

Track Forever Enterprise Client Control Center Application



User Manual Draft

Version 4.0.5

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INVINCIBLE TECHNOLOGIES (SMC-PVT) LTD

Invincible People, Invincible Technologies & Invincible Solutions
We develop solutions that reach beyond physical boundaries using state of the art internet, intranet, GSM, GIS, GPS and related technologies.

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1. Introduction

Track Forever™ is an enterprise grade GSM/GPRS based GPS asset tracking software solution that help corporations of all scales to track their immovable or moveable assets (rails, truck, car, bikes, bicycles etc) in an automated and efficient way. By using this software user can administrate, monitor, communicate, regulate and control his fleet. Most of the tasks are automated and require less human interaction.

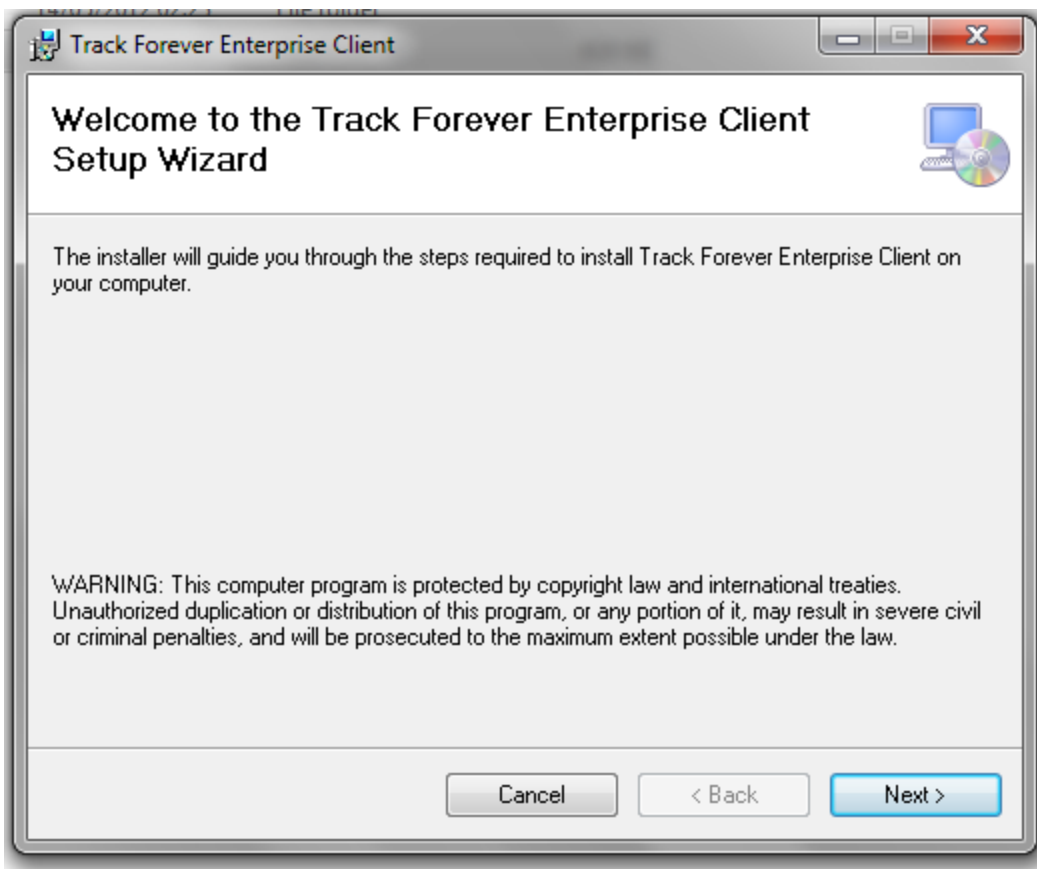
2. Track Forever Enterprise Client

This is control center software application and is a subsystem of Track Forever Enterprise Software Suite. This application mainly focuses on vehicle monitoring, tracking, configuration and customer support. In this document we'll learn how to install, configure and perform different tasks using this application.

3. Installing Software

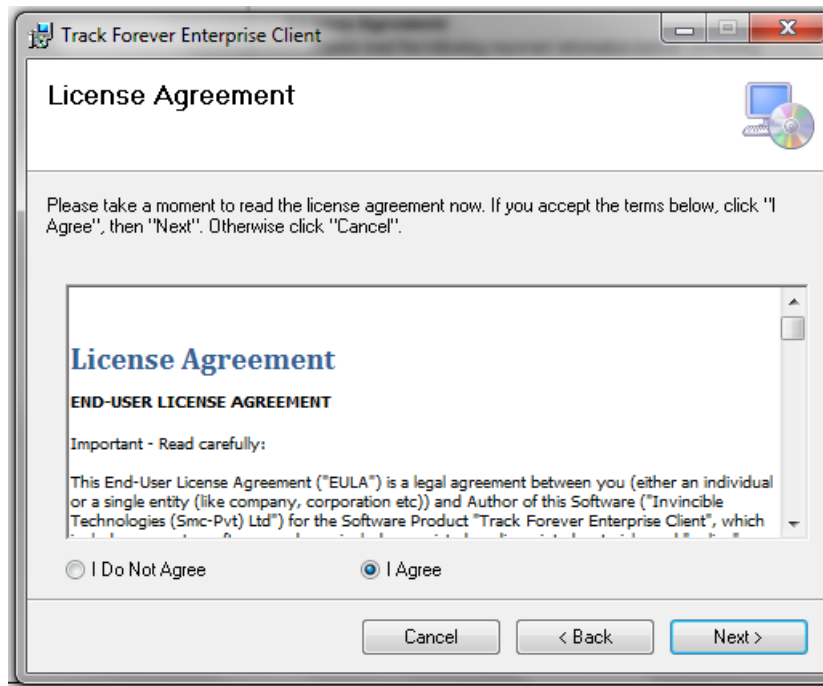
Track Forever Enterprise Client setup wizard is simple and easy featuring a standard Microsoft Windows setup interface for 32bit and 64bit machines. User only needs to complete a few steps.

- 1) Double click on the setup.exe (or similar file name) file on the CD-ROM. This will launch the Setup Wizard.

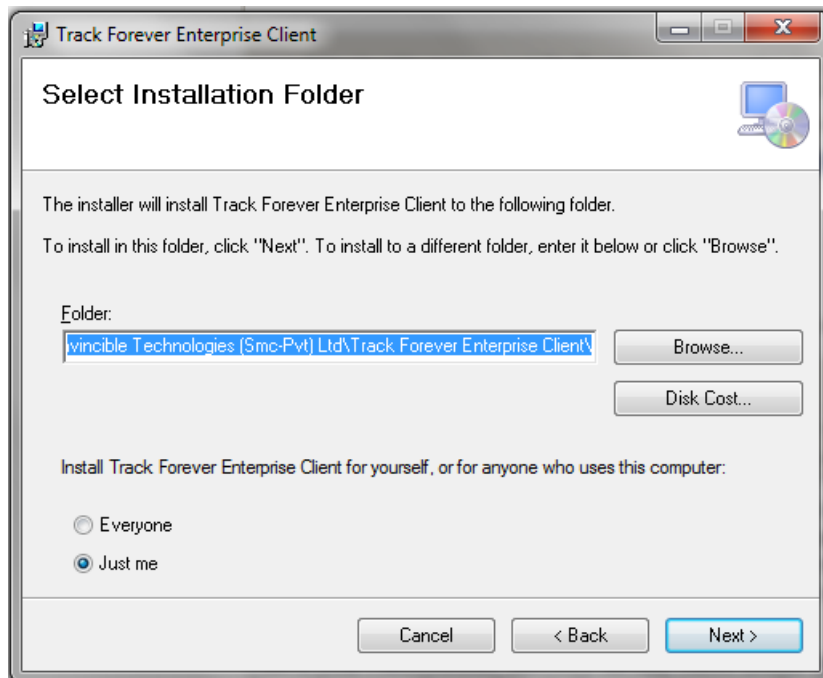


- 2) Click Next on the Window Screen.

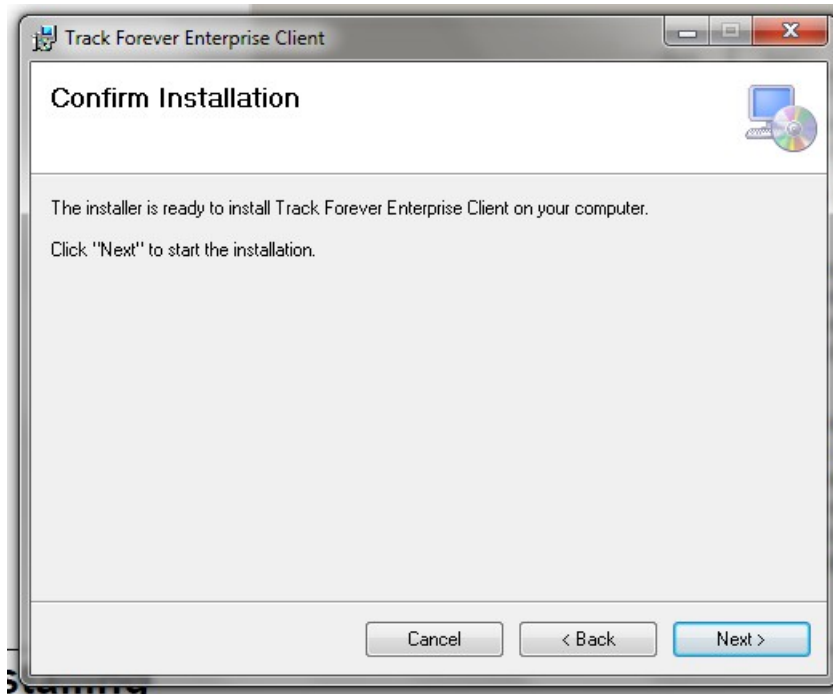
- 3) Read the License Agreement carefully and select "I Agree" and click "Next" to proceed further or click "Cancel" button to cancel the installation wizard.



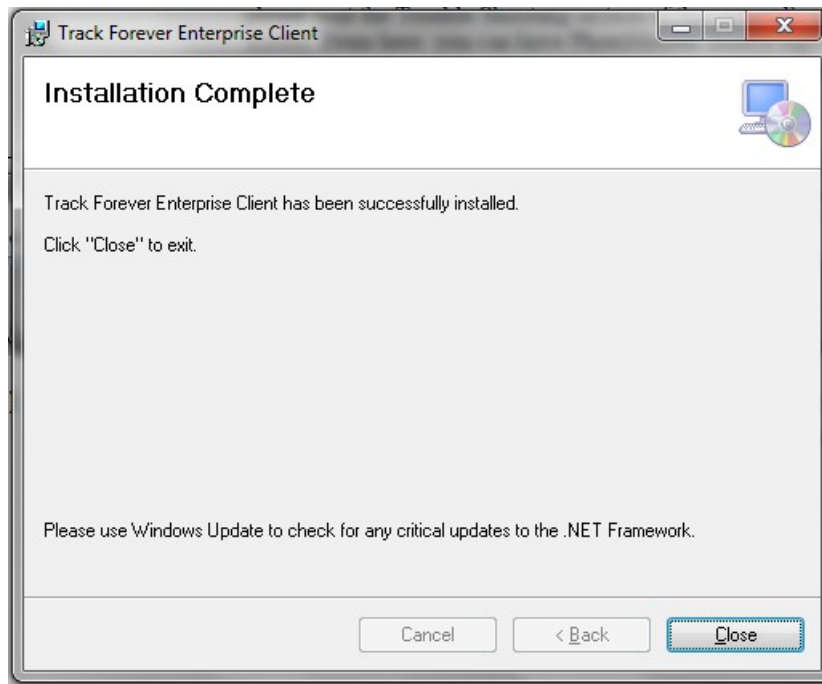
- 4) Select installation folder and click "Next" button.



- 5) Confirm installation by clicking on the "Next" button.



- 6) Track Forever Enterprise Client will now install the program files. If there were no problems during installation, user will see the installation complete screen.



4. Uninstalling Software

- 1) You may uninstall software via "Add/Remove Programs" in control panel.

5. Minimum Requirements

The software and hardware prerequisites for installing Track Forever on a Windows system are as follows:

- 1) Microsoft XP, Vista, or Windows 7/8/10;
- 2) Pentium-compatible PC with 1.8GHz or better clock speed;
- 3) Minimum 512MB RAM recommended;
- 4) Up to 1 GB empty hard disk space;
- 5) 1024x768 resolution (higher resolution recommended), with 16bit or better color depth.

6. Launching Application

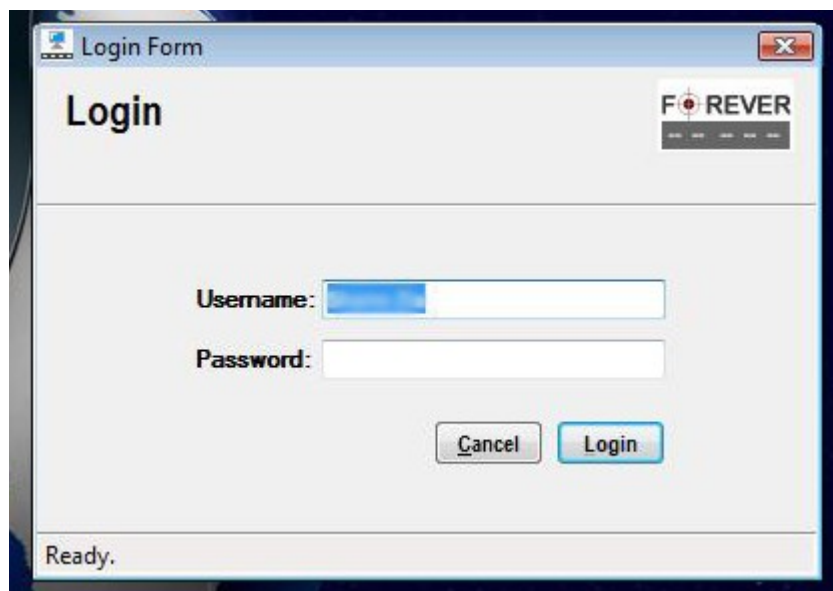
Click on Start->All Programs->Invincible Technologies->Track Forever Enterprise Client icon to launch application. On successful launch splash screen will popup and user will be presented with login form.



(6.1)

7. Login

- 1) Select the "Login" menu item from the "Application" menu. This will bring up the "Login Form".
- 2) Enter "Username" and "Password" and click "Login" button.



(7.1)

3) On successful login the menu items will be enabled as per user role and rights.



(7.2)

8. Logout

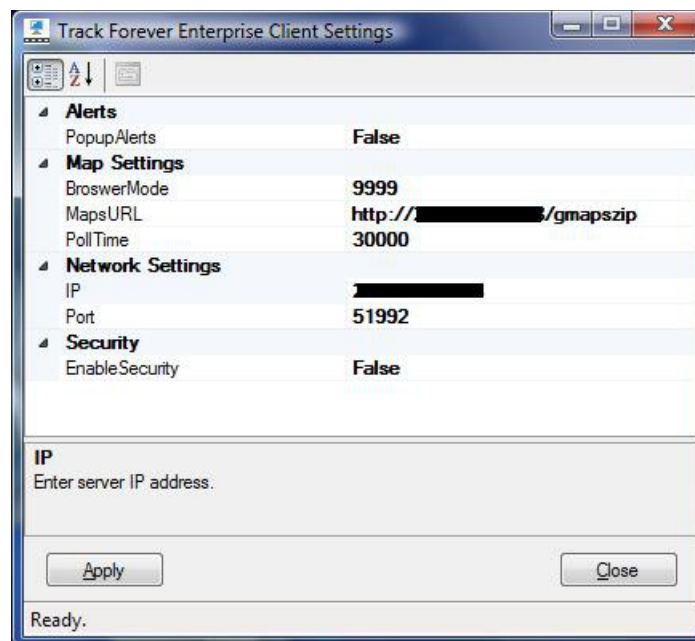
1) To logout and close the application select "Logout & Exit" menu item option from the "Application" menu.



(8.1)

9. Settings

1) In order to change application settings select "Settings" menu item from the "Application" menu. This will show following form.



(9.1)

2) Host map client (tfmapclient) web application in IIS server.

- 3) Set "MapsURL" property to the IIS hosted map client web application.
- 4) Enter Server IP, Port and other values correctly to connect to Track Forever Enterprise server.
- 5) Incorrect settings will lead to login failures and no server connectivity.
- 6) Apply settings by pressing "Apply" button.
- 7) Close application form by pressing "Close" menu item and restart application to take changes effect.

10. Manage SIMS

"SIMS Management Form" lets user add, delete or modify existing SIM cards information in the system.

- 1) Select the "Manage SIMS" menu item option from the "Asset Management" menu. "SIMS Management Form" will be loaded.



(10.1)

- 2) On "SIMS Management Form" user can Search, Add, Edit and Delete SIMS.

Sim No	Vehicle ID	Account ID	Operator
+92	34	894	Telenor
+92	25	894	Telenor
+92	21	894	Telenor
+92	44	894	Telenor
+92	32	894	Telenor
+92	40	894	Telenor
+92	42	894	Telenor
+92	49	894	Telenor
+92	10114	894	Telenor
+92	53	894	Telenor
+92	52	894	Telenor

(10.2)

10.1. Search SIMS

User can search SIMS by applying filters and pressing "Search" button as shown in figure 10.2.

10.2. Register New SIM

User can register new SIM through "SIMS Management Form" as explained below:

- 1) Click the "Add" button on the "Manage SIMS Form". This will load "SIM Registration Form".



(10.3)

- 2) Enter valid SIM number in following format "+923xxxxxxx". Users may add country code as per their choice.
- 3) Enter SIM account id as issued by the GSM operator or any other account code of your choice.
- 4) Select appropriate operator from "Operator" drop down item.
- 5) Select appropriate package from "Package" drop down item.
- 6) Select SIM status from "Status" drop down item.
- 7) Press "Add" button to save entered information.

10.3. Edit SIM

User can edit SIM record through "SIMS Management Form" as explained below:

- 1) Select the SIM record from "SIMS Management Form" as shown below.

The screenshot shows the "SIMS Management Form" window with the title "Manage SIMS". At the top right is the "FO REVER" logo. Below the title bar, there are three input fields: "Sim No:" (a text box), "Operator:" (a dropdown menu with "Select Mobile Operator" selected), and "Package:" (a dropdown menu). A "Search" button is located below these fields. The main area contains a table with the following columns: "Sim No", "Vehicle ID", "Account ID", and "Operator". The table lists 12 records, with the 4th record (+923454021699) highlighted in yellow. Below the table, it says "Total = 92". At the bottom, there are buttons for "Add", "Delete", "Close", and "Refresh". The status bar at the very bottom says "Ready".

Sim No	Vehicle ID	Account ID	Operator
+923454021570	52	8941006090418947963	Telenor
+923454021578	45	8941006090418947959	Telenor
+923454021582	43	8941006090418947958	Telenor
+923454021699	55	8941006090418947967	Telenor
+923454021741	35	8941006090418947951	Telenor
+923454021785	39	8941006090418947948	Telenor
+923454021787	81	8941006090418947952	Telenor
+923454021848	54	8941006090418947968	Telenor
+923454021948	48	8941006090418947967	Telenor
+923454023288	24	8941006090418947945	Telenor
+923454023395	103	8941006090418947952	Telenor

(10.4)

- 2) Double click on selected record. This will load the "SIM Modification Form" with selected SIM record details as shown in figure 10.4a.

The screenshot shows a software window titled "SIM Modification Form" with a sub-header "Edit SIM". The window includes the "FOREVER" logo in the top right corner. The main area contains five input fields: "Sim No:" (text box), "Account ID:" (text box), "Operator:" (dropdown menu), "Package:" (dropdown menu showing "GPRS Data 1"), and "Status:" (dropdown menu showing "Active"). At the bottom, there are two buttons: "Update" and "Close". A status bar at the very bottom of the window displays the text "Ready."

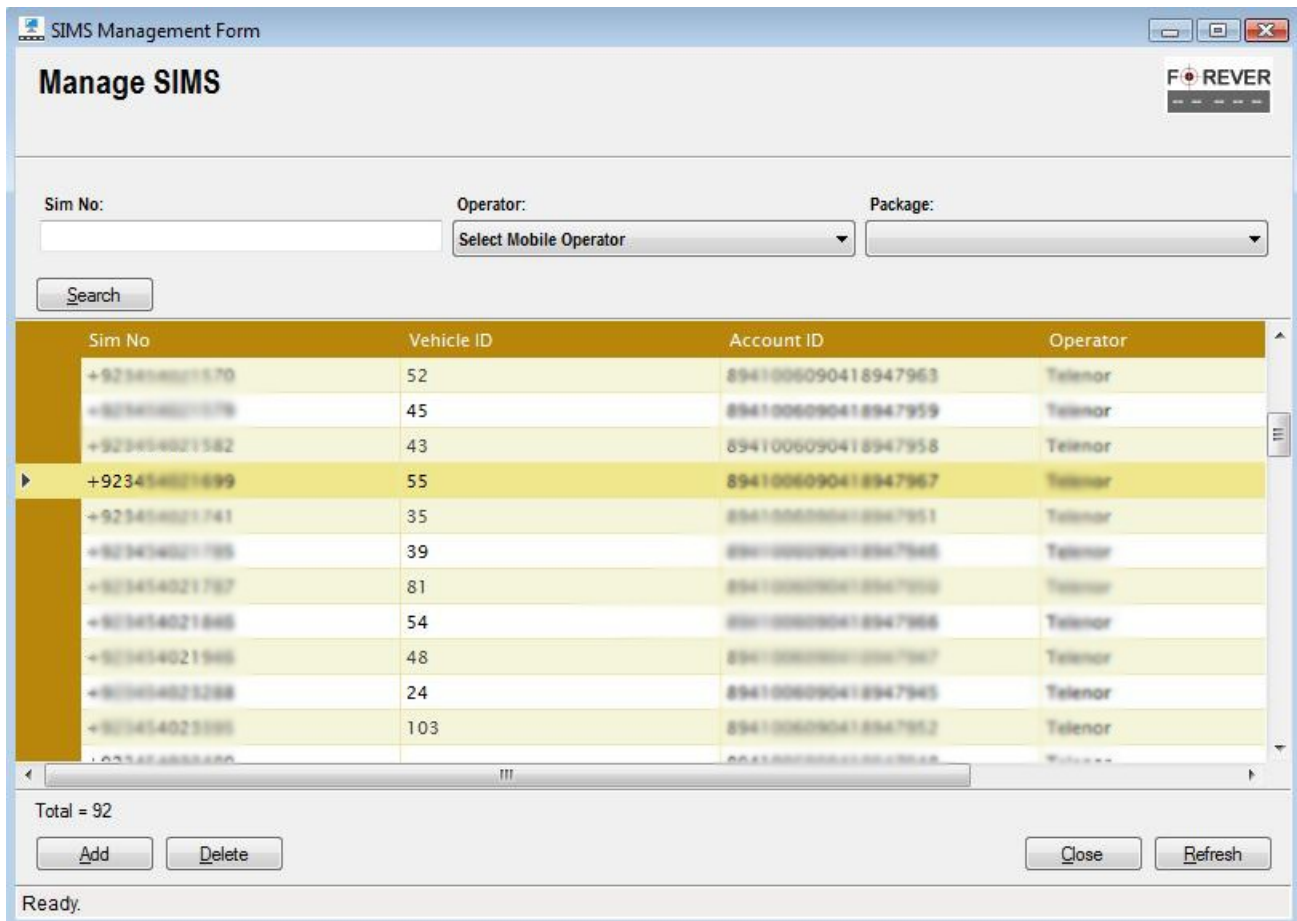
(10.4a)

3) Edit details and update SIM record by pressing "Update" button.

10.4. Delete SIM

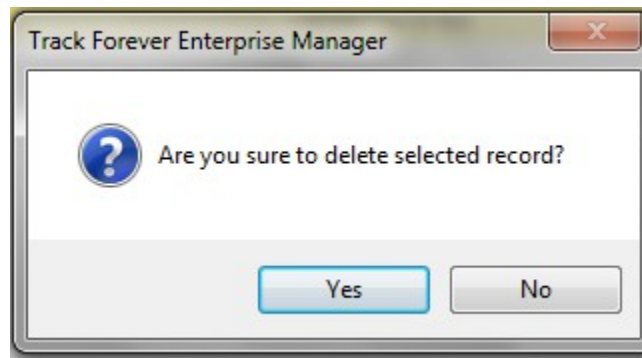
User can delete SIM record through "SIMS Management Form" as explained below:

- 1) Select the SIM record from "SIMS Management Form" by clicking on row header as shown below in figure 10.5.



(10.5)

- 2) Click "Delete" button and a confirmation dialogue box will be displayed.
- 3) Select "Yes" to delete selected record from the system.



11. Manage Vehicles

"Vehicle Management Form" let you search, add, edit and delete vehicle records. User may filter vehicle records based on drop down filters.

- 1) Select the "Manage Vehicles" menu item option from the "Asset Management" menu as shown in figure 11.1.



(11.1)

- 2) This will load "Vehicles Management Form" as shown below in figure 11.2.

Vehicle ID	Reg No	Engine No	Chasis No	Installation Date	Branch ID	Customer
105	BLANK			28-May-2015	MainBranch	9
109	CLAMP			25-May-2015	MainBranch	9
108	NPT100-125-8100			11-May-2015	MainBranch	9
106	NPT100-125-8100			22-Jan-2015	MainBranch	9
97	NPT100-125-8100			30-Nov-2014	MainBranch	9
98	NPT100			29-Nov-2014	MainBranch	9
86	10000-1			18-Sep-2014	MainBranch	9
90	NPT100-1			18-Sep-2014	MainBranch	9
55	MP-100-1000			02-Dec-2013	MainBranch	16
32	MP-100-1000			04-Feb-2013	MainBranch	9

(11.2)

11.1. Search Vehicle

You can search vehicle by clicking on "Search" button and may also filter search by using different drop down filters like Group, Branch, Financer, Package, Brand and Statuses.

11.2. Add New Vehicle

User can register new vehicles through "Vehicle Management Form" as explained below:

- 1) Click the "Add" button on "Vehicles Management Form" as shown in figure 11.2. This will load "Vehicle Registration Form" shown below in figure 11.3.

The screenshot shows a web application window titled "Vehicle Registration Form". The main heading is "Register New Vehicle" with the "FO REVER" logo in the top right corner. The form is organized into several sections:

- Customer Detail:** Includes fields for Customer ID, NIC, and Name, with a "select" button next to the Name field.
- Vehicle Detail:** Includes fields for Reg. No., Account ID, Engine No., Brand (dropdown), Financer (dropdown), Comments, Pin-Code, Emg. Code, SMS Gateway (dropdown), Branch (dropdown), DOI (calendar), Chassis No., Color (dropdown), Driver, Status (dropdown), Group (dropdown), ExD (calendar), Model Year (dropdown), Package (dropdown), Emg. Phone 1, Emg. Cell 1, Emg. Cell 2, Email, and AUTO (checkboxes for EMAIL and SMS).

At the bottom of the form, there are "Add" and "Close" buttons. The status bar at the very bottom indicates "Ready".

(11.3)

- 2) Fill in the form.
- 3) Click "Add" button to register new vehicle.

11.3. Edit Vehicle

User can edit vehicle record through "Vehicle Management Form" as explained below:

- 1) Select the vehicle record from "Vehicle Management Form" as shown below in figure 11.4.

The screenshot shows the 'Manage Vehicles' interface. At the top, there are input fields for Vehicle ID, Reg No, Engine No, Chasis No, Customer ID, and Account ID, along with an 'Installation Date' dropdown set to '13-Jan-2016'. Below these are dropdown menus for Group (Stock), Branch (Select Branch), Financer (Select Financer), Package (Select Package), Brand (Select Brand), S-Status (Select Status), and L-Status (Select Location Status). A 'Search' button is located below the dropdowns.

Vehicle ID	Reg No	Engine No	Chasis No	Installation Date	Branch ID	Customer
105	BLACK			28-May-2015	MainBranch	9
109	Colora			25-May-2015	MainBranch	9
108	NPT100-488-8110			11-May-2015	MainBranch	9
▶ 106	NPT100-488-8110			22-Jan-2015	MainBranch	9
97	NPT100-488-8115			30-Nov-2014	MainBranch	9
98	NPT100			29-Nov-2014	MainBranch	9
86	1888 - 1			18-Sep-2014	MainBranch	9
90	NPT100 - 1			18-Sep-2014	MainBranch	9
55	MP-488-1004			02-Dec-2013	MainBranch	16
32	MP-488-1007			04-Feb-2013	MainBranch	9

At the bottom of the table, it says 'Total = 10'. Below the table are buttons for 'Add', 'Delete', 'Close', and 'Refresh'. The status bar at the very bottom shows 'Ready'.

(11.4)

- 2) Double click on selected record. This will load the "Edit Form" with selected record details as shown in figure 11.5

Vehicle Modification Form

Edit Vehicle

Customer Detail:

Customer ID: 9 NIC: 000000000001 Name: [Redacted]

Vehicle Detail:

Reg. No. : [Redacted] Branch: Main Branch Group: Stock

Account ID: DOI: 22-Jan-2015 ExD: 22-Jan-2015

Engine No. : Chassis No. : Model Year: 2015

Brand: OTHER Color: Black Package: Standard

Financer: Self Finance Driver: Status: Active

Comments:

Pin-Code : Emg. Code: Emg. Phone 1: Emg. Cell 2: Emg. Cell 1: ...

SMS Gateway: [Redacted] Email: AUTO: EMAIL SMS

Ready.

(11.5)

3) Edit details and update Vehicle record by pressing "Update" button.

11.4. Delete

User can delete Vehicle record through "Vehicle Management Form" as explained below:

- 1) Select the Vehicle record from "Vehicle Management Form" by clicking on row header as shown below in figure 11.6.

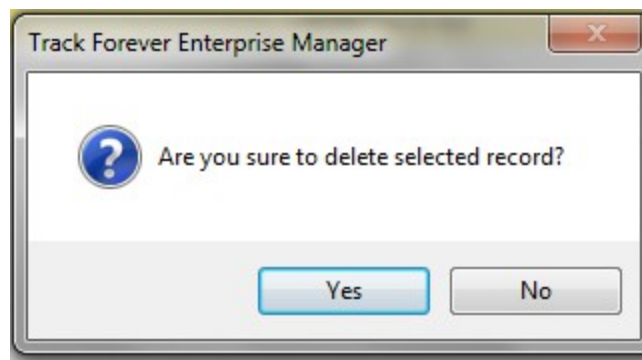
The screenshot shows the 'Manage Vehicles' window with the following data in the table:

Vehicle ID	Reg No	Engine No	Chasis No	Installation Date	Branch ID	Customer
105	BLACK			28-May-2015	MainBranch	9
109	Color			25-May-2015	MainBranch	9
108	NPT100-428-8110			11-May-2015	MainBranch	9
106	NPT100-428-8110			22-Jan-2015	MainBranch	9
97	NPT100-428-8110			30-Nov-2014	MainBranch	9
98	NPT100			29-Nov-2014	MainBranch	9
86	10000-1			18-Sep-2014	MainBranch	9
90	NPT100-1			18-Sep-2014	MainBranch	9
55	MP-100-1000			02-Dec-2013	MainBranch	16
32	MP-100-1000			04-Feb-2013	MainBranch	9

At the bottom of the window, the status bar shows 'Total = 10' and buttons for 'Add', 'Delete', 'Close', and 'Refresh'.

(11.6)

- 2) Click "Delete" button and a confirmation dialogue box will be displayed.
- 3) Select "Yes" to delete record from the system.



12. Manage Customers

"Customers Management Form" let you search, add, edit and delete customer records. User may filter customer records based on input filters.

- 1) Select the "Manage Customers" menu item option from the "Customers Management" menu as shown in figure 12.1.



(12.1)

- 2) This will load "Customers Management Form" as shown below in figure 12.2.

The screenshot shows the 'Manage Customers' form. It has a search section with fields for Customer ID, NIC, Account ID, and Contact No., and a 'Search' button. Below is a table with the following columns: FirstName, LastName, Sex, Branch, City, Address, Phone 1, Phone 2, and Cell No. The table contains 15 records. At the bottom, there are buttons for 'Add', 'Delete', 'Gen. Report', 'Close', and 'Refresh'. The status bar shows 'Ready'.

FirstName	LastName	Sex	Branch	City	Address	Phone 1	Phone 2	Cell No
Shahbaz	Chohan	m	MainBranch	Lahore	-	+923335520...		+9230043197...
Sajid	Trak	m	MainBranch	Lahore	40 Tower 1st Floor	+9242350920...		+92333331328...
Yousaf Ahmad	Rana	m	MainBranch	Lahore	B-10-11, Jangh...	+9233337987...	+9230047993...	+9231547175...
Amir	Khan	m	MainBranch	Lahore	House No. 175, D...	+9233333333...		+92333340334...
M.S. Shahbaz	Higani	m	MainBranch	Lahore	25-27, Jangh T...	+9233333333...	+9242333333...	+9233644334...
Amir	Hussain	m	MainBranch	Lahore	1001, Gurgaon Pa...	+9233333333...		+92333347667...
Amir	Qureshi	m	MainBranch	Lahore	130, Multanpa...	04233318937	04233318940	+92333344395...
Muhammad	Ali	n	MainBranch					
Amir	Ahmad	m	MainBranch	Lahore	House No. 25-26...	03333333333	03333333333	03334888440
M. Shahbaz	Said	m	MainBranch	Lahore	B-100, Jangh T...	+9233333333...	+9233333333...	+9233333333...
Muhammad	Wahid	m	MainBranch	Lahore	Block 01, House 2...	04233333333	04233333333	03334314700

(12.2)

12.1. Search

User can search customers by clicking on "Search" button and may also filter search by using different input filters as shown in figure 12.2.

12.2. Add

User can register new customer through "Customer Management Form" as explained below:

- 1) Click the "Add" button on "Customer Management Form" as shown in figure 12.2. This will load "Registration Form" shown below in figure 12.3.

Customer Registration Form

Register New Customer

Account Detail:

NIC: Account No. : Branch:

First Name: Last Name: Father Name:

DOB: Gender:

Address:

Country: City: Phone No. 1:

Phone No. 2: Cell No: Email:

Corporate Customer

Company Detail:

Name: Type:

Address:

Country: City: Phone No. 1:

Phone No. 2: Email: Department:

Designation: Sales Person:

Sales Note:

Comments:

Ready.

(12.3)

- 2) Fill in the form.
- 3) Click "Add" button to register new customer.

12.3. Edit

User can edit customer record through "Customer Management Form" as explained below:

- 1) Select the customer record from "Customer Management Form" as shown below figure 12.4.

Customers Management Form

Manage Customers

Customer ID: NIC: Account ID: Contact No:

FirstName	LastName	Sex	Branch	City	Address	Phone 1	Phone 2	Cell No
Shahzad	Chohan	m	MainBranch	Lahore	-	+9233355520...		+9230043197...
Saidur	Raheem	m	MainBranch	Lahore	40 Tower MM Alam...	+9242350920...		+92333331525...
Touqeer Ahmad	Rana	m	MainBranch	Lahore	B-10-11, Jangh...	+9233333333...	+9230047995...	+9231547175...
Imran	Khan	m	MainBranch	Lahore	House No. 176, D...	+9233333333...		+9233333333...
M.S. Zahid	Hegde	m	MainBranch	Lahore	25-85 Jinnah Tow...	+9233333333...	+9242333333...	+9233644304...
Imran	Hasan	m	MainBranch	Lahore	1001, Gurga Park...	+9242333333...		+9233333333...
Muhammad	Qadir	m	MainBranch	Lahore	130, Industrial Est...	0423333333...	0423333333...	+9233333333...
Muhammad	Ali	n	MainBranch					
Basim	Ahmad	m	MainBranch	Lahore	House No. 25-85...	0333333333...	0333333333...	0333333333...
M. Usman	Sami	m	MainBranch	Lahore	B-10, Street 11, C...	+9234437555...	+9234437575...	+9233333333...
Muhammad	Abbas	m	MainBranch	Lahore	Block 01, House 2...	0423333333...	0423333333...	0333333333...

Total = 15

Ready.

(12.4)

- 2) Double click on selected record. This will load the "Edit Form" with selected record details as shown in figure 12.5.

Customer Modification Form

Edit Customer

Account Detail:

NIC: 000000000001 Account No. : Noble Track Branch: Main Branch

First Name: Noble Last Name: Track Father Name: Invincible Technologies

DOB: 01-Nov-2011 Gender: Male

Address: 411 Tower 900 Main Road

Country: PAKISTAN City: Lahore Phone No. 1:

Phone No. 2: Cell No: Email:

Corporate Customer

Company Detail:

Name: Type:

Address:

Country: City: Phone No. 1:

Phone No. 2: Email: Department:

Designation: Sales Person: none

Sales Note: Company personal account for temporary usage

Comments: -

Ready.

(12.5)

3) Edit details and update record by pressing "Update" button.

12.4. Delete

User can delete record through "Customer Management Form" as explained below:

- 1) Select the record from "Customer Management Form" by clicking on row header as shown below in figure 12.6.

The screenshot shows a web application window titled "Customers Management Form". At the top, it says "Manage Customers" and has the "FOREVER" logo. Below the title bar, there are search fields for "Customer ID:", "NIC:", "Account ID:", and "Contact No:", with a "Search" button. The main area contains a table with columns: FirstName, LastName, Sex, Branch, City, Address, Phone 1, Phone 2, and Cell No. The table lists 15 records, with the second row (Sajid, Trach) selected. At the bottom of the table, there are buttons for "Add", "Delete", "Gen. Report", "Close", and "Refresh". The status bar at the bottom says "Ready." and "Total = 15".

FirstName	LastName	Sex	Branch	City	Address	Phone 1	Phone 2	Cell No
Shahid	Chohan	m	MainBranch	Lahore	-	+9233355520...		+9230043197...
Sajid	Trach	m	MainBranch	Lahore	40 Tower MM Alam...	+9242350920...		+92333331529...
Touqeer Ahmad	Rana	m	MainBranch	Lahore	B-10-11, Jangh...	+9233333333...	+9230047995...	+9231547175...
Imran	Wani	m	MainBranch	Lahore	House No. 176, 2...	+9233333333...		+9233333333...
M.S. Zahid	Higga	m	MainBranch	Lahore	25-85 Jinnah Tow...	+9233333333...	+9242333333...	+9233644304...
Imran	Haidar	m	MainBranch	Lahore	1001, Gurga Park...	+9242333333...		+9233333333...
Muhammad	Qureshi	m	MainBranch	Lahore	130, Industrial Est...	0423333333...	0423333333...	+9233333333...
Muhammad	Ali	n	MainBranch					
Bashir	Ahmad	m	MainBranch	Lahore	House No. 25-85...	0333333333...	0333333333...	0333333333...
M. Sultan	Said	m	MainBranch	Lahore	B-10, Street 11, C...	+9234437555...	+9234437575...	+9233333333...
Muhammad	Wahid	m	MainBranch	Lahore	Block 01, House 2...	0423333333...	0423333333...	0333333333...

(12.6)

- 2) Click "Delete" button and a confirmation dialogue box will be displayed.
- 3) Select "Yes" to delete record from the system.

13. Web Accounts Management Form

"Web Accounts Management Form" let you search, add, edit and delete records. User may filter records based on drop down or input filters.

- 1) Select the "Manage Web Accounts" menu item option from the "Customer Management" menu as shown in figure 13.1.



(13.1)

- 2) This will load "Web Accounts Management Form" as shown below in figure 13.2.

 A screenshot of the "Web Accounts Management Form" window. The title bar reads "Web Accounts Management Form". The main heading is "Manage Web Accounts" with the "FO REVER" logo. Below the heading are three input fields for "Web ID:", "Customer ID:", and "Account ID:", followed by a "Search" button. A table displays a list of accounts with columns for "Web ID", "Comments", and "Enabled". The "Enabled" column contains checkboxes. Below the table, it shows "Total = 23" and buttons for "Add", "Delete", "Close", and "Refresh". The status bar at the bottom reads "Ready."

Web ID	Comments	Enabled
100100	-	<input checked="" type="checkbox"/>
100100000	calling demo	<input type="checkbox"/>
100100001	calling test demo	<input type="checkbox"/>
100100002	demo account	<input type="checkbox"/>
100100003	-	<input checked="" type="checkbox"/>
100100004	paper work - demo account	<input checked="" type="checkbox"/>
100100005	Web account for Simon Madden, Lufers Rent & Car	<input checked="" type="checkbox"/>

(13.2)

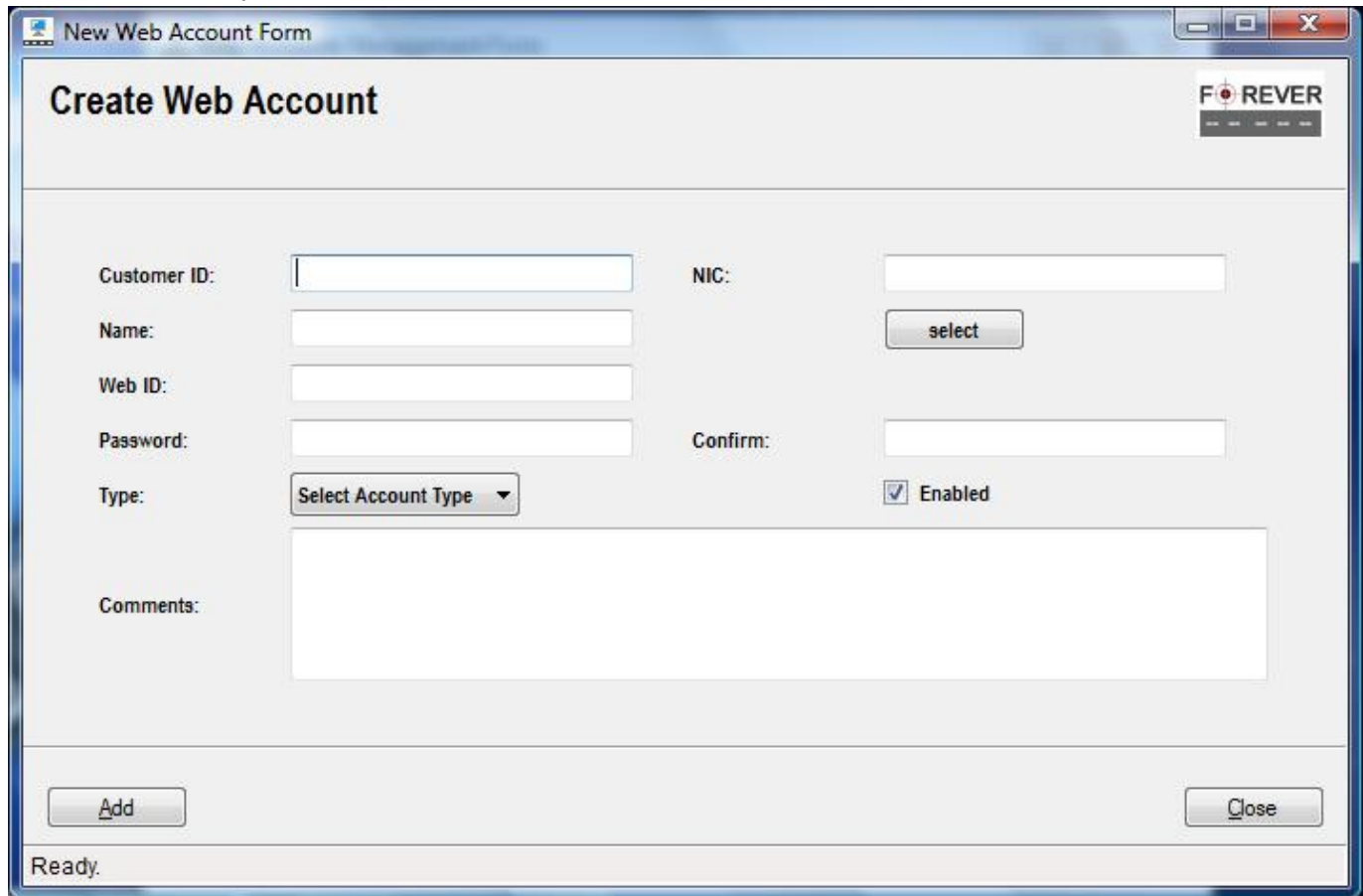
13.1. Search

User can search records by clicking on "Search" button and may also filter search by using different drop down or input filters as shown in figure 13.2.

13.2. Add

User can register new records through "Web Accounts Management Form" as explained below:

- 1) Click the "Add" button on "Web Accounts Management Form" as shown in figure 13.2. This will load "Web Account Registration Form" shown below in figure 13.3.



New Web Account Form

Create Web Account

FOREVER

Customer ID: NIC:

Name:

Web ID:

Password: Confirm:

Type: Enabled

Comments:

Ready.

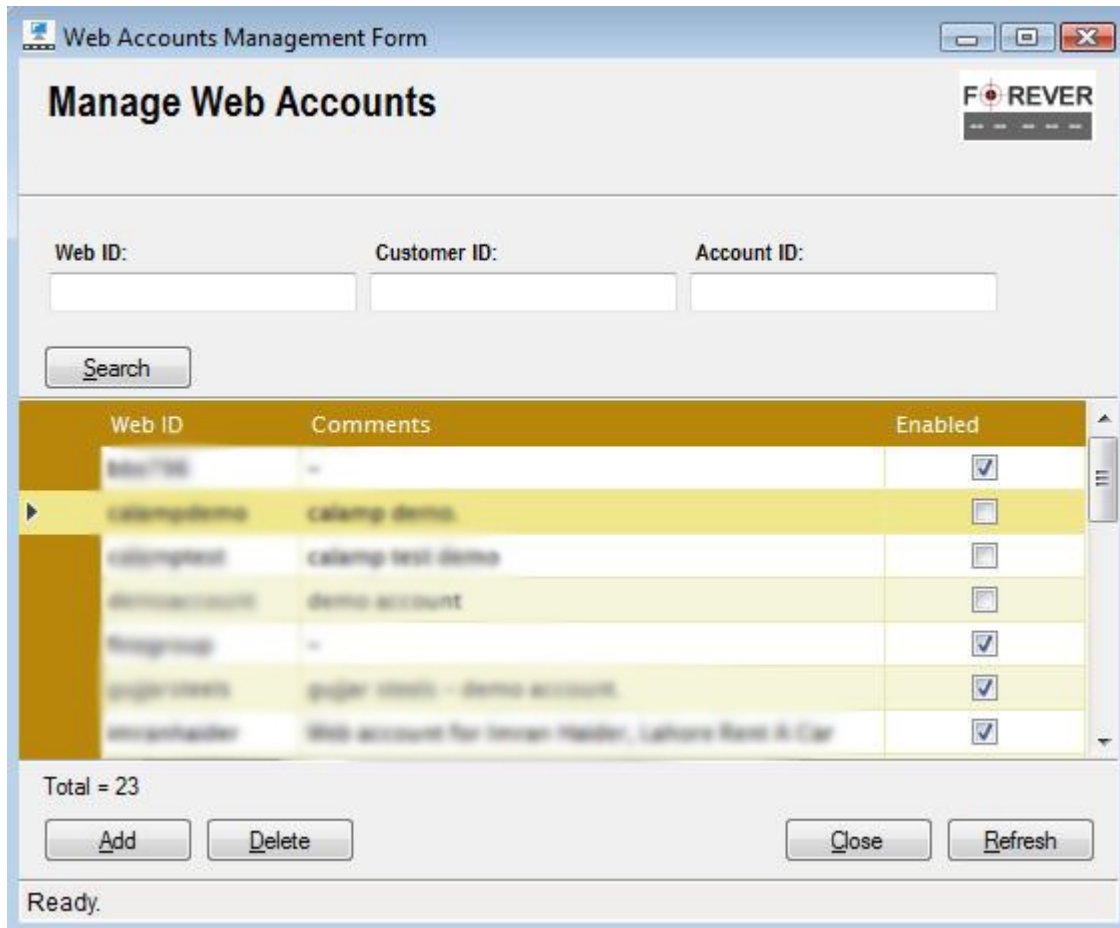
(13.3)

- 2) Fill in the form.
- 3) Click "Add" button to register new record.

13.3. Edit

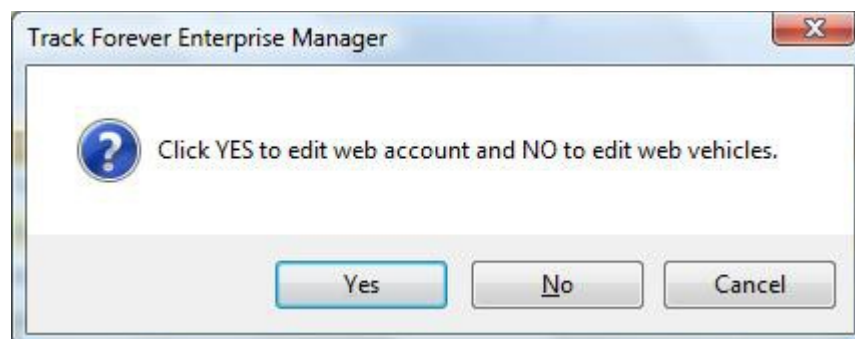
User can edit record through "Web Accounts Management Form" as explained below:

- 1) Select the record from "Web Accounts Management Form" as shown below figure 13.4.



(13.4)

- 2) Double click on selected record. This display following "Dialog Box" click "Yes" to continue



- 3) "Edit Form" with selected record details will be loaded as shown in figure 13.5.

The screenshot shows a window titled "Web Account Modification Form" with the following fields and controls:

- Customer ID:** A text input field.
- Name:** A text input field.
- Web ID:** A text input field.
- Password:** A text input field with masked characters (dots).
- Confirm:** A text input field with masked characters (dots).
- Type:** A dropdown menu currently set to "Express".
- Enabled:** A checkbox that is currently unchecked.
- Comments:** A large text area containing the text "demo".

At the bottom of the form, there are two buttons: "Update" on the left and "Close" on the right. The status bar at the very bottom of the window displays "Ready.".

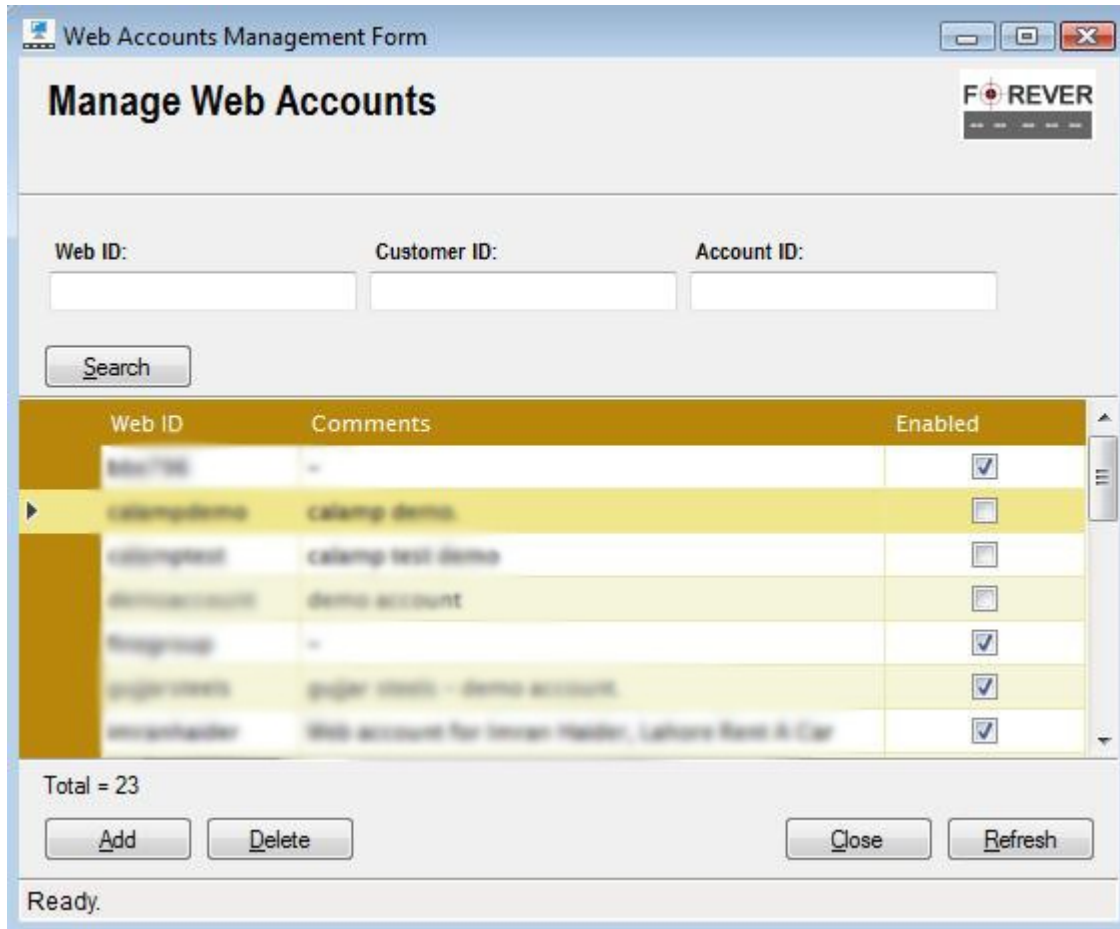
(13.5)

- 4) Edit details and update record by pressing "Update" button.

13.4. Assign Vehicles to Web Accounts

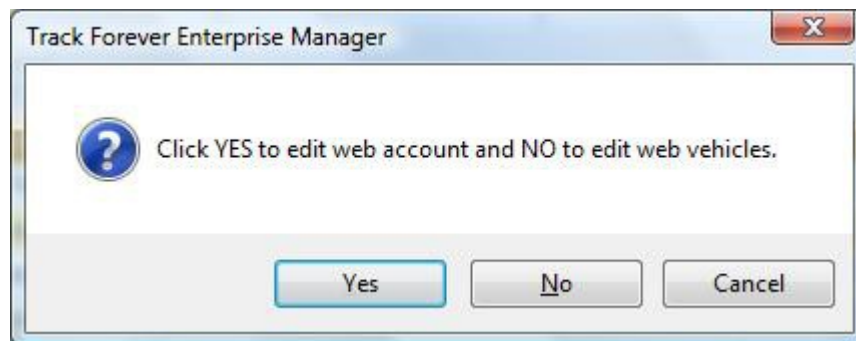
User can assign multiple vehicles to a web account through "Web Accounts Management Form" as explained below:

- 1) Select the record from "Web Accounts Management Form" as shown below figure 13.6.



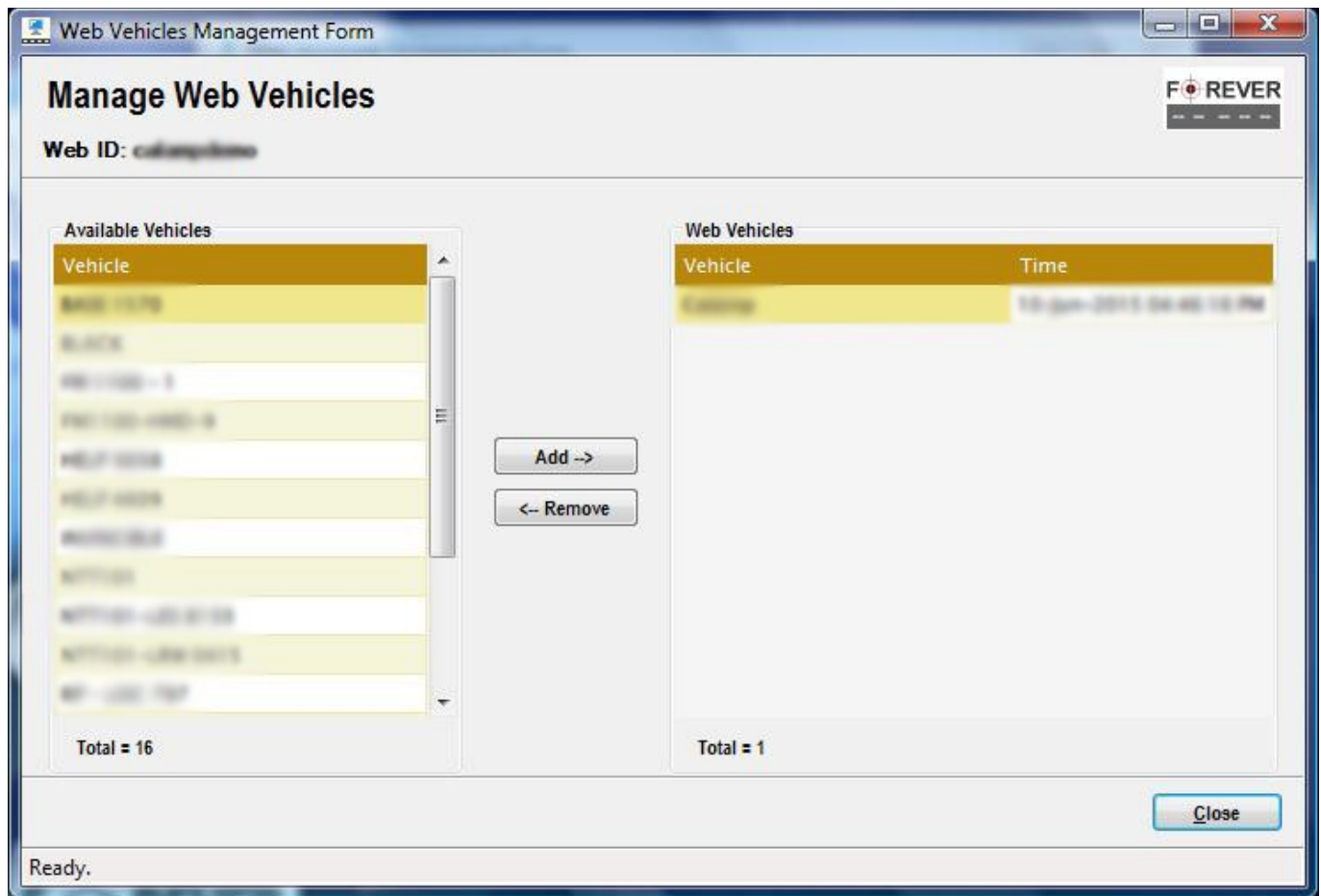
(13.6)

- 2) Double click on selected record. This will display following "Dialog Box" click "No" to continue.



- 3) "Manage Web Vehicles/Groups Form" will be loaded as per account type as shown in figure 13.7 and 13.8 respectively.

- 4) In case of "Express" and "Executive" account types "Manage Web Vehicles" form will be loaded as shown below in figure 13.7. Here user can assign or remove vehicles to or from a web account.



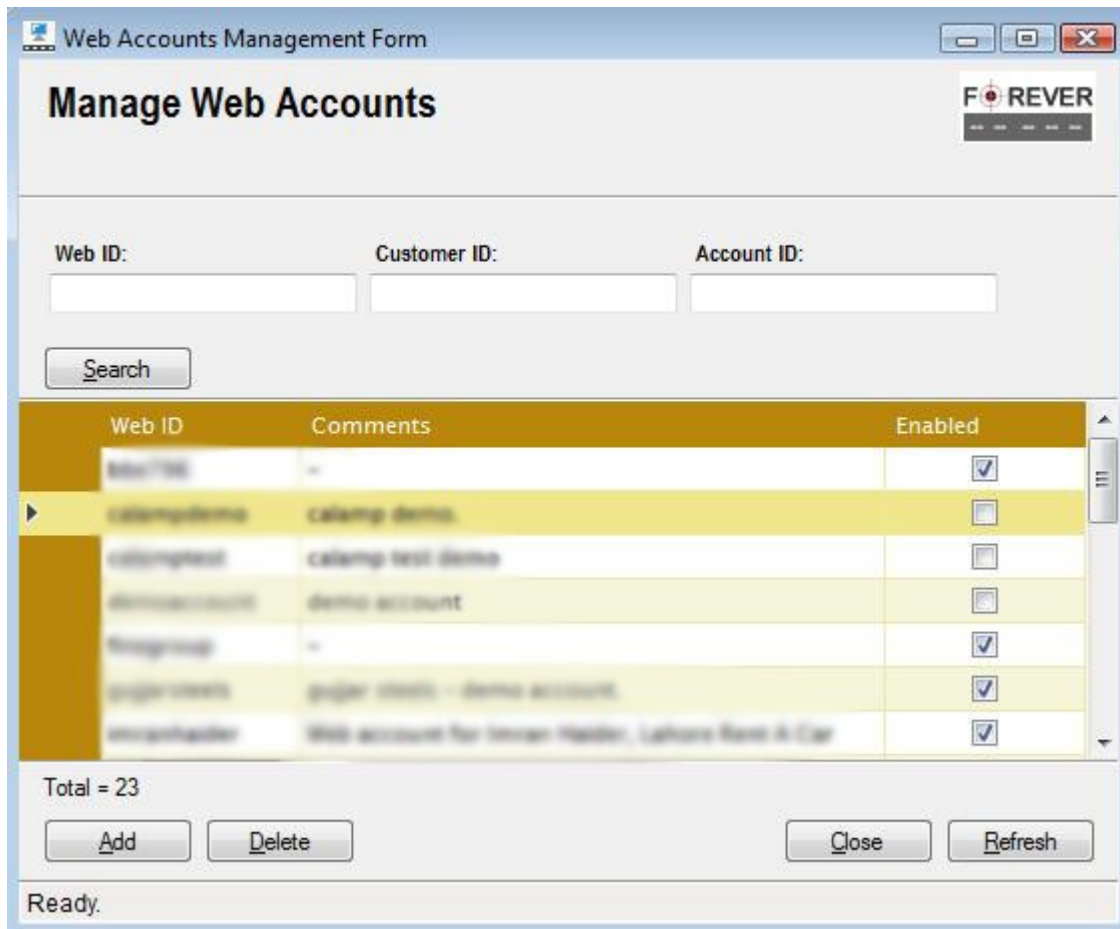
(13.7)

- 5) In case of "Business" account types "Manage Web Groups" form will be loaded as shown below in figure 13.8. Here user can assign or remove groups to or from a web account.

13.5. Delete

User can delete record through "Web Accounts Management Form" as explained below:

- 1) Select the record from "Web Accounts Management Form" by clicking on row header as shown below in figure 13.9.



(13.9)

- 2) Click "Delete" button and a confirmation dialogue box will be displayed.
- 3) Select "Yes" to delete record from the system.

14. Geo Cities Management Form

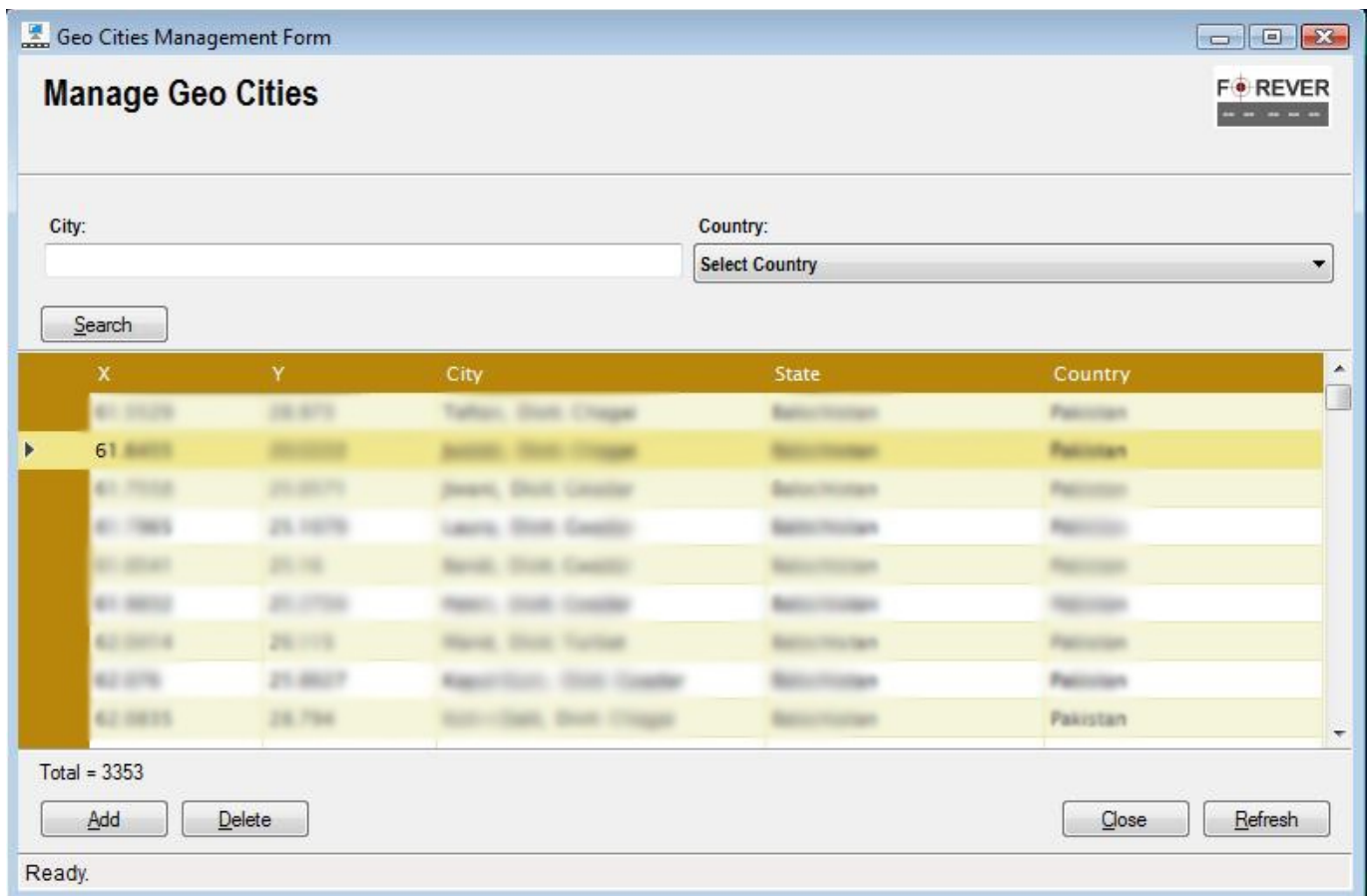
"Geo Cities Management Form" let you search, add, edit and delete records. User may filter records based on drop down or input filters.

- 1) Select the "Manage Geo Cities" menu item option from the "GIS Management" menu as shown in figure 14.1.



(14.1)

- 2) This will load "Geo Cities Management Form" as shown below in figure 14.2.



(14.2)

14.1. Search

User can search records by clicking on "Search" button and may also filter search by using different drop down or input filters as shown in figure 14.2.

14.2. Add

User can register new records through "Geo Cities Management Form" as explained below:

- 1) Click the "Add" button on "Geo Cities Management Form" as shown in figure 14.2. This will load "New Geo City Form" shown below in figure 14.3a.

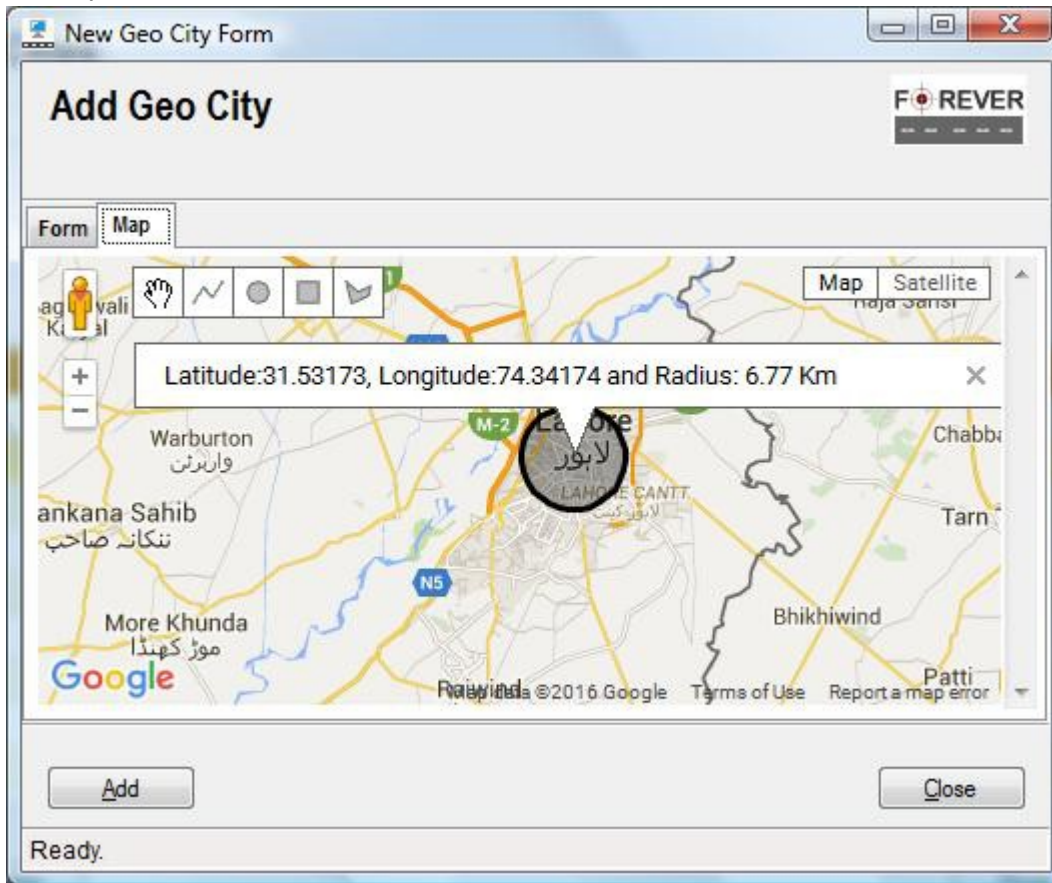
The screenshot shows a window titled "New Geo City Form" with a sub-header "Add Geo City". The window contains a form with two tabs: "Form" and "Map". The "Form" tab is active and contains the following fields:

City Name:	<input type="text" value="Lahore"/>
State:	<input type="text" value="Punjab"/> <input type="checkbox"/>
Country:	<input type="text" value="Pakistan"/> <input type="checkbox"/>
X (Longitude):	<input type="text" value="74.34174"/>
Y (Latitude):	<input type="text" value="31.53173"/>

Below the X and Y fields is a button labeled "Get Coordinates". At the bottom of the form area, there are two buttons: "Add" and "Close". The status bar at the bottom left shows "Ready." and the "FOREVER" logo is in the top right corner.

(14.3a)

- 2) Fill in the form fields by typing in the desired values.
- 3) Or You may also use "Map" tab to pick latitude and longitude values by drawing circle around the target city and then switching to the "Form" tab, this will populate X (Longitude) and Y (Latitude) fields with the circle center coordinates. Refer to figure 14.3b for pictorial demonstration.
- 4) Click "Add" button to register new record.



(14.3b)

14.3. Edit

User can edit record through "Geo Cities Management Form" as explained below:

- 1) Select the record from "Geo Cities Management Form" as shown below in figure 14.4.

The screenshot shows a software window titled "Geo Cities Management Form" with a sub-header "Manage Geo Cities". The window contains a search interface with a "City:" text box, a "Country:" dropdown menu (currently showing "Select Country"), and a "Search" button. Below the search area is a table with the following columns: X, Y, City, State, and Country. The table contains several rows of data, with the second row (ID 61-8475) highlighted in yellow. Below the table, it indicates "Total = 3353" and provides "Add" and "Delete" buttons. On the right side, there are "Close" and "Refresh" buttons. The status bar at the bottom of the window displays "Ready."

X	Y	City	State	Country
61-1125	28-875	Talhar, State Orissa	Bihar/Orissa	Pakistan
61-8475	28-875	Jamshil, State Orissa	Bihar/Orissa	Pakistan
61-7155	28-875	Jamshil, State Orissa	Bihar/Orissa	Pakistan
61-7885	28-1875	Jamshil, State Orissa	Bihar/Orissa	Pakistan
61-8545	28-115	Jamshil, State Orissa	Bihar/Orissa	Pakistan
61-8855	28-1755	Jamshil, State Orissa	Bihar/Orissa	Pakistan
62-5514	28-115	Jamshil, State Orissa	Bihar/Orissa	Pakistan
62-575	28-8827	Jamshil, State Orissa	Bihar/Orissa	Pakistan
62-5825	28-754	Jamshil, State Orissa	Bihar/Orissa	Pakistan

(14.4)

- 2) Double click on selected record. This will load the "Edit Form" with selected record details as shown in figure 14.5.

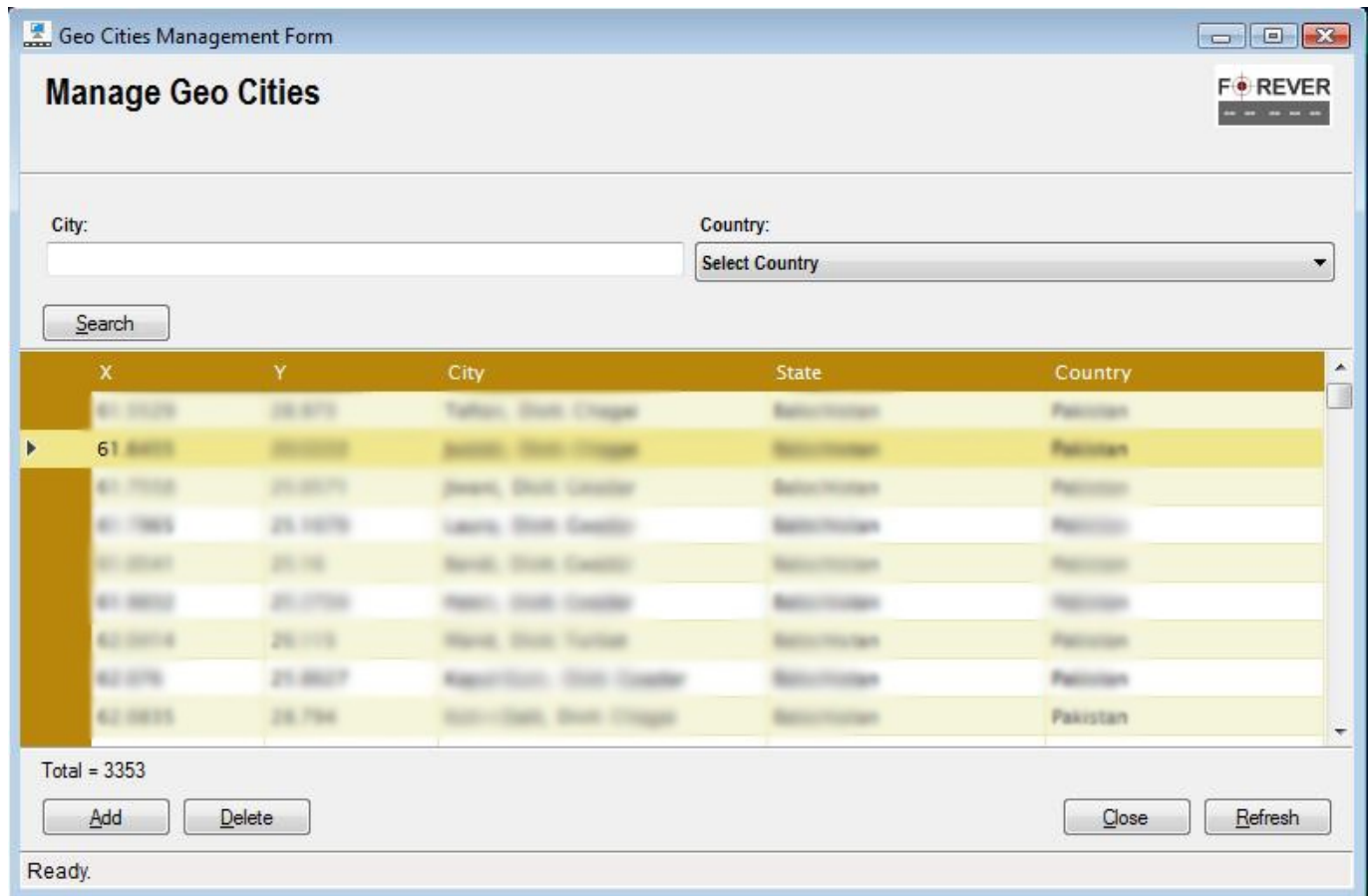
(14.5)

3) Edit details and update record by pressing "Update" button.

14.4. Delete

User can delete record through "Geo Cities Management Form" as explained below:

- 1) Select the record from "Geo Cities Management Form" by clicking on row header as shown below in figure 14.6.



(14.6)

- 2) Click "Delete" button and a confirmation dialogue box will be displayed.
- 3) Select "Yes" to delete record from the system.

15. Landmarks Management Form

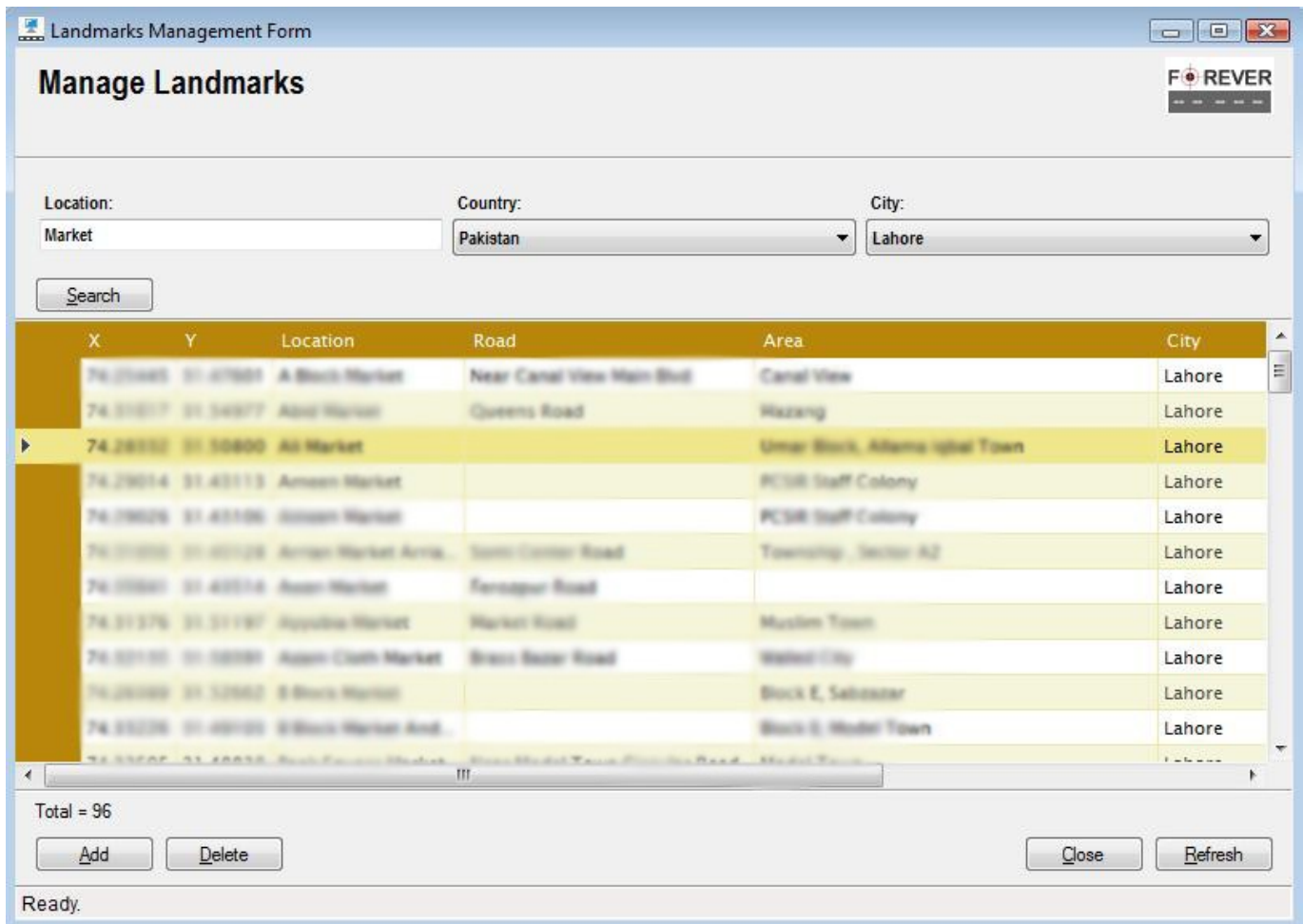
"Landmarks Management Form" let you search, add, edit and delete records. User may filter records based on drop down or input filters.

- 1) Select the "Manage Landmarks" menu item option from the "GIS Management" menu as shown in figure 15.1.



(15.1)

- 2) This will load "Landmarks Management Form" as shown below in figure 15.2.



(15.2)

15.1. Search

User can search records by clicking on "Search" button and may also filter search by using different drop down or input filters as shown in figure 15.1.

15.2. Add

User can register new records through "Landmarks Management Form" as explained below:

- 1) Click the "Add" button on "Landmarks Management Form" as shown in figure 15.2. This will load "Registration Form" shown below in figure 15.3.

The screenshot shows a window titled "New Landmark Form" with a sub-header "Add Landmark" and the "FOREVER" logo. There are two tabs: "Form" (selected) and "Map". A "Get Coordinates" button is located above the X and Y input fields. The form contains the following fields and values:

X (Longitude):	71.47418	
Y (Latitude):	30.19829	
Location:	Fort Kahna	
Road:		<input type="checkbox"/>
Area:		<input type="checkbox"/>
City:	Multan	<input type="checkbox"/>
District:		<input type="checkbox"/>
State:	Punjab	<input type="checkbox"/>
Country:	Pakistan	<input type="checkbox"/>
Postal or Zip Code:		<input type="checkbox"/>

At the bottom of the form, there are "Add" and "Close" buttons. The status bar at the bottom left shows "Ready."

(15.3)

- 2) Fill in the form.
- 3) Or You may use "Map" tab to pick latitude and longitude values by drawing circle around the target landmark point and then switching to the "Form" tab, this will populate X (Longitude) and Y (Latitude) fields with the circle center coordinates drawn on landmark.
- 4) Click "Add" button to register new record.

15.3. Edit

User can edit record through "Landmarks Management Form" as explained below:

- 1) Select the record from "Landmarks Management Form" as shown below in figure 15.4.

Manage Landmarks

Location: Country: City:

X	Y	Location	Road	Area	City
74.21645	31.47881	A Block Market	Near Canal View Main Blvd	Canal View	Lahore
74.21617	31.54977	Abul Hasan	Queens Road	Hazang	Lahore
74.28132	31.50800	All Market		Umar Block, Alama Iqbal Town	Lahore
74.28014	31.43113	Amreen Market		PCSB Staff Colony	Lahore
74.28026	31.43106	Amreen Market		PCSB Staff Colony	Lahore
74.21000	31.40128	Amreen Market Area	South Center Road	Township - Sector A2	Lahore
74.21000	31.40114	Amreen Market	Ferozpur Road		Lahore
74.21376	31.21197	Arbabia Market	Market Road	Muslim Town	Lahore
74.22100	31.50000	Arbab Cloth Market	Brass Bazar Road	Walled City	Lahore
74.22000	31.52000	B Block Market		Block E, Sabzezar	Lahore
74.22000	31.49000	B Block Market Area		Block E, Model Town	Lahore
74.22000	31.48000	B Block Market Area		Block E, Model Town	Lahore

Total = 96

Ready.

(15.4)

- 2) Double click on selected record. This will load the "Edit Form" with selected record details as shown in figure 15.5.

The screenshot shows a software window titled "Landmark Modification Form". Inside the window, there is a section titled "Edit Landmark" with the "FOREVER" logo in the top right corner. Below this, there are two tabs: "Form" and "Map", with "Form" being the active tab. The "Form" tab contains a "Get Coordinates" button at the top. Below it are several input fields: "X (Longitude):", "Y (Latitude):", "Location:", "Road:", "Area:" (with the text "Area: Street, Highway, etc." visible), "City:", "District:", "State:", "Country:", and "Postal or Zip Code:". At the bottom of the form area, there are two buttons: "Update" and "Close". The status bar at the bottom left of the window displays "Ready."

(15.5)

- 3) Edit details and update record by pressing "Update" button.

15.4. Delete

User can delete record through "Landmarks Management Form" as explained below:

- 1) Select the record from "Landmarks Management Form" by clicking on row header as shown below in figure 15.6.

Manage Landmarks

Location: Country: City:

X	Y	Location	Road	Area	City
74.21645	31.47980	A Block Market	Near Canal View Main Blvd	Canal View	Lahore
74.21617	31.54977	Abul Hasan	Queens Road	Hazang	Lahore
74.28132	31.50800	All Market		Upper Block, Allama Iqbal Town	Lahore
74.29014	31.43113	Armaan Market		PCSB Staff Colony	Lahore
74.29026	31.43106	Armaan Market		PCSB Staff Colony	Lahore
74.21000	31.40128	Armaan Market Arma	South Center Road	Township - Sector A2	Lahore
74.20880	31.40114	Armaan Market	Ferozpur Road		Lahore
74.21376	31.21197	Armaan Market	Market Road	Muslim Town	Lahore
74.20100	31.50000	Armaan Cloth Market	Brass Bazar Road	Walled City	Lahore
74.20000	31.52000	B Block Market		Block E, Sahiwal	Lahore
74.20000	31.40000	B Block Market And...		Block E, Model Town	Lahore
74.20000	31.20000	Block Market		Block E, Model Town	Lahore

Total = 96

Ready.

(15.6)

- 2) Click "Delete" button and a confirmation dialogue box will be displayed.
- 3) Select "Yes" to delete record from the system.

16. Zones Management Form

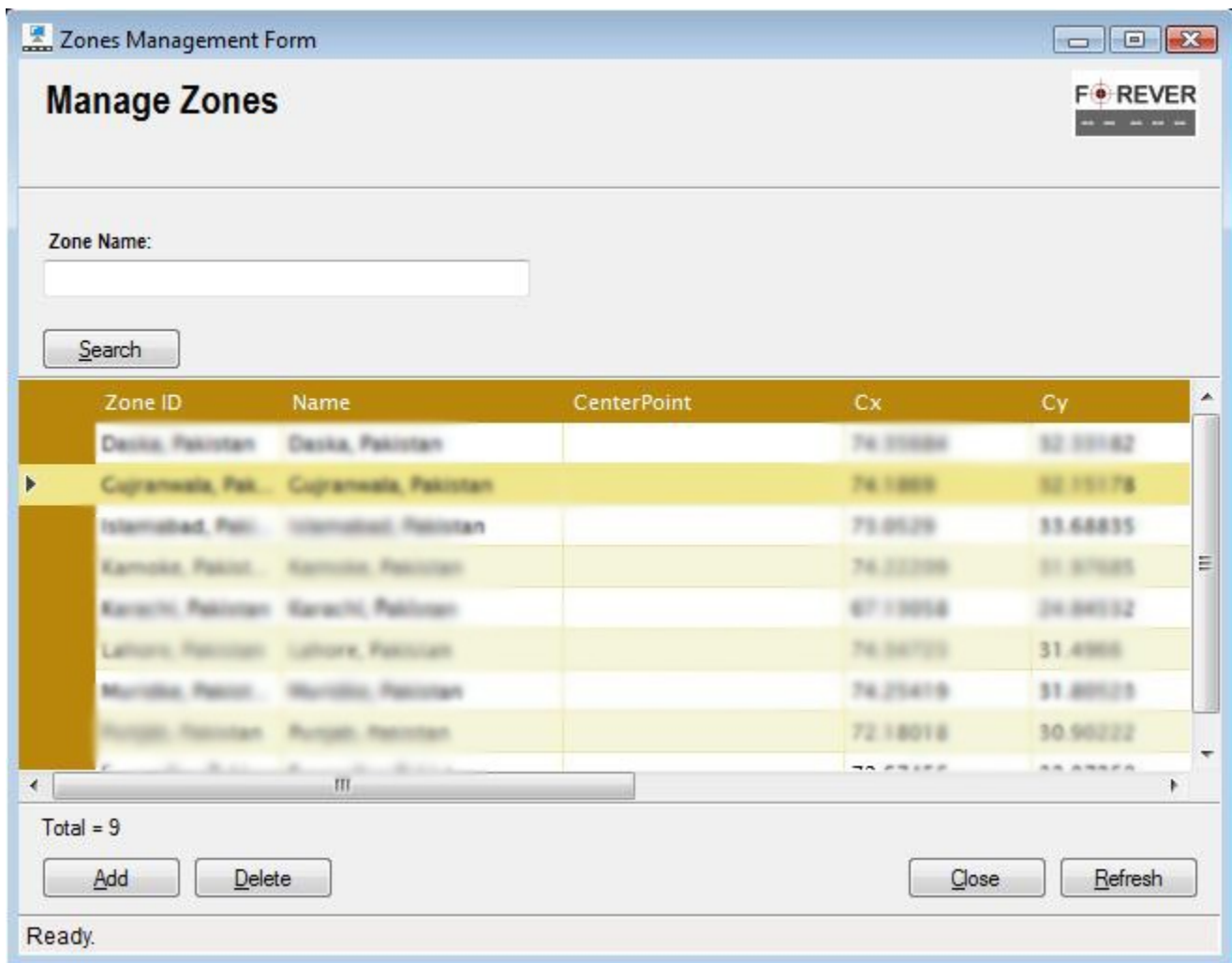
"Zones Management Form" let you search, add, edit and delete records. User may filter records based on drop down or input filters.

- 1) Select the "Manage Zones" menu item option from the "GIS Management" menu as shown in figure 16.1.



(16.1)

- 2) This will load "Zones Management Form" as shown below in figure 16.2.



(16.2)

16.1. Search

User can search records by clicking on "Search" button and may also filter search by using different drop down or input filters as shown in figure 16.2.

16.2. Add

User can register new records through "Zones Management Form" as explained below:

- 1) Click the "Add" button on "Zones Management Form" as shown in figure 16.2. This will load "Registration Form" shown below in figure 16.3a and 16.3b.

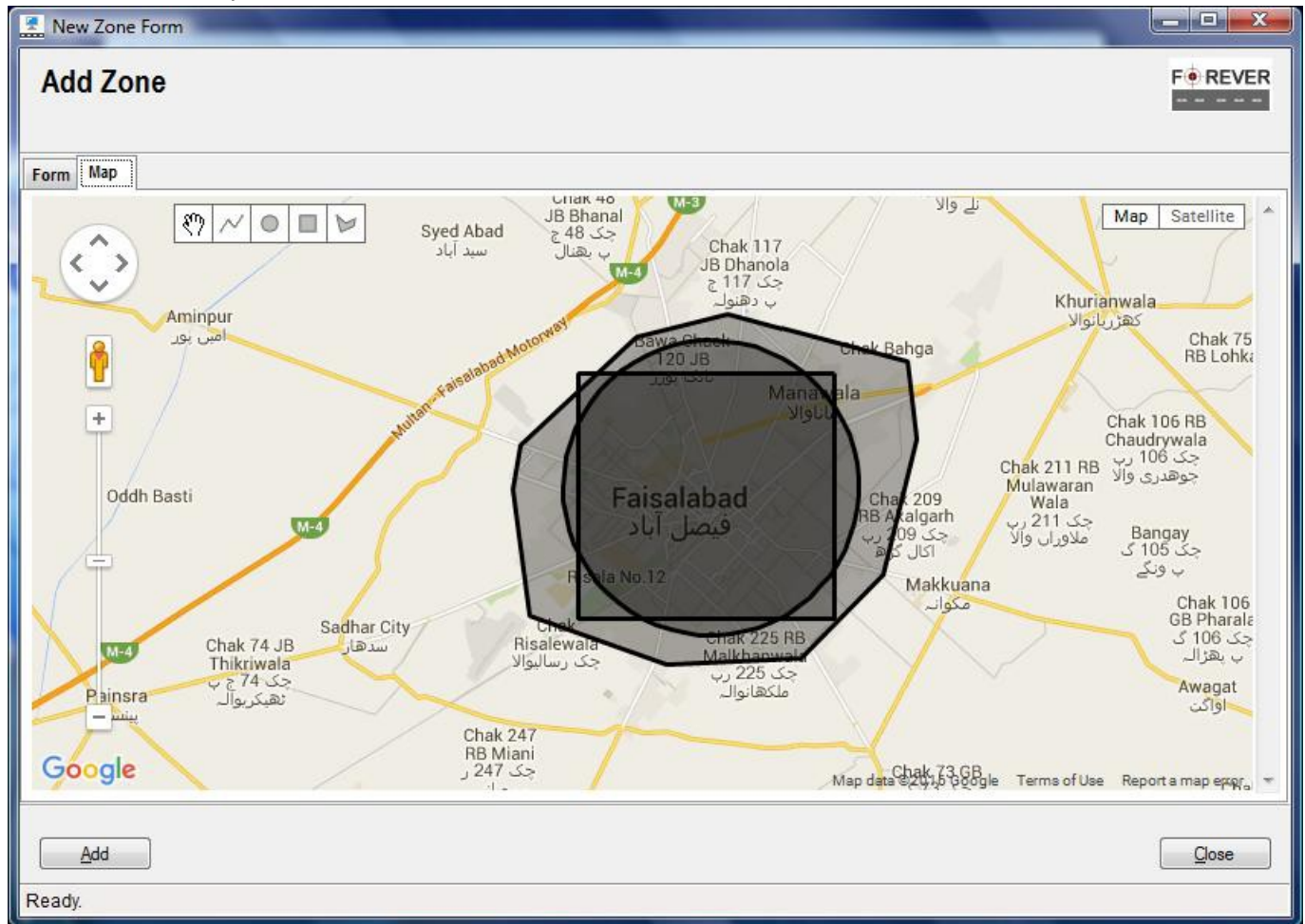
The screenshot shows a software window titled "New Zone Form" with a sub-header "Add Zone". The window has two tabs: "Form" (selected) and "Map". The "Form" tab contains the following fields and controls:

- Zone ID:** Text box containing "Faisalabad, Pakistan"
- Name:** Text box containing "Faisalabad, Pakistan"
- Center Point:** Empty text box
- Cx:** Text box containing "73.09273"
- Cy:** Text box containing "31.42808"
- Radius:** Text box containing "6.32"
- Buttons:** "Get Radial Coordinates", "Convert from d.ddd to dm.mm", and "Get Rectangular Coordinates"
- X1:** Text box containing "73.03299" with a dropdown arrow
- Y1:** Text box containing "31.47201" with a dropdown arrow
- X2:** Text box containing "73.14835" with a dropdown arrow
- Y2:** Text box containing "31.37768" with a dropdown arrow
- Polygon:** Text box containing "POLYGON((73.05908 31.48606,73.00690 31.44448,73.00346 31.42749,73.01102 31.37885,73.07281 31.36009,73.13324 31.36243,73.17032 31.3"
- Bottom Buttons:** "Add" and "Close"
- Status Bar:** "Ready"

(16.3a)

- 2) Fill in the form.
- 3) Or user may use "Map" tab to input geometric values by drawing circle, rectangle and polygon around the target city.
- 4) Draw circle, rectangle and polygon shapes around target city in the "Map" tab and then switch to the "Form" tab.
- 5) This will populate "Form" fields with geometric values from the "Map".
- 6) Click "Add" button to register new record.

Note: Polygon fence should be created using anti-clock wise order and should be closed between first and last point, otherwise it may not store and even work.



(16.3b)

Note: Polygon fence should be created using anti-clock wise order and should be closed between first and last point.

16.3. Edit

User can edit record through "Zones Management Form" as explained below:

- 1) Select the record from "Zones Management Form" as shown below figure 16.4.

The screenshot shows a window titled "Zones Management Form" with a sub-header "Manage Zones" and the "FO REVER" logo. Below the header is a "Zone Name:" label and a text input field. A "Search" button is positioned below the input field. The main area contains a table with the following data:

Zone ID	Name	CenterPoint	Cx	Cy
Dezka, Pakistan	Dezka, Pakistan		74.31088	32.33182
Cupramwala, Pak...	Cupramwala, Pakistan		74.1809	32.15178
Islamabad, Paki...	Islamabad, Pakistan		73.8529	33.68835
Karnool, Pakist...	Karnool, Pakistan		74.22298	31.87985
Karachi, Pakistan	Karachi, Pakistan		67.18858	24.86132
Lahore, Pakistan	Lahore, Pakistan		74.34733	31.4988
Muridke, Pakist...	Muridke, Pakistan		74.25419	31.88128
Punjab, Pakistan	Punjab, Pakistan		72.18018	30.90222

Below the table, it indicates "Total = 9". At the bottom of the window are buttons for "Add", "Delete", "Close", and "Refresh". The status bar at the very bottom shows "Ready."

(16.4)

- 2) Double click on selected record. This will load the "Edit Form" with selected record details as shown in figure 16.5.

Zone Modification Form

Edit Zone

Form | Map

Zone ID: Name:

Center Point:

Cx: Cy:

Radius:

X1: Y1:

X2: Y2:

Polygon:

Ready.

(16.5)

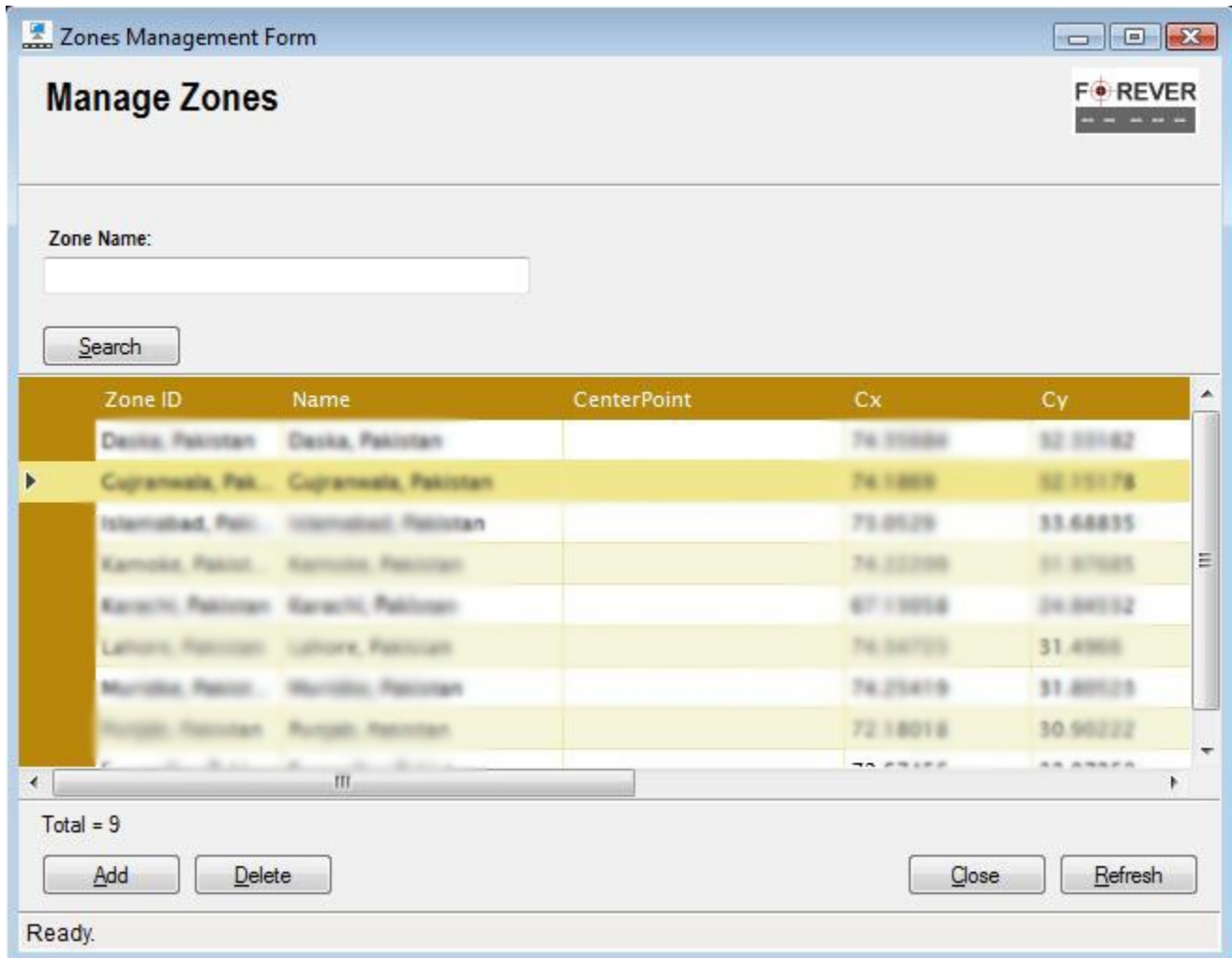
3) Edit details and update record by pressing "Update" button.

Note: Polygon fence should be created using anti-clock wise order and should be closed between first and last point, otherwise it may not store and even work.

16.4. Delete

User can delete record through "Zones Management Form" as explained below:

- 1) Select the record from "Zones Management Form" by clicking on row header as shown below in figure 16.6.



(16.6)

- 2) Click "Delete" button and a confirmation dialogue box will be displayed.
- 3) Select "Yes" to delete record from the system.

17. Routes Management Form

"Routes Management Form" let you search, add, edit and delete records. User may filter records based on drop down or input filters.

- 1) Select the "Manage Routes" menu item option from the "GIS Management" menu as shown in figure 17.1.



(17.1)

- 2) This will load "Routes Management Form" as shown below in figure 17.2.

The screenshot shows the 'Geo Routes Management Form' window. The title bar reads 'Geo Routes Management Form'. The main heading is 'Manage Geo Routes' with the 'FOREVER' logo in the top right corner. Below the heading is a 'Route Name:' label and an empty text input field. A 'Search' button is located below the input field. The main area contains a table with the following data:

Route ID	Name	Length
Decker-Hornor Road	Decker-Hornor Road	27539.4
Decker-Isakson Road	Decker-Isakson Road	19713.1
Cupressville-Decker Road	Cupressville-Decker Road	18575.2
Route1	Route1	7540.5
Route2	Route2	17067.4
Route3	Route3	21106.2
Route4	Route4	10774.5

Below the table, it shows 'Total = 7'. At the bottom of the form are buttons for 'Add', 'Delete', 'Close', and 'Refresh'. The status bar at the very bottom displays 'Ready.'

(17.2)

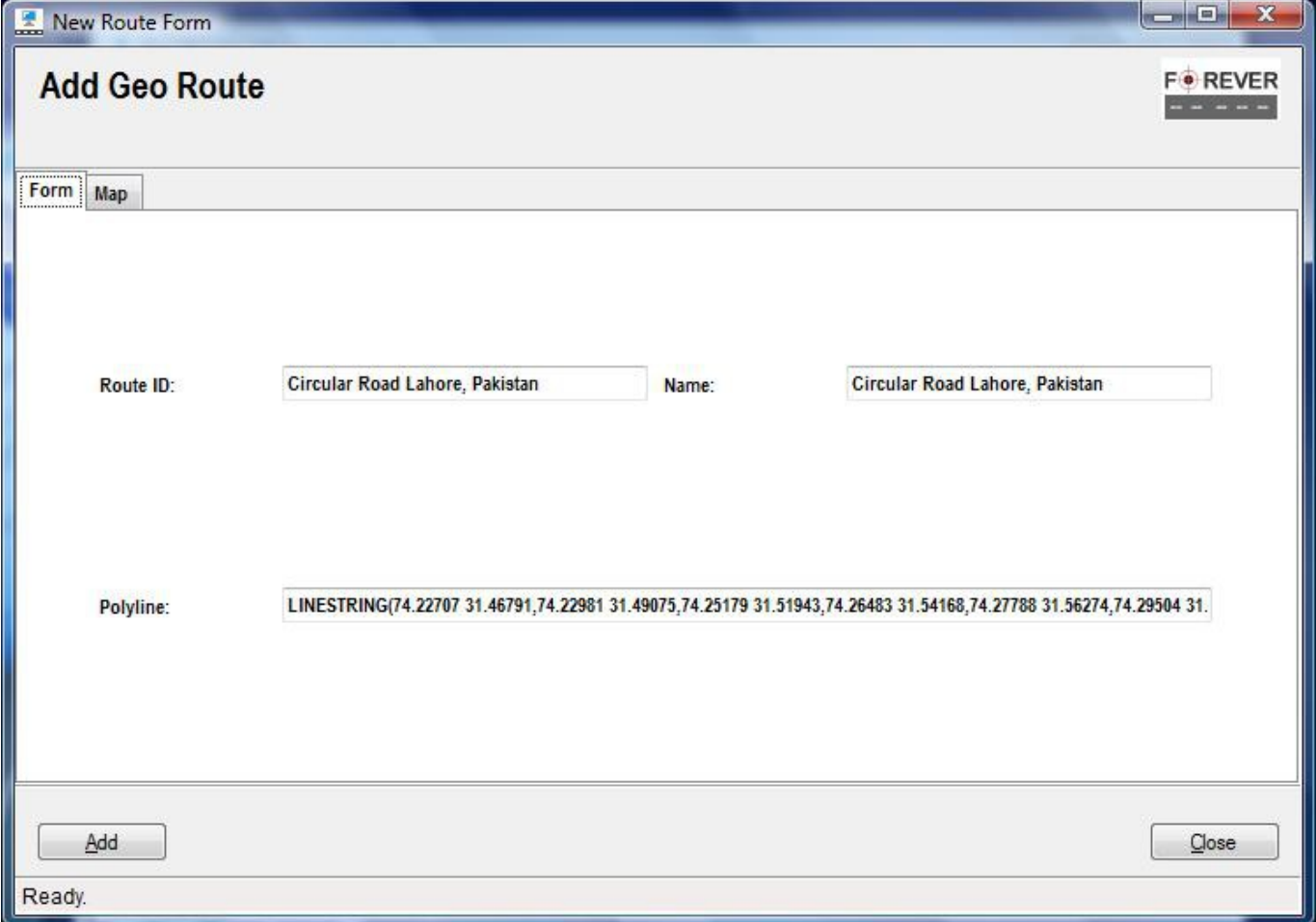
17.1. Search

User can search records by clicking on "Search" button and may also filter search by using different drop down or input filters as shown in figure 17.2.

17.2. Add

User can register new records through "Routes Management Form" as explained below:

- 1) Click the "Add" button on "Routes Management Form" as shown in figure 17.2. This will load "Registration Form" shown below in figure 17.3a and 17.3b.



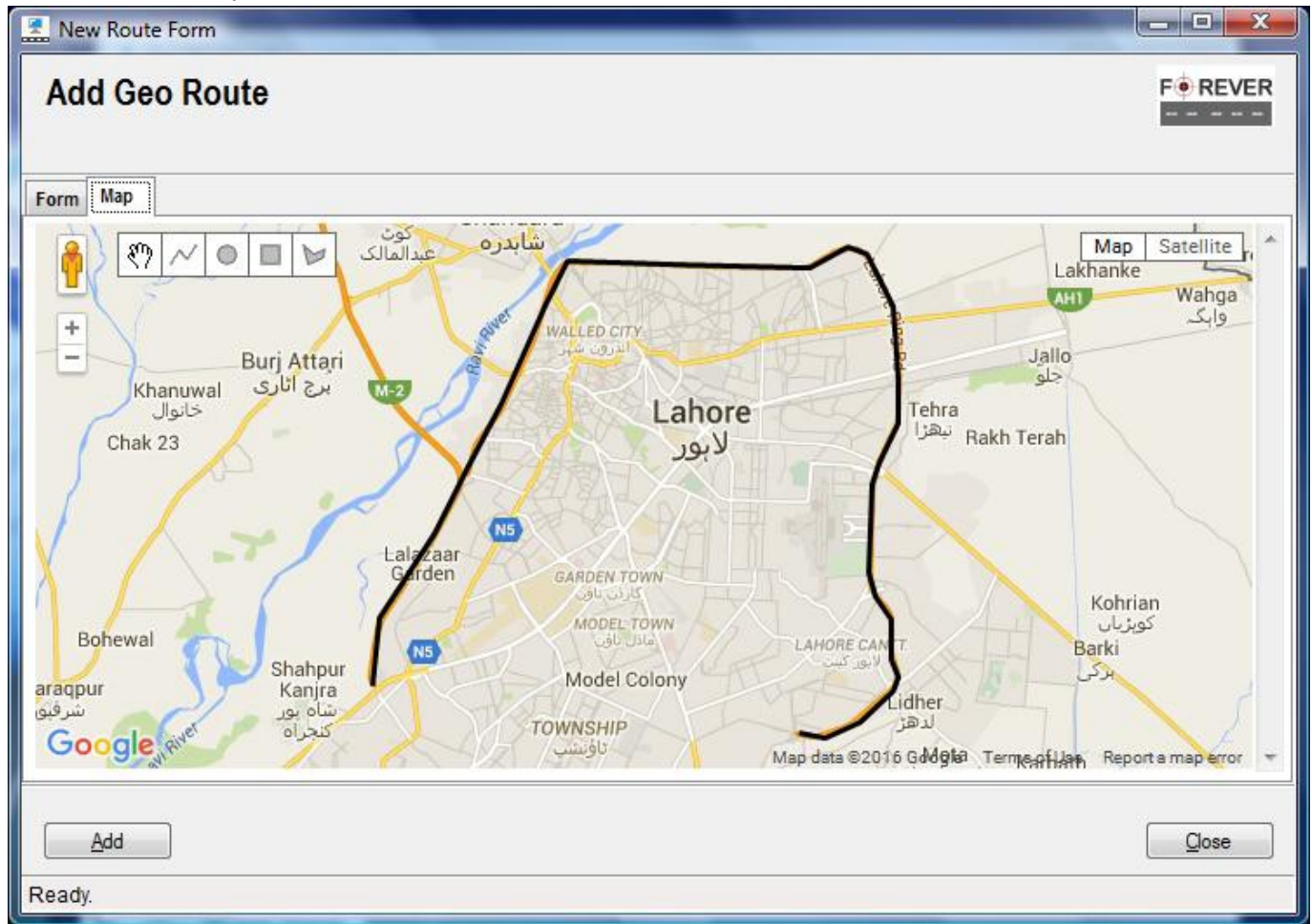
The screenshot shows a window titled "New Route Form" with a sub-header "Add Geo Route" and the "FOREVER" logo. The window has two tabs: "Form" (selected) and "Map". The "Form" tab contains the following fields:

- Route ID:** Circular Road Lahore, Pakistan
- Name:** Circular Road Lahore, Pakistan
- Polyline:** LINESTRING(74.22707 31.46791,74.22981 31.49075,74.25179 31.51943,74.26483 31.54168,74.27788 31.56274,74.29504 31.

At the bottom of the form, there are two buttons: "Add" and "Close". The status bar at the bottom left shows "Ready."

(17.3a)

- 2) Fill in the form.
- 3) Or user may use "Map" tab to input geometric values by drawing polyline on the target road.
- 4) Draw polyline shape on target route on the "Map" tab and then switch to the "Form" tab.
- 5) This will populate "Form" fields with geometric values from the "Map".
- 6) Click "Add" button to register new record.

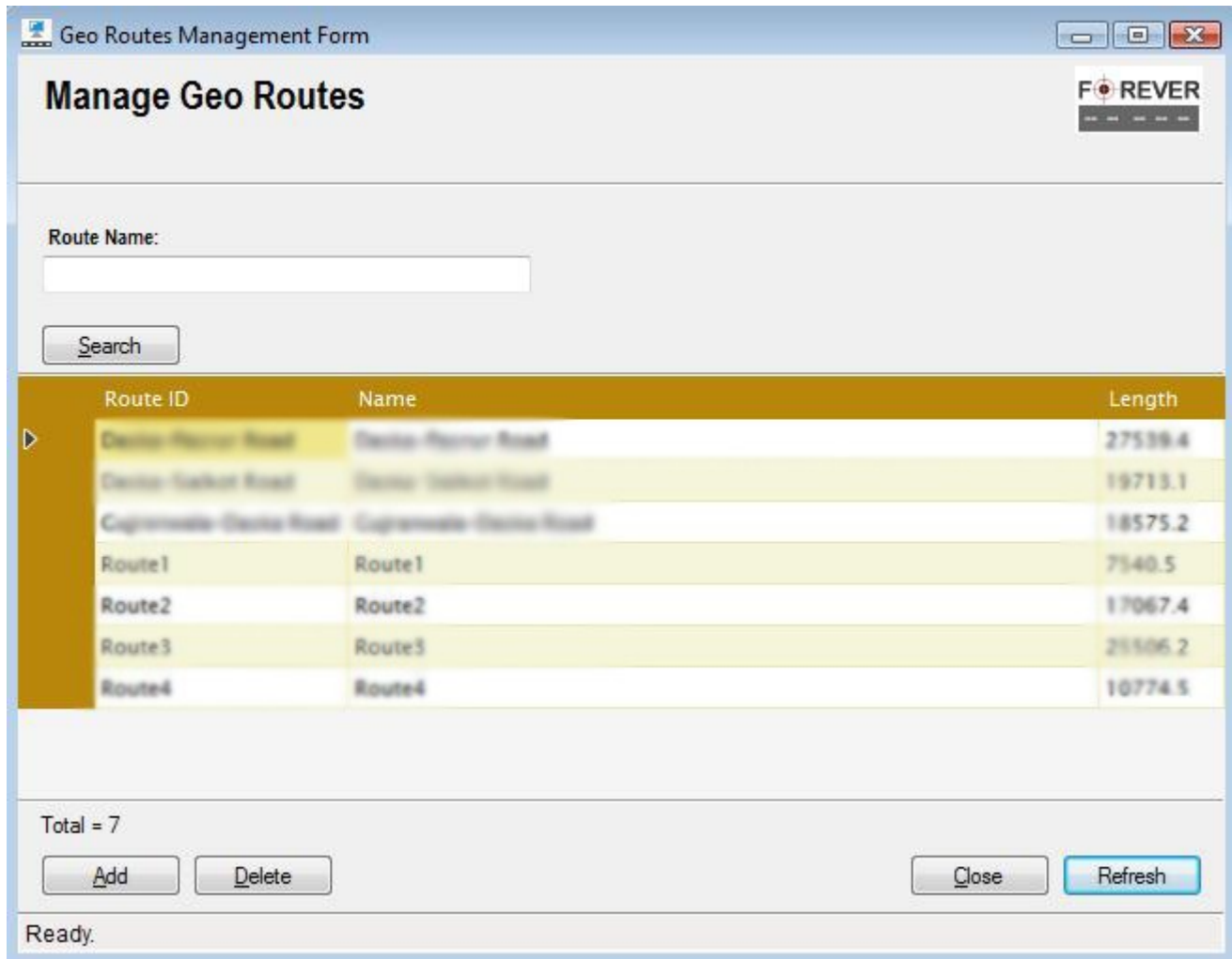


(17.3b)

17.3. Edit

User can edit record through "Routes Management Form" as explained below:

- 1) Select the record from "Routes Management Form" as shown below figure 17.4.



Route ID	Name	Length
Daxha-Hannan Road	Daxha-Hannan Road	27538.4
Daxha-Iskhan Road	Daxha-Iskhan Road	19713.1
Cupramwala-Daxha Road	Cupramwala-Daxha Road	18575.2
Route1	Route1	7540.5
Route2	Route2	17067.4
Route3	Route3	21506.2
Route4	Route4	10774.5

(17.4)

- 2) Double click on selected record. This will load the "Edit Form" with selected record details as shown in figure 17.5.

Route Editing Form

Edit Geo Route

Form Map

Route ID: Name:

Polyline:

Ready.

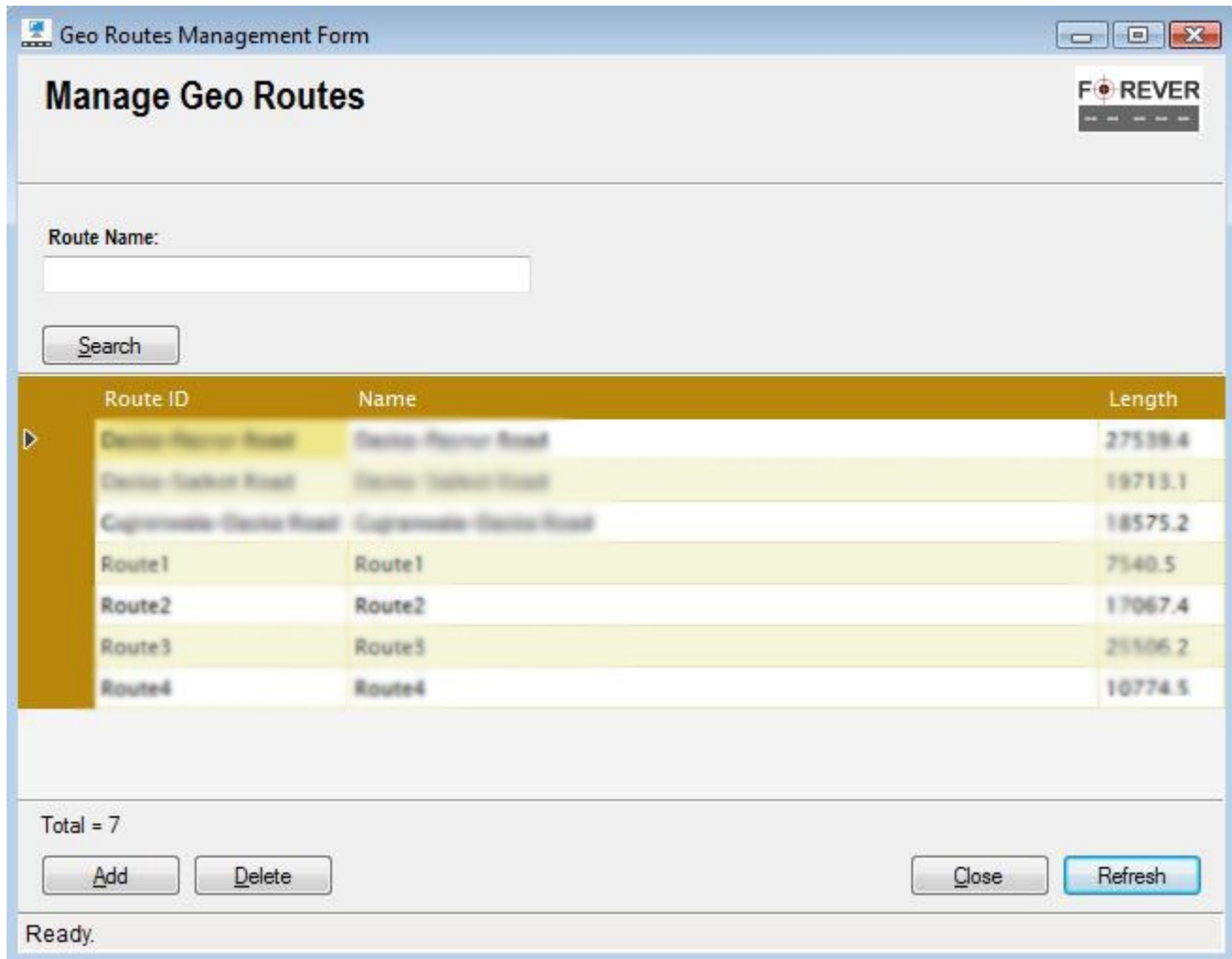
(17.5)

3) Edit details and update record by pressing "Update" button.

17.4. Delete

User can delete record through "Routes Management Form" as explained below:

- 1) Select the record from "Routes Management Form" by clicking on row header as shown below in figure 17.6.



The screenshot shows a software window titled "Geo Routes Management Form" with a sub-header "Manage Geo Routes". The window contains a search field for "Route Name" and a "Search" button. Below is a table with the following data:

Route ID	Name	Length
Decker-Horner Road	Decker-Horner Road	27538.4
Decker-Isakson Road	Decker-Isakson Road	19713.1
Cupressaville-Decker Road	Cupressaville-Decker Road	18575.2
Route1	Route1	7540.5
Route2	Route2	17067.4
Route3	Route3	21506.2
Route4	Route4	10774.5

Below the table, it indicates "Total = 7" and provides buttons for "Add", "Delete", "Close", and "Refresh". The "Delete" button is highlighted in blue. The status bar at the bottom shows "Ready."

(17.6)

- 2) Click "Delete" button and a confirmation dialogue box will be displayed.
- 3) Select "Yes" to delete record from the system.

18. Track Vehicles

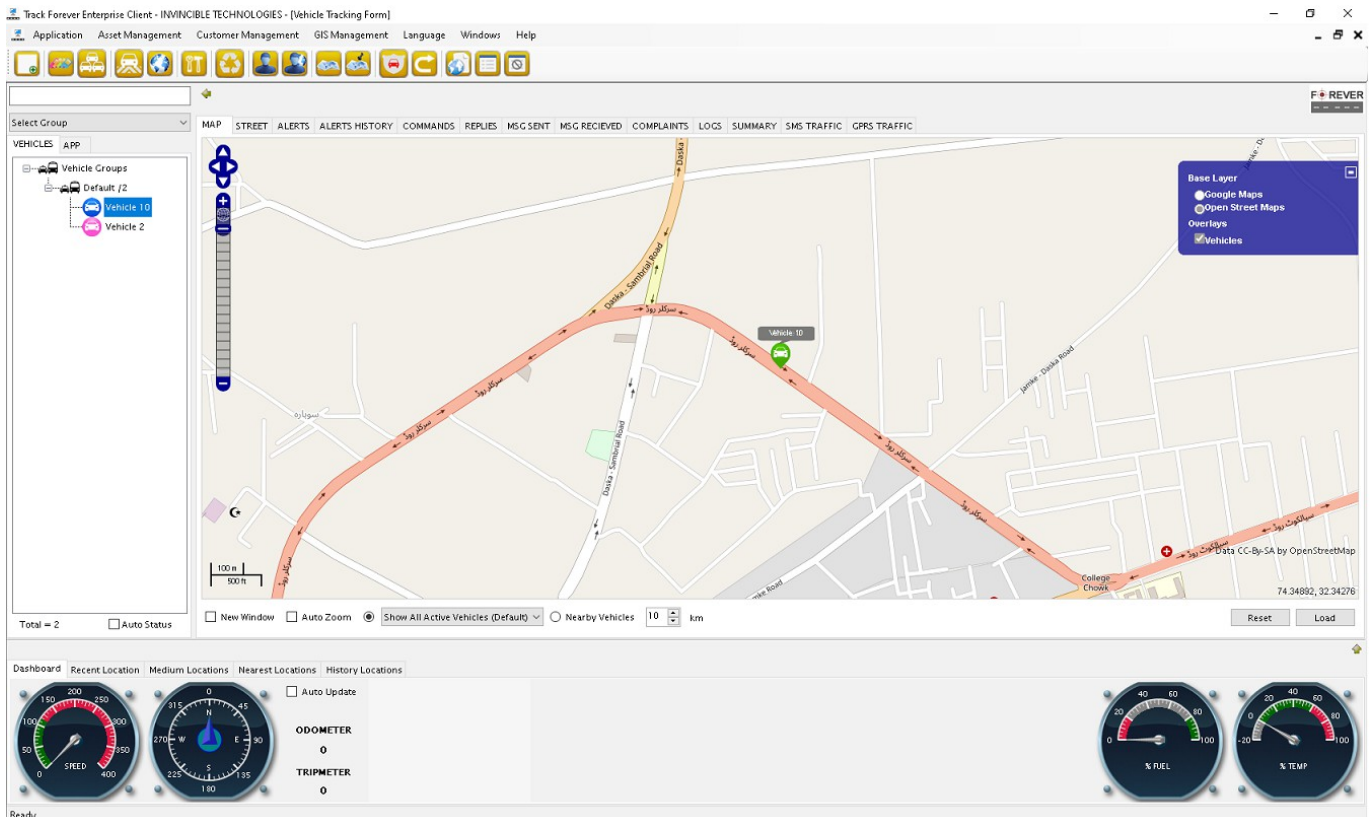
"Track Vehicles Form" let (control/call center users) GPS location tracking of registered vehicles (or assets). User can also perform various other tasks related to vehicles and customers like sending text messages to customers or commands to vehicles. It also allows users to monitor various alerts with follow up logs; user may also check and replay user history. To get started:

- 1) Select the "Track Vehicles" menu item option from the "Asset Management" menu as shown in figure 18.1.



(18.1)

- 2) This will load "Vehicle Tracking Form" as shown below in figure 18.2.



(18.2)

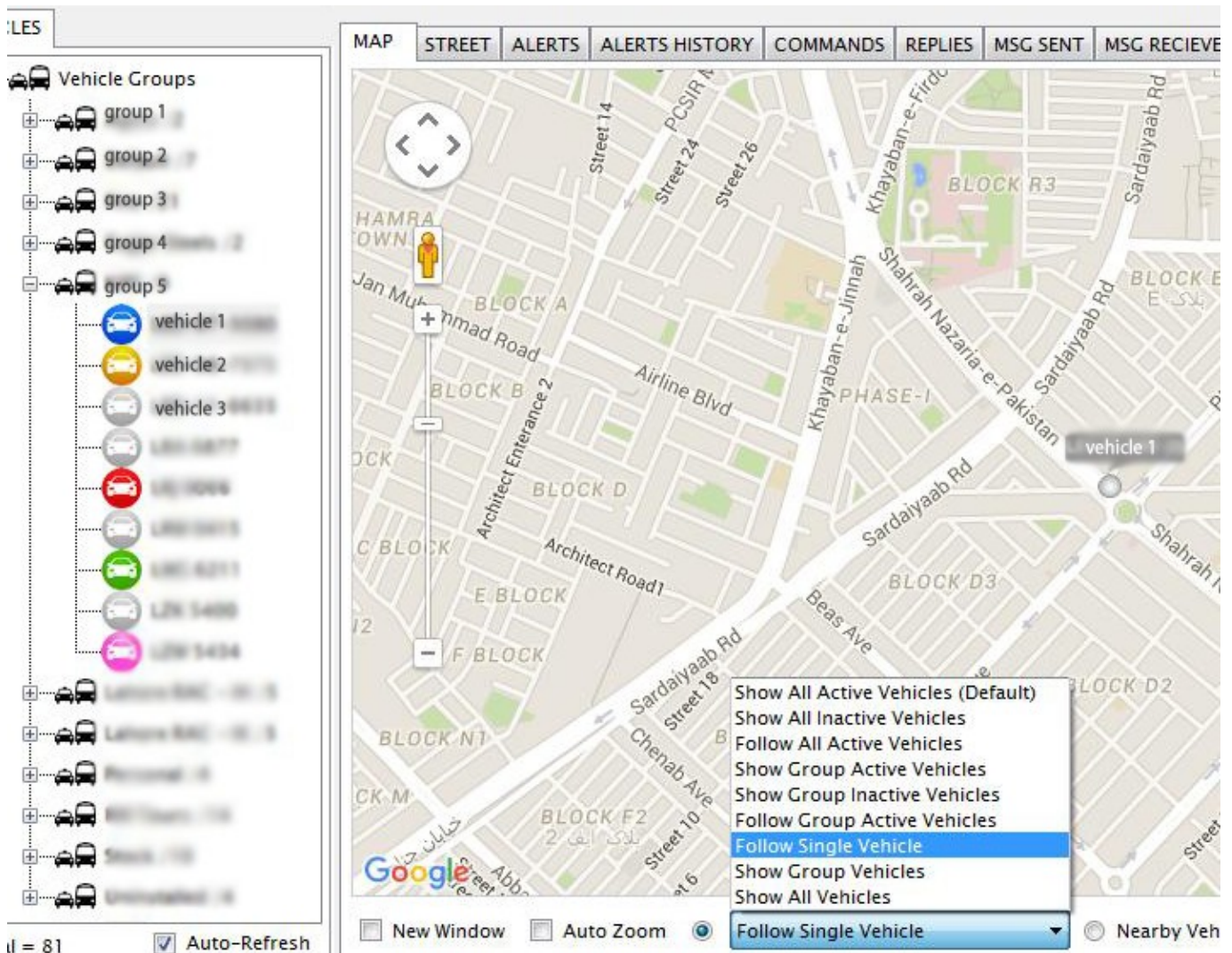
"Vehicle Tracking Form" as shown in figure 18.2 is divided into 3 sections, "Vehicles", "Activity" and "Dashboard". "Vehicles" section lists vehicles list in groups. "Activity" section consists of multiple tabs (like Map, Street, and

Alerts etc) and display fleet level information. "Dashboard" section consists of 5 tabs including "Dashboard", "Recent Locations", "Medium Locations", "Nearest Locations" and "History Locations", this section display information relevant to a specific or a selected vehicle.

18.1. Locate Vehicle / Group on Map

In order to locate a vehicle in the system,

- 1) Select the vehicle from the vehicles list as shown in fig. 18.3; the "vehicle 1" is selected.
- 2) Select "Follow Single Vehicle" option from the drop down list under the "Map" section.
- 3) Now double click on "MAP" tab header and latest location of "vehicle 1" will be displayed on "Map".



(18.3)

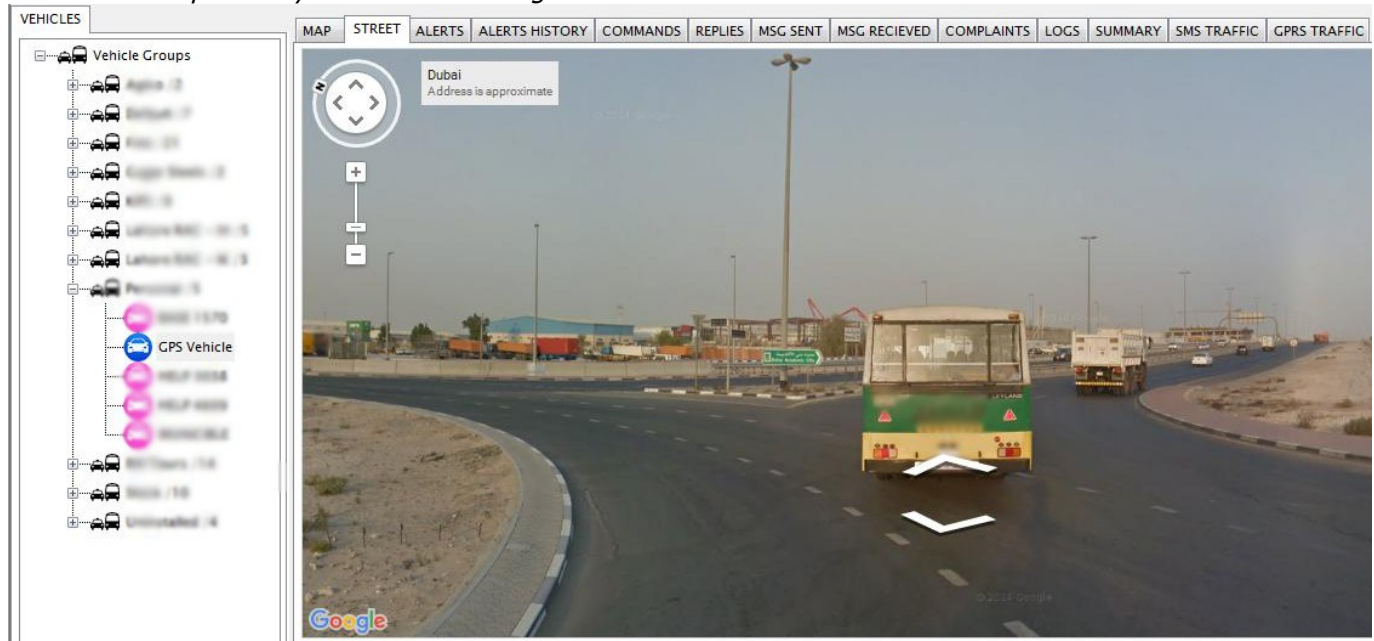
In order to locate vehicles in a group, select group from the vehicles list, then select appropriate display option from the drop down list and then double click on the "MAP" tab header, this will display group vehicles based on option selected.

18.2. Locate Vehicle on Google Streets

In order to locate vehicle in "Google Street"

- 1) Select the vehicle from the vehicles list as shown in fig. 18.4; the "GPS Vehicle" is selected.
- 2) Now double click on "STREET" tab header and latest location of "GPS Vehicle" will be displayed in street view under "STREET" tab as shown in figure 18.4.

Note that this option only works where "Google Street" feature is available.



(18.4)

18.3. Alert Reporting and Processing

All incoming alerts are reported under "ALERTS" tab in the activity section as shown in following fig. 18.5.

MAP	STREET	ALERTS	ALERTS HISTORY	COMMANDS	REPLIES	MSG SENT	MSG RECEIVED	COMPLAINTS	LOGS	SUMMARY	SMS TRAFFIC	GPS TRAFFIC
Alarm Time	GPS Time	Reg No	Alarm Detail									
15-Jan-2016 02:17:45 PM	15-Jan-2016 02:17:50 PM	MM-10178	Trap Start: 157 Km NE of Chistian Ground Near DHA Phase 1 Lahore Punjab Pakistan									
15-Jan-2016 02:16:01 PM	15-Jan-2016 02:16:08 PM	MM-10177	Trap Start: 47 Km SE of 10 Mason Brown Road Gulgaun Colony Multan Punjab Pakistan									
15-Jan-2016 02:15:50 PM	15-Jan-2016 02:15:53 PM	MM-10177	Trap End: 47 Km SE of 10 Mason Brown Road Gulgaun Colony Multan Punjab Pakistan									
15-Jan-2016 02:14:12 PM	15-Jan-2016 02:14:19 PM	MM-10178	Trap End: 5.7m SW of Al Shifa Clinic Adama Iqbal Road Man Chenna Khawal Punjab Pakistan									
15-Jan-2016 02:14:12 PM	15-Jan-2016 02:14:19 PM	MM-10178	Trap End: 9.1m NE of MCB Lower Wall NO Lahore Punjab Pakistan									
15-Jan-2016 02:13:52 PM	15-Jan-2016 02:13:59 PM	MM-10178	Speed Limit Violated: 176 Km SW of Shamsul C.T Road Latamusa Cupra Punjab Pakistan									
15-Jan-2016 02:13:26 PM	15-Jan-2016 02:13:33 PM	MM-10178	Speed Limit Violated: 1.0km SE of Shamsul Latamusa Cupra Punjab Pakistan									

(18.5)

In order to follow up or log a user activity against an alert, double click on alert row header, an alert processing form will open up as show in fig. 18.6

(18.6)

Click on "Process" button to mark it as processed. User may also log an action or send a text message and or send command to vehicle through this form. **Note** that auto-alert dialog popup can also be configured by setting up "PopupAlerts" value "true" via Application->Settings form.

18.4. Alerts History

In order to view vehicle recent alerts history

- 1) Select the vehicle from the vehicles list as shown in fig. 18.4; the "GPS Vehicle" is selected.
- 2) Now double click on "ALERTS HISTORY" tab header and recent alerts of "GPS Vehicle" will be displayed as shown in figure 18.7.

MAP	STREET	ALERTS	ALERTS HISTORY	COMMANDS	REPLIES	MSG SENT	MSG RECEIVED	COMPLAINTS	LOGS	SUMMARY	SMS TRAFFIC	GPRS TRAFFIC
Alarm Time	GPS Time	Reg No	Alarm Detail									
19-Jan-2016 12:48:19 PM	19-Jan-2016 12:48:30 PM	GPS Vehicle	Trip Start. 426.9m SW of Electromec Co LLC Ras Al Khor Industrial Area Dubai Dubai United Arab Emirates									
19-Jan-2016 12:46:43 PM	19-Jan-2016 12:46:54 PM	GPS Vehicle	Towing Detected. 905.9m NE of Kings Dubai – Nad Al Sheba – Dubai Nad Al Sheba 3 Dubai Dubai United Arab Emirates									
19-Jan-2016 12:46:11 PM	19-Jan-2016 12:46:22 PM	GPS Vehicle	Towing Detected. 869.3m NW of Cochrane Gulf FZE Mohammad Bin Zayed Road Dubai Silicon Oasis Dubai Dubai United Arab Emirates									
19-Jan-2016 12:44:51 PM	19-Jan-2016 12:45:02 PM	GPS Vehicle	SOS Alert. 428.8m SW of Electromec Co LLC Ras Al Khor Industrial Area Dubai Dubai United Arab Emirates									
19-Jan-2016 12:40:59 PM	19-Jan-2016 12:41:10 PM	GPS Vehicle	Speed Limit Violated. 224.1m SW of Jotun Multicolor Centre – Qamar Al Huda Trading Ras Al Khor Industrial Area Dubai Dubai United Arab Emirates									
19-Jan-2016 12:40:20 PM	19-Jan-2016 12:40:30 PM	GPS Vehicle	SOS Alert. 22.5m SW of Used Car Exhibition 2 Ras Al Khor Industrial Area Dubai Dubai United Arab Emirates									
19-Jan-2016 12:38:50 PM	19-Jan-2016 12:39:02 PM	GPS Vehicle	Excess Idling. 571.6m SE of Alsuwaidi House Nad Al Sheba Dubai Dubai United Arab Emirates									
19-Jan-2016 12:37:46 PM	19-Jan-2016 12:37:58 PM	GPS Vehicle	Speed Limit Violated. 428.8m SW of Electromec Co LLC Ras Al Khor Industrial Area Dubai Dubai United Arab Emirates									
19-Jan-2016 12:35:39 PM	19-Jan-2016 12:35:50 PM	GPS Vehicle	Trip Start. 977.0m SE of Alsuwaidi House Nad Al Sheba Dubai Dubai United Arab Emirates									
19-Jan-2016 12:24:17 PM	19-Jan-2016 12:24:28 PM	GPS Vehicle	Towing Detected. 2364.1km SE of Camel Track Abu Dhabi Abu Dhabi United Arab Emirates									
19-Jan-2016 12:20:21 PM	19-Jan-2016 12:20:32 PM	GPS Vehicle	SOS Alert. 436.8m SW of Electromec Co LLC Ras Al Khor Industrial Area Dubai Dubai United Arab Emirates									
19-Jan-2016 12:19:01 PM	19-Jan-2016 12:19:12 PM	GPS Vehicle	Excess Idling. 2360.0km SE of Camel Track Abu Dhabi Abu Dhabi United Arab Emirates									
19-Jan-2016 12:17:25 PM	19-Jan-2016 12:17:36 PM	GPS Vehicle	Trip Start. 705.1m SW of Ras Al Khor, Terminus 1 Ras Al Khor Industrial Area Dubai Dubai United Arab Emirates									
19-Jan-2016 12:14:05 PM	19-Jan-2016 12:14:16 PM	GPS Vehicle	Trip End. 2360.5km SE of Camel Track Abu Dhabi Abu Dhabi United Arab Emirates									

(18.7)

18.5. Commands History

In order to view vehicle SMS/GPRS text commands history

- 1) Double click on "COMMANDS" tab header and recent history of commands sent from the system to the vehicle will be displayed as shown in figure 18.8.
- 2) User may select commands with respect to a single vehicle by selecting desired vehicle from the vehicle list and then repeat the step 1.
- 3) Replies to commands will be displayed under "REPLIES" tab. Double click on "REPLIES" tab header to see replies.

MAP	STREET	ALERTS	ALERTS HISTORY	COMMANDS	REPLIES	MSG SENT	MSG RECEIVED	COMPLAINTS	LOGS	SUMMARY	SMS TRAFFIC	GPRS TRAFFIC
Command Time	Reg No	SIM No	Command	Gateway	Medium	Priority	Status	User				
15-Jan-2016 02:03:34 PM	U8110004	+923403441212	\$ARM,?	+923403441212	SMS	Low	SENT	NR-AUTO-CMD				
15-Jan-2016 01:03:29 PM	U8110004	+923403441212	\$ARM,?	+923403441212	SMS	Low	SENT	NR-AUTO-CMD				
15-Jan-2016 11:03:20 AM	U8110004	+923403441212	\$ARM,?	+923403441212	SMS	Low	SENT	NR-AUTO-CMD				
15-Jan-2016 11:03:20 AM	U8110004	+923403441212	\$ARM,?	+923403441212	SMS	Low	SENT	NR-AUTO-CMD				
15-Jan-2016 09:03:14 AM	U8110004	+923403441212	\$ARM,?	+923403441212	SMS	Low	SENT	NR-AUTO-CMD				
15-Jan-2016 07:03:10 AM	U8110004	+923403441212	\$ARM,?	+923403441212	SMS	Low	SENT	NR-AUTO-CMD				
15-Jan-2016 06:03:09 AM	U8110004	+923403441212	\$ARM,?	+923403441212	SMS	Low	SENT	NR-AUTO-CMD				
15-Jan-2016 05:03:06 AM	U8110004	+923403441212	\$ARM,?	+923403441212	SMS	Low	SENT	NR-AUTO-CMD				
15-Jan-2016 04:03:05 AM	U8110004	+923403441212	\$ARM,?	+923403441212	SMS	Low	SENT	NR-AUTO-CMD				
15-Jan-2016 03:03:05 AM	U8110004	+923403441212	\$ARM,?	+923403441212	SMS	Low	SENT	NR-AUTO-CMD				
15-Jan-2016 03:03:05 AM	U8110004	+923403441212	\$ARM,?	+923403441212	SMS	Low	SENT	NR-AUTO-CMD				
15-Jan-2016 02:03:04 AM	U8110004	+923403441212	\$ARM,?	+923403441212	SMS	Low	SENT	NR-AUTO-CMD				
15-Jan-2016 01:03:04 AM	U8110004	+923403441212	\$ARM,?	+923403441212	SMS	Low	SENT	NR-AUTO-CMD				

(18.8)

18.7. Complaints

In order to view customer complaints

- 1) Double click on "COMPLAINTS" tab header and customer complaints will be displayed as shown in figure 18.10.
- 2) User may select complaints with respect to a single vehicle by selecting desired vehicle from the vehicle list and then repeat the step 1.

MAP	STREET	ALERTS	ALERTS HISTORY	COMMANDS	REPLIES	MSG SENT	MSG RECEIVED	COMPLAINTS	LOGS	SUMMARY	SMS TRAFFIC	GPRS TRAFFIC																																																																	
<table border="1"> <thead> <tr> <th>Complaint Time</th> <th>Ticket No</th> <th>Customer</th> <th>Subject</th> <th>Type</th> <th>Status</th> <th>Completion Time</th> </tr> </thead> <tbody> <tr> <td>01-Mar-2014 01:01:52 PM</td> <td>14</td> <td>History Query</td> <td>Vehicle Location is not valid</td> <td>History Not Av..</td> <td>Closed</td> <td>22-Aug-2014 08:55:25 PM</td> </tr> </tbody> </table>													Complaint Time	Ticket No	Customer	Subject	Type	Status	Completion Time	01-Mar-2014 01:01:52 PM	14	History Query	Vehicle Location is not valid	History Not Av..	Closed	22-Aug-2014 08:55:25 PM																																																			
Complaint Time	Ticket No	Customer	Subject	Type	Status	Completion Time																																																																							
01-Mar-2014 01:01:52 PM	14	History Query	Vehicle Location is not valid	History Not Av..	Closed	22-Aug-2014 08:55:25 PM																																																																							
<table border="1"> <tr> <td>Name:</td> <td>Contact No:</td> <td>Email:</td> <td colspan="10"></td> </tr> <tr> <td>History Query</td> <td>+923002115225</td> <td></td> <td colspan="10"></td> </tr> <tr> <td colspan="12">History Not Available</td> <td>Web ID:</td> </tr> <tr> <td colspan="12">Vehicle Location is not valid</td> <td>Fleet ID:</td> </tr> <tr> <td colspan="12">No. Dash Radio reported that vehicle TUB 110 is not reporting correct location.</td> <td>User ID:</td> </tr> </table>													Name:	Contact No:	Email:											History Query	+923002115225												History Not Available												Web ID:	Vehicle Location is not valid												Fleet ID:	No. Dash Radio reported that vehicle TUB 110 is not reporting correct location.												User ID:
Name:	Contact No:	Email:																																																																											
History Query	+923002115225																																																																												
History Not Available												Web ID:																																																																	
Vehicle Location is not valid												Fleet ID:																																																																	
No. Dash Radio reported that vehicle TUB 110 is not reporting correct location.												User ID:																																																																	

(18.10)

18.8. User Logs

In order to view user logs

- 1) Double click on "LOGS" tab header and user logs for the selected date will be displayed as shown in figure 18.11.

MAP	STREET	ALERTS	ALERTS HISTORY	COMMANDS	REPLIES	MSG SENT	MSG RECEIVED	COMPLAINTS	LOGS	SUMMARY	SMS TRAFFIC	GPRS TRAFFIC														
<table border="1"> <thead> <tr> <th>Time</th> <th>Vehicle ID</th> <th>Reg No</th> <th>Log Detail</th> <th>Category</th> <th>Status</th> <th>User</th> </tr> </thead> <tbody> <tr> <td>15-Jan-2016 02:25:43 PM</td> <td>110</td> <td>Reg No: 110</td> <td>Alert reported to the customer</td> <td>GeneralLog</td> <td>Fulfilled</td> <td>Shamir Ali</td> </tr> </tbody> </table>													Time	Vehicle ID	Reg No	Log Detail	Category	Status	User	15-Jan-2016 02:25:43 PM	110	Reg No: 110	Alert reported to the customer	GeneralLog	Fulfilled	Shamir Ali
Time	Vehicle ID	Reg No	Log Detail	Category	Status	User																				
15-Jan-2016 02:25:43 PM	110	Reg No: 110	Alert reported to the customer	GeneralLog	Fulfilled	Shamir Ali																				

(18.11)

18.9. Summary

In order to view vehicle information summary

- 1) Select the vehicle from the vehicles list then double click on "SUMMARY" tab header and the summary details will be displayed as shown in figure 18.12.

MAP	STREET	ALERTS	ALERTS HISTORY	COMMANDS	REPLIES	MSG SENT	MSG RECIEVED	COMPLAINTS	LOGS	SUMMARY	SMS TRAFFIC	GPRS TRAFFIC
Label		Value										
Vehicle ID:		110										
Customer ID:		9										
Account ID:												
Registration #:		XXXXXXXXXX										
Package:		Mobile										
Group:		XXXX										

(18.12)

18.10. SMS Traffic

In order to view hourly SMS traffic summary

- 1) Double click on "SMS TRAFFIC" tab header and the vehicle wise SMS traffic details will be displayed as shown in figure 18.13.

MAP	STREET	ALERTS	ALERTS HISTORY	COMMANDS	REPLIES	MSG SENT	MSG RECIEVED	COMPLAINTS	LOGS	SUMMARY	SMS TRAFFIC	GPRS TRAFFIC
Cell No		Vehicle ID		Reg No								SMS Count
XXXXXXXXXX		110		XXXXXXXXXX								1

(18.13)

18.11. GPRS Traffic

In order to view hourly GPRS traffic summary

- 1) Double click on "GPRS TRAFFIC" tab header and the vehicle wise GPRS traffic details will be displayed as shown in figure 18.14.

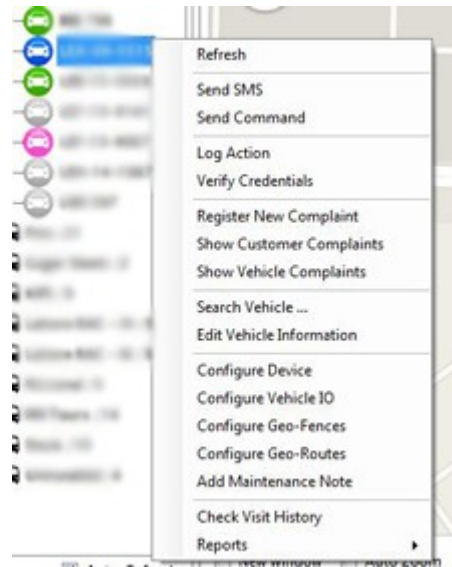
MAP	STREET	ALERTS	ALERTS HISTORY	COMMANDS	REPLIES	MSG SENT	MSG RECIEVED	COMPLAINTS	LOGS	SUMMARY	SMS TRAFFIC	GPRS TRAFFIC
GPRS Tag		Vehicle ID		Reg No								Bytes
XXXXXXXXXX		110		XXXXXXXXXX								45032
XXXXXXXXXX		110		XXXXXXXXXX								14220
XXXXXXXXXX		110		XXXXXXXXXX								12794
XXXXXXXXXX		110		XXXXXXXXXX								9804

(18.14)

18.12. Vehicle Specific Operations

In order to perform vehicle specific operations

- 1) Right click on a vehicle in the vehicles list; a context menu will pop up as shown in figure 18.15. The context menu highlights the operations that can be performed against a vehicle.
- 2) User may send "SMS", "Command", "Log Action", "Verify Credentials", "Register Complaint", "Search Vehicle", "Configure Device", "Configure IO", "Configure Geo-Fences", "Configure Geo-Routes", "Add Maintenance Note", "Check Visit History", "View GPS History" and "Replay GPS History".



(18.15)

18.13. Send SMS

In order to send text message to a vehicle customer

- 1) Right click on a vehicle in the vehicles list; a context menu will pop up as shown in figure 18.15 then select "Send SMS" context menu item. "SMS Form" will be displayed as shown in fig. 18.16.
- 2) Type in the text message and the press "Send SMS" button, the message will be queued in the system to be sent to the respective customer.



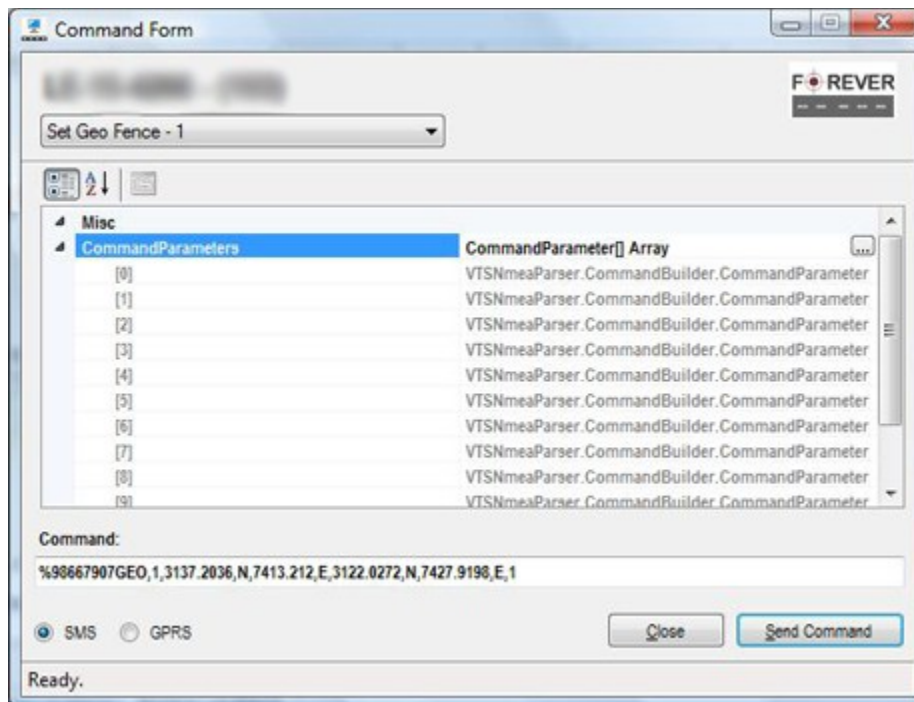
The screenshot shows a window titled "SMS Form" with a "Send SMS" header and the "FOREVER" logo. The form includes three input fields: "Vehicle ID:", "Reg No:", and "Message:". At the bottom, there are two buttons: "Send SMS" and "Close". The status bar at the bottom of the window shows "Ready."

(18.16)

18.14. Send Command

In order to send text command to a vehicle

- 1) Right click on a vehicle in the vehicles list; a context menu will pop up as shown in figure 18.15 then select "Send Command" context menu item. "Command Form" will be displayed as shown in fig. 18.17.
- 2) Select command from the drop down list or type in the command message and select medium "SMS" or "GPRS" and then press "Send Command" button, the command message will be queued in the system to be sent to the respective vehicle.
- 3) Note that "GPRS" commands will only be sent to the vehicle if the vehicle device supports GPRS commands and has a live GPRS session at the time of transmission.

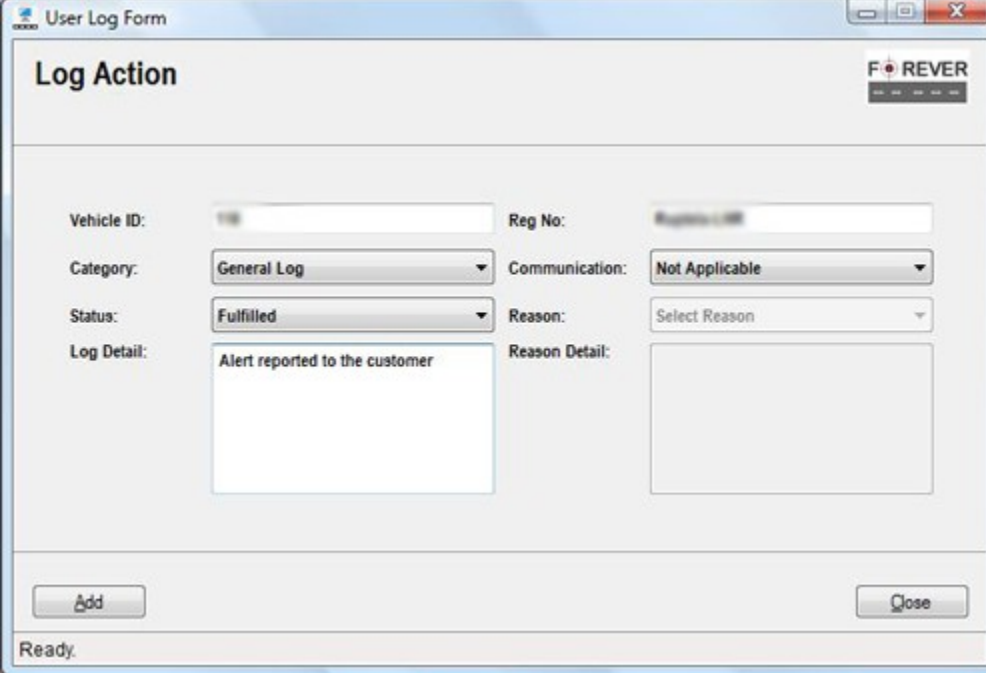


(18.17)

18.15. Log Action

In order to log a user activity in the system

- 1) Right click on a vehicle in the vehicles list; a context menu will pop up as shown in figure 18.15 then select "Log Action" context menu item. "User Log Form" will be displayed as shown in fig. 18.18.
- 2) Fill in the log form and then press "Add" button, user action will be logged in the system. A dialog box will be displayed for either successful or failure result.



Vehicle ID: Reg No:

Category: Communication:

Status: Reason:

Log Detail: Reason Detail:

Ready.

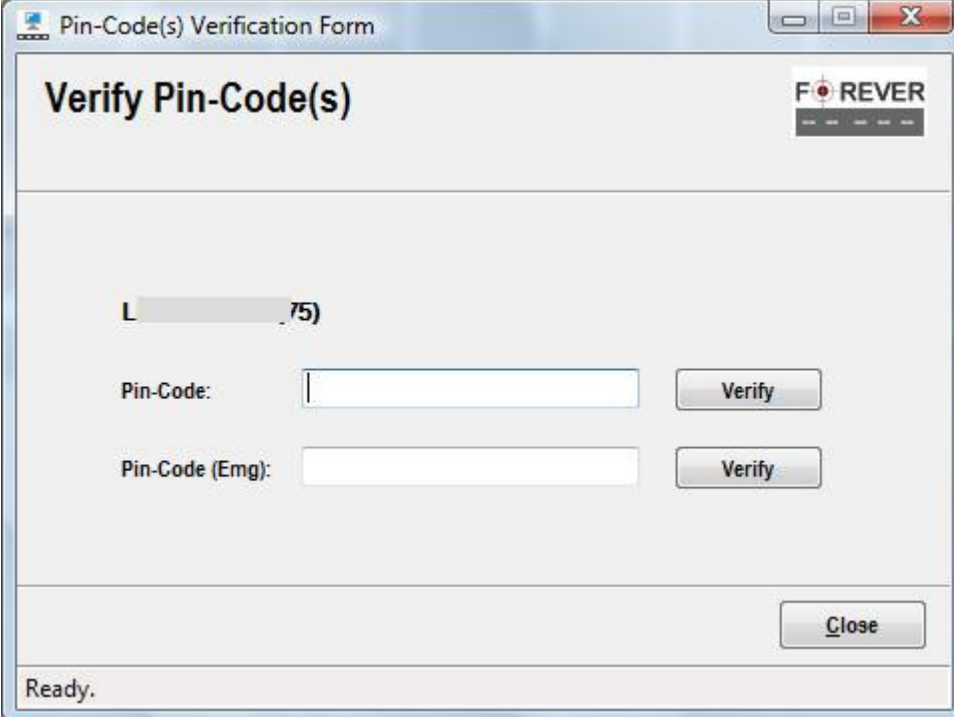
(18.18)

18.16. Pin-Code Verification

In order to identify user, application allows you to manually verify user pin-codes as explained below:

- 1) Right click on a vehicle in the vehicles list; a context menu will pop up as shown in figure 18.15 then select "Verify Credentials" context menu item. "Pin-Codes Verification Form" will be displayed as shown in fig. 18.19.
- 2) Type in the user pin-code and press "Verify" button, a dialog box will be displayed for either successful or failure authentication process.

Note that two types of pin-codes are set for user action authentication process. Users may use pin-codes as per their requirement. A typical scenario is to identify a normal situation and an emergency situation.



The screenshot shows a Windows-style dialog box titled "Pin-Code(s) Verification Form". The main heading is "Verify Pin-Code(s)". In the top right corner, there is a logo for "FOREVER" with a red dot above the 'O'. Below the heading, there is a status bar showing "L" followed by a greyed-out field and ".75)". The main area contains two input fields: "Pin-Code:" and "Pin-Code (Emg):". Each input field has a corresponding "Verify" button to its right. At the bottom right of the dialog, there is a "Close" button. The status bar at the very bottom of the dialog displays "Ready."

(18.19)

18.17. Register New Complaint

In order to register a new complaint:

- 1) Right click on a vehicle in the vehicles list; a context menu will pop up as shown in figure 18.15 then select "Register New Complaint" context menu item. "Complaint Registration Form" will be displayed as shown in fig. 18.20.
- 2) Fill in the complaint form and press "Add" button, a dialog box will be displayed for either successful or failure registration.

The screenshot shows a window titled "Complaint Registration Form" with a "Register Complaint" header and the "FOREVER" logo. The form includes the following fields and controls:

- Customer ID:
- Vehicle ID:
- Contact No:
- Email:
- Subject:
- Detail:
- Type:
- Status:
- Buttons: Add, Close
- Status bar: Ready.

(18.20)

18.18. Search Vehicle

In order to search a vehicle in the system:

- 1) Right click on a vehicle in the vehicles list; a context menu will pop up as shown in figure 18.15 then select "Search Vehicle" context menu item. "Search Vehicle Form" will be displayed as shown in fig. 18.21.
- 2) Type in search values in the appropriate input fields and then press "Search" button, a list of vehicles matching search criteria will be displayed.

Search Vehicle

FO REVER

Engine No: Chasis No: SIM NO: IMEI NO: GPRS TAG:

VehicleID	RegNo	EngineNo	ChasisNo	SimNo	ImeiNo	GprsTag
-----------	-------	----------	----------	-------	--------	---------

Total = 0

Ready.

(18.21)

18.19. Configure Device

In order to setup configurations in a device installed into a vehicle:

- 1) Right click on a vehicle in the vehicles list; a context menu will pop up as shown in figure 18.15 then select "Configure Device" context menu item. "Vehicle Configuration Form" will be displayed as shown in fig. 18.22.
- 2) Fill in the configuration form and press "Save" button, a dialog box will be displayed for either successful or failure registration.
- 3) User can save configurations in text based template files by pressing "Save Template" button.
- 4) Or user can load already saved configurations by pressing "Load Template" button.

The screenshot shows a web-based configuration form titled "Configure Vehicle" within a window titled "Vehicle Configuration Form". The form is organized into a grid of input fields and dropdown menus. The fields are as follows:

Vehicle ID:	<input type="text"/>	Reg No:	<input type="text"/>	Tracker:	<input type="text"/>
IMEI No:	<input type="text"/>	GPRS Tag:	<input type="text"/>	SIM No:	<input type="text"/>
SMSC No:	<input type="text"/>	GPRS Dial No:	<input type="text"/>	GSM Gateway:	<input type="text"/>
Contact No 1:	<input type="text"/>	Contact No 2:	<input type="text"/>	Contact No 3:	<input type="text"/>
APN ID:	<input type="text"/>	APN User ID:	<input type="text"/>	APN Password:	<input type="text"/>
Unit Password:	<input type="text"/>	Base IP (1):	<input type="text"/>	Port (1):	<input type="text"/>
Speed Limit:	<input type="text"/>	Base IP (2):	<input type="text"/>	Port (2):	<input type="text"/>

Buttons: "Load Template" (top right), "Save Template" (bottom right), "Save" (bottom left), "Close" (bottom right).

Status bar: Ready.

(18.22)

18.20. Configure IO

Vehicle IO configurations overrides standard input/output settings and store data with applied configurations to meet certain business objective.

In order to override IO configuration of a device:

- 1) Right click on a vehicle in the vehicles list; a context menu will pop up as shown in figure 18.15 then select "Configure IO" context menu item. "Vehicle IO Configuration Form" will be displayed as shown in fig. 18.23.
- 2) Fill in the configuration form and press "Add" button, a dialog box will be displayed for either successful or failure registration.

Vehicle I/O Configuration Form

Configure Vehicle I/O

REVER

Vehicle ID:	<input type="text"/>	Reg No:	<input type="text"/>
Digital Input 1:	Select Digital Input	Digital Input 2:	Select Digital Input
Digital Input 3:	Select Digital Input	Digital Input 4:	Select Digital Input
Digital Output 1:	Select Digital Output	Digital Output 2:	Select Digital Output
Digital Output 3:	Select Digital Output	Digital Output 4:	Select Digital Output
Analog Input 1:	Select Analog Input	Volt Unit Ratio:	<input type="text"/>
Unit:	<input type="text"/>	Volt Unit Ratio:	<input type="text"/>
Analog Input 2:	Select Analog Input	Volt Unit Ratio:	<input type="text"/>
Unit:	<input type="text"/>	Volt Unit Ratio:	<input type="text"/>
Analog Input 3:	Select Analog Input	Volt Unit Ratio:	<input type="text"/>
Unit:	<input type="text"/>	Volt Unit Ratio:	<input type="text"/>
Analog Input 4:	Select Analog Input	Volt Unit Ratio:	<input type="text"/>
Unit:	<input type="text"/>		

Add Close

Ready

(18.23)

18.21. Configure Geo-Fences

User may apply multiple geo-fences stored via "Manage Zones" management form. Every applied geo-fence defines a logical geo-metric boundary for a vehicle. If a vehicle enters or leaves that geometric boundary, system identifies its movement and reports it as an important event. "Track Forever" supports both software and device based geo-fence configurations. Software based configurations are easier and does not require further configurations on device except that device should be reporting while crossing that region.

In order to setup geo-fences to a vehicle:

- 1) Right click on a vehicle in the vehicles list; a context menu will pop up as shown in figure 18.15 then select "Configure Geo-Fences" context menu item. "Vehicle Zone Management Form" will be displayed as shown in fig. 18.24.
- 2) User may add new geo-fence by pressing "Add" button on the "Vehicle Zone Management Form" as shown in fig. 18.25.
- 3) User may also delete a geo-fence by selecting specific geo-fence record and pressing "Delete" button.

Number	Zone ID	Auto-Kill	Comments	Applied On	Applied By
1	Lahore, Pakistan	<input type="checkbox"/>	-	19-Jan-2015 11:46:54 PM	System
2	Punjab, Pakistan	<input type="checkbox"/>	-	19-Jan-2015 11:47:31 PM	System

(18.24)

Vehicle Zone Registration Form

Add New Vehicle Zone

F REVER

Vehicle ID: Reg No:

Zone: Zone No:

Auto Disable Engine

Comments

zone applied on per customer request

Ready.

(18.25)

18.22. Configure Geo-Routes

User may apply multiple geo-routes stored via "Manage Routes" management form. Every applied geo-route defines a logical geo-metric road for a vehicle. If a vehicle enters or leaves that geometric road, system identifies its movement and reports it as an important event. "Track Forever" support software based geo-route configurations. However, user may also apply device based route configurations by using other configuration utilities or through text/gprs commands.

In order to setup geo-route to a vehicle:

- 1) Right click on a vehicle in the vehicles list; a context menu will pop up as shown in figure 18.15 then select "Configure Geo-Routes" context menu item. "Vehicle Routes Management Form" will be displayed as shown in fig. 18.26.
- 2) User may add new geo-route by pressing "Add" button on the "Vehicle Routes Management Form" as shown in fig. 18.27.
- 3) User may also delete a geo-route by selecting specific geo-route record and pressing "Delete" button.

Number	Route ID	Auto Kill	Comments	Applied On	Applied By
1	Corporate Office Road	<input type="checkbox"/>	route-added on customer request	1/15/2016 2:38 PM	System
2	Office Building Road	<input type="checkbox"/>	-	1/15/2016 2:38 PM	System

(18.26)

The screenshot shows a window titled "Vehicle Route Registration Form" with the "Add New Vehicle Route" header. The form contains the following fields and controls:

- Vehicle ID:** A text input field.
- Reg No.:** A text input field.
- Route:** A dropdown menu.
- Route No.:** A text input field containing the value "1".
- Auto Disable Engine:** A checkbox that is currently unchecked.
- Comments:** A text area containing the text "route-added on customer request".
- Buttons:** "Add" and "Close" buttons are located at the bottom of the form.

The status bar at the bottom of the window displays "Ready." The "F REVER" logo is visible in the top right corner of the form area.

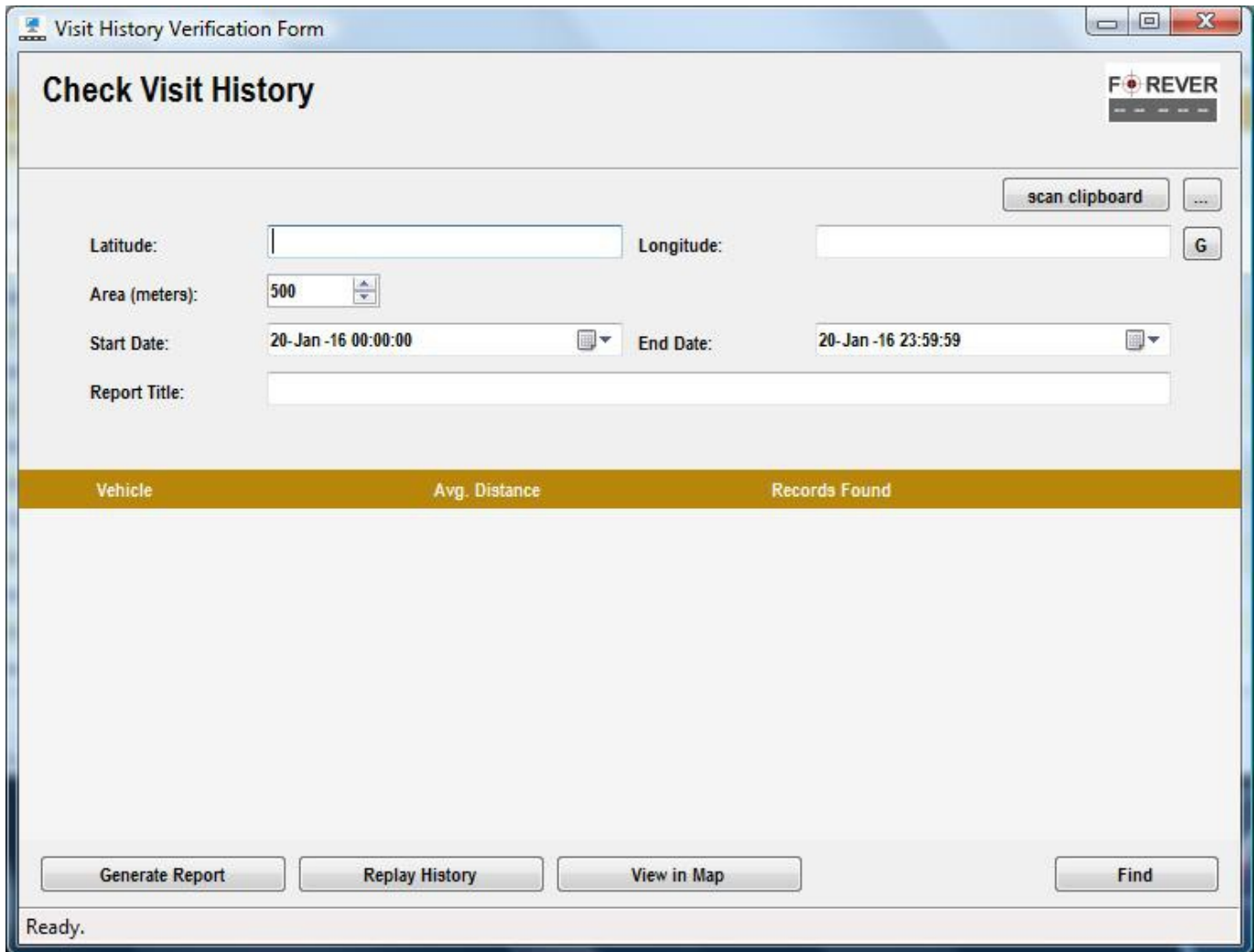
(18.27)

18.23. Check Visit History

It is often required to check if one or more vehicles were present at certain location point between a certain time criteria. "Track Forever" let users to achieve this functionality through "Check Visit History" feature.

In order to check vehicle visits:

- 1) Right click on the vehicles list; a context menu will pop up as shown in figure 18.15 then select "Check Visit History" context menu item. "Visit History Verification Form" will be displayed as shown in fig. 18.28.
- 2) Users can type in the location coordinates (latitude, longitude) and the intended radius area in meters.
- 3) User can use "Select Coordinates" form as shown in fig. 18.29 by pressing ellipse button with "..." caption text as shown in fig. 18.28.
- 4) User can use "scan clipboard" button to import coordinates from the clipboard extracted via Google maps, copied to clipboard in "latitude,longitude" format.



Visit History Verification Form

Check Visit History

FO REVER

scan clipboard ...

Latitude: Longitude: G

Area (meters): 500

Start Date: 20-Jan-16 00:00:00 End Date: 20-Jan-16 23:59:59

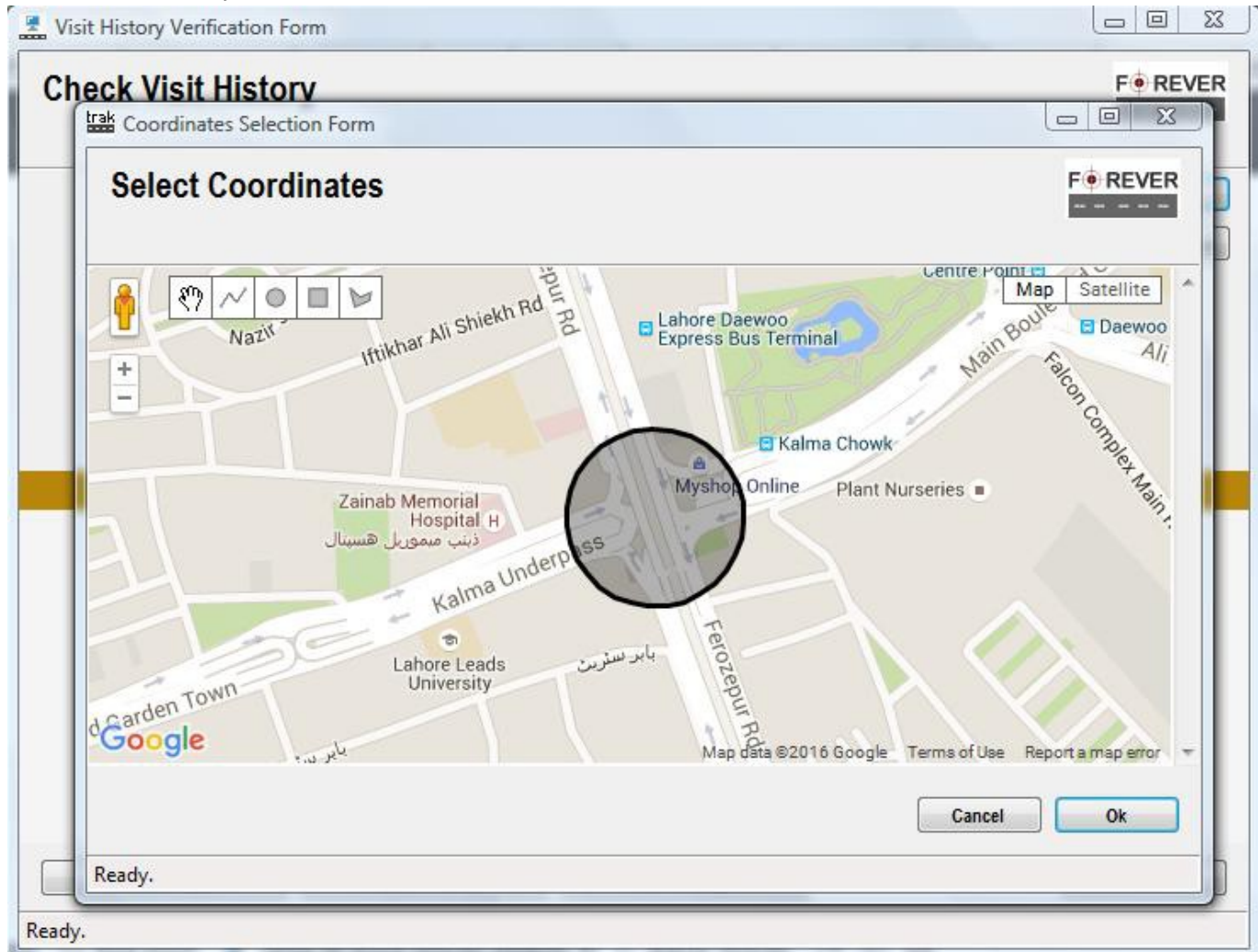
Report Title:

Vehicle	Avg. Distance	Records Found
---------	---------------	---------------

Generate Report Replay History View in Map Find

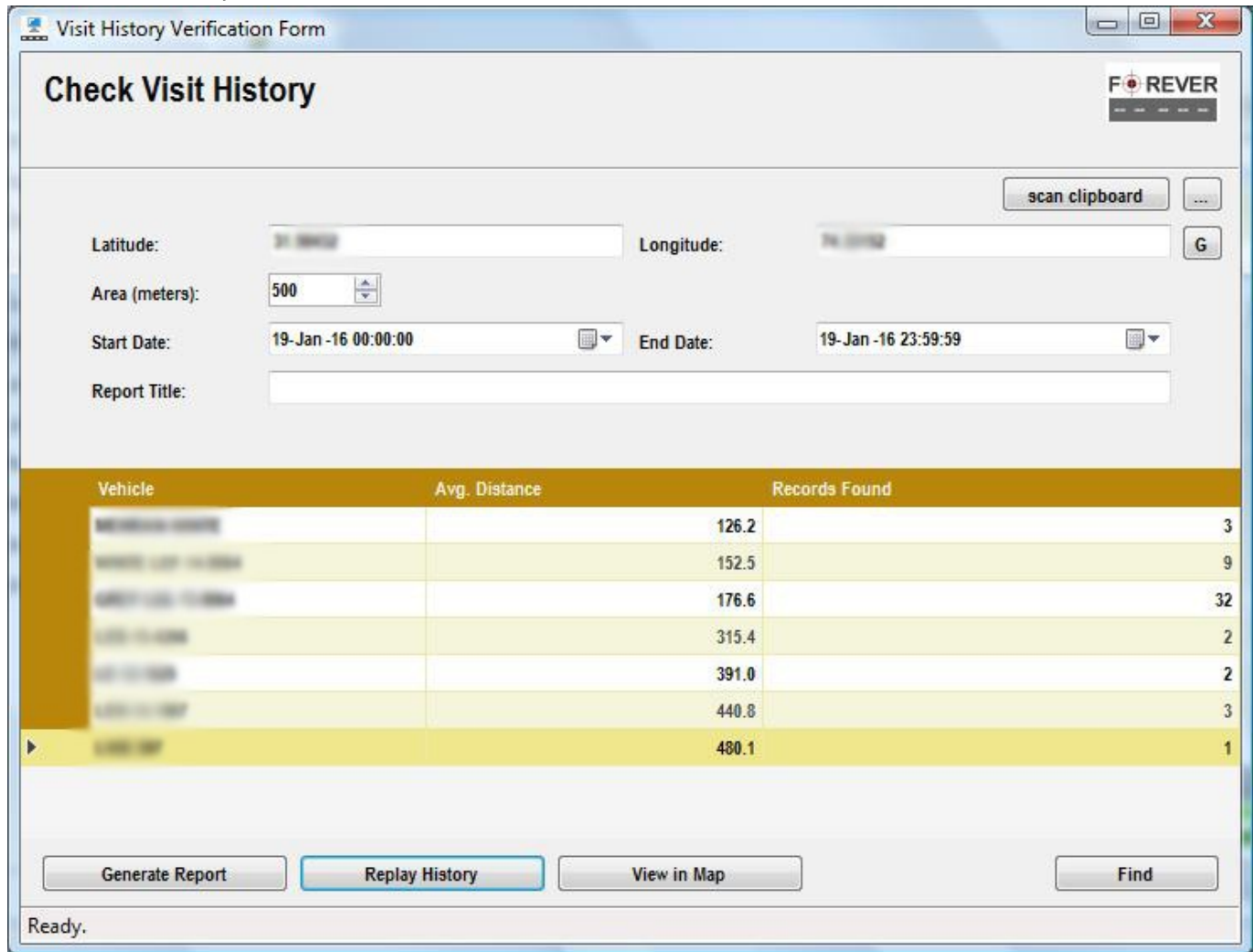
Ready.

(18.28)



(18.29)

- 5) With "Coordinates Selection Form" active, draw a circle around visit location and press "Ok" button. This will extract the location coordinates on the "Visit History Verification Form".
- 6) On the "Visit History Verification Form" fill in the radial area in meters, specify time period and type in title and press "Find" button. This will display vehicles with visits as shown in fig. 18.30



Check Visit History

Latitude: Longitude:

Area (meters):

Start Date: End Date:

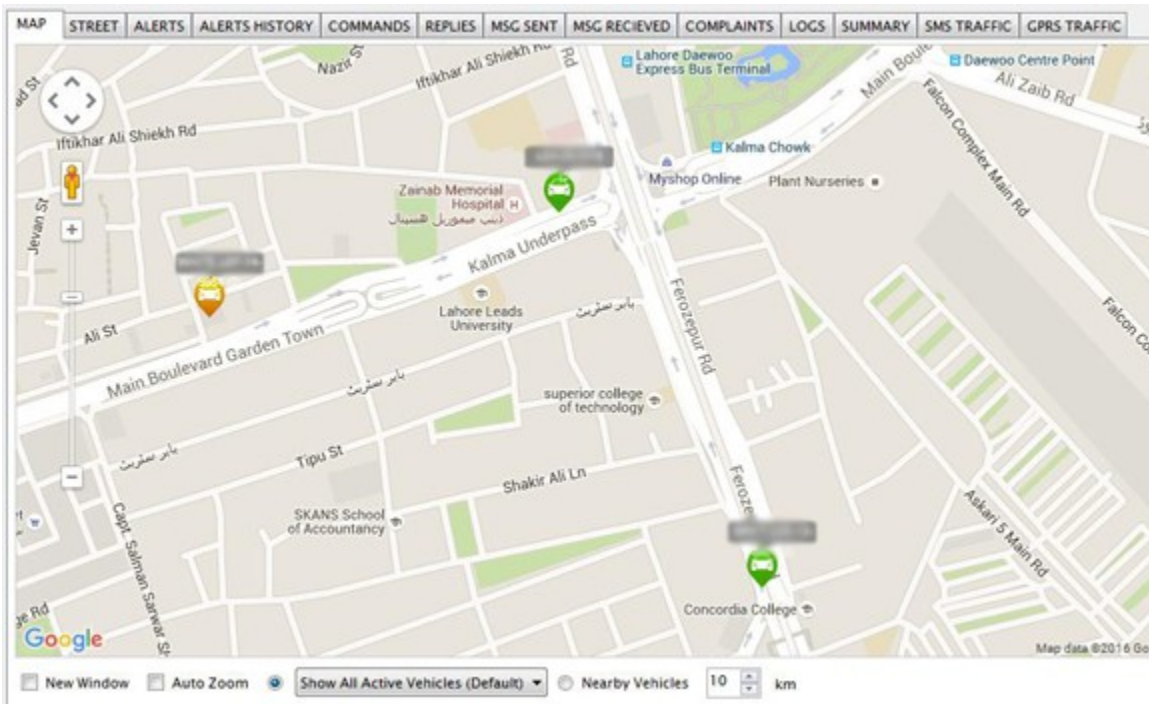
Report Title:

Vehicle	Avg. Distance	Records Found
XXXXXXXXXXXX	126.2	3
XXXXXXXXXXXX	152.5	9
XXXXXXXXXXXX	176.6	32
XXXXXXXXXXXX	315.4	2
XXXXXXXXXXXX	391.0	2
XXXXXXXXXXXX	440.8	3
XXXXXXXXXXXX	480.1	1

Ready.

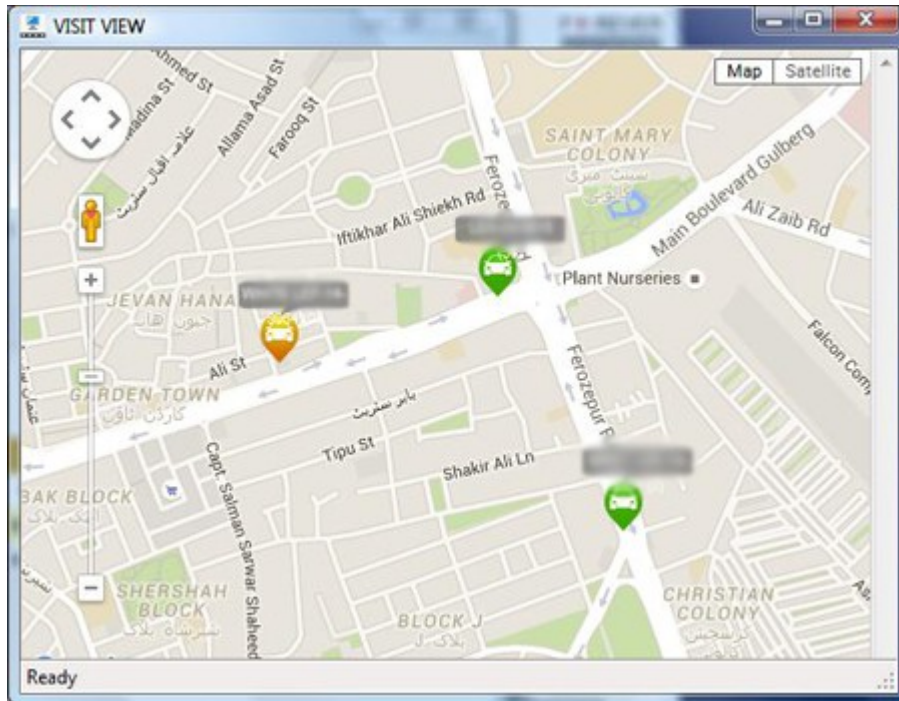
(18.30)

- 7) User may also see vehicles present at selected location in a map view by pressing "View in Map" button. This will display vehicle locations within main window map as shown in fig. 18.31.



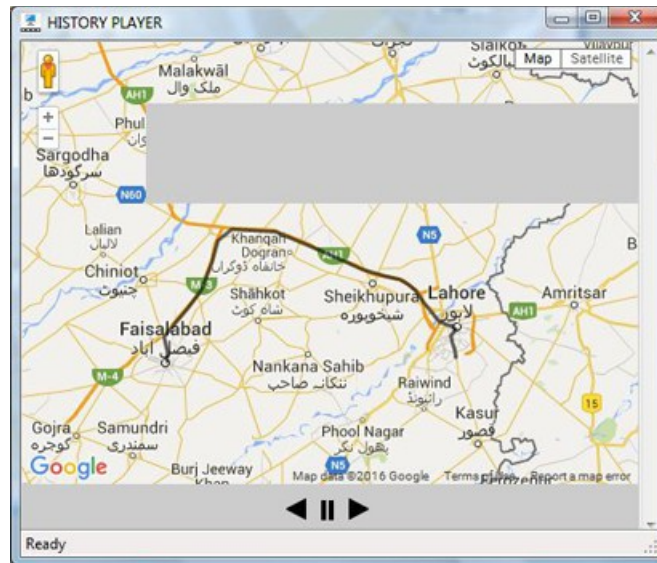
(18.31)

- 8) However, user may also open visit locations in a new map window. To do so select “New Window” check box option on the “MAP” tab in “Vehicle Tracking Form” and press “View in Map” button on the “Visit History Verification Form”. This will load visiting vehicles in a new map window as shown in fig. 18.32.



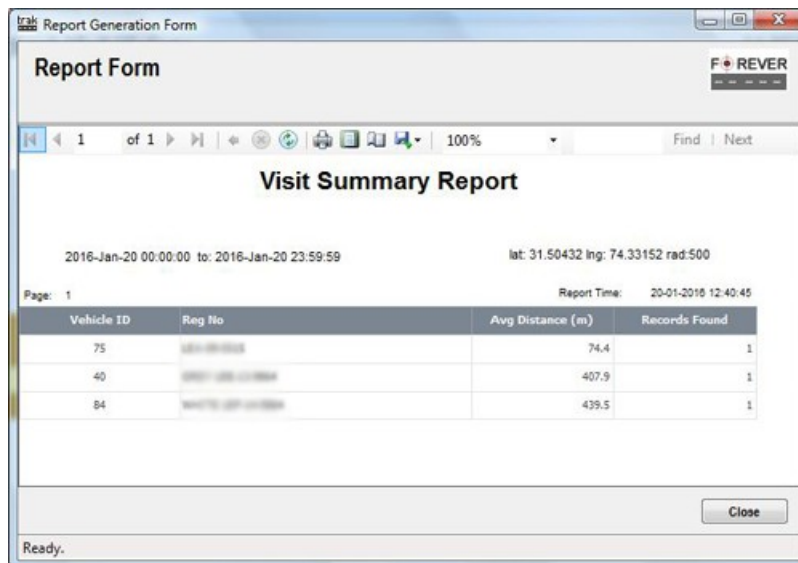
(18.32)

- 9) In order to replay a vehicle visit history select "Vehicle" in the "Visit History Verification Form" then press "Replay History" button. This will load vehicle visit history in the "MAP" tab in "Vehicle Tracking Form".
- 10) In order to show vehicle visit history in a new window. Select "New Window" check box option in the "Vehicle Tracking Form" and press "Replay History" button on the "Visit History Verification Form". This will load vehicle visit history in a new map window as shown in fig. 18.33.



(18.33)

- 11) User may also generate visit history report by pressing "Generate Report" button on the "Visit History Verification Form" as shown in fig. 18.34.



(18.34)

18.24. History Report

User may also generate vehicle history report by specifying appropriate time period.
In order to load vehicle history:

- 1) Right click on the vehicles list; a context menu will pop up as shown in figure 18.15 then select "Reports->History Report" context menu item. "Vehicle History Form" will be displayed.
- 2) On "Vehicle History Form" specify the time criteria and press "Load History" button. Vehicle history will be loaded as shown in fig 18.36.

The screenshot shows the "Vehicle History Form" window. It includes fields for "Vehicle ID", "Reg No.", "Start Date", and "End Date". Below these fields is a table with the following columns: "History Time", "GPS Time (Local)", "Latitude", "Longitude", "Status", and "Location". The table contains several rows of data, including timestamps, coordinates, and status indicators like "Valid". At the bottom of the form, there are buttons for "Generate Report", "Replay History", and "Load History".

History Time	GPS Time (Local)	Latitude	Longitude	Status	Location
20-Jan-2016 00:40:03	20-Jan-2016 00:40:00	31.4385	74.2828	Valid	NECOTEC Housing Society, NECOTEC Housing Society LA
20-Jan-2016 00:41:18	20-Jan-2016 00:41:26	31.4385	74.2828	Valid	Provision Medical Center, Sully Ave PGECHS Housing So
20-Jan-2016 00:41:56	20-Jan-2016 00:42:04	31.4385	74.2828	Valid	Stop Sign
20-Jan-2016 00:41:56	20-Jan-2016 00:42:04	31.4385	74.2828	Valid	Jared Road West Sully Ave Road PGECHS Housing So
20-Jan-2016 00:44:54	20-Jan-2016 00:45:00	31.4385	74.2828	Valid	Jared Road West Sully Ave Road PGECHS Housing So
20-Jan-2016 00:49:50	20-Jan-2016 00:50:00	31.4385	74.2828	Valid	Jared Road West Sully Ave Road PGECHS Housing So
20-Jan-2016 00:50:40	20-Jan-2016 00:50:48	31.4385	74.2828	Valid	Trip Start
20-Jan-2016 00:50:40	20-Jan-2016 00:50:40	31.4385	74.2828	Valid	Jared Road West Sully Ave Road PGECHS Housing So
20-Jan-2016 00:50:44	20-Jan-2016 00:50:52	31.4385	74.2828	Valid	Jared Road West Sully Ave Road PGECHS Housing So
20-Jan-2016 00:53:11	20-Jan-2016 00:53:19	31.4374	74.278853	Valid	Winton Park Way, Winton Park, Winton Park, Winton Park
20-Jan-2016 00:54:58	20-Jan-2016 00:55:01	31.4385	74.2828	Valid	Golden Foundation, Winton Park, Winton Park, Winton Park
20-Jan-2016 00:56:57	20-Jan-2016 00:56:53	31.4385	74.2828	Valid	Trip End
20-Jan-2016 00:56:57	20-Jan-2016 00:56:53	31.4385	74.2828	Valid	Winton Park Way, Winton Park, Winton Park, Winton Park

(18.36)

- 3) User may also generate report by pressing "Generate Report" button.
- 4) User may also replay history by pressing "Replay History" button.

19. Change Language

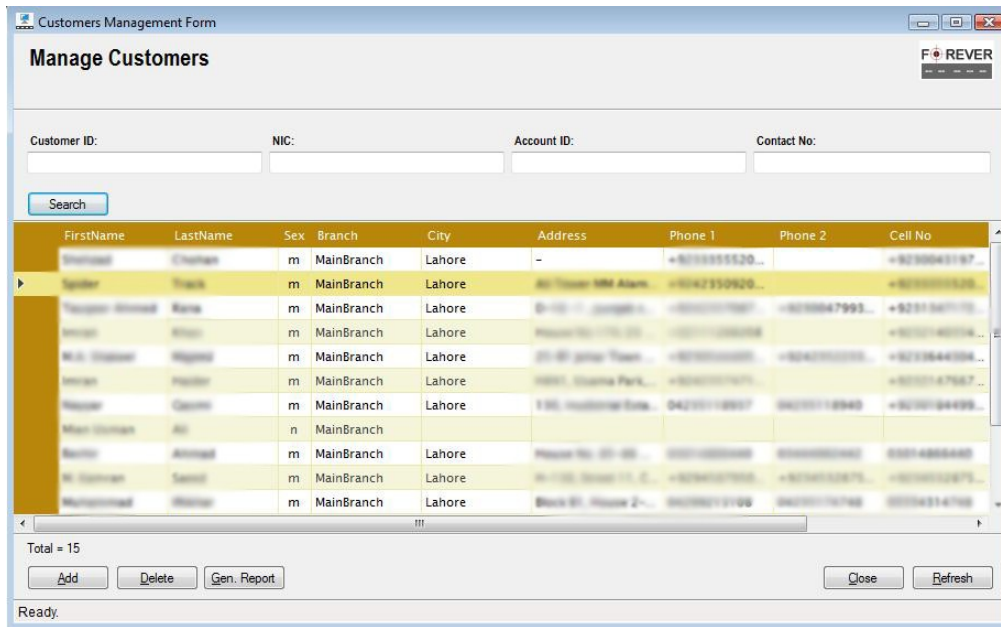
User may choose application language by clicking on the desired language menu item in the "Language" menu as shown below.



(19.1)

20.2. Register Customer

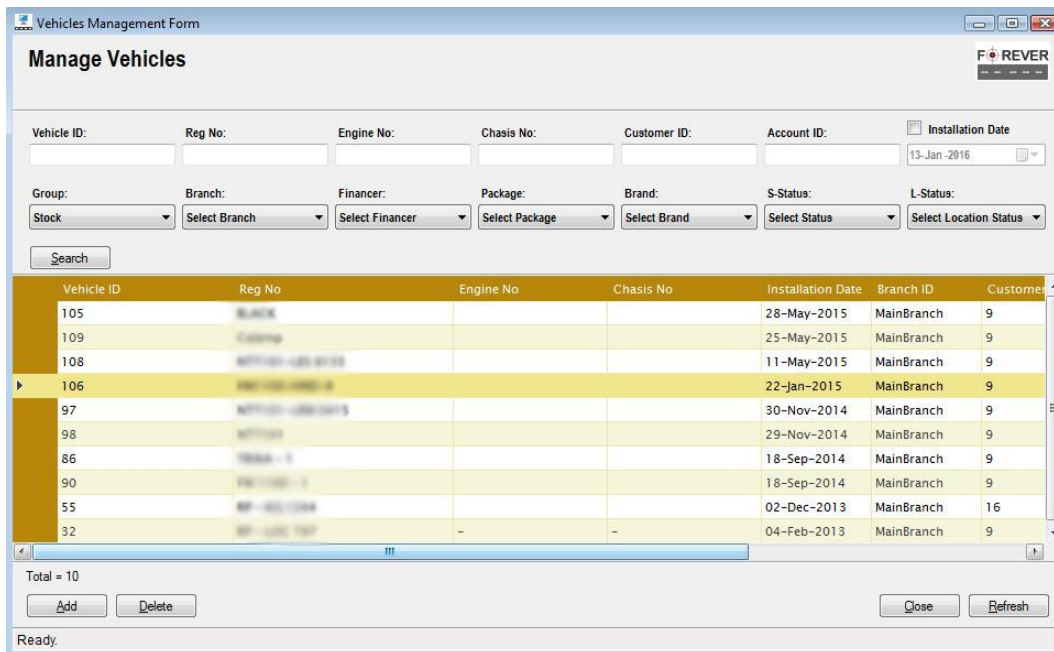
Register customer information via section 12 of this document "Manage Customers", newly entered customer information will be displayed as below:



(20.2)

20.3. Register Vehicle

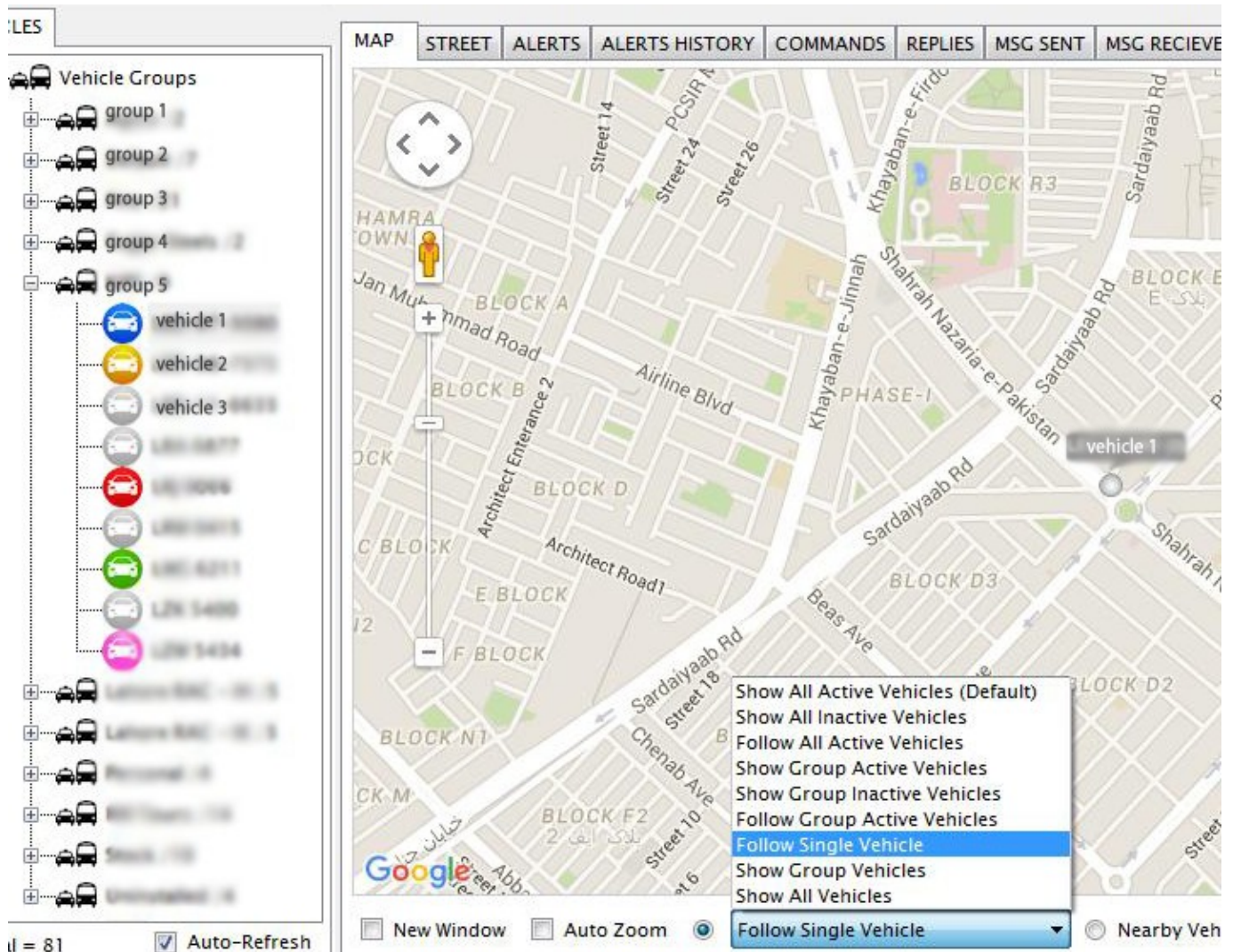
Register vehicle information via section 11 of this document "Manage Vehicles", newly entered vehicle information will be displayed as below:



(20.3)

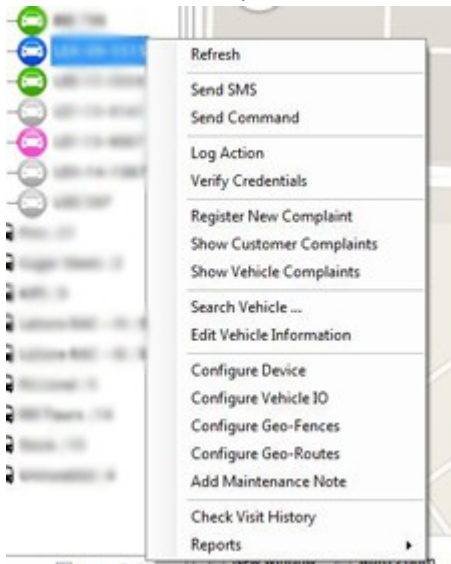
20.4. Configure Vehicle

Vehicle configurations within "Track Forever" depend upon the type of the tracking device we're using. Some tracking devices only require minimal settings like IMEI or similar code to identify vehicle while others require more details to be maintained. User can access and edit vehicle technical details via "Vehicle Tracking Form" as shown below:



(20.4)

In order to configure a vehicle right click on its name and a popup menu will be displayed as shown below in fig. 20.4, then select "Configure Device" menu item. This will bring vehicle configuration form displayed in fig. 20.5.

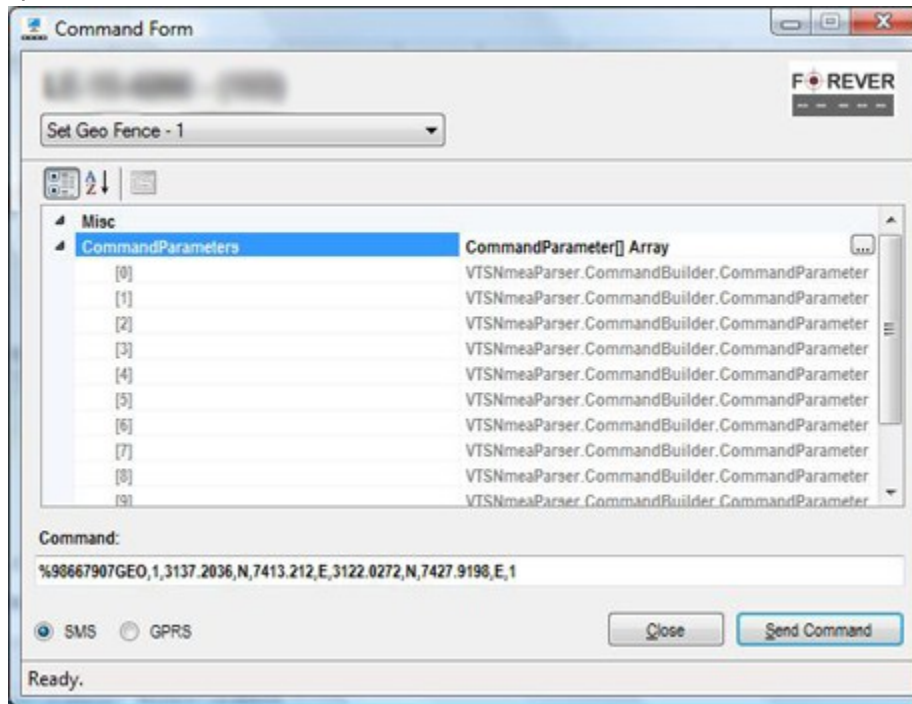


(20.5)

Fill in technical details and as per tracking device. User may also save and load exiting configurations via templates to save time. User may refer to the section 18.19 for more details.

(20.6)

Certain devices will start reporting at this step and will require no further work, while, other will require user to send configuring commands via SMS/GPRS through "Command Form". This process is explained in section 18.14.



“Track Forever” takes role based approach and provides only the information a user is authorized to. For example, the customer and vehicle registration process is mainly concerned to the “Accounts Department” and only accounting people should be able to register or remove any customer or vehicle information. While the technical people should be concerned with the vehicle configurations and the customer support should be concerned with vehicle tracking related tasks, “Track Forever” helps companies to achieve this.

21. Web Accounts (App Accounts, Communication, Version 4.0.5)

Track Forever Enterprise Server with version 4.0.5 introduces following additional applications and features:

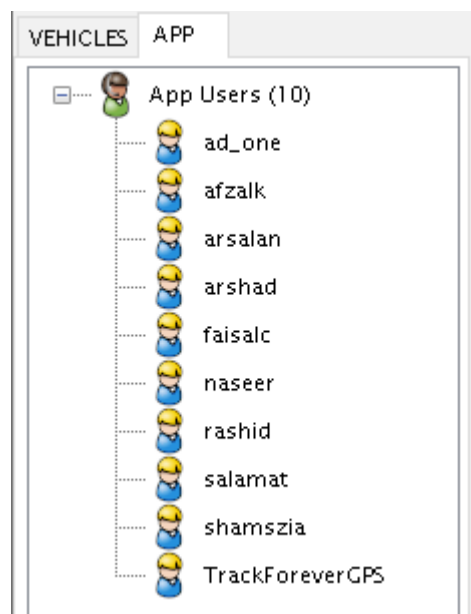
1. Track Forever Enterprise (Mobile) App Service
2. Track Forever Enterprise App Communicator
3. Track Forever Enterprise Android Mobile App

In order to run android mobile application, configure App Service and Communicator on designated ports with authorizing accounts. Read respective user manuals for installation and configuration details. This section will explain vehicle app alerts configuration and communication with followings.

1. Send Individual App Alert Message
2. Send SMS and App Alert through Alarms Processing Form
3. Send SMS and App Alert through Alarms History
4. Communicate Complaints using SMS and App Alerts
5. Track App Alerts Communication with Logs

21.1. Display App Alerts Users

Run "Track Forever Enterprise Client" and select "App" tab on left side of the section as displayed in following figure 21.1.



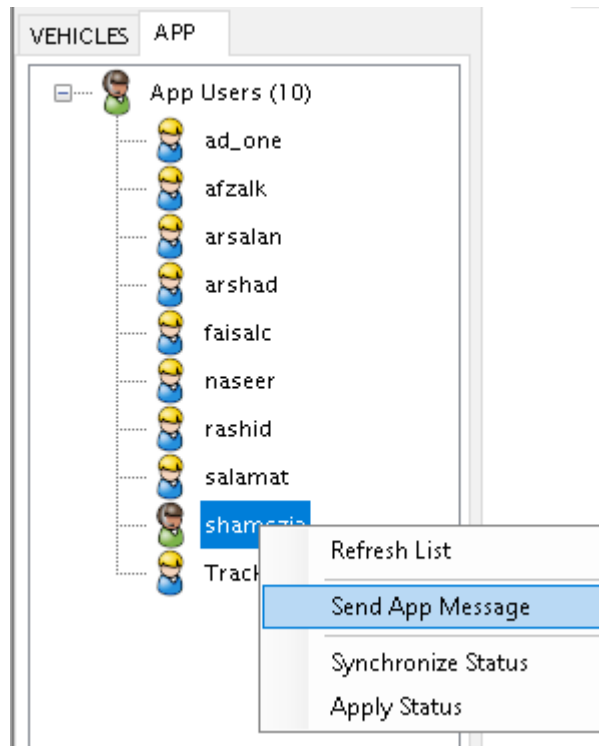
(21.1)

Customer web accounts form app users, managing web accounts manage app users (refer section 13). Multiple web accounts can access same vehicle (or group) data on android mobile application. A vehicle alert and location is reported to all app users instantly without database lookup. An app user will receive and act with followings:

1. Receive Live Alerts, and Alerts Section
2. Send Vehicle Location & Control Commands using Pincode (via GPRS)
3. Live Track Vehicle Location using Mobile Application

21.2. Send App Alert Message

Select a user from figure 21.1 and right click, then select "Send App Message" menu item.



(21.2)

Following App Message form will display. Type in your message and press "Send" button. User will receive app alert message with active application. On the other hand vehicle alerts can be found in "Alerts" section of mobile app, these does not require active application. Mobile application vary in functions and features according to customer requirements.

A screenshot of a web form titled 'APP Message' within a window labeled 'SMS Form'. The form includes a logo for 'F+REVER' in the top right. It contains three input fields: 'User ID', 'User Name', and 'Message:'. Below the fields are two buttons: 'Send' and 'Close'. The status bar at the bottom of the window shows 'Ready.'.

(21.3)

21.3. Configure Vehicle For App Alerts and Location

Vehicle alerts are configured through "New Vehicle Registration" and "Edit Vehicle" forms, refer section 11.2 and 11.3 for vehicle information editing. Press on "..." ellipse button available with "Cell1" and "Email", this load following alerts management form.

The image shows a software window titled "Alerts Selection Form". At the top, there are two input fields: "Maintenance Threshold (Km):" with a value of 0 and a "Next Alert At (Km):" checkbox followed by a value of 0. Below these is a table with two columns: "Alert Type" and "Allowed". The table lists 18 different alert types, each with an unchecked checkbox in the "Allowed" column. At the bottom of the window, there are "Ok" and "Close" buttons, and a status bar that says "Ready.".

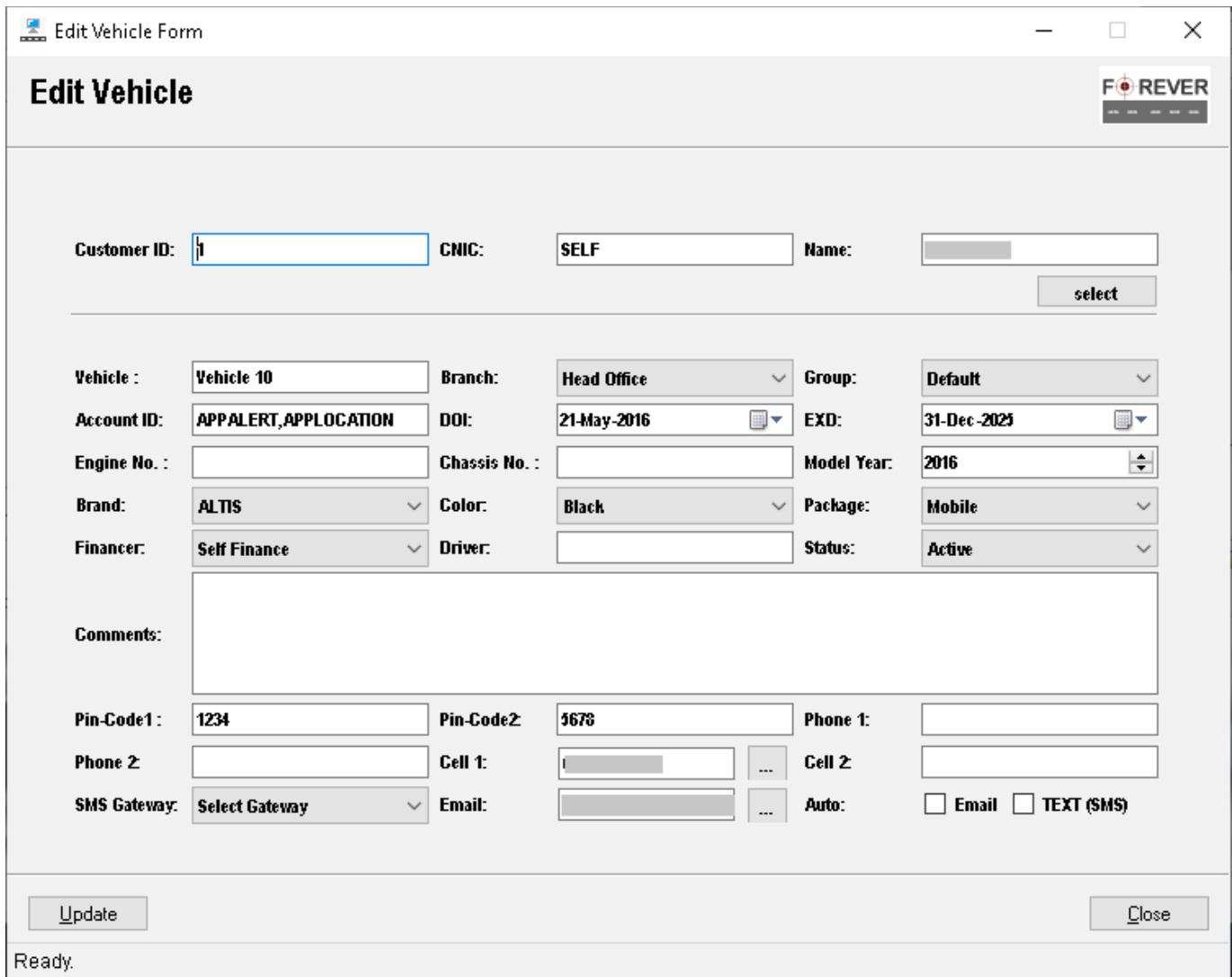
Alert Type	Allowed
TripSTART	<input type="checkbox"/>
TripEND	<input type="checkbox"/>
ARMED	<input type="checkbox"/>
DisARMED	<input type="checkbox"/>
ARMEDIgnitionON	<input type="checkbox"/>
GeoFenceIN	<input type="checkbox"/>
GeoFenceOUT	<input type="checkbox"/>
PolyFenceIN	<input type="checkbox"/>
PolyFenceOUT	<input type="checkbox"/>
RouteBreachedIN	<input type="checkbox"/>
RouteBeachedOUT	<input type="checkbox"/>
DoorOPENED	<input type="checkbox"/>
BonnetUNLOCKED	<input type="checkbox"/>
SOS	<input type="checkbox"/>
EngineENABLED	<input type="checkbox"/>
EngineDISABLED	<input type="checkbox"/>
PowerOFF	<input type="checkbox"/>
PowerON	<input type="checkbox"/>

(21.4)

In order to receive all vehicle alerts, do not select any checkbox. Or select a few for your alerts requirements. **App Alerts** are configured with above alerts personalization by settings "APPALERT" input in "Account ID" input field. Read following section for configuring "APPALERT,APPLOCATION" features.

21.4. APPALERT, APPLOCATION

Set "APPALERT,APPLOCATION" feature words for configuring vehicle live alerts and location for mobile apps.



Edit Vehicle Form

Edit Vehicle

Customer ID: CNIC: Name:

Vehicle: Branch: Group:

Account ID: DOI: EXD:

Engine No.: Chassis No.: Model Year:

Brand: Color: Package:

Financer: Driver: Status:

Comments:

Pin-Code1: Pin-Code2: Phone 1:

Phone 2: Cell 1: ... Cell 2:

SMS Gateway: Email: ... Auto: Email TEXT (SMS)

Ready.

(21.5)

Alerts configured for "Cell 1" will be effective for mobile apps. Alerts personalization for email does not work for mobile apps and cell phone texting. Other than setting "APPALERT,APPLOCATION" feature words make sure to check "Email" and "TEXT" checkboxes for receiving alerts on email and through SMS via operator APIs or GSM modems.

22. APP Alert Reporting via Alarm Processing Form

All incoming alerts are reported under "ALERTS" tab in the activity section as shown in following fig. 18.5.

MAP	STREET	ALERTS	ALERTS HISTORY	COMMANDS	REPLIES	MSG SENT	MSG RECEIVED	COMPLAINTS	LOGS	SUMMARY	SMS TRAFFIC	GPRS TRAFFIC
Alarm Time	GPS Time	Reg No	Alarm Detail									
15-Jan-2016 02:17:45 PM	15-Jan-2016 02:17:50 PM	1000000000	Trip Start: 157.2m SE of Cavalier Crescent Near DHA Phase 1 Lahore Punjab Pakistan									
15-Jan-2016 02:16:01 PM	15-Jan-2016 02:16:08 PM	1000000000	Trip Start: 41.5m SE of Al-Haram Bazaar Road Gulgaon Colony Multan Punjab Pakistan									
15-Jan-2016 02:15:50 PM	15-Jan-2016 02:15:53 PM	1000000000	Trip End: 41.5m SE of Al-Haram Bazaar Road Gulgaon Colony Multan Punjab Pakistan									
15-Jan-2016 02:14:12 PM	15-Jan-2016 02:14:19 PM	1000000000	Trip End: 5.7m SW of Al-Shifa Clinic Adama Iqbal Road Man Channa Khemawal Punjab Pakistan									
15-Jan-2016 02:14:12 PM	15-Jan-2016 02:14:19 PM	1000000000	Trip End: 9.5m NE of MCB Lower Mall NO Lahore Punjab Pakistan									
15-Jan-2016 02:13:52 PM	15-Jan-2016 02:13:59 PM	1000000000	Speed Limit Violated: 175.1m SW of Sherawal G.T Road Lahore Punjab Pakistan									
15-Jan-2016 02:13:26 PM	15-Jan-2016 02:13:33 PM	1000000000	Speed Limit Violated: 1.5m SE of Sherawal Lahore Punjab Pakistan									

(18.5)

Double click on any of active alert available in "ALERTS" list. This will load alerts processing form as displayed in following figure 22.1.

Alerts Processing Form

Alerts Processing Form

Vehicle 1 (1) [Hide Log Panel](#)

Vehicle ID:	<input type="text" value="1"/>	Registration No.:	<input type="text" value="Vehicle 1"/>
Category:	<input type="text" value="Select Log Category"/>	Communication:	<input type="text" value="Select Communication Type"/>
Status:	<input type="text" value="Select Status"/>	Reason:	<input type="text" value="Select Reason"/>
Log Detail:			
SMS:	Vehicle 1IDLING157.5m SE of Bilal Traders Circular Road Daska Sialkot Punjab Pakistan 31010		
<input type="button" value="Send Command"/>		<input type="button" value="Send SMS"/> <input type="button" value="APP Alert"/>	

Alarm Time	GPS Time	Alarm Detail
10-Oct-2022 06:22:15 PM	10-Oct-2022 06:22:15 PM	Excess Idling. 470.5m SE of Bilal Traders Circular Road Daska Sialkot Punjab Pakistan 31010

(22.1)

Double clicking on alert row header (pointed by direction arrow beside "Alarm Time" column) will ready text for either "SMS" or "APP Alert" reporting. Press "Send SMS" or "APP Alert" button for sending text.

Note: Above action is only required if vehicle is not configured for automated alerts.

Track Forever Enterprise Client
For support and product related inquiries please write at support@invincibletec.com.

User Manual 4.0.5