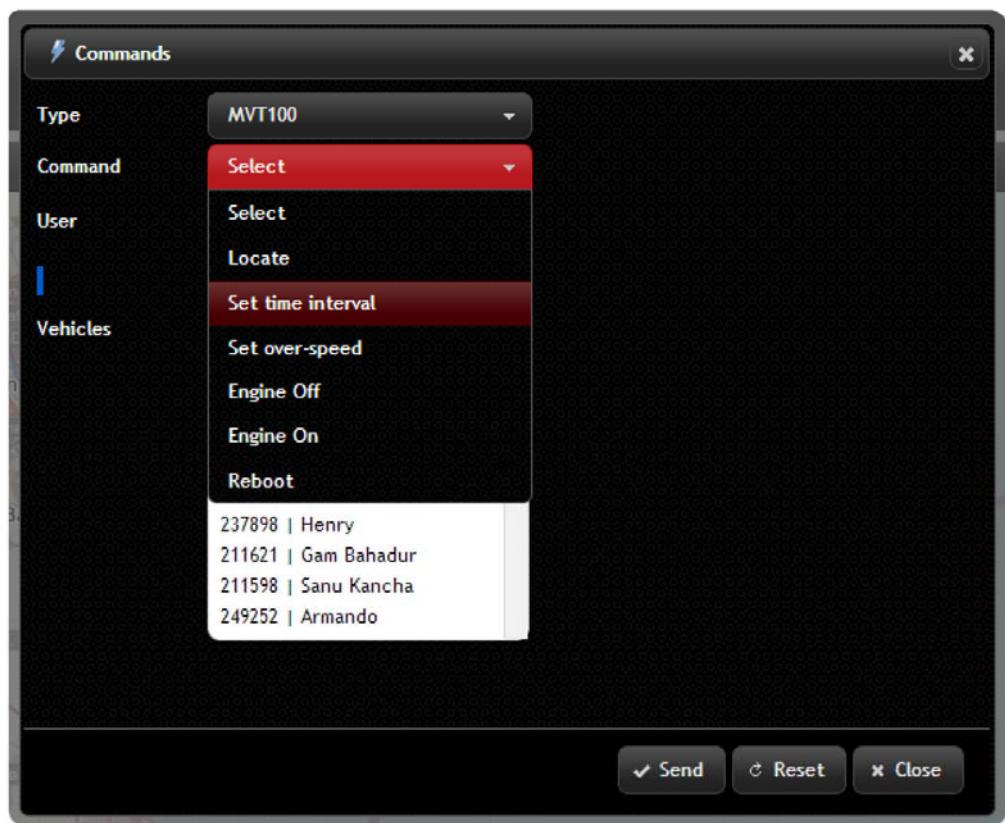
This option is used to send the commands to the vehicles. The user can send commands to a vehicle according to the requirement.

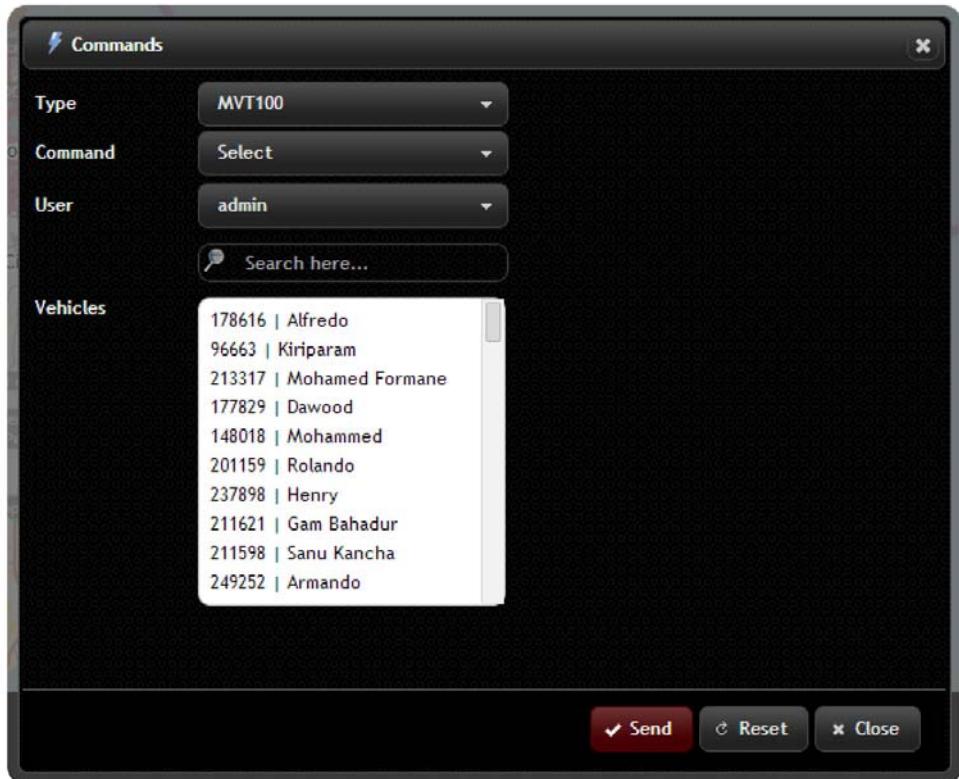


This option enables the user to Add/Edit the users according to the requirement. There are six options in the dropdown list as mentioned below

1. Locate
2. Set Time Intervals
3. Set Over-speed
4. Engine off
5. Engine On
6. Reboot







Locate : It is use to locate the particular tracking vehicle

Set Time Interval : It is use to set the tracking vehicle time interval

Set Over-speed : It is used to set the speed of the vehicle

Engine off : It is use to set the engine off

Engine on : It is use to set the engine On

Reboot : It is use to reboot the tracking device vehicle.

MY ACCOUNT



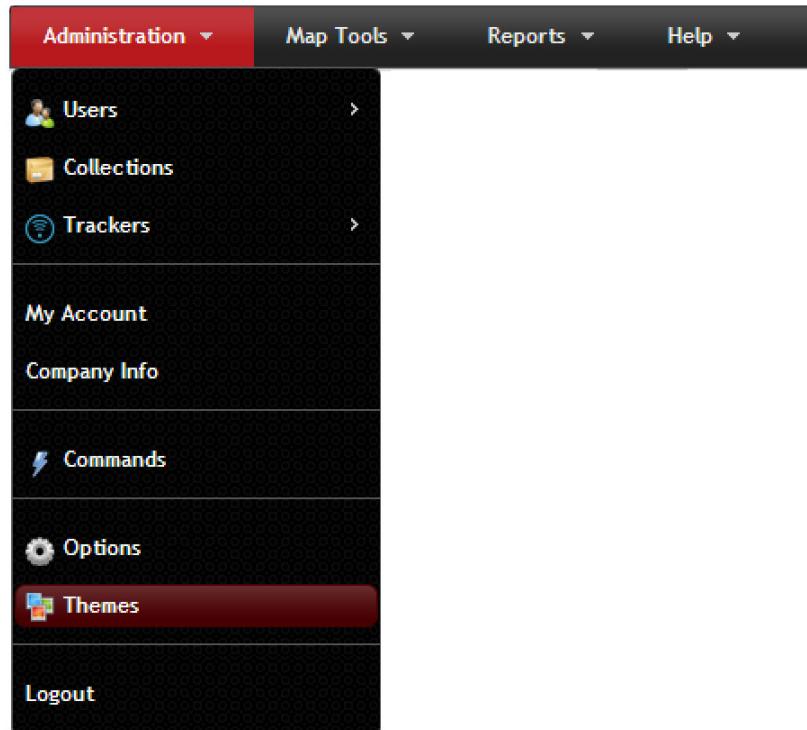
This option enables the user to display Account information.

The screenshot shows the GPS Tracking System interface. At the top, there is a navigation bar with tabs for Administration, Map Tools, Reports, and Help. A dropdown menu is open under the Administration tab, showing options like Users, Collections, Trackers, My Account (which is highlighted in red), Company Info, Commands, Options, Themes, and Logout. Below this, a modal dialog box titled "Edit user" is displayed. The dialog contains fields for User name (admin), Password (redacted), E-mail (alpina31@hotmail.com), Relation (master), Time Zone (GMT+03:00 Doha), Privilege (Admin), Expire date (empty), and Active (yes). At the bottom of the dialog are "Save" and "Close" buttons.

THEMES

This option enables the user to set different themes.

- Click on ‘Administration’ and select ‘Themes’ from the Menu.



- Select the themes which you want to set and click on ‘close’ button



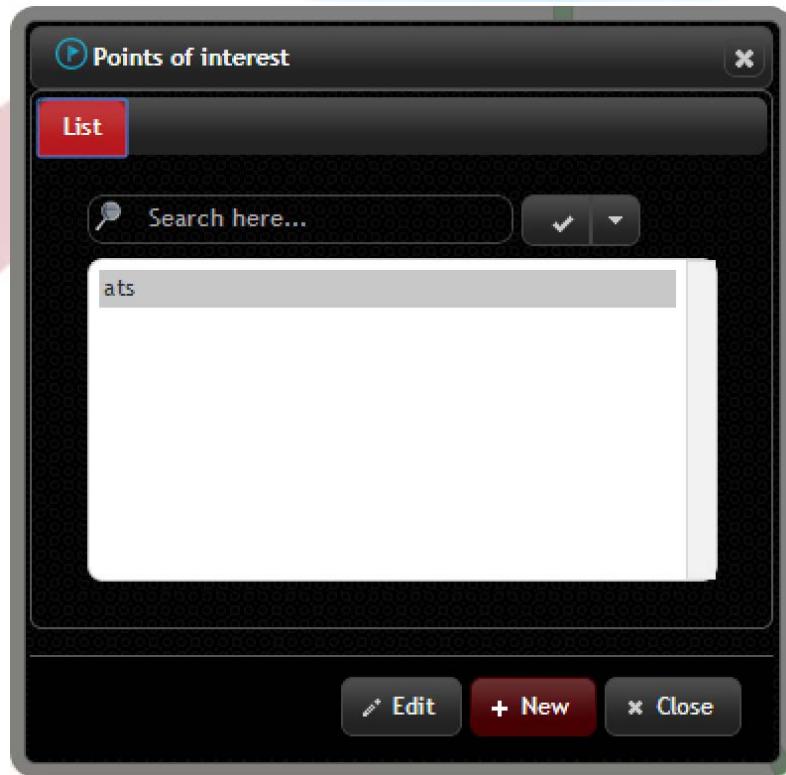


POINT OF INTEREST

Point of interest is a map tool which will store your interested position in map. For next login user can easily access there interested locations.

The screenshot shows a software interface with a top navigation bar containing 'Administration', 'Map Tools' (which is highlighted in red), 'Reports', and 'Help'. Below this is a sidebar with icons for 'Maps Manager', 'Map Tools', 'Geo-fences', and 'Points of interest' (which is also highlighted in red). The main area is titled 'Points of interest' and contains a search bar with the placeholder 'Search here...' and a dropdown menu. At the bottom are buttons for 'Edit', '+ New', and 'Close'.

- Click on ‘New’ button to create new POI’s



- Enter the POI name and description and select an image which you want to set on the POI .



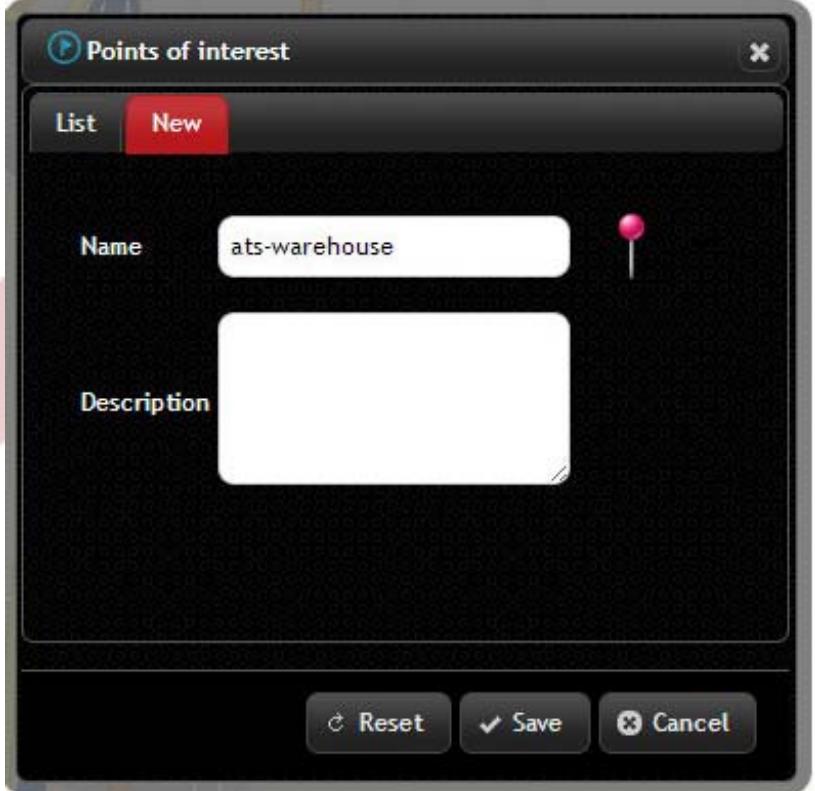
Points of interest

List New

Name: ats-warehouse

Description:

Reset Save Cancel



- Click on 'Save' button to save the changes and click on 'Reset' button to reset the changes.

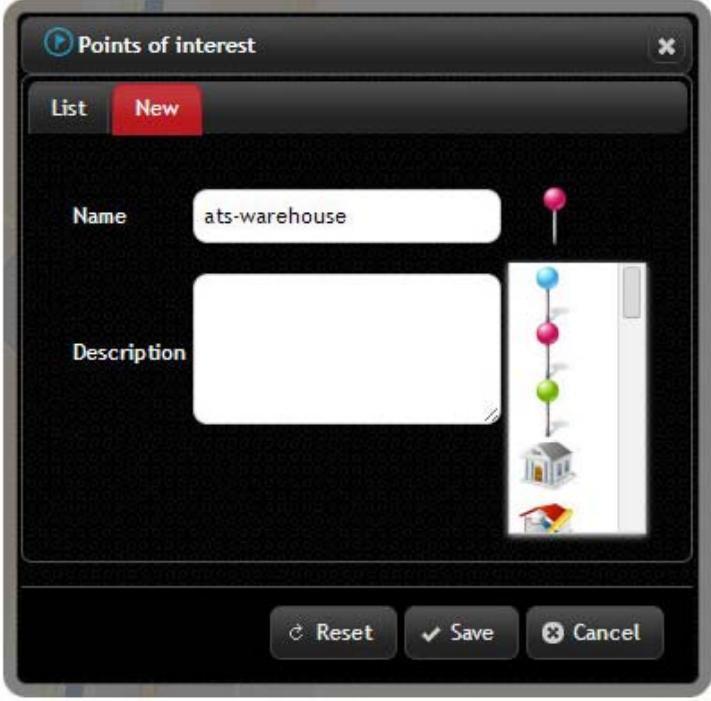
Points of interest

List New

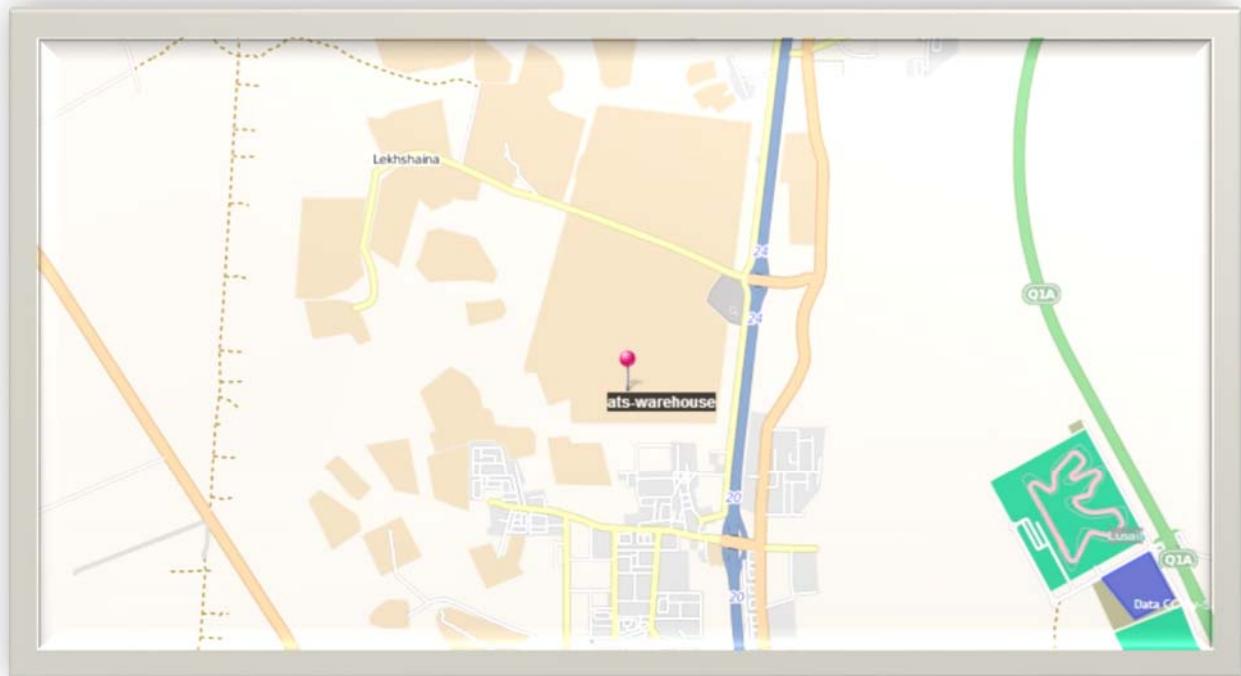
Name: ats-warehouse

Description:

Reset Save Cancel



Here the below figure shows the POI location along with name and image.





OPTIONS

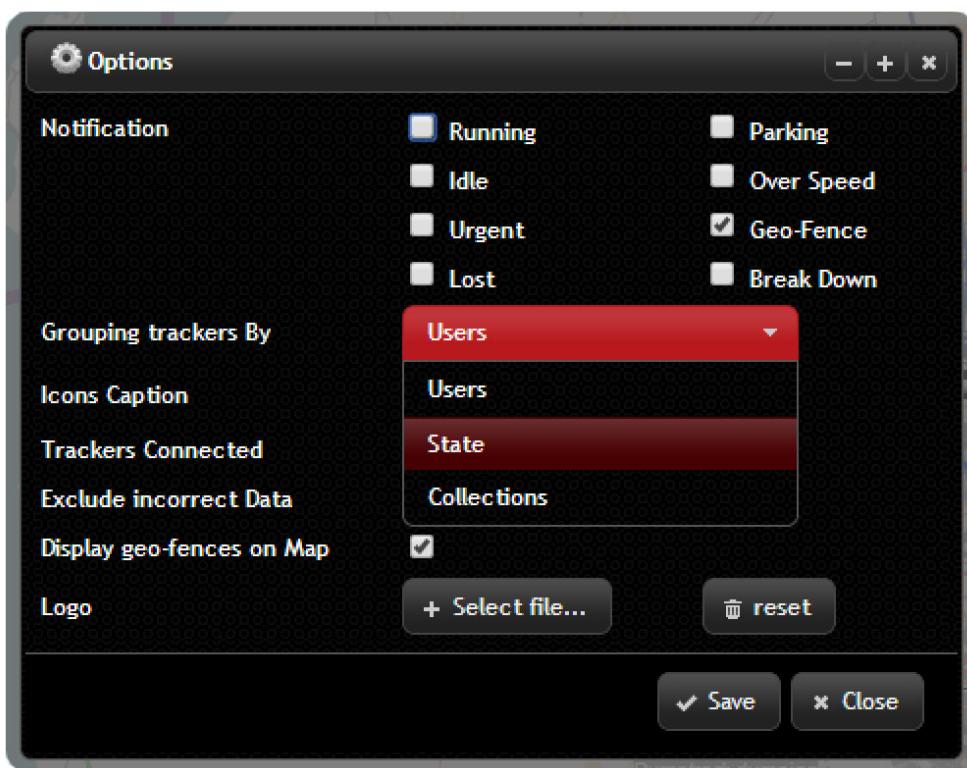
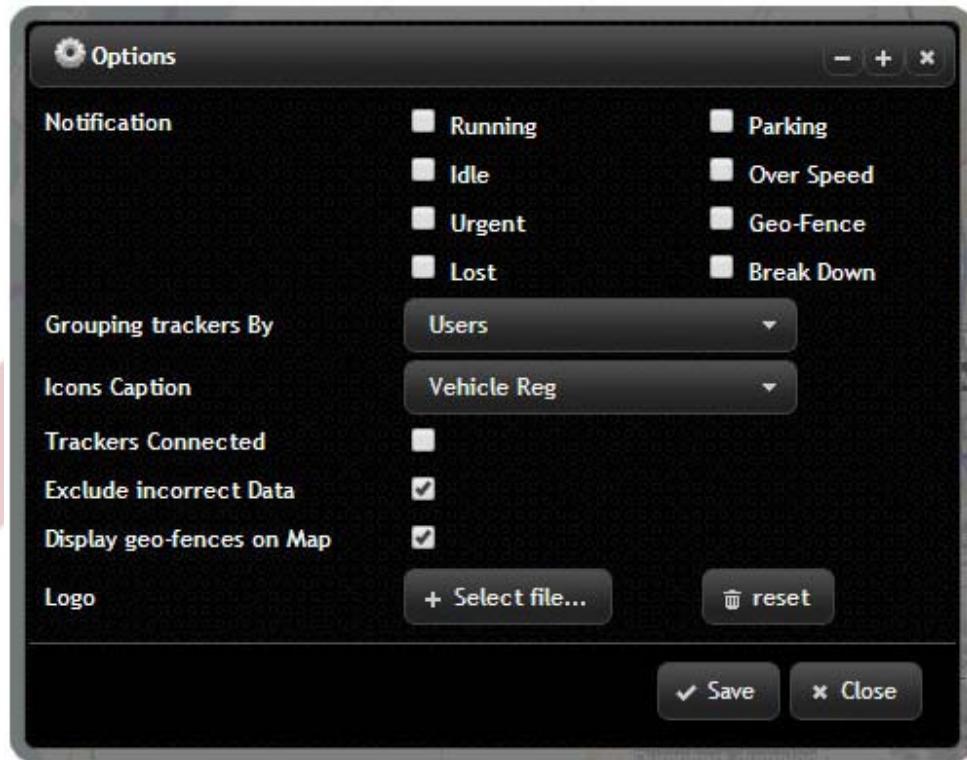
Administration ▾

Map Tools ▾

Reports ▾

Help ▾

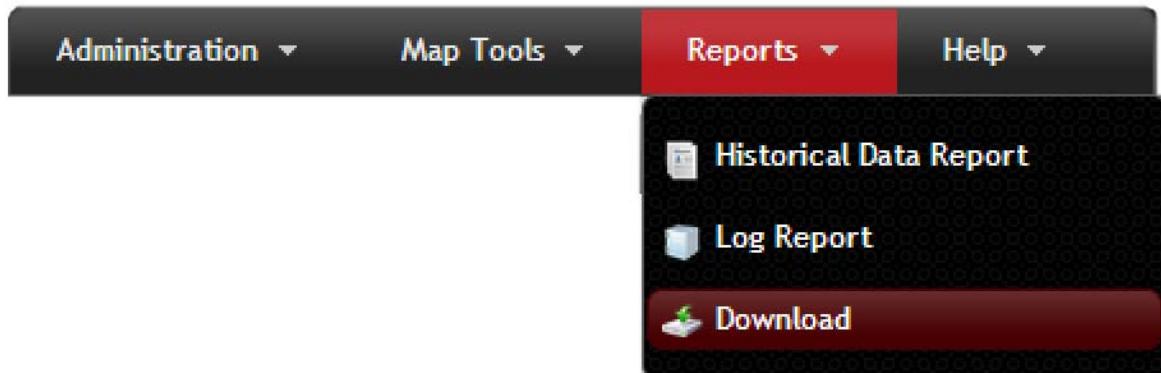
- Users >
- Collections >
- Trackers >
- My Account
- Company Info
- Commands
- Options
- Themes
- Logout



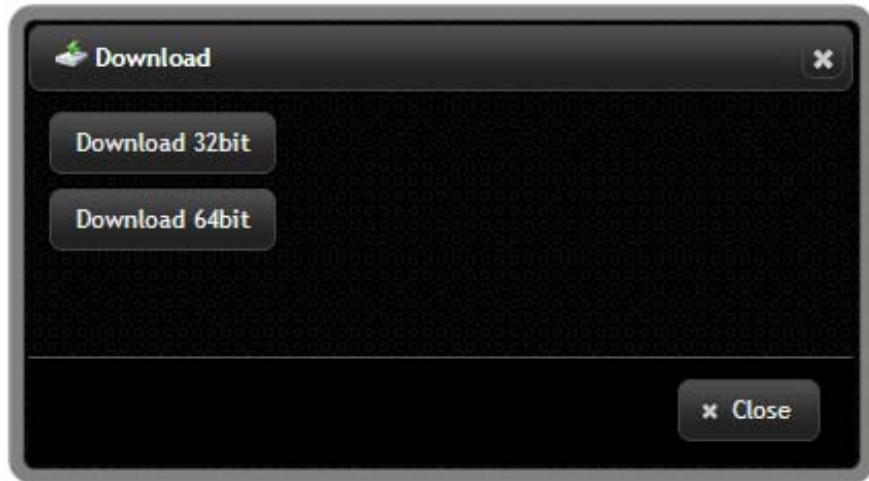


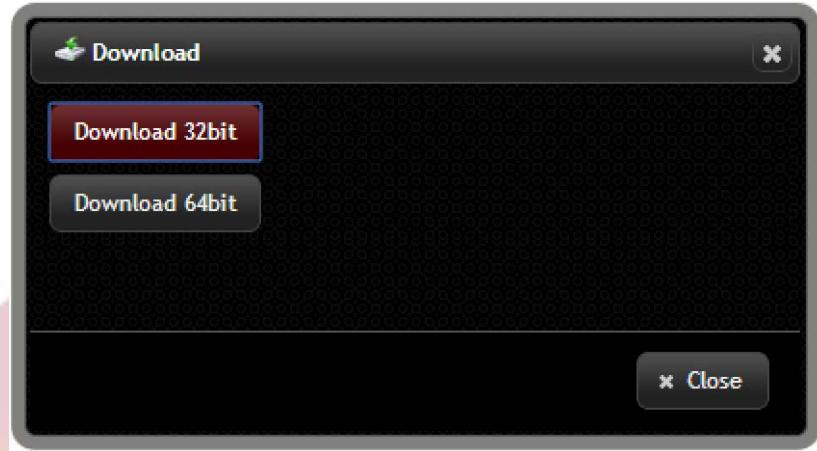
DOWNLOAD

This option is use to download the program application from the website i.e TQAT Report Management System



Click on 'Download 32bit' button for 32bit operating system.





Click on 'Download 32bit' button for 32bit operating system.



BENEFITS

Economic Benefits

1. Increasing revenue through optimal productivity.
2. Reducing cost.
3. Improve driver safety.
4. Increase fuel economy.

Terms & Conditions

- Clients must sign an end-user agreement for T-Qat Subscription (Finalize the content of the agreement only on the basis of mutual understanding. Here we enclosed one sample agreement)
- Registration details of each vehicles.
- ID card/CR of your company.

Conclusion

We are dedicated to serve you for improving your business productivity while providing better technological service. Our customer/technical support will be available 24/7. We can offer you a smooth and fast technology advice for your business goals achievement.