

User Manual

v 3.02

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Table of Contents

Part I	Tracking	7
1	Information Panel	7
	Filter Button	7
	- Today	7
	- Unit Icon	8
	- Unit Messaging	8
	- Sensors	9
	- Unit Inputs/Outputs	9
	- Driver	9
	- Last Communication Date/Time	9
	- Odometer / Total Engine Hours	10
	- Today's Activity	10
	- Detail Panel	11
	- Trips	11
	- Activity	12
	- Alerts	12
	- History	12
	- By Trip	12
	Google Earth	13
	Refresh Button	13
	Find Button	13
2	Map	13
	Google Maps	13
	- Map Controls	13
	- Map Buttons	14
	- Drag Map	14
	- Draw Route	14
	- Draw Circle	14
	- Draw Polygon	14
	- Map Display Options	14
	- Google StreetView	15
	OpenStreetMap	15
	- Map Controls	15
	- Map Buttons	15
	- Create Location	15
	- Drag Map	16
	- Measure Path	16
	- Measure Polygon	16
	- Draw Route	16
	- Map Display Options	16
	Right-Click Options	17
3	Interactive Trip Graph	17
Part II	Admin	18
1	General Settings	18
	Trip Types	18

	Trip Costs	18
2	User Settings	18
	User Management	19
	- Groups	19
	- Templates	19
	- Temporary Users	20
3	Driver Settings	20
	Driver Management	20
	- Groups	21
	- Driver Tags	21
	- Templates	21
	Driver Allocation	21
4	Vehicle Settings	21
	Vehicle Management	21
	- Vehicle Groups	23
	- Journals	23
	- Optergon	23
	Inputs/Outputs	24
	Consumables	24
	Fuel Log	24
	Asset Management	25
5	Location Settings	25
	Location Management	25
	Route Management	26
	Part III Dispatch	27
1	Customers & Locations	27
2	Depots Management	27
3	Orders	27
4	Stops	28
	Attributes	29
	Capacities	29
5	Visual Planner	29
6	Scheduling	30
	Part IV Dashboard	32
1	Dashboard Templates	32
2	Vehicle Comparison	32
	Part V Reports	34
1	Instant Reports	34
2	Previous Reports	34
3	Scheduled Reports	34
4	Report Customisation	35
5	Types of Reports	36
	Activity Reports	36

- Speeding	36
- Speeding (Road Speed)	36
- Mileage	37
- Idle	37
- Stop	37
- Fuel Consumption	38
- Fuel Increase (Refuelling)	38
- 24Hr Detail	39
- Data Interval	39
- Consumable Allocation	40
- Sensor Data	40
Productivity Reports	40
- POI Visit	40
- POI Visit + Input	41
- POI Entry/Exit	41
- Inside Location	42
- Daily Activity	42
- Vehicle/Driver KPI	42
- Engine Running Time	43
- Trip Summary	43
- Trip Summary + Costs	44
- Detailed Trip Costing	44
- POI Trip Summary	44
- Excessive Drive Time	45
- Late Start / Early Finish	45
- Input	46
- System Input	46
- Input - Last Driver	47
- Vehicle/Driver Allocation	47
- Driver ID Tag Usage	47
- Fuel	48
Security Reports	48
- Geofence	48
- No-Go Zone	49
- Unauthorised Use	49
- Login	49
- Alert Listing	50
Dispatch Reports	50
- Stop Listing	50
- Plan vs Actual Summary	51
System Reports	51
- User Listing	51
- Vehicle Listing	51
- Vehicle Details	52
- Driver Listing	52
- Garmin Messages	52
- POI List	52
- No-Go Zone List	53
- Geofence List	53
- Generated Reports	53
Part VI Alerts	54
1 Creating an Alert	54

2	Alert Recipients and Editors	54
3	Alert Schedules	54
4	Types of Alerts	55
	Activity Alerts	55
	- Speeding	55
	- Speeding (Road Speed)	56
	- Idle	56
	- Stop	57
	- Odometer	57
	- Engine Time	58
	- Battery Level	58
	- Temperature Variation	59
	- Fuel Level (Low Fuel Level)	59
	- Fuel Level (Sudden Decrease)	60
	- Driving Hours	61
	- Sensor Variance	61
	Productivity Alerts	62
	- POI Visits	62
	- POI Non-Entry	62
	- Route Geofence	63
	- Input/Output	63
	- Important Dates	64
	Security Alerts	64
	- Geofence	64
	- No-Go Zone	65
	- Unauthorised Use	65
	- Unauthorised Movement	66
	- Data Interval	66
	- System Inputs	66
	Dispatch Alerts	67
	- ETA	67
	- Duration Variance	68
	- Late Arrival/Start	68
	- Non-Arrival/Start	69
	- Location Non-Entry	69
	Compound Alerts	70
	- Compound Alert	70
	- Criteria	70
	Part VII Tickets	72
1	Quick Ticket	72
2	Ticket List	72
	Part VIII Message Box	73
	Part IX User Settings	74

1 Tracking


The purpose of the tracking module is to provide the user with:

- The ability to get an overview of the current location and status of all vehicles/units.
- The ability to drill-down into the history of any vehicle/unit.
- The ability to find any vehicle/unit or item on the map.


1.1 Information Panel

The information panel displays data about the units that are part of the user's account. Each user is able to customise which units are showing by using the [filter](#) options to highlight the units and time period of the data.

The user is also able to customise the data they can see by setting their preferred format in their [user settings](#).

When a user logs into the tracking platform for the first time, the default view they see is the current day's activity for all their units. The details and functionality that are available to the user is dependent on whether they are viewing [current](#) or [historic](#) data. The tracking panel can also be hidden by clicking the arrow icon  at the top right of the panel. To bring it back again, simply click the arrow icon on the left edge of the screen.

1.1.1 Filter Button

Clicking the  button allows the user to switch between the current day's data ([Today](#)), view historic data ([History](#)), or search for a specific trip ([By Trip](#)). The ways in which these filters are used, and the results that are presented to the user, are all detailed in the sections below.








1.1.1.1 Today

The 'Today' tab allows the user to filter the units being displayed on the Tracking page. The user is able to choose from the following filter options:

- Unit group (i.e. only show selected units and unit groups).
- Search (i.e. type in any text to only display units that have a name that matches the entered text).
- Movement status (i.e. only show units that have moved and/or not moved).

The filter works on a combination of the 3 filter criteria above, so it is possible to filter by unit/group, text search and movement status all at the same time. When the filter is active (meaning the list of units is being reduced as a result of one or more filter criteria being selected), the filter button is highlighted and if the user hovers over the filter button, a pop-up message tells the user that the filter is on. This highlights that there is an active filter that is potentially reducing the number of units being shown in the information panel and on the map. The filter also remembers the last settings used, so if the user leaves the Tracking page and then returns in the future, the same filter settings are automatically applied. Once the relevant details have been entered, the user can click the 'Filter' button and the results are displayed in the information panel and on the map.

When a user is viewing the current day, the information panel will display a list of vehicles. For each unit, the following information can be seen:





- The [unit icon](#) , with the colour of the unit icon detailing the unit's movement status. *
- The unit name.
- The unit [messaging](#) icon .
- The unit status icon, which also highlights the unit's current speed if the device is in motion.
- The unit description (if a description has been captured for the unit). **
- The values of any [sensors](#) that the unit is reporting (e.g. fuel level, battery level, CanBUS sensors, etc). **
- Any [inputs and outputs](#) that are currently active on the unit. **
- The name of the currently-assigned [driver](#) of the unit . **
- The [last time that the unit communicated](#) with the tracking platform . **
- The current location of the unit . **
- The current value of the GPS odometer  or engine hours  on the unit. **
- The summary of the current day's activity, including the amount of driving/idle/stop time, as well as the total distance covered and time that the unit began its activity. **

* The unit icon can be altered in the system tab of the [vehicle management](#) section.

** These optional fields that can be independently shown/hidden by the user via their [user settings](#).


1.1.1.1.1 Unit Icon

The unit icon is a simple way to display the location of a unit on the map, as well as a visual method of telling the user the status of the unit. The status is shown using the following colours:

- | | |
|---|--|
| Green  | The unit has ignition on and it is moving. |
| Yellow  | The unit has ignition on and it is not moving (i.e. it is idle). |
| Grey  | The unit has ignition off and it is not moving (i.e. parked). |
| Orange  | The unit has ignition off and it is moving (i.e. unauthorised movement, as it is in motion but ignition is off). |

1.1.1.1.2 Unit Messaging

If the functionality is supported by a unit, it is possible to send messages/commands to the unit which then makes the unit perform a specific function. An example of this is a remote immobiliser which will immobilise the vehicle when the command is sent to the unit.

To send a command to a supported unit, hover over the unit messaging icon  and the list of possible options will appear. Select the chosen option from the list and a confirmation panel will appear. To send the message, check the 'Confirm' box and click the 'Send' button. There is also a history of recent messages displayed in

this panel that show the user which messages have been sent to the device and the status of that message (i.e. if the device confirmed receipt of the command/message).

1.1.1.1.3 Sensors

Tracking units have the ability to measure various types of information. Some of that information is simple on/off or open/closed data (such as reporting if a door is open, or if a light is on). Another type of data that tracking units can measure is data where the values are constantly changing (such as a battery voltage, a temperature, etc). This type of 'variable' data is called a 'sensor' on the tracking platform, and tracking units are able to have a large number of sensors applied to them so that the data can be shown to the user.

When a unit is reporting data from a sensor, the icon for the sensor, as well as the sensor value, can be displayed on the Tracking page. The value that is shown is the last value that was reported by the unit, and if the mouse is hovered over the sensor icon, the sensor name, value, and date (of that last known value) is displayed in a pop-up. If the sensor icon changes colour when the mouse is over it, then clicking the sensor will bring up a graph showing the current day's sensor values. You can move the mouse over the graph and it will show the relevant values and time (based on the mouse position).

The layout of the sensor data is user-configurable, meaning a user can control the exact ordering of all the sensor data within each unit. This is controlled in the [Vehicle Management](#) section.

1.1.1.1.4 Unit Inputs/Outputs

As described in the [Unit Sensor](#) section, tracking units have the ability to report many types of on/off information (also called binary information). The tracking platform allows each type of binary information to be displayed either as an icon or using words on the Tracking page. If the user hovers over the input/output with the mouse, a pop-up will display the details of when the input/output was last activated. In addition, clicking the icon/words will show all the active times for the current day in both table and graph formats.

1.1.1.1.5 Driver

If a driver is assigned to a vehicle, the driver icon ☺ will display along with the driver's name. If the driver has a mobile phone number associated with them, then the mobile phone number of the driver will also show. If the user's account has SMS messaging enabled, then the user can click the mobile phone icon and send a message (with maximum of 130 characters) to the driver directly from the tracking platform.



1.1.1.1.6 Last Communication Date/Time

The last data received icon 🕒 highlights the date and time of the most recent communication between the tracking unit and the tracking platform. If a device does not appear to be showing the correct details on the map and in the address, then the date and time of the most recent communication will help the user establish if the details are outdated as a result of the device not sending information to the tracking platform for a period of time. This is common behaviour from tracking units where GPRS/3G signal is not available. The colour of the icon is also an indication of the amount of time since the tracking unit last communicated with the tracking platform (black means the time is less than 1 hour, yellow means the time is between 1 and 3 hours, and red means the time is greater than 3 hours).

If a tracking unit loses its communication signal, it will record all the data internally and then send it to the tracking platform when it establishes signal again. Because the device was not able to communicate for a period of time, the user will see that the date and time shown for the 'Last Data Received' will be outdated until the unit is able to establish communication again. Once that happens, the device will send all its recorded information and the date and time of the last communication will be updated.

Note also that in some cases, the date and time of the 'Last Data Received' will not match the date and time of the position on the map. This happens when devices send non-tracking information (such as a connection keep-alive message). The tracking platform will show the last communication date and time of the keep alive, but that does not affect the position on the map, so the position on the map will have an older date and time than the last communication details. The map shows a user when the vehicle arrived at its current location, so if it does not move for several days, it's possible that the date and time of the position on the map is one or more days older than the last communication. This is quite normal and highlights how the unit has not produced any significant tracking data for that period of time.







1.1.1.1.7 Odometer / Total Engine Hours

When setting up a tracking unit, the type of unit is either a vehicle or an asset. If the unit is set up as a vehicle, then the Tracking module can display the GPS odometer  of the vehicle. This is the total distance that the vehicle has moved based on all the GPS data that the tracking unit has generated. This is only an estimate of the actual vehicle odometer as the GPS odometer will never be as accurate as the built-in vehicle odometer on the dashboard. If the tracking unit is set up as an asset, the Tracking page will display the active engine hours . This represents the total amount of time that the ignition has been active.

Both the odometer and engine hour values are counters, which means their values will constantly increase over the life of the unit on the tracking platform.

1.1.1.1.8 Today's Activity

The 'Today's Activity' section highlights a number of metrics that relate to the tracking unit's activity over the current day (starting from midnight). These metrics include:

- | | |
|--|---|
| Driving Time  | The total amount of time the unit has spent driving in the current day. |
| Idle Time  | The total amount of time the unit has spent idling in the current day (ignition is on but unit is not in motion). |
| Stop Time  | The total amount of time the unit has spent parked in the current day. |
| Current Status  | The amount of time that the unit has been in its current movement status. |
| Distance Driven  | The total amount of distance the unit has covered in the current day. |
| Started Driving  | The start time of the first trip in the current day. |

1.1.1.1.9 Detail Panel

Clicking on the name of the unit will bring up a panel with 3 tabs:

- The list of the unit's trips in the current day ([Trips](#)).
- The current status of all the above information ([Activity](#)).
- The list of all the alerts that the vehicle has generated to the user in the current day ([Alerts](#)).

In addition to the above 3 tabs, the detail panel also displays the [unit icon](#), the status icon, the follow icon and the activity bar.

The 'Follow' icon centres the unit in the map and then follows the unit as it moves. If the user closes the panel or clicks the follow icon again, the map will stop following the unit.

The activity bar is a timeline that shows the various movement statuses (driving, idle and stop) beginning at midnight on the current day. Hovering over any individual section of the activity bar will show a pop-up that tells the user the details of the relevant section.

1.1.1.1.9.1 Trips

The trip tab displays all trips for the selected unit for the current day. Each trip includes the following:

- The duration of the trip ⌚.
- The distance **A** or engine time ⌚ of the trip.
- The end time and location of the trip 📍.
- The start time and location of the trip 📍.
- The time between each trip and the previous trip immediately before ⌚.
- The most recent trip or the full day's activity on the map (depending on the [user settings](#))
- If enabled in the [user settings](#), the speed profile chart for the most recent trip or full day's activity (as above).

For each trip, there is an information icon that allows the user to obtain more details for the relevant trip.

Clicking that icon opens the trip panel that contains tabs for the following:

- A point-by-point breakdown of the trip (Table tab). Each point shows the time, location and movement status/speed, as well the details of any inputs/outputs and sensors that are associated with each point.
- Charts summarizing the details of the trip (Charts tab). The charts displayed include a speed band breakdown, a speed profile, an activity profile and an activity pie-chart. There are also charts for each sensor that reported during the relevant trip.
- [Trip type](#) and [trip cost](#) information (Details tab). This allows the user to edit the trip type, as well edit/associate costs to the trip.

Clicking on any individual trip will update the map and speed profile chart (if enabled) to display the data for the selected trip. Clicking the trip again will make the map and speed profile chart display the data for the full day.

Each trip also has an icon that allows the trip to be saved as a [route](#).

1.1.1.1.9.2 Activity

The activity tab shows a detailed current status of the unit. All the optional information fields are shown on this tab, irrespective of the user preferences, so it provides a full breakdown of all the known information about the unit at its most recent point.

1.1.1.1.9.3 Alerts

The alerts tab highlights any alerts that the vehicle has generated during the current day. Clicking on any item in the list will move the map to the location at which the alert was generated.

1.1.1.2 History

The 'History' tab allows the user to see trips and activity for any unit for any time period. The user has the ability to drill down by doing a date search on any units/drivers. Once the relevant details have been entered, the user can click the 'Filter' button and the results are displayed in the information panel and on the map.

The history results are displayed by unit. Each unit is shown as an individual line, and clicking a unit will then bring up a panel showing all the relevant trips for the selected vehicle. The functionality available for each trip is identical to the [trips](#) shown via the Today tab. The panel also displays all [alerts](#) generated for that vehicle in the history period.

In addition to clicking on each unit to show the trips, hovering over these icons presents the following functionality:



This shows a summary of the trip data for the relevant vehicle.



If the vehicle/unit has sensors attached, then hovering over this icon will present a list of the attached sensors and selecting a sensor from the list will bring up a chart displaying the sensor values for the history period.




This presents an 'Edit Trip' function to the user. selecting this option brings up a trip table that allows the user to edit the trip type and trip costs for each of the trips in the results. To edit these items, the user can hover the mouse over the relevant column for the chosen trip and click the icon that appears. The user can also merge consecutive trips into a single longer trip. Note that the merge functionality is not available for the most recent/current trip for the unit, and once a merge is performed, it is not possible to reverse or un-merge the trips.

1.1.1.3 By Trip

The 'By Trip' tab allows the user to see a specific trip by entering a trip ID number. Once the relevant ID has been entered, the user can click the 'Filter' button and the trip is displayed in the information panel and on


the map. The functionality available for the trip is identical to the [trips](#) shown via the Today tab. The panel also displays all [alerts](#) generated for that vehicle in the relevant trip.

1.1.2 Google Earth

The  button will launch Google Earth on the user's computer and then display the same details available on the live page in Google Earth. The data will refresh every minute in Google Earth, so the user is able to follow the progress of any units shown in the Google Earth application.

Note that for this functionality to work, the user must have Google Earth installed on their computer.

1.1.3 Refresh Button

The  button will make the web browser fetch the latest information for all the units currently being displayed in the information panel and on the map. If there are any changes, the user will see the relevant items update on the screen.

1.1.4 Find Button

The  button allows the user to quickly locate any of the following items on the map:

- The closest vehicle to a POI, no-go zone, geofence, street address or another vehicle.
- A specific address (if supported in the user's region).
- A set of co-ordinates (i.e. longitude and latitude).
- A POI, no-go zone or geofence.
- A customer location (if set-up in the Dispatch section).

1.2 Map

The map shows the location of whatever information the user has selected on the [Information Panel](#) on the left side of the screen. As a user clicks or hovers-over details in the information panel, the map will update to show the relevant data. Any icon on the map is clickable, so clicking the icon will open a map window that gives more detail about the item that has been clicked. In addition to the unit and trip data, the map also shows POI, no-go zones, geofences and routes.

1.2.1 Google Maps


1.2.1.1 Map Controls

The best way to control the map is to use a mouse with a scroll wheel. Left-clicking and moving the mouse will drag the map in the direction of the mouse (when the map is able to be dragged, the mouse pointer will change from a single arrow into a 4-way arrow). If the scroll wheel on the mouse is rolled backwards and forward, the map zooms in and out based on the mouse arrow location.

1.2.1.2 Map Buttons


The Tracking page has a number of map controls located in the upper left corner of the map, that provide functionality to the user. Using these buttons, the user can interact with the map to drag the map, create routes or create locations.

1.2.1.2.1 Drag Map

The  button allows the map to be dragged using the mouse. This is the default behavior of the map.


1.2.1.2.2 Draw Route

The route drawing function allows a user to manually draw and save a route.

To use this function, click on the  button. The cursor changes to a cross and the initial point is created with a single left-click on the map, and then subsequent single left-clicks each time the route needs to change direction. The final point on the route should be a double left-click, and the user is then asked if they want to save the route. To save, the route will need a name and a variance (the variance is the allowed distance that a vehicle is allowed to divert from the route before the tracking platform will send an alert warning that the unit is off the authorized route).


1.2.1.2.3 Draw Circle

The 'Draw Circle' function allows a user to manually draw and save a circle-shaped location.


To use this function, click on the  button. Once clicked, the cursor changes to a cross and the user should make a single left-click on the mouse at the centre of the required location. The cursor can then be moved outwards until the edge of the circle matches the location, and then the user can perform a single left-click again to complete the location. On completion, the details of the location can be entered.

1.2.1.2.4 Draw Polygon

The 'Draw Polygon' function allows a user to manually draw and save a custom-shaped location.

To use this function, click on the  button at the right-hand end of the row of buttons. Once clicked, the cursor changes to a cross and the user should make a single left-click on the mouse on the first corner of the area, and moves around the edge of the area, performing a single left-click on each corner. On the final corner the user double clicks and then details of the location can be entered.

1.2.1.3 Map Display Options


The user has the ability to customise the map, as well as the data appearing on the map, by clicking the  button at the top right of the map screen. This opens a menu that consists of a 'Base Layer' section at the top and an 'Overlays' section at the bottom.

The base layer determines what map will show for the user. This allows the user to switch between a road map, satellite map, etc. Changes made here are not saved, so the map will revert to the default base layer if the user leaves the Live page and then returns in the future.

The overlays are the various types of information that are placed on the map by the Live page. This includes information related to POI, no-go zones, geofences, routes and trips. The user has the option of showing/hiding any aspect of any of this information, e.g. POI icons can be hidden but the POI name labels left to display on the map. Like the base layer, changes made here are not saved so the map will revert to the default overlay settings if the user leaves the Live page and then returns in the future.

The user also has the option to show Google Traffic, if this feature is enabled in their account.

1.2.1.4 Google StreetView

When a user clicks on an icon on the map (either the vehicle icon or a movement icon), a speech bubble is displayed giving the details of the vehicle's movement at that point. Included in the speech bubble is the ability to open Google StreetView at that location by clicking the StreetView icon . To close the StreetView window, click the X at the top right side of the StreetView window.

1.2.2 OpenStreetMap

1.2.2.1 Map Controls


The best way to control the map is to use a mouse with a scroll wheel. Left-clicking and moving the mouse will drag the map in the direction of the mouse (when the map is able to be dragged, the mouse pointer will change from a single arrow into a 4-way arrow). If the scroll wheel on the mouse is rolled backwards and forward, the map zooms in and out based on the mouse arrow location. It is also possible to zoom in on a specific area by holding down the shift key, left-clicking on the mouse and then moving the mouse to create a box on the screen. When the left mouse button is released, the map will zoom in on the area covered by the box.

1.2.2.2 Map Buttons

The Tracking page has a number of map controls located in the upper left corner of the map, that provide functionality to the user. Using these buttons, the user can interact with the map to perform tasks or calculate a distance or area.

1.2.2.2.1 Create Location

The first map button allows a user to create a custom-shaped location (or the more technical term, polygon). The button allows the user to draw the location on the map, and once complete, the user can then save that shape as a POI, no-go zone, geofence or a customer location.

To use this function, click on the  button at the left-hand end of the row of buttons. Once activated, the mouse pointer will show a small circle at the tip as it moves over the map. The user then makes a single left-click on the mouse on the first corner of the location, and moves around the edge of the location, performing a single left-click on each corner. On the final corner the user double clicks to tell the map that it is finished. A pop-up screen will then ask the user what type of location the user wishes to save, and will ask the user for the


relevant details.

1.2.2.2.2 Drag Map

The  button allows the map to be dragged using the mouse. This is the default behavior of the map.

1.2.2.2.3 Measure Path


The measure path function allows a user to calculate the distance of a series of lines.

To use this function, click on the  button. The initial point is created with a single left-click on the map, and then subsequent single left-clicks each time the line needs to change direction. Each time a single left-click is performed, the line distance is updated at the top of the map. The final point on the line should be a double left-click, and the line distance will update to show the full length of the lines drawn.

To disable this function, the user clicks the distance button again to deactivate it.

1.2.2.2.4 Measure Polygon


The measure polygon function allows a user to calculate the area of a custom shape drawn on the map.

To use this function, click on the  button. Once activated, the mouse pointer will show a small square at the tip as it moves over the map. The user then makes a single left-click on the mouse on the first corner of the area, and moves around the edge of the area, performing a single left-click on each corner. Each time a single left-click is performed, the area is updated at the top of the map. On the final corner the user double clicks and the total area is displayed.


To disable this function, the user clicks the area button again to deactivate it.

1.2.2.2.5 Draw Route

The route drawing function allows a user to manually draw and save a route.

To use this function, click on the  button at the right-hand end of the row of buttons. The initial point is created with a single left-click on the map, and then subsequent single left-clicks each time the route needs to change direction. The final point on the route should be a double left-click, and the user is then asked if they want to save the route. To save, the route will need a name and a variance (the variance is the allowed distance that a vehicle is allowed to divert from the route before the tracking platform will send an alert warning that the unit is off the authorized route).

1.2.2.3 Map Display Options

The user has the ability to customise the map, as well as the data appearing on the map, by clicking the  button at the top right of the map screen. This opens a menu that consists of a 'Base Layer' section at the top and an 'Overlays' section at the bottom.

The base layer determines what map will show for the user. This allows the user to switch between a road map, satellite map, etc. Changes made here are not saved, so the map will revert to the default base layer if

the user leaves the Live page and then returns in the future.

The overlays are the various types of information that are placed on the map by the Live page. This includes information related to POI, no-go zones, geofences, routes and trips. The user has the option of showing/hiding any aspect of any of this information, e.g. POI icons can be hidden but the POI name labels left to display on the map. Like the base layer, changes made here are not saved so the map will revert to the default overlay settings if the user leaves the Live page and then returns in the future.

1.2.3 Right-Click Options

Right clicking at any point on the map opens a menu of options related to the clicked location. These options include the following:

- Find Closest Vehicle** Shows a list of the 5 closest vehicles, including their distances from the clicked point and their vehicle groups.
- Create Location** Allows the user to create a circular POI, no-go zone, geofence of customer location.

The latitude and longitude of the clicked location is also displayed at the bottom of the menu.

1.3 Interactive Trip Graph

The interactive trip graph shows the speed of the vehicle over the same time period that is displayed on the map above the graph. The graph is fully interactive, meaning the user can move the mouse over the graph, and the corresponding point on the map will highlight. This allows the user to replay the activity by moving the mouse from left to right, and the corresponding points on the map will highlight as the mouse moves.

2 Admin

2.1 General Settings

2.1.1 Trip Types

Trip types are used to classify trips into categories. A user is able to create their own trip types and then apply the custom trip types to actual trips in the tracking platform.

To create a new trip type, simply click the **+** button in the top right corner of the screen and give the trip type a name (e.g. business, personal, etc). If the company utilises the Dispatch module, then the trip type can also be associated with a Dispatch customer.

To make a trip type available for use in the tracking platform, ensure that the check-box next to the trip type name is enabled (it is enabled by default when a new trip type is created). To deactivate a trip type, click on the check-box on right side of the screen to remove the check-mark.

2.1.2 Trip Costs

Trip costs allow a user to apply costs to a trip, which then allow the tracking platform to calculate the total cost of a trip. To create a new type of cost, click the **+** button at the top right corner of the screen. When creating a new trip cost, a user has to select the type of cost they wish to create and also the amount of the relevant cost. The cost type options are:

Set Cost This is a single cost added to a trip, such as a toll road, etc.

Distance Cost This is a cost applied at a rate per kilometer or mile, such as wear and tear, etc.

Time Cost This is a cost applied at an hourly rate, such as the wages of the driver, etc.

Note that cost types cannot be deleted once they have been created, but rather they can be enabled or disabled. To enable a cost type to be used in trips, ensure that the check-box next to the cost type name is enabled. To deactivate a cost type, click on the check-box on the far right column to remove the check-mark.

2.2 User Settings

2.2.1 User Management

The user listing contains the login, display name, email, group name and type of all the users in the company. In addition, it also identifies if any user in the listing is locked out of their account (as a result of entering their password incorrectly 5 times in a row).*

To add a new user, simply click the **+** button at the top right of the page. To edit any existing user, click the user's name in the list to access and update the required information. There is also a menu to the right side of the user listing that allows for the editing of other settings, including:

- Preferences** These are the [user settings](#) that customise the look/feel of the tracking platform when the user is logged into the tracking platform.
- Group Access*** This controls which elements (i.e. vehicles, users, POI, etc) a user has the ability to see.
- Access*** The user access options allow for a regular or admin user to be limited to specific areas of the tracking platform. For example, a user could be given access to the Tracking module, but not have access to the Reports module. To give access to a specific section or function, simply place a check in the check box and when the user is saved, all the checked sections/ functions are available to the user. Any unchecked sections/functions will not be available, and the user will not be able to access these.
- Change Password** This allows the user to edit the target user's password

* A user's access to information within the tracking platform can be customised on a user-by-user basis (for regular and admin users). The ability of a user to see/edit elements in the tracking platform (i.e. vehicles, users, etc) or access to the option to create new users is determined by the level of access and the type of user. Note also that a regular user can never create new users, only an admin users and super users have the ability to create new users.

2.2.1.1 Groups

User groups are used as a way to organize users within the tracking platform. Each user can be a member of a single group, and users are then given access to selected groups (a user's group access is described in the user listing section contained in the Admin module). To create a new group, simply click the **+** button at the top right of the screen and enter in the group name. To edit an existing group, click the group name, make the required changes and click the 'save' button.

2.2.1.2 Templates

A template is a pre-defined access configuration that can be applied to users. It allows the access rules to be edited in a single location, and any changes to the template will then affect all users that are associated with the edited access template.

2.2.1.3 Temporary Users

Creating a temporary user is a way to give access to the location of one or more vehicles/units to an external person. The external person will simply receive an email link to access the vehicle/unit location, there is no password required to access the tracking platform.

To add a new temporary user, simply click the **+** button at the top right of the page. To edit any existing temporary user, click the user's name in the list to access and update the required information.

When setting the details for a temporary user, the platform requests the start date and end date. The temporary user will only be able to access the platform between those 2 dates, and the temporary user will only be able to see trips that happen in the current day AND that have activity between those 2 dates.

2.3 Driver Settings

2.3.1 Driver Management

The driver listing contains the first and last name, login, display name, email address and group name of all the drivers in the company. In addition, it also identifies if any driver in the listing is locked out of their account (as a result of entering their password incorrectly 5 times in a row).

To add a new driver, simply click the **+** button at the top right of the page. To edit any existing driver, click the driver's name in the list to access and update the required information. There is also a menu to the right side of the driver listing that allows for the editing of other settings, including:

Preferences	These are the driver settings that customise the look/feel of the tracking platform when the driver is logged into the tracking platform (similar to the user settings).
Group Access*	This controls which elements (i.e. vehicles, users, POI, etc) a driver has the ability to see.
Access*	The driver access options allow for a driver to be limited to specific areas of the tracking platform. For example, a driver could be given access to the Tracking module, but not have access to the Reports module. To give access to a specific section or function, simply place a check in the check box and when the driver is saved, all the checked sections/ functions are available to the driver. Any unchecked sections/functions will not be available, and the driver will not be able to access these.
Change Password	This allows the user to edit the target driver's password

* A driver's access to information within the tracking platform can be customised on a driver-by-driver basis. The ability of a driver to see/edit elements in the tracking platform (i.e. vehicles, users, etc) is determined by the level of access.

2.3.1.1 Groups

Driver groups are used as a way to organize drivers within the tracking platform. Each driver can be a member of a single group, and drivers are then given access to selected groups (a driver's group access is described in the driver listing section contained in the Admin module). To create a new group, simply click the **+** button at the top right of the screen and enter in the group name. To edit an existing group, click the group name, make the required changes and click the 'save' button.

2.3.1.2 Driver Tags

A driver tag is an identification number that is used to identify the driver. This identification number is often used in identification systems such as Dallas iButton, etc. When the tracking platform receives the identification number from the vehicle/unit, it matches it to the driver tag and then assigns the relevant driver to the relevant vehicle/unit.

2.3.1.3 Templates

A template is a pre-defined access configuration that can be applied to drivers. It allows the access rules to be edited in a single location, and any changes to the template will then affect all drivers that are associated with the edited access template.

2.3.2 Driver Allocation

The driver allocation list allows a user to see which drivers are assigned to which vehicles/units, as well as update any driver allocations to vehicles/units.

To remove a driver from a vehicle/unit, a user can click the icon on the far right of the list and confirm the removal of the driver. To assign a driver to any unit/vehicle, the user can click the **+** button at the top right of the screen and select the vehicle/unit and driver from the lists. If that driver is already assigned to a different vehicle/unit, then the driver will be removed from their existing allocation and re-assigned to the new vehicle/unit.

2.4 Vehicle Settings

2.4.1 Vehicle Management

The vehicle management listing contains a listing of all units in the company (limited by the viewing user's access).

To edit a vehicle, click the vehicle name in the list to access and update the required information. The different types of information that are captured in the vehicle details include:

- System** This allows the user to set the name, group, icon and track colour for each vehicle. In addition, additional information can be captured in a text box, and that information is displayed in the [Tracking](#) module.
- Odometer/Engine** Every vehicle/unit maintains a virtual GPS odometer on the tracking platform. This can be set by entering the current odometer or engine hours value, as well as the date and time that the reading was taken.
- Transactions** This is a list of all the [consumable](#) transactions that have been applied to the selected vehicle.
- Custom Details** The custom details tab allows a user to create a 100% customised data form for the capture of any information related to the vehicle. The data fields are created by the user, and these can be text, values, dates or even multi-selection lists (called tags).
- [Inputs/Outputs](#) This allows the user to choose which inputs and outputs are supported by the vehicle. There are custom inputs and outputs, which connect to the digital input and output wires on the tracking unit itself, as well as system-created inputs and outputs that are built-in functions on the tracking platform. It is even possible to associate outgoing messages that are automatically triggered when an input is activated or deactivated.
- [Optergon](#) If a company is utilising the [scheduling](#) functionality, then this tab allows the user to set all the required details required for Optergon to perform its calculation.

There is also a menu to the right side of the vehicle listing that provides access to the following:

- Information** This is the current status of the vehicle, including speed, heading, location, driver, etc.
- Settings** This allows the user to set the default trip type and costs, as well as capture the average fuel consumption. In addition, the user can 'fix' the location to a single position so that the vehicle/unit does not move (e.g. a diesel generator, construction machinery, etc).
- Transactions** This is a list of all the [consumable](#) transactions that have been applied to the selected vehicle.
- Journal** This provides access to the [journal](#) system, an electronic data-store of information

related to the vehicle.

Blackout Schedule A blackout schedule allows the user to define the periods when the vehicle cannot be tracked (for privacy reasons). Add a schedule by clicking the **+** button and selecting the times when the vehicle is in privacy mode. Existing schedules can be edited or deleted by clicking on the schedule name in the listing.

2.4.1.1 Vehicle Groups

Vehicle groups are used as a way to organize vehicles within the tracking platform. Each vehicle can be a member of a single group, and users are then given access to selected groups. To create a new group, simply click the **+** button at the top right of the screen and enter in the group name. To edit an existing group, click the group name, make the required changes and click the 'save' button.

2.4.1.2 Journals

Journals represent an electronic filing cabinet where all the administrative details and data for a vehicle can be stored.

Each journal type is like a folder, where one or more events can be added. Each event is given a name, date and cost, plus additional information can be captured in the text box. In addition, attachments can also be added (such as scans of invoice, images, etc).

2.4.1.3 Optergon

In order for Optergon (the scheduling calculation system utilised by the tracking platform) to properly calculate an optimal schedule, the system needs to know what the costs, characteristics and limitations are for each vehicle/unit. In the Optergon tab within the vehicle/unit details, a user can edit all the following details:

Fixed Cost	This is a set cost that is incurred if the associated vehicle/unit is utilised in a schedule.
Time Cost	This is an hourly cost that is incurred if the associated vehicle/unit is utilised in a schedule. It is assigned pro-rata based on the number of seconds of travel time that the vehicle incurs in the schedule.
Distance Cost	This is a kilometer-based cost that is incurred if the associated vehicle/unit is utilised in a schedule. It is assigned pro-rata based on the number of meters of travel time that the vehicle incurs in the schedule.
Range	This is the total distance (in kilometers) that a vehicle can travel in a schedule. Optergon will always attempt to get a vehicle/unit back to its ending depot before it exceeds its range.
Start/End Depot	This is the default starting and ending locations for the associated vehicle in a schedule.

It can be edited on-the-fly when creating a schedule (if required)

In addition to the above items, a vehicle/unit can also have various [attributes](#) and [capacities](#) associated with it.

2.4.2 Inputs/Outputs

The input/output section allows the user to create custom names that can be assigned to a vehicle's tracking device as part of the user-defined inputs/outputs (as described in the [vehicle management](#) section).

To create a new input/output, simply click the **+** button at the top right of the screen and enter in the input/output name. To edit an existing input/output, click the input/output name, make the required changes and click the 'save' button.

2.4.3 Consumables

The consumables functionality allows a company to keep an inventory of spare parts for their vehicles, and then assign those spare parts to vehicles over the course of the vehicle's life. The tracking platform is then able to monitor which parts have been purchased and which parts have been assigned to vehicles, as well as monitor the current inventory level of each type of spare part.

The consumables system is broken up into 2 main areas. The first is the actual 'Consumables' list which details the types of spare parts being monitored, as well as the inventory levels of each part and the internal allocation cost of each part (i.e. the internal costing used to calculate the value of parts assigned to vehicles). To add a new type of spare part, click the **+** button at the top right of the screen and complete the relevant details. The second main area of the consumables system is the 'Suppliers' list which shows the authorized suppliers of spare parts. To add a new supplier, click the **+** button at the top right of the screen and complete the relevant details.

Using the menu on the right side of the consumables and suppliers listings, it is possible to replenish consumable inventory (i.e. purchase from a supplier) or allocate consumable items to vehicles/units (i.e. allocate out of the inventory into a vehicle). It is also possible to see a transaction list of all the transactions, namely purchases and allocations, for any consumable item.

2.4.4 Fuel Log

The fuel log allows for the capture of fuel transactions, which can then be analysed in order to look for fuel usage anomalies such as fuel theft, or to help identify if a vehicle is potentially in need of a service. The filter at the top of the list of transactions allows a user to specify the transactions related to a selected group of vehicles, and also to specify transactions between 2 dates. To view or edit an existing transaction, simply click on the relevant transaction in the list and the details of that transaction are displayed.

To enter a new fuel transaction, click the **+** button at the top right of the page and enter in the relevant details. Note that an odometer reading can be entered, and this should be entered only if the actual odometer at the exact time and date of the refuelling is known. If not, that should be left blank and the tracking platform will

use an estimated odometer. In order for the fuel transaction system to work as designed, it is vital that the following 2 rules are followed:

- When a vehicle refuels, the fuel tank must always be filled to capacity. If a partial refuel is performed then that will skew the results of the analysis (as the analysis will not know how much fuel was actually used).
- All fuel transactions must be entered into the tracking platform. If a single transaction is missed, then that will also skew the results of the analysis (as the analysis will think the tank drove a very long distance without refuelling).

2.4.5 Asset Management

An asset is any type of additional equipment that can be linked to a vehicle/unit (such as a trailer, etc). The tracking platform allows a user to create asset types (such as trailers, generators, etc) and then create individual items within that type.

To create a new asset type, go to the 'Asset Type' tab and click the **+** button to the top right of the screen. To add individual asset, go to the 'Asset Details' tab and click the **+** button to the top right of the screen. It is also possible to manually assign assets to a vehicle/unit by selecting the vehicle/unit name within the asset details panel. Assets can also be assigned automatically by using a tag/ID system on the tracking device itself. Asset tags, similar to [driver tags](#), are received from the tracking device and matched to the tag numbers entered into the asset details panel.

2.5 Location Settings


2.5.1 Location Management

Locations on the tracking platform are divided into 3 main categories:

Point of Interest	A point of interest (POI) is a location that the tracking platform records in memory and is available for use throughout the tracking platform. This includes showing the POI name in the address of a vehicle/unit, as well as sending an alert message via the Alert module when a vehicle/unit moves into and/or outside of the related area.
Geofence	A geofence is a location that focuses on recording violations if a vehicle/unit leaves the related area.
No-Go Zone	A no-go zone is a location that focuses on recording violations if a vehicle/unit enters the related area.

To edit a location, simply click on the location in the listing, edit the required information and hit the 'save'

button.


A new location can be created by hovering over the  button at the top right of the screen and selecting the type of location that is to be created. When creating a new location from the Admin module, a user can choose whether to create the location based on an address, a set of co-ordinates or an existing POI. A list of locations can also be imported via a CSV file, or alternatively if the locations are in GPX format.

The location groups option allows for locations to be classified into groupings, making selection of an entire group easier when assigning access to users, or when running a report.

2.5.2 Route Management

A route is a recorded path that the tracking platform records in memory and then utilizes in the Alert module to warn users if a vehicle/unit deviates from it's pre-assigned routes. Route groups are used as a way to organize routes within the tracking platform.

To edit a route, simply click on the route name, update the required information and hit the 'save' button. A new route can be created in the Tracking module by clicking on the 'Draw Route' button on the map or by saving a trip as a route.

To create a new group, simply click the  button at the top right of the screen and enter in the group name. To edit an existing group, click the group name, make the required changes and click the 'save' button.

3 Dispatch

The Dispatch module provides users with the tools required to plan and manage stop/delivery/collection schedules for vehicles and drivers. Using Dispatch, users can maintain and manage their customers, as well as schedule stops/deliveries/collections and monitor the real-time performance of vehicles/drivers against the planned schedule.

To create a new scheduled stop/delivery/collection, a user first creates an [order](#), and creates one or more stops inside the order. Once all the stops are completed, then the order is considered complete.

3.1 Customers & Locations

All stops must be assigned a location, and each location must belong to a customer.

To create a new customer, a user can click the **+** button on the top right of the screen and complete the customer name (and optional customer code). The user can also add in any further customer information they choose in the 'Additional Info' section, which is a user-configurable form.

Once a customer is created, locations can then be added to the customer. Locations represent all the places that stops/deliveries/collections can be performed, e.g. a fruit wholesaler might have Walmart as a customer, and all the local Walmart stores would be locations within that customer. To create a location, hover over the menu icon on the right side of the customer listing and select 'Add Location'. A location can be added via an address search, a latitude/longitude, or by copying an existing POI.

Other menu options include viewing a list of existing locations within that customer or viewing any orders associated with that customer.

To edit an existing location, find and click the relevant location on the Location listing. It is possible to alter any details related to the location, including the name, size, shape (for polygon locations) and address.

3.2 Depots Management

A Depot is considered to be all the locations that relate to the tracking client themselves, such as warehouses, office, etc. It is only required to capture depots if the user is utilising the scheduling module as the scheduling calculation requires the start and end point for each vehicle, and those points are always depots.

3.3 Orders

An Order is simply a collection of stops. Each order consists of one or more stops, and the tracking platform then monitors the status of the order based on the completion status of all the stops contained within the order.

To add a new order, simply click the **+** button at the top right of the page. Each order must have an order reference, and the user can also select the option of allowing the tracking platform to auto-complete any stops in the order if/when the relevant vehicle for that stop is within a certain distance of the stop location (called 'Auto Complete'). Stops can be added to the order as part of the order creation process by simply checking the 'Add Stops' check box when creating a new order.

To edit any existing order, click the relevant order in the list to access and update the details. Once an order has been created, it is possible to add more stops to the order by either clicking the 'Add Stop' link on the Order listing, or alternatively a user can go into the order details and click the 'Add Stop' button near the top right of the order panel.

If certain stops within an order are required to be completed by the same vehicle, the 'Link' function will allow the user to group those stops and also arrange those stops in a completion sequence. Checking the 'Link' boxes and then clicking the 'Link' button near the top right brings up the sorting panel, where the linked stops can be dropped/dragged into the correct sequence. To unlink the stops, simply click the link icon and click 'Delete' in the sorting panel.

3.4 Stops

Stops are added to [orders](#) when the order is created or via the order listing. When creating a stop, the following information should be set:

Location	This is the customer location at which the stop/collection/delivery will take place.
Vehicle	This is the vehicle that will complete the stop/location/delivery. *
Date / Time	This is the date and time of the stop/delivery/collection. *
Duration	This is the amount of time that the stop/delivery/location will take.

Any existing stop can be edited by simply clicking the relevant line in the stop listing.

When a user makes use of the [scheduling](#) tool, there are additional details for each stop that will assist the scheduling tool in calculating the optimal plan. The 'Characteristics' tab in the stop details allow the user to select any [attributes](#) and [capacities](#) of the stop, which are then compared to the matching attributes and capacity constraints of the vehicles to ensure that only appropriate vehicles are selected for the stop.

* If a user is utilising the scheduling tool, then the time and/or vehicle can be omitted as the scheduling tool is able to calculate the optimal time and/or vehicle to complete the stop. A time window is required to let the scheduling tool know during which hours the stop should be commenced.

3.4.1 Attributes

An attribute is a characteristic that is associated with a stop and/or a vehicle, and it helps the scheduling tool to ensure that non-compliant vehicles are not selected to complete a stop. For example, if a stop requires the delivery of frozen goods, then the truck must clearly be a refrigerated truck (so that the goods do not defrost while in the vehicle). In this instance, the relevant vehicles would be given an attribute like 'Refrigerated' in their vehicle characteristics and the stop would also be given the same attribute. This way, only those vehicles could be selected to do this stop when the scheduling tool does its calculation.

To apply an attribute to a stop, go into the 'Characteristics' tab and click the **+** button at the top right of the panel. From the drop-down list, click the **+** button next to the relevant attribute name and the attribute is added to the list of characteristics for the stop. The user can then go and selected the relevant value for the attribute and save the stop details.

Note that creation of new attributes is handled in the vehicle section. It is not possible to create a type of attribute in the stop, because if that is done and the attribute is not also assigned to a vehicle, then it is impossible to complete that stop as no vehicle has the relevant attribute.

3.4.2 Capacities

A capacity is a characteristic that is associated with a stop and/or a vehicle, and it helps the scheduling tool to ensure that vehicles have sufficient capacity to carry the goods that are delivered to or collected from the stop. For example, if a stop requires the delivery of 10,000 litres of milk, then the truck must clearly be able to carry 10,000 litres of fluid. If the truck cannot carry that volume, then it is impossible that it is to be used for that stop. In this instance, the relevant vehicles would be given a capacity like 'Litres' and then the amount that they are able to carry is entered into the capacity details. The stop would then be given its relevant capacity type (such as 'Litres') and then the amount of fluid that is to be delivered to or collected from the stop is captured. This way, only those vehicles that have sufficient capacity to perform that stop could be selected to do this stop when the scheduling tool does its calculation.

To apply a capacity to a stop, go into the 'Characteristics' tab and click the **+** button at the top right of the panel. From the drop-down list, click the **+** button next to the relevant capacity name and the capacity is added to the list of characteristics for the stop. The user can then go and edit the relevant value for the capacity and save the stop details.

Note that creation of new capacity types are handled in the vehicle section. It is not possible to create a type of capacity in the stop, because if that is done and the same capacity type is not also defined to a vehicle, then it is impossible to complete that stop as no vehicle is able to handle that type of capacity.

3.5 Visual Planner

The Visual Planner is a tool that provides a user-friendly interface for viewing assigned stops on a map and a time line. A user starts by selecting the list of vehicles they want to view, as well as the time period they are


reviewing, and clicks the 'Filter' button. The screen will search for all stops in the selected period for the selected vehicles and display them on the map and on the time line below the map. The time line covers the full period, with colour bars indicating each stop (and each vehicle is a separate colour). Each colour bar is positioned based on the arrival time in the stop details, and the length of each bar represents the duration of the stop. Moving the mouse over a colour bar highlights the time of the stop, and clicking on the stop highlights the location on the map.

The duration of a stop can be edited by right-clicking on the relevant stop and selecting 'Duration' from the pop-up list. Additionally, the time/vehicle associated with a stop can be adjusted by dragging and dropping a stop to a new location in any vehicle. Any changes must be saved by clicking the 'Save Changes' icon to the top left of the time lines. Additionally any changes can be undone by clicking the 'Revert' icon next to the 'Save Changes' icon.

Any stops that are scheduled to be completed in the date being reviewed but do not yet have a definitive time can be added to a vehicle's time line by clicking the 'Add' icon to the top left of the time line, and then selecting the 'Stops' tab. This opens a panel of all stops that are scheduled for the current period, and the user can then select the relevant stop. The stop then appears on the time line and it can be dragged and dropped in the correct position. Clicking the 'Add' icon also allows the user to add any unused vehicles (in the 'Vehicles' tab) to the time line so that stops can then be manually assigned to those vehicles.

3.6 Scheduling

The Scheduling Tool is an optimization function that automatically calculates the optimal vehicle and/or delivery time for a selection of stops. Once the user selects the stops that must be completed and the vehicles that are available, the tracking platform calculates the optimal delivery schedule to minimize the overall fleet cost.

To create a new schedule, click the  button at the top, right of the screen. The walk-through allows the user to choose the schedule period, the stops that should be included in the schedule, and the vehicles that are available to complete the selected stops. If there are any spare vehicles available to complete the schedule, then the tracking platform will alert the user. The user is then able to view a summary page showing all the selected details, as well as an overview map showing the locations of all the relevant depots and stops. Once the user is satisfied that all details are correct, clicking 'save and queue' will then begin the calculation process.

Once a schedule has been calculated, the status and result will update in the schedule listing. A result of 'Valid Solution' means that the scheduling tool was able to find and optimize a schedule that ensured that all stops were visited within the allotted time and no rules were broken (e.g. vehicles did not exceed their maximum allowable distance, all stops could be completed without vehicles exceeding their allowed capacities, etc). In the event that no valid solution could be found without violating a rule or restriction, the status and result will either reflect that the solution is invalid or impossible.

To see the result, click on the map icon for the relevant solution. This opens a page similar to the visual

planner, where all the stops are mapped out and assigned to the relevant vehicles at the relevant times. If a user accepts the schedule that the scheduling tool has calculated, then clicking the 'Apply' icon will save the vehicle and time details to each of the relevant stops. To undo this, the user can then click the 'Revert' icon and the vehicle and time details will be removed from the relevant stops again.

4 Dashboard

The Dashboard section provides a user with numerous charts and graphs to give a high level overview of the activity of their units over the period.

In addition to the custom templates section, the Dashboard also provides the user with a vehicle comparison chart. This depicts the activity for the selected units over the full 24 hour period of the selected day.

4.1 Dashboard Templates


The Dashboard allows a user to set up custom templates that give a graphical overview of their units. Users have complete control over which graphs appear, how the graphs are arranged and which unit and dates are covered in the graph data. Like all graphs and charts throughout the tracking platform, the results are interactive to mouse hovering and clicks. As a user moves the mouse pointer over the graph or chart, further information is displayed to the user.

To edit the template, the user can move their mouse over the hamburger menu located in the upper right corner of the screen and select the 'Edit' option from the menu. Once selected, the following details of the template can be adjusted:

- The template name and the option to make the current template the default or not, as well as the automated refresh rate of the data shown by the graphs in the template.
- The data reported in the template, including the drivers/units, the time period and the various graphs that are shown.

To adjust the layout of the graphs, select the 'Edit Layout' option from the menu. This allows the user to do the following:

- Drop/drag the graphs into the desired position on the page.
- Update each graph size by clicking on the chosen size on the bottom left of each graph.

To add a new template, click the  button on the right side of the menu. To jump between the various templates that are saved, click the 'Template' icon to the left side of the menu.

4.2 Vehicle Comparison

The Vehicle Comparison is a chart that gives the driving status information for a group of vehicles throughout a chosen day. The user selects the specific vehicles as well as the required day, and the Dashboard module will give details of the driving activity from midnight at the start of the day through to midnight at the end of the day.

Each vehicle's activity is broken up into the driving (green), idle (yellow) and stop (red) activity. The user can hover the mouse over any portion of the chart and a information pop-up will give the details of when the relevant segment of activity started and ended.

5 Reports

The report module provides the management tools to help a user view and analyse their data. Instant reports can be run at any time in a number of formats including a web-based HTML view, or alternatively PDF, Excel or CSV. Reports can also be scheduled to run at specific times and then emailed to a selection of users.

5.1 Instant Reports

To run an instant report, a user can do the following:

1. Select the relevant report from the report listing on the left-side of the website.
2. Complete the relevant details in the 'Instant Report' tab. These details vary depending on which type of report is being run, but these details will usually include the relevant vehicles, the time period of the report, etc.
3. Customise the column layout, grouping and sub-totals using the [column customisation](#) tool. Note that the tracking platform will remember the most recent layout that was created, so once a report has been customised, the user will not have to set-up the customisation again next time they want to run an instant report.
4. Once the user clicks 'OK', the user is taken to the 'Previous Reports' tab which shows all the instant report results (with the current report at the top of the list). The user can then select the report format they want by clicking the relevant icon on the right side of the website.

5.2 Previous Reports


The 'Previous Reports' tab lists all the instant reports that have been run, with the most recent report at the top of the list. A user is able to access any previous report by clicking the icon (to select the report format) on the right side of the website.

To change the name of a previously generated report, the user can hover over the report name and click the 'Edit' icon. A user can also see what parameters were entered for a previously generated report by clicking over the status or run date details. This opens a panel on the right side of the website showing all the report parameters.

5.3 Scheduled Reports

By scheduling a report, a user can set up a report that is generated automatically at the required time and then emailed to the list of recipients.


To add a new scheduled report, a user can do the following:

1. Select the relevant report from the report listing on the left-side of the website and then select the Scheduled Reports tab.
2. Click the  button at the right side of the website. This opens a schedule editing panel on the right side of the website.
3. Complete the relevant details in the panel. These details vary depending on which type of report is being scheduled, but these details will usually include the relevant vehicles, the users that must receive the report, the frequency that the report should be generated (e.g. daily, weekly, bi-weekly or monthly), etc.
4. Once the user clicks 'Save', the user is taken to the 'Scheduled Reports' tab which shows all the scheduled reports. To edit any schedule, the user can click on the relevant schedule from the list to open the schedule editing panel on the right side of the website.

To view the reports that have already been mailed out by the schedule, a user can click the 'View Log' icon on the right side of the list of scheduled reports. This opens a panel on the right side of the website that lists each time the selected schedule generated a report, and the user can view any of these previous results by clicking the icon (to select the report format) next to the relevant report date.

5.4 Report Customisation

When running an [instant report](#) or setting up a [scheduled report](#), the user can customise the layout of the report columns as follows:

- Select which columns appear in the report results. The list on the left-side displays the columns that will be in the report, and the list on the right-side displays the columns that are available to add to the report. To select 1 or more columns, click the relevant column name to highlight the column, and then click the left or right arrow to add or remove the selected columns.
- Select the sequence of the columns in the report results. To do this, drag the columns up and down using the arrow icon . The column listed at the top will be the first column in the report results, and each subsequent column below that will then appear as the subsequent column in the report results.
- Select the column grouping that provides more granular totals. To do this, check the boxes that represent the required groupings. Multiple checkboxes can be selected, and similar to the column sequencing above, the grouping sequence will be based on the position in the list.
- Select the types of aggregations that are required for each sub-total. If some type of 'value' is required for a particular column, select the type of value that is required in each of the relevant columns.

5.5 Types of Reports

5.5.1 Activity Reports

5.5.1.1 Speeding

The Speeding report highlights each time the selected vehicle(s) exceed a given speed limit for more than a defined period of time.

The following details are required in order to generate this report:

1. The relevant vehicle(s) must be selected.
2. The speed limit must be entered. This is the speed above which a vehicle is considered to be speeding.
3. The time and date range of the report must be selected.

Option details for the report include:

1. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.
2. The minimum duration, which is the amount of time the vehicle must be ABOVE the speed limit in order to appear in the report. The default value for this is 0 minutes.

5.5.1.2 Speeding (Road Speed)

The Speeding (Road Speed) report highlights each time the selected vehicle(s) exceed the road speed for more than a defined period of time.

The following details are required in order to generate this report:

1. The relevant vehicle(s) must be selected.
2. The time and date range of the report must be selected.
3. The minimum duration must be entered. This is the amount of time the vehicle must be ABOVE the speed limit in order to appear in the report.
4. The speed buffer must be entered. This is the tolerance of the speed limit, which means that if a buffer

of 5kph is set, then the vehicle is allowed to travel up to 5kph above the road speed limit before it is considered to be speeding.

Option details for the report include:

1. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.

5.5.1.3 Mileage

The Mileage report highlights the distance covered by the selected vehicle(s) for more than a defined period of time.

The following details are required in order to generate this report:

1. The relevant vehicle(s) must be selected.
2. The time and date range of the report must be selected.

Option details for the report include:

1. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.

5.5.1.4 Idle

The Idle report highlights each time the selected vehicle(s) or driver(s) idle for longer than a defined period of time.

The following details are required in order to generate this report:

1. The relevant vehicle(s) or driver(s) must be selected.
2. The time and date range of the report must be selected.

Option details for the report include:

1. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.
2. The idle limit, which is the minimum amount of time the vehicle must be idling in order to appear in the report. The default value for this is 0 minutes.

5.5.1.5 Stop

The Stop report highlights each time the selected vehicle(s) or driver(s) stop for longer than a defined period of time.

The following details are required in order to generate this report:

1. The relevant vehicle(s) or driver(s) must be selected.
2. The time and date range of the report must be selected.

Option details for the report include:

1. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.
2. The stop limit, which is the minimum amount of time the vehicle must be stopped in order to appear in the report. The default value for this is 0 minutes.

5.5.1.6 Fuel Consumption

The Fuel Consumption report highlights the fuel used for the selected vehicle(s).

The following details are required in order to generate this report:

1. The relevant vehicle(s) must be selected.
2. The relevant fuel sensor(s) must be selected.
3. The time and date range of the report must be selected.
4. The refuel limit must be entered. This tells the tracking platform how big a fuel increase must be in order to be considered to be a refuel. This is entered as a % of the fuel tank size. E.g. if the refuel limit is 10%, then any fuel increase greater than 10% of the fuel tank size is considered a valid refuel, but any increase less than 10% of the tank size is considered to be fluctuations in the fuel level as a result of inaccuracy of the sensor.

Option details for the report include:

1. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.
2. The instance grouping. This breaks the report up into the fuel used between each time ignition is turned on or off, or alternatively the fuel used during each trip. The default selection is to group by ignition on/off events.

5.5.1.7 Fuel Increase (Refuelling)

The Fuel Increase (Refuelling) report highlights each refuel for the selected vehicle(s).

The following details are required in order to generate this report:

1. The relevant vehicle(s) must be selected.
2. The relevant fuel sensor(s) must be selected.
3. The time and date range of the report must be selected.
4. The refuel limit must be entered. This tells the tracking platform how big a fuel increase must be in order to be considered to be a refuel. This is entered as a % of the fuel tank size, e.g. if the refuel limit is 10%, then any fuel increase greater than 10% of the fuel tank size is considered a valid refuel, but any increase less than 10% of the tank size is considered to be fluctuations in the fuel level as a result of inaccuracy of the sensor.

Option details for the report include:

1. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.

5.5.1.8 24Hr Detail

The 24Hr Detail report highlights all the data received by the tracking platform the selected vehicle.

The following details are required in order to generate this report:

1. The relevant vehicle must be selected.
2. The time and date range of the report must be selected. The maximum range of this report is 7 days.

Option details for the report include:

1. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.

5.5.1.9 Data Interval

The Data Interval report highlights which of the selected vehicle(s) have not reported any data to the tracking platform for a chosen period of time.

The following details are required in order to generate this report:

1. The relevant vehicle(s) must be selected.

Option details for the report include:

1. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.

2. The time period, which is the minimum amount of time since the last communication from the vehicle(s) to appear in the report.

5.5.1.10 Consumable Allocation

The Consumable Allocation report highlights all consumables that have been allocated to the selected vehicle(s).

The following details are required in order to generate this report:

1. The relevant vehicle(s) must be selected.
2. The time and date range of the report must be selected.

Option details for the report include:

1. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.

5.5.1.11 Sensor Data

The Sensor Data report highlights the distance covered by the selected vehicle(s) for more than a defined period of time.

The following details are required in order to generate this report:

1. The relevant vehicle(s) must be selected.
2. The relevant sensor(s) must be selected.
3. The time and date range of the report must be selected.

Option details for the report include:

1. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.

5.5.2 Productivity Reports

5.5.2.1 POI Visit

The POI Visit report highlights the details of each POI visit by the selected vehicle(s) or driver(s) into the selected POI(s).

The following details are required in order to generate this report:

1. The relevant vehicle(s) or driver(s) must be selected.
2. The relevant POI(s) must be selected.
3. The time and date range of the report must be selected.

Option details for the report include:

- i. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.
- ii. The visit grouping. This breaks the report up into the visits into each POI or the visits by each vehicle or driver.
- iii. The minimum duration, which is the minimum amount of time the vehicle or driver must be inside a POI in order to appear in the report. The default value for this is 0 minutes.

5.5.2.2 POI Visit + Input

The POI Visit + Input report highlights the details of each input/output activation by the selected vehicle(s) or driver(s) while inside into the selected POI(s).

The following details are required in order to generate this report:

1. The relevant vehicle(s) or driver(s) must be selected.
2. The relevant POI(s) must be selected.
3. The relevant input(s) and output(s) must be selected.
4. The time and date range of the report must be selected.

Option details for the report include:

- i. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.

5.5.2.3 POI Entry/Exit

The POI Entry/Exit report highlights the entry and exit events for the selected POI(s) by the selected vehicle(s) or driver(s).

The following details are required in order to generate this report:

1. The relevant vehicle(s) or driver(s) must be selected.

2. The relevant POI(s) must be selected. This is broken up between those POI where entry events should be reported and those where exit events should be reported.
3. The time and date range of the report must be selected.

Option details for the report include:

- i. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.

5.5.2.4 Inside Location

The Inside location report counts the number of times each of the selected locations were visited by the selected vehicle(s).

The following details are required in order to generate this report:

1. The relevant POI(s) or geofence(s) or no-go zone(s) must be selected.
2. The time and date range of the report must be selected.

Option details for the report include:

- i. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.

5.5.2.5 Daily Activity

The Daily Activity report provides a summary of the activity, broken into each day, for the selected vehicle(s) or driver(s).

The following details are required in order to generate this report:

1. The relevant vehicle(s) or driver(s) must be selected.
2. The time and date range of the report must be selected.

Option details for the report include:

- i. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.

5.5.2.6 Vehicle/Driver KPI

The Vehicle/Driver KPI report highlights the number of driving events reported by the selected vehicle(s) or driver(s), combined a driving score to allow comparisons between vehicles/drivers.

The following details are required in order to generate this report:

1. The relevant vehicle(s) or driver(s) must be selected.
2. The time and date range of the report must be selected.

Option details for the report include:

- i. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.

5.5.2.7 Engine Running Time

The Engine Running Time report highlights each time the ignition is active for more than a defined period of time for the selected vehicle(s).

The following details are required in order to generate this report:

1. The relevant vehicle(s) or driver(s) must be selected.
2. The time and date range of the report must be selected.

Option details for the report include:

- i. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.
- ii. The minimum duration, which is the minimum amount of time the ignition must be active in order to appear in the report. The default value for this is 0 minutes.

5.5.2.8 Trip Summary

The Trip Summary report highlights the details of each trip created by the selected vehicle(s) or driver(s).

The following details are required in order to generate this report:

1. The relevant vehicle(s) or driver(s) must be selected.
2. The time and date range of the report must be selected.

Option details for the report include:

- i. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.
- ii. Any additional information, which allows the user to group the trips into each day, or alternatively include the odometer details with each trip.

- iii. The trip logic, which allows the user to decide which trips will fall into the report. If start and/or end is selected, then that means any trips that either start and/or end in the reporting period will appear in the report.
- iv. Include vehicles with no trip, which allows the user to include a list of any of the selected vehicles which are inactive in the reporting period to the end of the report.

5.5.2.9 Trip Summary + Costs

The Trip Summary + Costs report highlights the details of each trip created by the selected vehicle(s) or driver(s), including the amount of the trip cost.

The following details are required in order to generate this report:

1. The relevant vehicle(s) or driver(s) must be selected.
2. The time and date range of the report must be selected.

Option details for the report include:

- i. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.
- ii. The trip type, which allows the user to choose which trip types appear in the report.

5.5.2.10 Detailed Trip Costing

The Detailed Trip Costing report provides a full breakdown of each individual cost for each trip created by the selected vehicle(s) or driver(s).

The following details are required in order to generate this report:

1. The relevant vehicle(s) or driver(s) must be selected.
2. The trip type(s) must be selected.
3. The time and date range of the report must be selected.

Option details for the report include:

- i. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.

5.5.2.11 POI Trip Summary

The POI Trip Summary report highlights the details of activity by the selected vehicle(s) while moving between the selected POI(s).

The following details are required in order to generate this report:

1. The relevant vehicle(s) must be selected.
2. The relevant POI(s) must be selected.
3. The time and date range of the report must be selected.

Option details for the report include:

- i. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.

5.5.2.12 Excessive Drive Time

The Excessive Drive Time report highlights each instance where the selected vehicle(s) or driver(s) drive for more than the allowed period of time without an adequate stop/rest.

The following details are required in order to generate this report:

1. The relevant vehicle(s) or driver(s) must be selected.
2. The minimum driving time must be entered. This is the amount of driving time that a vehicle/driver is allowed to drive before a stop/rest is required.
3. The minimum stop time must be entered. This is the amount of stop/rest time that a vehicle/driver is required to take before continuing to drive.
4. The time and date range of the report must be selected.

Option details for the report include:

- i. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.

5.5.2.13 Late Start / Early Finish

The Late Start / Early Finish report highlights each time the selected vehicle(s) or driver(s) either begin the first trip of the day after the required start time, or end the last trip of the day before the required end time.

The following details are required in order to generate this report:

1. The relevant vehicle(s) or driver(s) must be selected.
2. The time and date range of the report must be selected.

Option details for the report include:

- i. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.
- ii. The late start cut-off time, which is the time by which the first trip of the day should start.
- iii. The early finish cut-off time, which is the time before which the last trip of the day should not end.

5.5.2.14 Input

The Input report highlights the periods during which the selected custom input(s) and/or output(s) were active for the selected vehicle(s).

The following details are required in order to generate this report:

1. The relevant vehicle(s) must be selected.
2. The relevant custom input(s) and/or output(s) must be selected.
3. The time and date range of the report must be selected.

Option details for the report include:

- i. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.

5.5.2.15 System Input

The System Input report highlights the periods during which the selected system input(s) and/or output(s) are active for the selected vehicle(s).

The following details are required in order to generate this report:

1. The relevant vehicle(s) must be selected.
2. The relevant system input(s) and/or output(s) must be selected.
3. The time and date range of the report must be selected.

Option details for the report include:

- i. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.

5.5.2.16 Input - Last Driver

The Input - Last Driver report highlights the periods during which the selected custom input(s) and/or output(s) are active for the selected vehicle(s), with additional details included regarding the last known driver for each vehicle.

The following details are required in order to generate this report:

1. The relevant vehicle(s) must be selected.
2. The relevant custom input(s) and/or output(s) must be selected.
3. The time and date range of the report must be selected.

Option details for the report include:

- i. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.

5.5.2.17 Vehicle/Driver Allocation

The Vehicle/Driver Allocation report details each period where a driver is allocated to a vehicle.

The following details are required in order to generate this report:

1. The time and date range of the report must be selected.

Option details for the report include:

- i. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.

5.5.2.18 Driver ID Tag Usage

The Driver ID Tag Usage report highlights each time a driver presents an ID tag/button to a ID/tag reader in any of the selected vehicle(s).

The following details are required in order to generate this report:

1. The relevant vehicle(s) or driver(s) must be selected.
2. The time and date range of the report must be selected.

Option details for the report include:

- i. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.

5.5.2.19 Fuel

The Fuel report highlights the details of the fuel usage between each refuel captured for the selected vehicle(s).

The following details are required in order to generate this report:

1. The relevant vehicle(s) must be selected.
2. The time and date range of the report must be selected.

Option details for the report include:

- i. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.

Note that this report utilises the fuel transactions captured in the Fuel Log.

5.5.3 Security Reports

5.5.3.1 Geofence

The Geofence report highlights the details of each instance where the selected vehicle(s) are outside one of the selected geofence(s) for longer than a defined period of time.

The following details are required in order to generate this report:

1. The relevant vehicle(s) must be selected.
2. The relevant geofence(s) must be selected.
3. The time and date range of the report must be selected.

Option details for the report include:

- i. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.
- ii. The instance grouping. This breaks the report up by each geofence or by each vehicle.
- iii. The minimum duration, which is the minimum amount of time the vehicle must be outside a geofence in order to appear in the report. The default value for this is 0 minutes.

5.5.3.2 No-Go Zone

The No-Go Zone report highlights the details of each instance where the selected vehicle(s) are inside one of the selected no-go zone(s) for longer than a defined period of time.

The following details are required in order to generate this report:

1. The relevant vehicle(s) must be selected.
2. The relevant no-go zone(s) must be selected.
3. The time and date range of the report must be selected.

Option details for the report include:

- i. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.
- ii. The instance grouping. This breaks the report up by each no-go zone or by each vehicle.
- iii. The minimum duration, which is the minimum amount of time the vehicle must be inside a no-go zone in order to appear in the report. The default value for this is 0 minutes.

5.5.3.3 Unauthorised Use

The Unauthorised Use report highlights each time the selected vehicle(s) or driver(s) generate a new trip during an unauthorised time.

The following details are required in order to generate this report:

1. The relevant vehicle(s) or driver(s) must be selected.
2. The time and date range of the report must be selected.
3. The unauthorised use period(s) must be defined. This is done in half-hour blocks and any activity during any of the selected blocks will be shown in the report.

Option details for the report include:

- i. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.

5.5.3.4 Login

The Login report highlights each time a user logs into the tracking platform.

The following details are required in order to generate this report:

1. The time and date range of the report must be selected.

Option details for the report include:

- i. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.

5.5.3.5 Alert Listing

The Alert Listing report highlights all alerts of the selected alert type(s) that are generated against the selected vehicle(s) or driver(s).

The following details are required in order to generate this report:

1. The relevant alert type(s) must be selected.
2. The relevant vehicle(s) or driver(s) must be selected.
3. The time and date range of the report must be selected.

Option details for the report include:

- i. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.

5.5.4 Dispatch Reports

5.5.4.1 Stop Listing

The Stop Listing report highlights the details of each stop that is assigned to a vehicle.

The following details are required in order to generate this report:

1. The time and date range of the report must be selected.

Option details for the report include:

- i. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.
- ii. The stop grouping. This groups the report results by vehicle or by customer.

5.5.4.2 Plan vs Actual Summary

The Plan vs Actual Summary report provides a count of the number of stops assigned to each of the selected vehicle(s) or driver(s), as well as details of each unplanned stop that was completed.

The following details are required in order to generate this report:

1. The relevant vehicle(s) or driver(s) must be selected.
2. The relevant customer(s) must be selected.
3. The time and date range of the report must be selected.

Option details for the report include:

- i. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.
- ii. The report grouping. This groups the report results by vehicle, by driver or by customer.
- iii. The unplanned stop duration, which defines how much time a vehicle must spend in an unplanned location in order to be considered as an unplanned stop. The default value for this is 0 minutes.

5.5.5 System Reports

5.5.5.1 User Listing

The User Listing report provides a list of all users within the account, including email address, phone number and user group details.

Option details for the report include:

- i. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.

5.5.5.2 Vehicle Listing

The Vehicle Listing report provides a list of all vehicles within the account, including vehicle group and odometer details.

Option details for the report include:

- i. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.

5.5.5.3 Vehicle Details

The Vehicle Detail report provides the most recent location details, as well the odometer value and all custom data fields for the selected vehicle(s).

The following details are required in order to generate this report:

1. The relevant vehicle(s) must be selected.

Option details for the report include:

- i. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.

5.5.5.4 Driver Listing

The Driver Listing report provides a list of all drivers within the account, including driver group, currently assigned vehicle and driver tag details.

Option details for the report include:

- i. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.

5.5.5.5 Garmin Messages

The Garmin Message report provides details of each message sent to a Garmin device installed in the selected vehicle(s).

The following details are required in order to generate this report:

1. The relevant vehicle(s) must be selected.
2. The time and date range of the report must be selected.

Option details for the report include:

- i. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.

5.5.5.6 POI List

The POI List report provides a list of all POI's within the account, including location, diameter, description and POI type details.

The following details are required in order to generate this report:

1. The relevant point(s) of interest must be selected.

Option details for the report include:

- i. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.

5.5.5.7 No-Go Zone List

The No-Go Zone List report provides a list of all no-go zones within the account, including location, diameter, description and no-go zone type details.

The following details are required in order to generate this report:

1. The relevant no-go zone(s) must be selected.

Option details for the report include:

- i. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.

5.5.5.8 Geofence List

The Geofence List report provides a list of all geofences within the account, including location, diameter, description and geofence type details.

The following details are required in order to generate this report:

1. The relevant geofence(s) must be selected.

Option details for the report include:

- i. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.

5.5.5.9 Generated Reports

The Generated Reports report provides details of each report generated by the selected user(s), including the report type and the time/date the report was generated.

The following details are required in order to generate this report:

1. The relevant user(s) must be selected.
2. The time and date range of the report must be selected.

Option details for the report include:

- i. The report name, which can be useful when looking for the report results in the 'Previous Reports' tab.

6 Alerts

The Alert module provides users with the ability to set up a number of parameters which the tracking platform then monitors in real-time. If any of the parameter rules are broken or thresholds crossed, the tracking platform will immediately alert the selected users via their [message box](#), as well as email and/or SMS (depending on the alert settings).

6.1 Creating an Alert

To create an alert, a user can do the following:

1. Select the relevant alerts from the alert listing on the left-side of the website.
2. Click the **+** button at the top, right of the website.
3. Complete the relevant details in the Settings tab.
4. Create 1 or more [alert schedules](#) in the Schedule tab.
5. Once the user clicks 'Save', the alert is created and begins monitoring for the relevant data/events.

6.2 Alert Recipients and Editors

For each alert that is created, the recipient(s) and delivery format(s) can be defined in the 'Send To' section within the setting tab of the alert details. Recipients can be users or drivers, and these are selected from the relevant drop-down lists. The alert delivery formats are selected by checking the box for SMS and/or email (Note that the 'Message Box' option is always selected).

6.3 Alert Schedules

An alert schedule defines when the alert is actively monitoring or when the alert is dormant. This can be used to create alerts that monitor over weekends, during work hours, after hours, etc.

To create a schedule, a user can do the following:

1. Select the 'Schedule' tab in the alert details and then click the **+** button on the right-side of the website.
2. Complete the 'Name' field.
3. Select the start and end dates over which the schedule will be in operation.

4. Select the time zone of the schedule.
5. Select the status of the schedule.
6. Select the active times of the schedule. This can be done by highlighting the active times in the weekly schedule area where each day is broken into half-hour blocks. A user can click and drag to highlight multiple blocks, or can select an entire day or time by clicking on the relevant row/column title.

Once created, the schedule defines when the alert is 'awake'. If the relevant activity (to trigger the alert) happens when the schedule is active, then the alert will result in a message being sent to the relevant users. If the alert schedule is not active at that time, then no message is generated as the alert is deemed to NOT trigger.

6.4 Types of Alerts

6.4.1 Activity Alerts

6.4.1.1 Speeding

The Speeding alert highlights each time the selected vehicle(s) exceed a given speed limit for more than a defined period of time.

The following details are required in order to generate this alert:

1. The alert must be given a name.
2. The relevant vehicle(s) must be selected.
3. The upper and/or lower speed limit must be entered. The alert will trigger if the vehicle goes above the upper limit or below the lower limit
4. The duration must be entered. This is the amount of time that the vehicle must be above the upper or below the lower limit for the alert to trigger.

Optional details for the alert include:

Block Editing This prevents any other user (except a super user) editing the alert details.

Enabled This allows the user to disable the alert without deleting it completely (disabled means that the alert will not trigger).

6.4.1.2 Speeding (Road Speed)

The Speeding (Road Speed) alert highlights each time the selected vehicle(s) exceeds the posted road speed limit for more than a defined period of time. Note that this alert is based on the road speed data provided by Google, and as such the alert's accuracy is determined by the accuracy of Google's data for any particular segment of the road network.

The following details are required in order to generate this alert:

1. The alert must be given a name.
2. The relevant vehicle(s) must be selected.
3. The duration must be entered. This is the amount of time that the vehicle must be above the upper or below the lower limit for the alert to trigger.

Optional details for the alert include:

Block Editing This prevents any other user (except a super user) editing the alert details.

Enabled This allows the user to disable the alert without deleting it completely (disabled means that the alert will not trigger).

6.4.1.3 Idle

The Idle alert highlights each time the selected vehicle(s) or driver(s) idle for longer than a defined period of time.

The following details are required in order to generate this alert:

1. The alert must be given a name.
2. The relevant vehicle(s) must be selected.
3. The idle limit must be entered. This is the amount of time that the vehicle must idle in order for the alert to trigger.

Optional details for the alert include:

Block Editing This prevents any other user (except a super user) editing the alert details.

Enabled This allows the user to disable the alert without deleting it completely (disabled means that the alert will not trigger).

6.4.1.4 Stop

The Stop alert highlights each time the selected vehicle(s) or driver(s) stop for longer than a defined period of time.

The following details are required in order to generate this alert:

1. The alert must be given a name.
2. The relevant vehicle(s) must be selected.
3. The stop limit must be entered. This is the amount of time that the vehicle must idle in order for the alert to trigger.

Optional details for the alert include:

Block Editing This prevents any other user (except a super user) editing the alert details.

Enabled This allows the user to disable the alert without deleting it completely (disabled means that the alert will not trigger).

6.4.1.5 Odometer

The Odometer alert highlights each time the selected vehicle(s) reach a certain distance and provides a user determined early warning notification.

The following details are required in order to generate this alert:

1. The alert must be given a name.
2. The relevant vehicle(s) must be selected.
3. The occurrence period limit must be entered. This determines if the alert should only trigger once the odometer level reaches the chosen limit (Once on) or if the alert should trigger on a recurring basis every time the odometer increases by the chosen limit (Every).
4. The odometer limit that will trigger the once-off or recurring alert.
5. The amount of early warning that the alert should provide to the user(s) before the vehicle(s) reach the odometer limit. e.g. if the odometer limit is 5000km and the early warning amount is 250km, then the tracking platform will send an early warning at 4750km and the full alert message at 5000km.

Optional details for the alert include:

- Block Editing** This prevents any other user (except a super user) editing the alert details.
- Enabled** This allows the user to disable the alert without deleting it completely (disabled means that the alert will not trigger).

6.4.1.6 Engine Time

The Engine Time alert provides the user with notification when the engine has reached a determined running time.

The following details are required in order to generate this alert:

1. The alert must be given a name.
2. The relevant vehicle(s) must be selected.
3. The occurrence period limit must be entered. This determines if the alert should only trigger once when the engine hours reach the chosen limit (Once on) or if the alert should trigger on a recurring basis every time the engine hours increase by the chosen limit (Every).
4. The engine hour limit that will trigger the once-off or recurring alert.
5. The amount of early warning that the alert should provide to the user(s) before the vehicle(s) reach the engine hours limit. e.g. if the engine hour limit is 5000 hours and the early warning amount is 2500 hours, then the tracking platform will send an early warning at 4750 hours and the full alert message at 5000 hours.

Optional details for the alert include:

- Block Editing** This prevents any other user (except a super user) editing the alert details.
- Enabled** This allows the user to disable the alert without deleting it completely (disabled means that the alert will not trigger).

6.4.1.7 Battery Level

The Battery Level alert highlights when the internal tracker battery reaches a determined percentage level.

The following details are required in order to generate this alert:

1. The alert must be given a name.

2. The relevant vehicle(s) must be selected.
3. The relevant battery sensor(s) must be selected.
4. The battery limit must be entered. This is the percentage below which the alert will trigger.

Optional details for the alert include:

Block Editing This prevents any other user (except a super user) editing the alert details.

Enabled This allows the user to disable the alert without deleting it completely (disabled means that the alert will not trigger).

6.4.1.8 Temperature Variation

The Temperature Variation Alert informs the user on variations in the engine running temperature.

The following details are required in order to generate this alert:

1. The alert must be given a name.
2. The relevant vehicle(s) must be selected.
3. The relevant temperature sensor(s) must be selected.
4. The upper and/or lower temperature limit must be entered. The alert will trigger if the temperature goes above the upper limit or below the lower limit.

Optional details for the alert include:

Block Editing This prevents any other user (except a super user) editing the alert details.

Enabled This allows the user to disable the alert without deleting it completely (disabled means that the alert will not trigger).

6.4.1.9 Fuel Level (Low Fuel Level)

The Fuel level (Low Fuel level) alert notifies the user when the units fuel level reaches a determined level.

The following details are required in order to generate this alert:

1. The alert must be given a name.

2. The relevant vehicle(s) must be selected.
3. The relevant fuel sensor(s) must be selected.
4. The fuel level limit must be entered. The alert will trigger if the fuel level goes below the limit.

Optional details for the alert include:

Block Editing This prevents any other user (except a super user) editing the alert details.

Enabled This allows the user to disable the alert without deleting it completely (disabled means that the alert will not trigger).

6.4.1.10 Fuel Level (Sudden Decrease)

The Fuel Level Sudden Decrease alert informs the user when there has been a sudden drop in fuel level.

The following details are required in order to generate this alert:

1. The alert must be given a name.
2. The relevant vehicle(s) must be selected.
3. The relevant fuel sensor(s) must be selected.
4. The quantity of the decrease must be entered. The alert will trigger if the fuel level drops by this amount of litres (or more) in the time period specified.
5. The maximum time for the fuel decrease to occur in order for the alert to trigger.
6. The default alert behaviour is to identify sudden fuel decreases at any time (irrespective of whether the vehicle is moving or not, and irrespective of whether ignition is on/off). To enable the alert to only identify drops when the vehicle is stationary and/or only when the ignition is off, check the relevant option.

Optional details for the alert include:

Block Editing This prevents any other user (except a super user) editing the alert details.

Enabled This allows the user to disable the alert without deleting it completely (disabled means that the alert will not trigger).

6.4.1.11 Driving Hours

The Driving Hours alert notifies the user when a driver has reached the predetermined limit in driving hours, the user is also able to create an early warning alert using the "early warning hours" feature, which will provide early notice prior to reaching the limit. The alerts time frame can be adjusted to a daily, weekly and fortnightly time frame.

The following details are required in order to generate this alert:

1. The alert must be given a name.
2. The relevant driver(s) must be selected.
3. The timeframe of the alert must be chosen. This determines whether the alert is monitoring driving times on a daily, weekly or fortnightly (2 week) basis.
4. The starting time of the alert, which tells the alert when to begin monitoring the driving hours each day/week/fortnight.
5. The driving hour limit must be entered. This is the level at which an alert message is triggered.
6. The amount of early warning that the alert should provide to the user(s) before the driver(s) reach the driving hour limit. e.g. if the driving hour limit is 50 hours in a week and the early warning amount is 2 hours, then the tracking platform will send an early warning at 48 hours and the full alert message at 50 hours.

Optional details for the alert include:

Block Editing This prevents any other user (except a super user) editing the alert details.

Enabled This allows the user to disable the alert without deleting it completely (disabled means that the alert will not trigger).

6.4.1.12 Sensor Variance

The Sensor Variance alert notifies the user when there are variances in the sensor limits.

The following details are required in order to generate this alert:

1. The alert must be given a name.
2. The relevant vehicle(s) must be selected.
3. The relevant sensor(s) must be selected.

4. The upper and/or lower sensor limit must be entered. The alert will trigger if the sensor value goes above the upper limit or below the lower limit.

Optional details for the alert include:

Block Editing This prevents any other user (except a super user) editing the alert details.

Enabled This allows the user to disable the alert without deleting it completely (disabled means that the alert will not trigger).

6.4.2 Productivity Alerts

6.4.2.1 POI Visits

The POI Visits alert notifies the user when a vehicle enters/exits a point of interest.

The following details are required in order to generate this alert:

1. The alert must be given a name.
2. The relevant vehicle(s) must be selected.
3. The relevant points(s) of interest must be selected.
4. The alert type must be selected (alert on entry or alert on exit).

Optional details for the alert include:

Block Editing This prevents any other user (except a super user) editing the alert details.

Enabled This allows the user to disable the alert without deleting it completely (disabled means that the alert will not trigger).

6.4.2.2 POI Non-Entry

The POI Non-Entry alert notifies the user when a vehicle has not entered a POI for a defined period of time.

The following details are required in order to generate this alert:

1. The alert must be given a name.
2. The relevant vehicle(s) must be selected.

3. The relevant points(s) of interest must be selected.
4. The time period in which the POI must be visited. This means that no POI should go unvisited for more than this period of time.

Optional details for the alert include:

Block Editing This prevents any other user (except a super user) editing the alert details.

Enabled This allows the user to disable the alert without deleting it completely (disabled means that the alert will not trigger).

6.4.2.3 Route Geofence

The Route Geofence alert notifies the user when a vehicle has deviated from its route.

The following details are required in order to generate this alert:

1. The alert must be given a name.
2. The relevant vehicle(s) must be selected.
3. The relevant route(s) must be selected.

Optional details for the alert include:

Block Editing This prevents any other user (except a super user) editing the alert details.

Enabled This allows the user to disable the alert without deleting it completely (disabled means that the alert will not trigger).

6.4.2.4 Input/Output

The Input/Output alert notifies the user when the selected inputs/outputs on the selected vehicle(s) are activated.

The following details are required in order to generate this alert:

1. The alert must be given a name.
2. The relevant vehicle(s) must be selected.
3. The relevant input(s) and output(s) must be selected.

Optional details for the alert include:

Block Editing This prevents any other user (except a super user) editing the alert details.

Enabled This allows the user to disable the alert without deleting it completely (disabled means that the alert will not trigger).

6.4.2.5 Important Dates

The Important Dates alert informs the user when a recorded date has been reached.

The following details are required in order to generate this alert:

1. The alert must be given a name.
2. The relevant important date(s) must be selected.
3. The amount of early warning that the alert should provide to the user(s) before the date(s) expire. e.g. if a date is set to expire on 21 September and the early warning amount is 48 hours, then the tracking platform will send an early warning on 19 September and the full alert message on 21 September.

Optional details for the alert include:

Block Editing This prevents any other user (except a super user) editing the alert details.

Enabled This allows the user to disable the alert without deleting it completely (disabled means that the alert will not trigger).

6.4.3 Security Alerts

6.4.3.1 Geofence

The Geofence alert highlights the details of each instance where the selected vehicle(s) move outside one of the selected geofence(s).

The following details are required in order to generate this alert:

1. The alert must be given a name.
2. The relevant vehicle(s) must be selected.
3. The relevant geofence(s) must be selected.

Optional details for the alert include:

Block Editing This prevents any other user (except a super user) editing the alert details.

Enabled This allows the user to disable the alert without deleting it completely (disabled means that the alert will not trigger).

6.4.3.2 No-Go Zone

The No-Go Zone alert informs the user when a vehicle has entered into a select no-go zone.

The following details are required in order to generate this alert:

1. The alert must be given a name.
2. The relevant vehicle(s) must be selected.
3. The relevant no-go zone(s) must be selected.

Optional details for the alert include:

Block Editing This prevents any other user (except a super user) editing the alert details.

Enabled This allows the user to disable the alert without deleting it completely (disabled means that the alert will not trigger).

6.4.3.3 Unauthorised Use

The Unauthorised Use alert highlights each time the selected vehicle(s) or driver(s) generate a new trip during an unauthorised time. The unauthorised time is determined by the [alert schedule](#), so if the alert is active, then that means that it will send an alert message if there is any activity on the vehicle(s).

The following details are required in order to generate this alert:

1. The alert must be given a name.
2. The relevant vehicle(s) must be selected.

Optional details for the alert include:

Block Editing This prevents any other user (except a super user) editing the alert details.

Enabled This allows the user to disable the alert without deleting it completely (disabled means that

the alert will not trigger).

6.4.3.4 Unauthorised Movement

The Unauthorized Movement alert notifies the user when the vehicle moves while the ignition is turned off.

The following details are required in order to generate this alert:

1. The alert must be given a name.
2. The relevant vehicle(s) must be selected.

Optional details for the alert include:

Block Editing This prevents any other user (except a super user) editing the alert details.

Enabled This allows the user to disable the alert without deleting it completely (disabled means that the alert will not trigger).

6.4.3.5 Data Interval

The Data Interval alert notifies the user when there is a break in data transmission after a determined time-frame.

The following details are required in order to generate this alert:

1. The alert must be given a name.
2. The relevant vehicle(s) must be selected.
3. The amount of time a device must remain silent in order to trigger an alert.

Optional details for the alert include:

Block Editing This prevents any other user (except a super user) editing the alert details.

Enabled This allows the user to disable the alert without deleting it completely (disabled means that the alert will not trigger).

6.4.3.6 System Inputs

The System Inputs alert notifies the user when a system input/output is activated and/or deactivated.

The following details are required in order to generate this alert:

1. The alert must be given a name.
2. The relevant vehicle(s) must be selected.
3. The relevant input(s) and/or output(s) must be selected.
4. The alert type must be selected (alert on activation and/or alert on deactivation).

Optional details for the alert include:

Block Editing This prevents any other user (except a super user) editing the alert details.

Enabled This allows the user to disable the alert without deleting it completely (disabled means that the alert will not trigger).

6.4.4 Dispatch Alerts

6.4.4.1 ETA

The ETA alert notifies the user when a driver's scheduled arrival time for a [stop](#) is outside of the allowed variance (i.e. the driver is going to arrive too early or too late).

The following details are required in order to generate this alert:

1. The alert must be given a name.
2. The relevant customer(s) must be selected.
3. The lower limit must be entered (i.e. how early should the driver be for an alert to be generated), as well as the upper limit (i.e. how late should the driver be for an alert to be generated).
4. The ETA variance should be entered (i.e. once the alert has sent once due to the driver being early/late, then how much must his ETA change in order for the system to send an update alert).

Optional details for the alert include:

Block Editing This prevents any other user (except a super user) editing the alert details.

Enabled This allows the user to disable the alert without deleting it completely (disabled means that the alert will not trigger).

6.4.4.2 Duration Variance

The Duration Variance alert notifies the user when a driver's time spent at a [stop](#) is outside of the allowed variance (i.e. the driver remains at the stop too long, or not long enough).

The following details are required in order to generate this alert:

1. The alert must be given a name.
2. The relevant customer(s) must be selected.
3. The lower limit must be entered (i.e. how many minutes less than the scheduled duration should trigger the alert), as well as the upper limit (i.e. how many minutes more than the scheduled duration should trigger the alert).

Optional details for the alert include:

Block Editing This prevents any other user (except a super user) editing the alert details.

Enabled This allows the user to disable the alert without deleting it completely (disabled means that the alert will not trigger).

6.4.4.3 Late Arrival/Start

The Late Arrival/Start alert notifies the user when a driver's arrival at a stop is later than the scheduled time by more than the allowed variance.

The following details are required in order to generate this alert:

1. The alert must be given a name.
2. The relevant customer(s) must be selected.
3. The allowed variance must be entered (i.e. how many minutes late must the driver arrive to trigger an alert).

Optional details for the alert include:

Block Editing This prevents any other user (except a super user) editing the alert details.

Enabled This allows the user to disable the alert without deleting it completely (disabled means that the alert will not trigger).

6.4.4.4 Non-Arrival/Start

The Non-Arrival/Start alert notifies the user when the driver has not arrived at a stop within the allowed timeframe.

The following details are required in order to generate this alert:

1. The alert must be given a name.
2. The relevant customer(s) must be selected.
3. The allowed variance must be entered (i.e. how many minutes late must the driver be in order to trigger an alert).

Optional details for the alert include:

Block Editing This prevents any other user (except a super user) editing the alert details.

Enabled This allows the user to disable the alert without deleting it completely (disabled means that the alert will not trigger).

6.4.4.5 Location Non-Entry

The Location Non-Entry alert notifies the user when a vehicle has not entered a customer location for a defined period of time.

The following details are required in order to generate this alert:

1. The alert must be given a name.
2. The relevant vehicle(s) must be selected.
3. The relevant customer location(s) must be selected.
4. The time period in which the location(s) must be visited. This means that no location should go unvisited for more than this period of time.

Optional details for the alert include:

Block Editing This prevents any other user (except a super user) editing the alert details.

Enabled This allows the user to disable the alert without deleting it completely (disabled means that the alert will not trigger).

6.4.5 Compound Alerts

6.4.5.1 Compound Alert

A Compound alert is a highly customizable, user-defined alert mechanism which allows a user to set a complex monitoring scenario that triggers when multiple events occur at the same time.

The following details are required in order to generate this alert:

1. The alert must be given a name.
2. The relevant vehicle(s) must be selected.
3. One or more [criteria](#) must be created that must all be 'true' at the same time in order for the alert to trigger.

Optional details for the alert include:

Block Editing This prevents any other user (except a super user) editing the alert details.

Enabled This allows the user to disable the alert without deleting it completely (disabled means that the alert will not trigger).

6.4.5.1.1 Criteria

A Compound alert always consists of 1 or more criteria. Each criterion operates as a true/false requirement, and in order for the Compound alert to trigger, all criteria must be true at the same time. The options for criteria are:

Speed Above The speed must be above the specified value (and must have been above the specified value for the duration that has been set).

Speed Range The speed must be within the specified range (and must have been within the specified range for the duration that has been set).

Speed Below The speed must be below the specified value (and must have been below the specified value for the duration that has been set).


Idle The vehicle must be idling (and must have been idling for the duration that has been set).

Stop The vehicle must be stopped (and must have been stopped for the duration that has been set).

Inside Location	The vehicle must be inside one of the selected locations (and must have been inside the location for the duration that has been set).
Outside Location	The vehicle must be outside all of the selected locations (and must have been outside all the locations for the duration that has been set).
Inputs/Outputs Active	One of the selected inputs/outputs must be active (and must have been active for the duration that has been set).

Once all the criteria that are set up within the Compound alert are all true at the same time, the alert will trigger.

7 Tickets

The ticket section  provides users with the ability to create and manage tickets that can be sent to their tracking service provider, or to users within their company. A user is emailed if there is a change to any tickets they have previously taken part in so that all relevant users are always up-to-date with any changes or updates in their tickets.

In addition, a user can always see a list of any of their tickets in the ticket section, allowing the user to keep track of all their tickets and to ensure that all their tickets are followed-up on.

7.1 Quick Ticket

To create a new ticket, hover over the ticket icon in the upper right corner of the screen and select the 'Quick Ticket' option. The following details can be entered to create a new ticket:

- The name/title of the ticket.
- The initial recipient of the ticket.
- The ticket message. This should contain all the details highlighting why the ticket was raised.
- Any relevant attachments, such as a Word or Excel document, an image file, etc.


The Quick Ticket function also allows the user to take a screenshot of the page behind the ticket panel. To do this, click the screenshot icon towards the top right of the screen and a screenshot image automatically attaches it to the ticket.

7.2 Ticket List

The ticket list provides the user with a table of tickets created. The user is able to filter through their ticket list by using the filter options in the upper left corner of the ticket panel.

Clicking on any ticket in the list will open the ticket details and allow the user to add a new comment by clicking the 'Add Comment' icon to the right of the ticket title. A new comment consists of a message, as well as the ability to re-assign the ticket to a different user within the platform.

8 Message Box

The message box  is a collection of all the user's messages generated by the tracking platform. To open the message box, click the envelope icon at the top right of the screen. Hovering the mouse over the envelope icon will show the user how many unread messages they currently have in their message box. If they have 0 unread messages, the envelope icon appears white instead of being highlighted.

Once open, the mailbox lists all the messages that the user has received, and all unread messages have a bold subject line with a filled-in envelope icon on the right side of the listing. To read a message, click the relevant message in the list and the message opens in a new panel. After closing the message, it is now marked as 'read' in the listing with a non-bold subject line and the envelope icon shows as an outline.

To assist in managing messages, a user can choose to mark messages as read (or delete messages entirely) by checking the check-box on the left side of the selected messages and then clicking the relevant button at the bottom of the message listing.

9 User Settings

The User Settings module, located in the upper right corner of the tracking platform, provides the user with the options required to customise the tracking platform to suit their needs. The various options available to the user can be found across the following tabs:

- System** These are the settings that control the language, time zone, and all the 'units' shown to the user (such as litres vs gallons, miles vs kilometers, etc). The user can also choose options related to how long messages stay in their [message box](#), their default screen they see when they log in, as well as the ability to enable/disable the audible alert, choose the colour theme and the on-screen message notifier.
- Map Preferences** This controls which map is the default for the user (when they go to the Tracking page, etc) and also allows the user to customise what items appear on the map. The user can choose which items do and do not appear, as well as what 'zoom level' the items appear at (1 means the item displays when the map is zoomed very far out, and 20 means the user must be zoomed very close for the item to appear). The user can also enable or disable dynamic label sizing, which means the labels will get smaller as the user zooms the map out.
- Tracking** These settings control how the Tracking page will display the vehicles to the user when the filter is set to 'Today'. The user has the ability to hide or show each information section, meaning the list of vehicles can be as comprehensive or sparse as required. In addition, the user has options to move items up the list (if they have active inputs), to force the map to re-centre each time it refreshes, to show the last known driver (if a vehicle has no current driver), to show all inputs (even inactive inputs) and to change all the icons to the movement status icon (instead of the [vehicle/unit icon](#)).
- Change Password** This allows the user to edit their password.