Mapping and Geofencing

Map display of Vehicles, Drivers, Geofences with Landmarks and Vehicle/Driver Geofence Events

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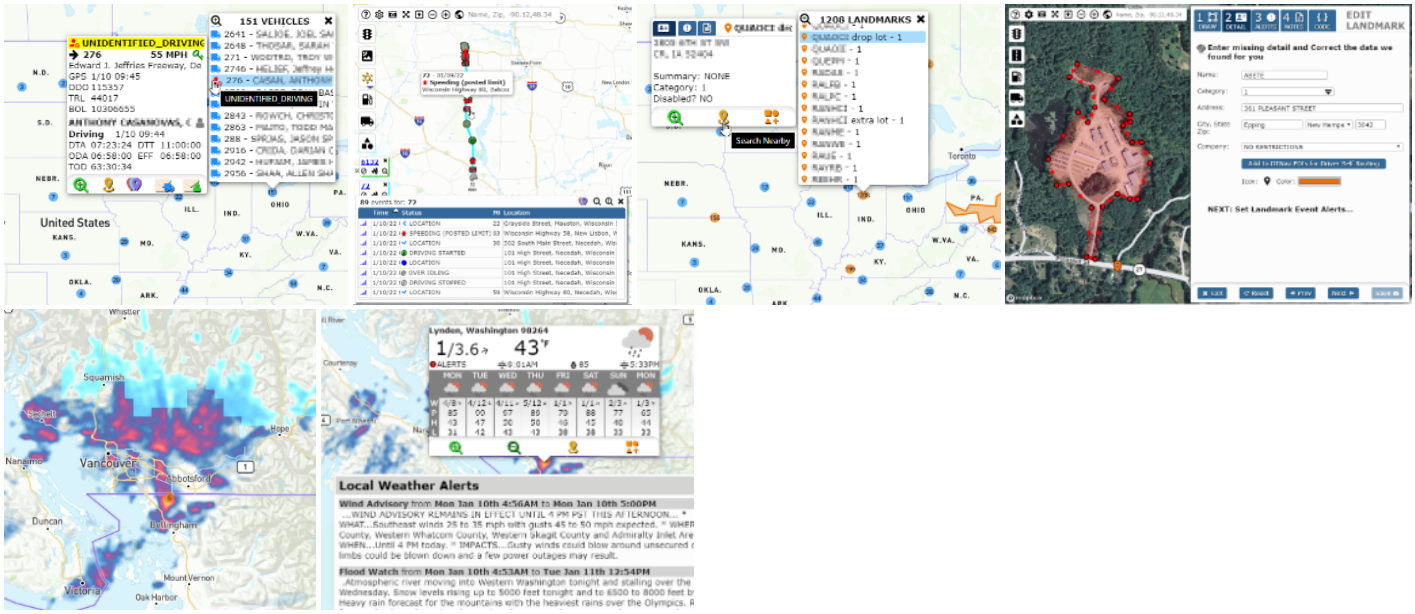
- See Also

Asset Tracking with Geofences and Routing to Landmarks

DriverTech Mapping provides the ability to view Vehicles, Vehicle/Driver Event History, Geofences, Fueling Locations, Weather Radar, Weather Forecast and perform interactive actions on these items:



Requirements

Geofence Events will only be generated from ELD running v6.08+
All other Mapping features are supported across all current versions of ELD

Map Assistance Controls

Map assistance control bar is located at the Top-Left corner and provides the following capabilities

Help

Opens up this page in a window.

Settings

Provides ability to override default settings on the Vehicles/Geofences/Fuel layers:

- Satellite view ON /OFF by default
- Marker Icon Size
- Marker Icon Color
- Marker Text display ON/OFF
- Default Icon Image (for Geofence creation)
- Toggle layer ON /OFF by default
- Cluster Radius (more or fewer clusters)

Screenshot

Saves an image of the current view of map.

Fullscreen

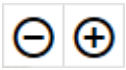
Toggle the map to completely fill the screen.

Tilt and Rotate

Click+Hold button to Tilt and Rotate Map.

You may also right+click+hold over the Map to perform this action.

TO RESET THE VIEW: Click this button



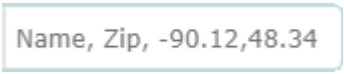
Zoom Out/In

Decrease/Increase view level of map.

This can also be accomplished by using the mouse scroll wheel.

Zoom to Features

Adjust zoom level of map to display all available items on map.



Location or Place Search

Search for an arbitrary location or place.

Results of search text will be constrained to the current map
view (i.e. results prioritized to nearest center of map within
the visible area)

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Toggle Controls

Toggles provide a rapid way to Show/Hide/Change specific layers and data on the Map
The Search Control provides an alternate way to Show or Filter Vehicles/Drivers, Geofences, or Fuel

Traffic layer toggle

Toggles display of Traffic On/Off.
Traffic provides congestion information that is constantly updated every 5 minutes, with road geometries originating from OpenStreetMap.

- Traffic will only be visible when zoomed in to an appropriate detail level (i.e. city)

Weather Radar toggle

Toggles Weather Radar On/Off

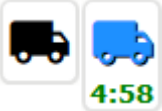
Satellite/Street layer toggle

Toggles the background rendering between Street and Satellite

- Satellite view will automatically be enabled when zoomed in to an appropriate detail level (i.e. city block)

Fuel layer toggle

Toggles display of Fuel Stops On/Off



Vehicle layer toggle

Toggles display of Vehicles/Drivers On/Off.
When toggled ON a timer will display when the new auto-refresh will occur. You may click on the timer to refresh immediately

- Hovering the over the Icon will display a tooltip which provides details about how many items are currently populated

Geofence layer toggle

Toggles display of Geofences On/Off

- Hovering the over the Icon will display a tooltip which provides details about how many items are currently populated

Search and Results Controls

Search, Results and Geofence Creation Controls are located at the Top Right of the Map View

Search Panel

Allows for searching/filtering of specific Vehicles/Drivers or Geofences.

When a search/filter is is active, the Vehicle and Geofence Toggle Controls will indicate accordingly:

RED Left Border Indicates the Vehicle layer is being filtered. You may hover your mouse over the Icon to view a tooltip which provides details about how many items are currently populated.

RED Left Border Indicates the Geofence layer is being filtered. You may hover your mouse over the Icon to view a tooltip which provides details about how many items are currently populated.

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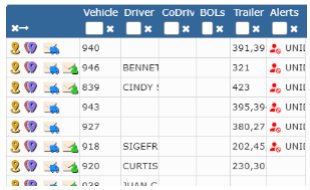
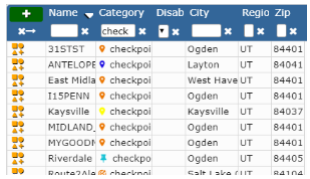
Results Panel - **the best** way to locate an item on the Map

Displays records currently loaded on the map by either Toggle or Search for Vehicles/Drivers, Geofence and Fuel Stops, split into three separate tabs each with filtering and custom actions:

Vehicles Tab



Geofences Tab



Fuel Stations Tab

Geofence Create/Edit Panel

Allows for Creating and Editing Geofence detail and its associated Geofence

Click here for detail on how to Add/Edit Geofences

Viewing Vehicle, Geofence and Fuel Detail

Items on the map which can be selected include Vehicles, Geofences and Fuel locations, a
When Clicked or Touched a callout will appear providing information and available acti
The following provides detail on what each type of marker provides. See General Controls (below) for inform

Vehicle Markers and Clusters

Indicates a Moving Vehicle and Indicates a Stationary Vehicle

Clicking on a Vehicle Marker will open a window with further details/options for the Vehicle:

Zoom to Vehicle

Search nearby Vehicle

Search for Vehicle and Driver Events

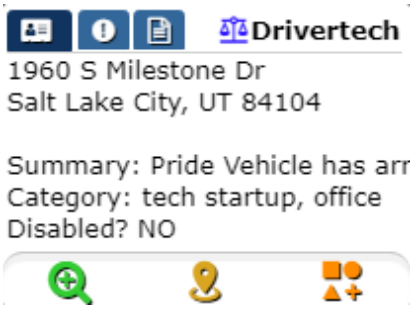
Send Message to Vehicle

Send Message to Driver

Geofence Markers and Clusters

Indicates the Routing point of the Geofence as a Landmark.
Icon may vary depending on the icon chosen when the Geofence was created.

Clicking on a Geofence Polygon or a Landmark Marker will open a window with furtl Geofence:



General Information

Alert Information

Miscellaneous Information

Zoom to Geofence

Search nearby Geofence

Edit Geofence details

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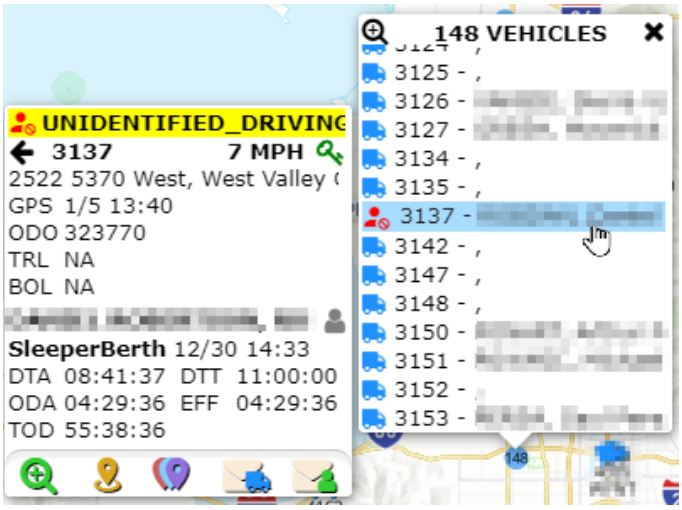
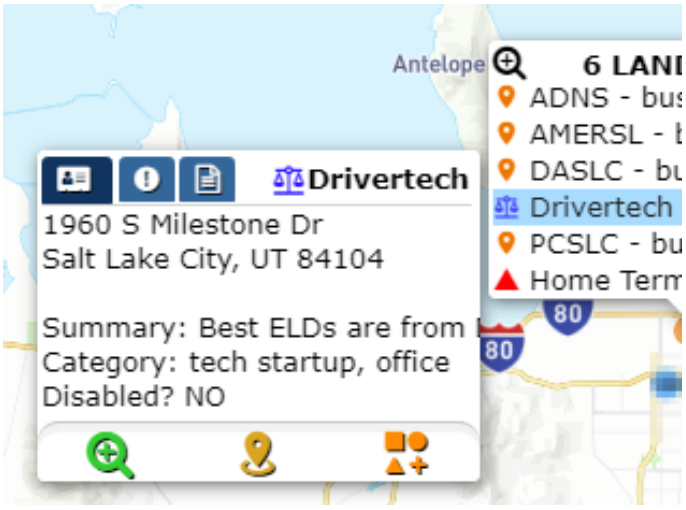
35 Indicates a Cluster of Vehicles.
Clicking or Hovering a Cluster will open a List of selectable Vehicles:



2 Indicates a Cluster of Geofences.
Clicking or Hovering a Cluster will open a List of selectable Geofences:



Vehicle/Driver Events Control

Historical vehicle events can be displayed on the map with a a specific icon and color for each event type for easy visual identification of Driver/Vehicle activity, route and direction over your desired date range.

Currently available events that can be selected are:

General Events	HOS Events	Geofence Events
• Unassigned Driving • Speeding • Over Idle • Over RPM • Deceleration • Emergency • Power Loss • Sensor Jump • Coasting • Hook/Drop • Driving Start • Positions	• Violations • Warnings • Yard Move • Personal Use	• Entry • Duration • Exit

Searching for and Interacting with Vehicle/Driver Events		
FIRST	**NEXT**	**FINALLY**

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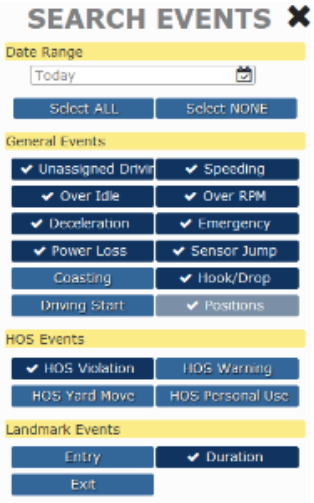
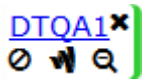
To View the Vehicle/Driver Events locate this Icon using one of the following scenarios:

1. Click on a Vehicle or Driver Icon
2. Click on a Cluster and select a Vehicle or Driver
3. Click on the 'Results' icon at the top right, then click on the Vehicle Tab if not already selected

Clicking this icon for a vehicle will bring up the Vehicle Events search pane (click to enlarge):



Upon clicking `[Get Results]`, the following control will be added to the map for that particular vehicle which can be used to navigate and view the events provided:



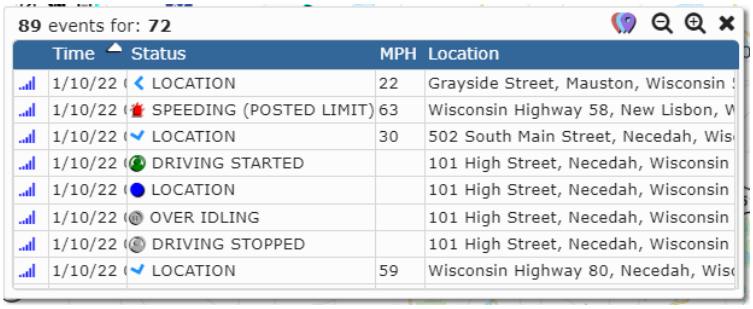
DTQA1 Vehicle Name - Click to open list of events for vehicle (shown below on next row)

/ hide/show events for vehicle on the map

hide /show lines connecting each event for vehicle

zoom to events for vehicle

remove events for vehicle from the map



zoom to events

zoom to vehicle

close list of events

Geofences with Landmarks

Geofences represent various points of interest on the map which include the Landmark (a routing point) and a Geofence Polygon.

👍 New and Modified Geofences are synchronized with your ELDs within only a few minutes of being created or edited.

👍 Geofence Entry, Duration and Exit events are detected on the ELD itself (not via a backend server process using historical position data) which ensures near-realtime notification to Drivers, Managers and API Integrations!

Requirements

Geofence Events will only be generated from ELD running v6.07+
All other Mapping features are supported across all current versions of ELD

Limitations and Restrictions

- Companies cannot create more than 30,0000 Geofences
- Geofence Polygons cannot contain more than 3,000 vertices
- Geofences cannot be immediately deleted but can be "marked for deletion" (soft delete) and will be pruned from the system after an appropriate amount of time has passed.

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Mapping and Geofencing

Use Cases

Anything which is of interest to capture Entry of, Duration within, Fuel consumed within, Miles moved within and Exit has potential for creating a Geofence.

For Example:

- **Customer Locations**
- **Customer Location sub-divided by Loading Dock** to allow Driver Routing to the a specific area of the Customers Yard
  - You may want to create a Geofence for each Dock area at very large distribution centers or yards
- **Company Terminals**
  - Allows tracking of Miles and Fuel to enable deductions of movement within your own yards
- **Counties which maintain their own Fuel Tax regulations**
  - Some counties offer Fuel Tax breaks which can be beneficial for companies to take advantage of. We recommend that you create a Geofence for each that you utilize often in order to gather the data required for filing with the State/County.
  - It is not necessary for you to create Geofences for Each State or Province because DriverTech automatically includes these and provides the data within the State Mileage, Regional Crossing and Trip Detail reports.
- **Oil Field Pumps or Pump Groups**
  - Allows for routing AND confirmation that a Vehicle/Driver was in an area of an Oil Field for necessary amount of time to perform duties
- **Toll Roads**
  - You may want to alert the Driver if he is approaching a point of no-return toward a Toll Road
- **Shipping Lanes**
  - Creating a Geofence around a shipping lane will provide you with the data required to analyze how well the lane moves at various times of the Day, Week, or Year.
    These could be retained but simply 'disabled' when tracking is not desired.
- **Hazmat Prohibited Roads or Areas**
  - To provide an alert to the Driver and Management
- **Unauthorized as determined by company policy or agreements (i.e. Unauthorized Fuel Stations)**
  - To provide an alert to the Driver and Management
- **Low Bridges and Weight Restricted Bridges**
  - To provide an alert to the Driver upon approach
- **Fuel Station and Travel Centers not already included in our global data set**
  - Please inform our Support of any additional Fuel Stations you want included in our global dataset used for the Fuel Purchases and Mapping features
- **Various Preferred Locations for:**
  - Drug Testing
  - Maintenance and Repair
  - Weigh Stations
  - Truck Washes
- **Driver Favorites such as:**
  - Home
  - Restaurants
  - Motel and Hotels

Do you have a unique idea? Let Support know as we would love to help you accomplish it!

Creating and Editing Geofences

Creating New Geofences and configuring Landmarks

Geofence Creation can be initiated in the following ways:

1. Right Click on the map and select the create/edit geofence Icon
2. Click on the create/edit Geofence Icon on the Right side of the map view
3. Click on the green [+] at the top of the Geofence Results list

   Geofence Add/Edit Icon:

Editing Existing Geofences and Landmarks

Geofence Editing can be initiated in the following ways:

1. From the Map: Click on a Cluster or the Geofence Icon or within the Geofence to view the Detail *then* click the Geofence add/edit Icon near the bottom
2. From the Results List of Geofences on the Right of the Map: Click on the create/edit Geofence Icon which appears at the left of the Row you are interested in editing

   Geofence Add/Edit Icon:

Drawing the Geofence

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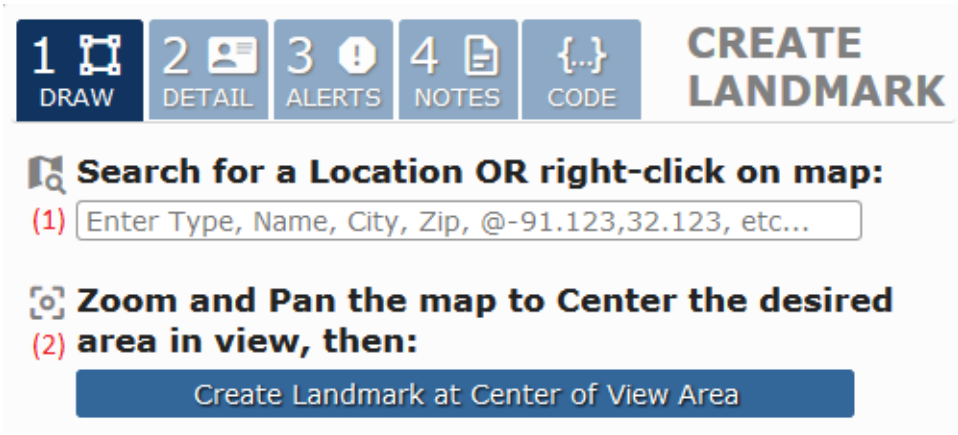
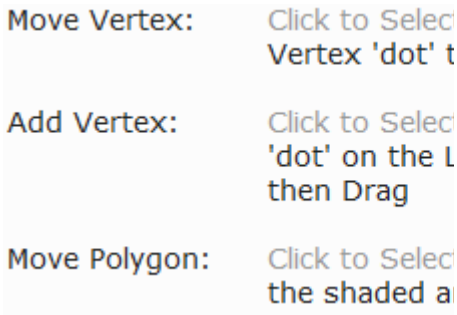


Click here for Important Information and Tips for d

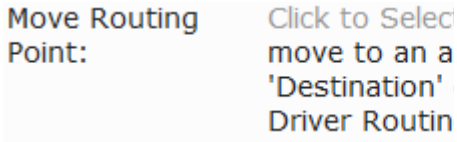
(1) Search for a Location around which to create the G
the area where you would like to create the Geofence.

(2) Click the button *Create Geofence at Center of View*
and select the icon from the menu.

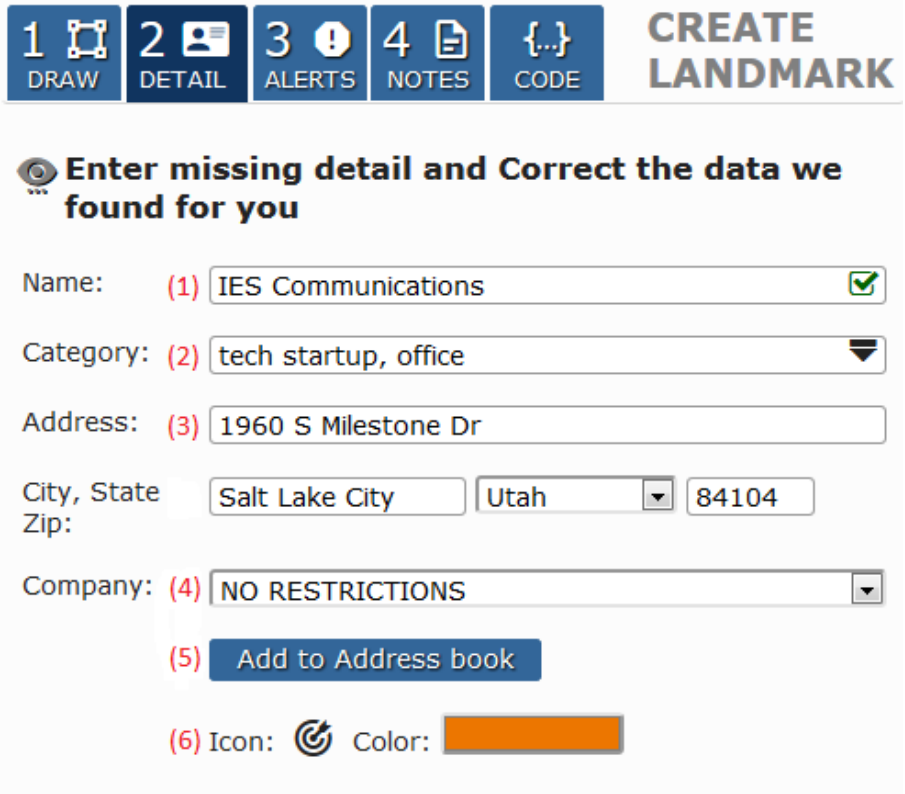
(3) Adjust the Geofence area to fit the location as nee



(4) Move the Routing Point icon to the location that will
routed to for the Geofence.



Adding Detail to the Geofence



(1) Name: Enter a unique name that will be used to identif
the same name.

(2) Category: Enter term(s) that will be used to categorize
comma or space.

(3) Address: Enter the address of the Geofence.

(4) Company: Leave BLANK to allow ALL VEHICLES to u
restrict Geofence availability to only the Vehicles assigned

- LEAVE THIS BLANK IF UNSURE as Associating a G
  private and usable ONLY by the Vehicles assigned th

(5) Add to DTNav POIs for Driver Self Routing: Checkin
DTNav POI database, allowing the Driver to find and self r

- Requires ELD v6.08+ and DTNav v1.04+

(6) Color of Geofence and Landmark Icon: Select the Ic
the map, along with the color to use for the Geofence.

Note - the only field required to be filled out when creating
also used but will default to the first company in the list).

Adding Alerts for Geofence

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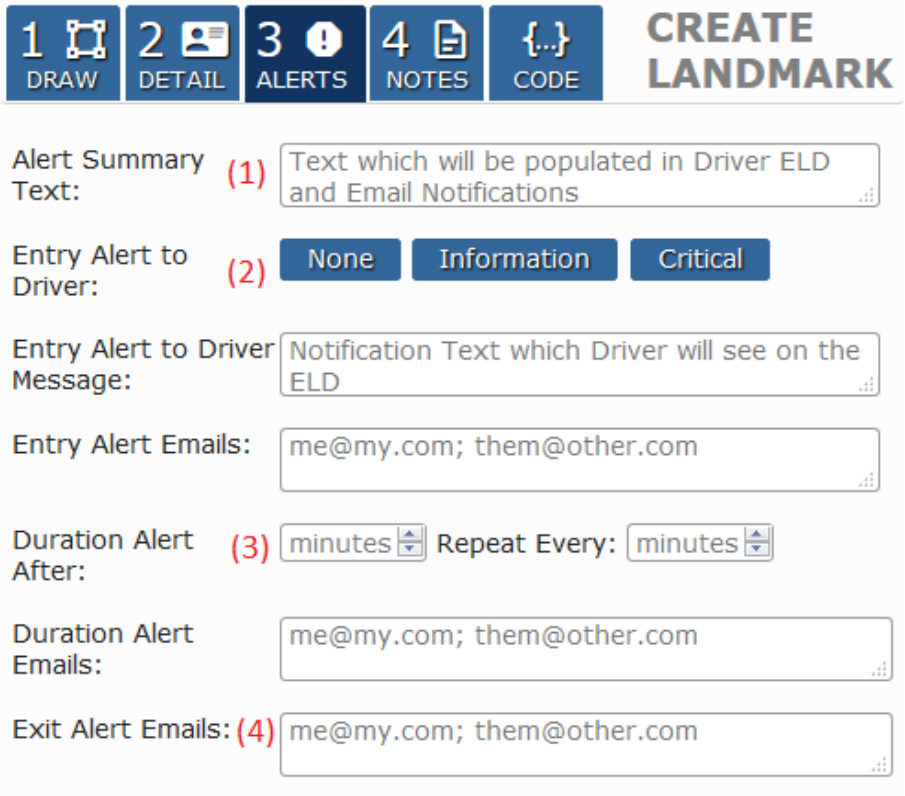
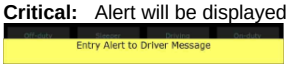


(1) Alert Summary Text: Value which will be provided in

(2.a) Entry Alert to Driver: Enables an alert to be triggere
Select either Information or Critical to enable the Entry Ale
displayed to the driver upon triggering.

- **None:** No Alert will be displayed on the ELD when V
- **Information:** Alert will be displayed on the ELD using

- **Critical:** Alert will be displayed on the ELD using th



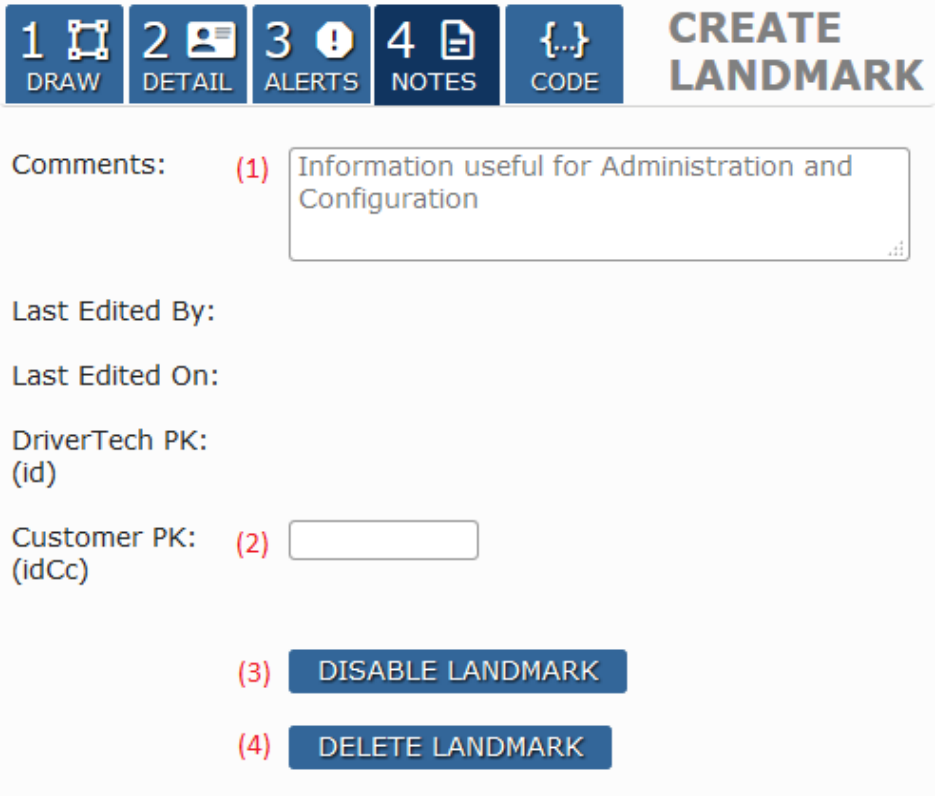
- **Entry Message:** The text which will be presented in

(2.b) Entry Alert Emails: Enter email addresses for those
This is Independent of the settings for Entry Alert to Driver
is set to 'none'

(3) Duration Alert Minutes and Notification Emails: En
remained inside the Geofence area for *X* amount of minut
of minutes the vehicle has continually remained in the Ge
who will be notified upon an alert triggering.

(4) Exit Alert Emails: Enables an alert to be triggered aft
email addresses for people who will be notified upon an al

Notes for the Geofence



(1) Comments: Enter any comments or details to be note

These are shown in the tab of the window that ap
Landmark Icon on the map.

(1.b) Last Edited By: Manager name who either created

(1.c) Last Edited On: DateTime of the creation or last edi

(2) Customer Primary Key: Primary key reference for the

(3) Disable Geofence: Disabling the Geofence will preve
be visible on the map.

(4) Delete Geofence: Deleting a Geofence is a 'Deferred
the Map BUT it will remain in the system until a minimum
A previously Deleted Geofence can be restored by Sea
option to view the geofence and allow editing to un-check

Restoring a Deleted Geofence

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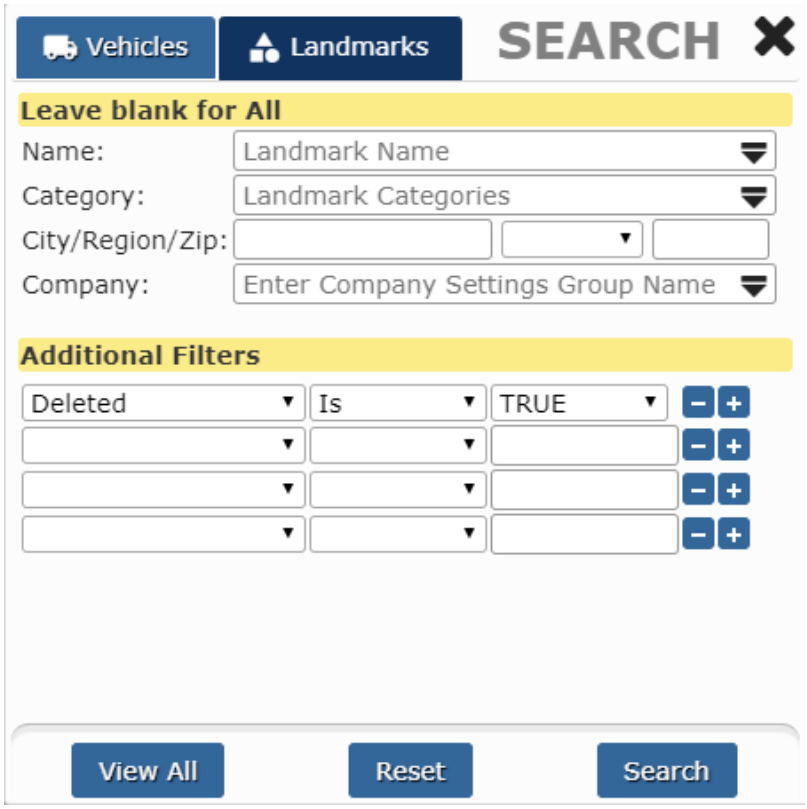
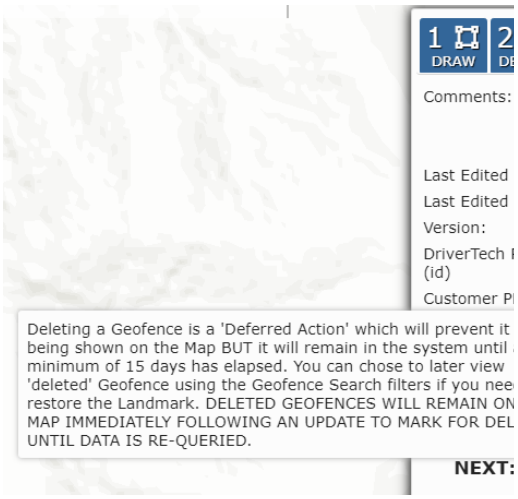


Deleting a Geofence is a 'Deferred Action' which will preve
remain in the system until a minimum of 15 days has elap

A previously Deleted Geofence can be restored by

1. Searching for Geofence using the *Deleted* filter optio
the Map
2. Select the Geofence on the Map, or locate in the Res
3. Select the "NOTES" tab and click on "Delete Geofen
4. Save the change



Geofence Creation Detail and Tips

Important Details which pertain to every Geofence

The following specifications MUST ALL be considered when creating or editing a Geofence to ensure successful and reliable Entry and Exit detection around various Geofence types

Due to the GPS Selective Availability combined with GPS Triangulation you MUST account for where Entry and Exit will occur based upon the Geofence Polygon.
ENTRY events will be triggered approximately 33' (10 meters) within the Geofence and EXIT events will be triggered approximately 66' (20 meters) outside of the Geofence.

1. Geofence Entry: **The vehicle must be at least 33' (10 meters) inside of the Geofence to trigger *Entry*** [1]
2. Geofence Exit: **The vehicle must be at least 66' (20 meters) outside of the Geofence to trigger *Exit***
3. Time Required: **The vehicle must spend at least 10 seconds on either side of the Geofence in order to trigger entry or exit (in motion or not)**

[1] **Workflow Jobs with Location** of either Lat/Lon/Rad or Geofence require that the *Vehicle MUST ALSO cease motion after entering the Geofence to trigger Auto Arrival*.

Example 1: Basic Building, Lot, Dock Geofence

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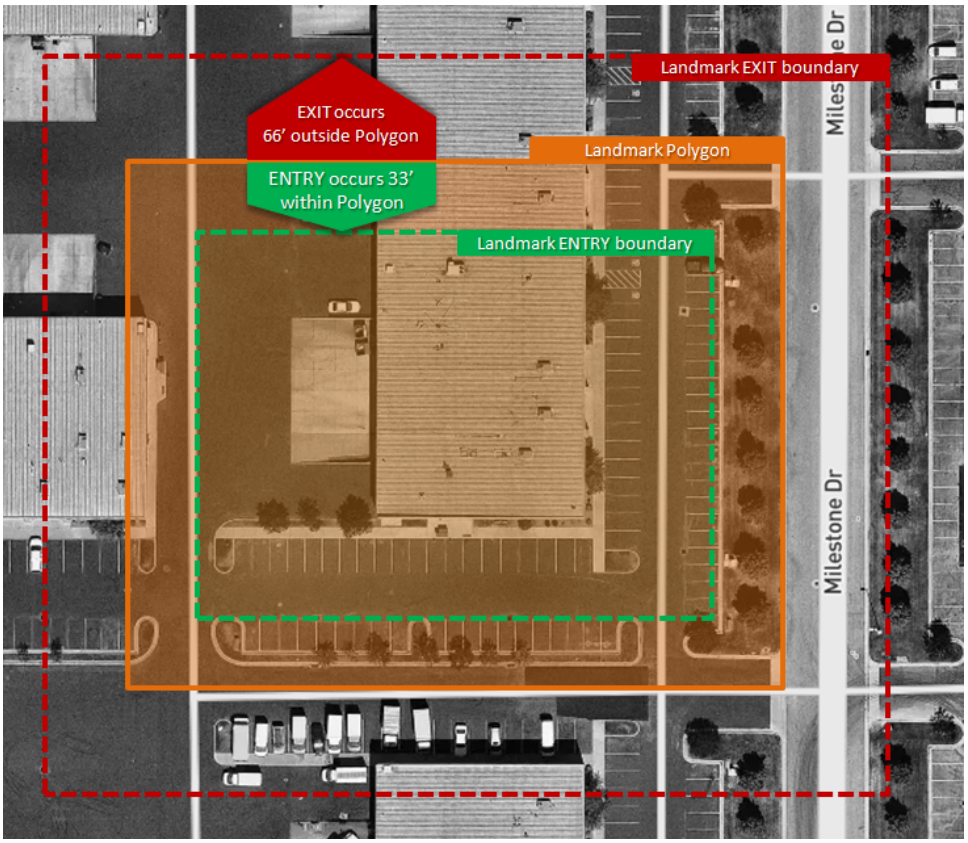
This Geofence is designed to trigger when a vehicle has entered and stopped moving within the parking lot or loading dock in back of the building.

In the example to the right:

- The area colored in ORANGE is the drawn polygon for the Geofence
- The dashed GREEN line illustrates the area within the Geofence where ENTRY will be detected once vehicle has crossed and remains inside for at least 10 seconds
- The dashed RED line illustrates the area outside the Geofence where EXIT will be detected once vehicle has crossed and remains outside for at least 10 seconds



Example 2: Geofence with Smaller Entry Way

Ensure that Entry Ways are wide enough to support a minimum of 15' in entry area PLUS 33' on each side to ensure that the Driver triggers entry when moving onto the Entry Road prior to entering the larger part of the fence (i.e. the lot).

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Mapping and Geofencing

See Also

Geofence Events

Map display of Vehicles, Drivers, Geofences with Landmarks and Vehicle/Driver Geofence Events

- Asset Tracking with Geofences and Routing to Landmarks
  - Requirements
  - Map Assistance Controls
    - Help
    - Settings
    - Screenshot
    - Fullscreen
    - Tilt and Rotate
    - Zoom Out/In
    - Zoom to Features
  - Toggle Controls
    - Traffic layer toggle
    - Weather Radar toggle
    - Satellite/Street layer toggle
    - Fuel layer toggle
    - Vehicle layer toggle
    - Geofence layer toggle
  - Search and Results Controls
    - Search Panel
    - Results Panel - *the best* way to locate an item on the Map
    - Geofence Create/Edit Panel
  - Viewing Vehicle, Geofence and Fuel Detail
    - Vehicle Markers and Clusters
  - Vehicle/Driver Events Control
    - Searching for and Interacting with Vehicle/Driver Events
- Geofences with Landmarks
  - Requirements
  - Limitations and Restrictions
  - Use Cases
  - Creating and Editing Geofences
    - Creating New Geofences and configuring Landmarks
    - Editing Existing Geofences and Landmarks
    - Drawing the Geofence
    - Adding Detail to the Geofence
    - Adding Alerts for Geofence
    - Notes for the Geofence
  - Geofence Creation Detail and Tips
    - Important Details which pertain to every Geofence
    - Example 1: Basic Building, Lot, Dock Geofence
    - Example 2: Geofence with Smaller Entry Way
  - See Also

- Asset Tracking with Geofences and Routing to Landmarks
  - Requirements
  - Map Assistance Controls
    - Help
    - Settings
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- Geofences with Landmarks
  - Requirements
  - Limitations and Restrictions

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Mapping and Geofencing

- Use Cases
- Creating and Editing Geofences
  - Creating New Geofences and configuring Landmarks
  - Editing Existing Geofences and Landmarks
  - Drawing the Geofence
  - Adding Detail to the Geofence
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  - Notes for the Geofence
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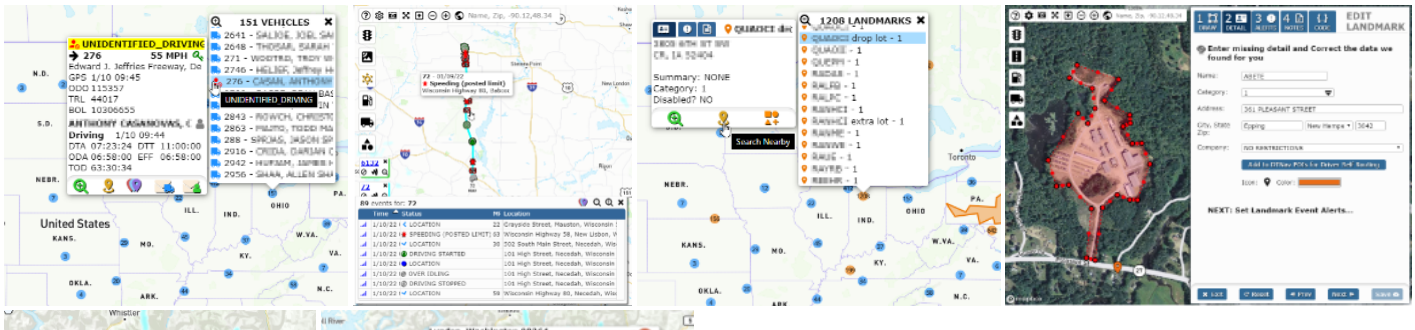
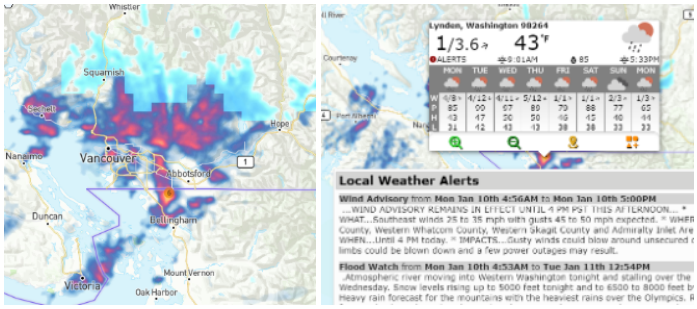
  - Important Details which pertain to every Geofence
  - Example 1: Basic Building, Lot, Dock Geofence
  - Example 2: Geofence with Smaller Entry Way
- See Also

Asset Tracking with Geofences and Routing to Landmarks

DriverTech Mapping provides the ability to view Vehicles, Vehicle/Driver Event History, Geofences, Fueling Locations, Weather Radar, Weather Forecast and perform interactive actions on these items:





Requirements

Geofence Events will only be generated from ELD running v6.08+
All other Mapping features are supported across all current versions of ELD

Map Assistance Controls

Map assistance control bar is located at the Top-Left corner and provides the following capabilities

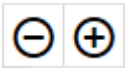
Help

Settings

Screenshot

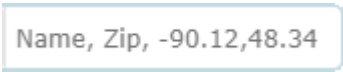
Fullscreen

Tilt and Rotate



Zoom Out/In

Zoom to Features



Location or Place Search

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Mapping and Geofencing

Opens up this page in a window.	Provides ability to override default settings on the Vehicles/Geofences/Fuel layers: • Satellite view ON /OFF by default • Marker Icon Size • Marker Icon Color • Marker Text display ON/OFF • Default Icon Image (for Geofence creation) • Toggle layer ON /OFF by default • Cluster Radius (more or fewer clusters)	Saves an image of the current view of map.	Toggle the map to completely fill the screen.	Click+Hold button to Tilt and Rotate Map. You may also right+click+hold over the Map to perform this action. TO RESET THE VIEW: Click this button	Decrease/Increase view level of map. This can also be accomplished by using the mouse scroll wheel.	Adjust zoom level of map to display all available items on map.	Search for an arbitrary location or place. Results of search text will be constrained to the current map view (i.e. results prioritized to nearest center of map within the visible area)

Toggle Controls

Toggles provide a rapid way to Show/Hide/Change specific layers and data on the Map
The Search Control provides an alternate way to Show or Filter Vehicles/Drivers, Geofences, or Fuel

Traffic layer toggle

Toggles display of Traffic On/Off.
Traffic provides congestion information that is constantly updated every 5 minutes, with road geometries originating from OpenStreetMap.

- Traffic will only be visible when zoomed in to an appropriate detail level (i.e. city)

Weather Radar toggle

Toggles Weather Radar On/Off

Satellite/Street layer toggle

Toggles the background rendering between Street and Satellite

- Satellite view will automatically be enabled when zoomed in to an appropriate detail level (i.e. city block)

Fuel layer toggle

Toggles display of Fuel Stops On/Off

Vehicle layer toggle

Toggles display of Vehicles/Drivers On/Off.
When toggled ON a timer will display when the new auto-refresh will occur. You may click on the timer to refresh immediately

- Hovering the over the Icon will display a tooltip which provides details about how many items are currently populated

Geofence layer toggle

Toggles display of Geofences On/Off

- Hovering the over the Icon will display a tooltip which provides details about how many items are currently populated

Search and Results Controls

Search, Results and Geofence Creation Controls are located at the Top Right of the Map View

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Mapping and Geofencing

Search Panel

Allows for searching/filtering of specific Vehicles/Drivers or Geofences.

When a search/filter is is active, the Vehicle and Geofence Toggle Controls will indicate accordingly:

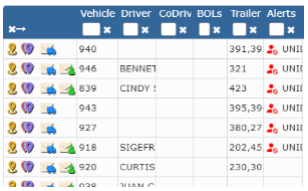
RED Left Border Indicates the Vehicle layer is being filtered. You may hover your mouse over the Icon to view a tooltip which provides details about how many items are currently populated.

RED Left Border Indicates the Geofence layer is being filtered. You may hover your mouse over the Icon to view a tooltip which provides details about how many items are currently populated.

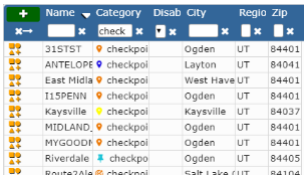
Results Panel - **the best** way to locate an item on the Map

Displays records currently loaded on the map by either Toggle or Search for Vehicles/Drivers, Geofence and Fuel Stops, split into three separate tabs each with filtering and custom actions:

Vehicles Tab



Geofences Tab



Fuel Stations Tab

Geofence Create/Edit Panel

Allows for Creating and Editing Geofence detail and its associated Geofence

Click here for detail on how to Add/Edit Geofences

Viewing Vehicle, Geofence and Fuel Detail

Items on the map which can be selected include Vehicles, Geofences and Fuel locations, a
When Clicked or Touched a callout will appear providing information and available acti
The following provides detail on what each type of marker provides. See General Controls (below) for inform

Vehicle Markers and Clusters	Geofence Markers and Clusters

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Mapping and Geofencing

Indicates a Moving Vehicle and Indicates a Stationary Vehicle

Clicking on a Vehicle Marker will open a window with further details/options for the Vehicle:

Zoom to Vehicle

Search nearby Vehicle

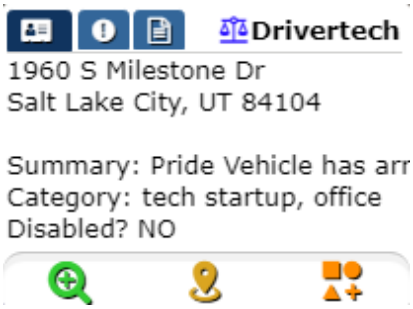
Search for Vehicle and Driver Events

Send Message to Vehicle

Send Message to Driver

Indicates the Routing point of the Geofence as a Landmark.
Icon may vary depending on the icon chosen when the Geofence was created.

Clicking on a Geofence Polygon or a Landmark Marker will open a window with furtl Geofence:



General Information

Alert Information

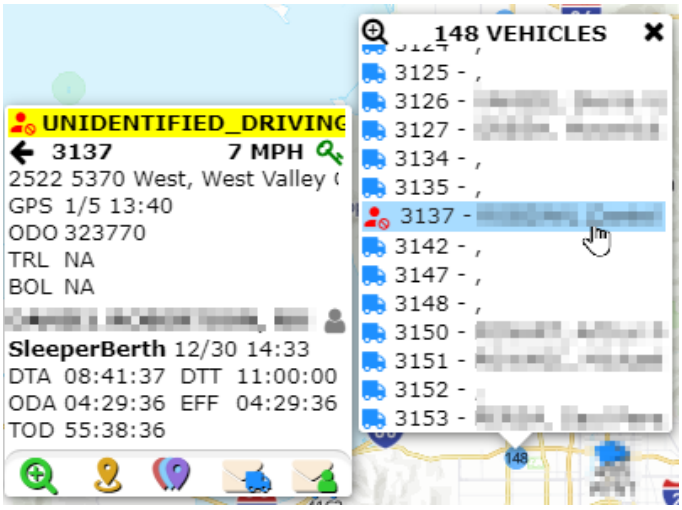
Miscellaneous Information

Zoom to Geofence

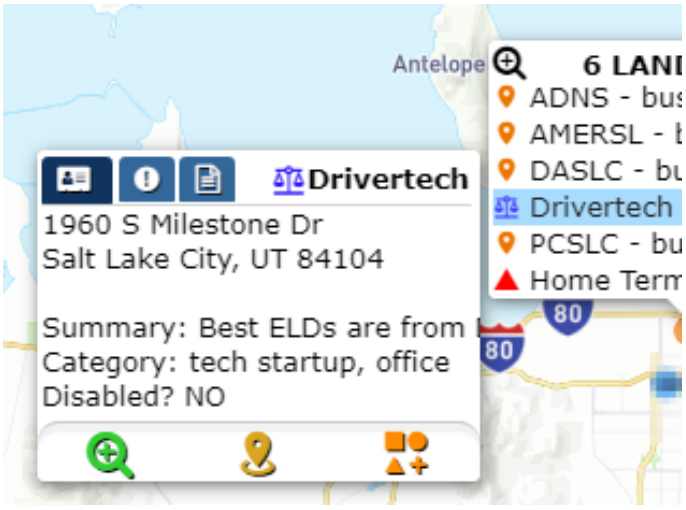
Search nearby Geofence

Edit Geofence details

35 Indicates a Cluster of Vehicles.
Clicking or Hovering a Cluster will open a List of selectable Vehicles:



2 Indicates a Cluster of Geofences.
Clicking or Hovering a Cluster will open a List of selectable Geofences:



Vehicle/Driver Events Control

Historical vehicle events can be displayed on the map with a a specific icon and color for each event type for easy visual identification of Driver/Vehicle activity, route and direction over your desired date range.

Currently available events that can be selected are:

General Events	**HOS Events**	**Geofence Events**

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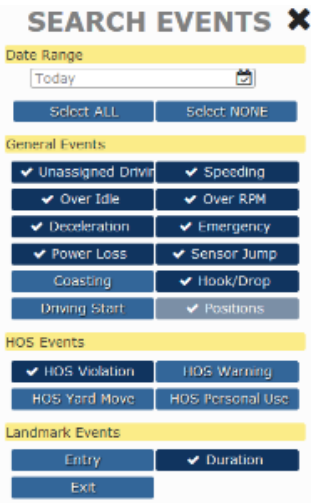
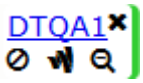
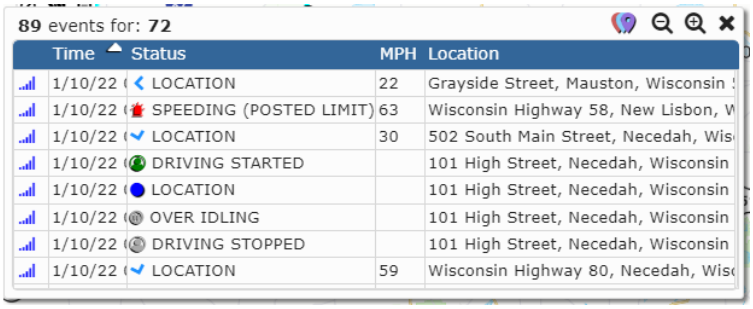
Mapping and Geofencing

- Unassigned Driving
- Speeding
- Over Idle
- Over RPM
- Deceleration
- Emergency
- Power Loss
- Sensor Jump
- Coasting
- Hook/Drop
- Driving Start
- Positions

- Violations
- Warnings
- Yard Move
- Personal Use

- Entry
- Duration
- Exit

Searching for and Interacting with Vehicle/Driver Events		
FIRST	**NEXT**	**FINALLY**
To View the Vehicle/Driver Events locate this Icon using one of the following scenarios: 1. Click on a Vehicle or Driver Icon 2. Click on a Cluster and select a Vehicle or Driver 3. Click on the 'Results' icon at the top right, then click on the Vehicle Tab if not already selected	Clicking this icon for a vehicle will bring up the Vehicle Events search pane (click to enlarge):  	Upon clicking `[Get Results]`, the following control will be added to the map for that particular vehicle which can be used to navigate and view the events provided:  DTQA1 Vehicle Name - Click to open list of events for vehicle (shown below on next row) / hide/show events for vehicle on the map hide /show lines connecting each event for vehicle zoom to events for vehicle remove events for vehicle from the map  zoom to events zoom to vehicle close list of events

Geofences with Landmarks

Geofences represent various points of interest on the map which include the Landmark (a routing point) and a Geofence Polygon.

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Mapping and Geofencing

👍 New and Modified Geofences are synchronized with your ELDs within only a few minutes of being created or edited.

👍 Geofence Entry, Duration and Exit events are detected on the ELD itself (not via a backend server process using historical position data) which ensures near-realtime notification to Drivers, Managers and API Integrations!

Requirements

Geofence Events will only be generated from ELD running v6.07+
All other Mapping features are supported across all current versions of ELD

Limitations and Restrictions

- Companies cannot create more than 60,000 Geofences
- Geofence Polygons cannot contain more than 1,000 vertices
- Geofences cannot be immediately deleted but can be "marked for deletion" (soft delete) and will be pruned from the system after an appropriate amount of time has passed.

Use Cases

Anything which is of interest to capture Entry of, Duration within, Fuel consumed within, Miles moved within and Exit has potential for creating a Geofence.

For Example:

- **Customer Locations**
- **Customer Location sub-divided by Loading Dock** to allow Driver Routing to the a specific area of the Customers Yard
  - You may want to create a Geofence for each Dock area at very large distribution centers or yards
- **Company Terminals**
  - Allows tracking of Miles and Fuel to enable deductions of movement within your own yards
- **Counties which maintain their own Fuel Tax regulations**
  - Some counties offer Fuel Tax breaks which can be beneficial for companies to take advantage of. We recommend that you create a Geofence for each that you utilize often in order to gather the data required for filing with the State/County.
  - It is not necessary for you to create Geofences for Each State or Province because DriverTech automatically includes these and provides the data within the State Mileage, Regional Crossing and Trip Detail reports.
- **Oil Field Pumps or Pump Groups**
  - Allows for routing AND confirmation that a Vehicle/Driver was in an area of an Oil Field for necessary amount of time to perform duties
- **Toll Roads**
  - You may want to alert the Driver if he is approaching a point of no-return toward a Toll Road
- **Shipping Lanes**
  - Creating a Geofence around a shipping lane will provide you with the data required to analyze how well the lane moves at various times of the Day, Week, or Year.
    These could be retained but simply 'disabled' when tracking is not desired.
- **Hazmat Prohibited Roads or Areas**
  - To provide an alert to the Driver and Management
- **Unauthorized as determined by company policy or agreements (i.e. Unauthorized Fuel Stations)**
  - To provide an alert to the Driver and Management
- **Low Bridges and Weight Restricted Bridges**
  - To provide an alert to the Driver upon approach
- **Fuel Station and Travel Centers not already included in our global data set**
  - Please inform our Support of any additional Fuel Stations you want included in our global dataset used for the Fuel Purchases and Mapping features
- **Various Preferred Locations for:**
  - Drug Testing
  - Maintenance and Repair
  - Weigh Stations
  - Truck Washes
- **Driver Favorites such as:**
  - Home
  - Restaurants
  - Motel and Hotels

Do you have a unique idea? Let Support know as we would love to help you accomplish it!

Creating and Editing Geofences

Creating New Geofences and configuring Landmarks

Geofence Creation can be initiated in the following ways:

1. Right Click on the map and select the create/edit geofence Icon
2. Click on the create/edit Geofence Icon on the Right side of the map view
3. Click on the green [+] at the top of the Geofence Results list

   Geofence Add/Edit Icon:

Editing Existing Geofences and Landmarks

Geofence Editing can be initiated in the following ways:

1. From the Map: Click on a Cluster or the Geofence Icon or within the Geofence to view the Detail *then* click the Geofence add/edit Icon near the bottom

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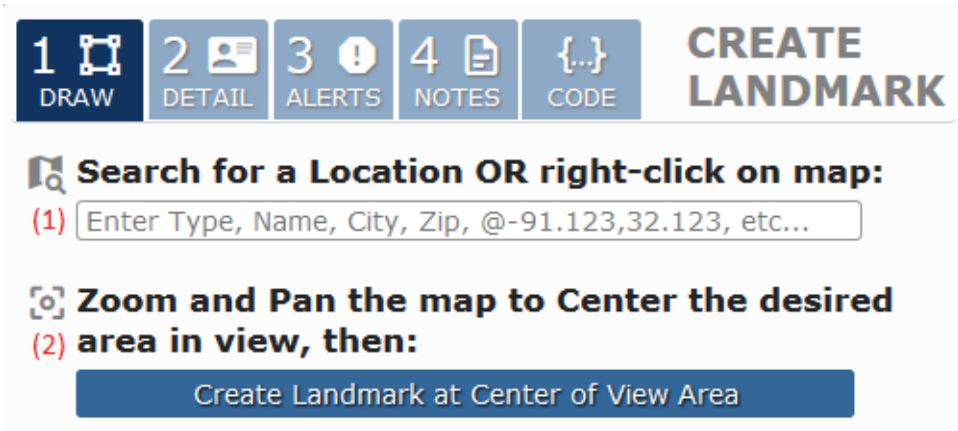
2. From the Results List of Geofences on the Right of the Map: Click on the create/edit Geofence Icon which appears at the left of the Row you are interested in editing

   Geofence Add/Edit Icon:

Drawing the Geofence

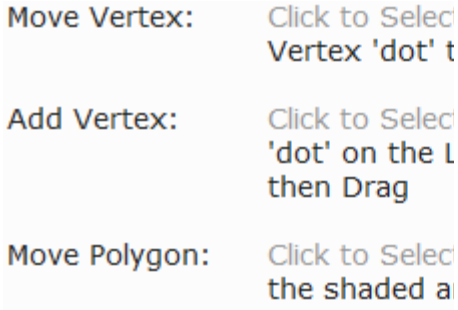


Click here for Important Information and Tips for d

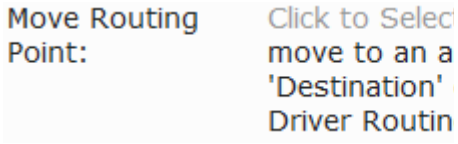
(1) Search for a Location around which to create the G the area where you would like to create the Geofence.

(2) Click the button *Create Geofence at Center of View* and select the icon from the menu.

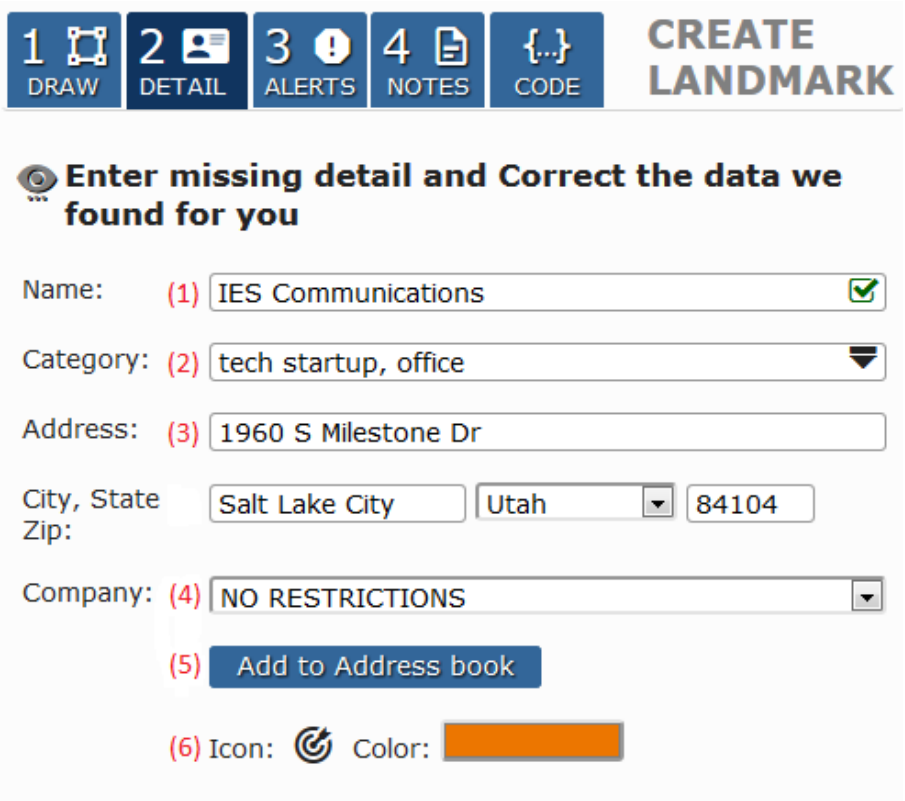
(3) Adjust the Geofence area to fit the location as nee



(4) Move the Routing Point icon to the location that will l routed to for the Geofence.



Adding Detail to the Geofence



(1) Name: Enter a unique name that will be used to identif the same name.

(2) Category: Enter term(s) that will be used to categorize comma or space.

(3) Address: Enter the address of the Geofence.

(4) Company: Leave BLANK to allow ALL VEHICLES to u restrict Geofence availability to only the Vehicles assigned

- LEAVE THIS BLANK IF UNSURE as Associating a G private and usable ONLY by the Vehicles assigned th

(5) Add to DTNav POIs for Driver Self Routing: Checkir DTNav POI database, allowing the Driver to find and self r

- Requires ELD v6.08+ and DTNav v1.04+

(6) Color of Geofence and Landmark Icon: Select the Ic the map, along with the color to use for the Geofence.

Note - the only field required to be filled out when creating also used but will default to the first company in the list).

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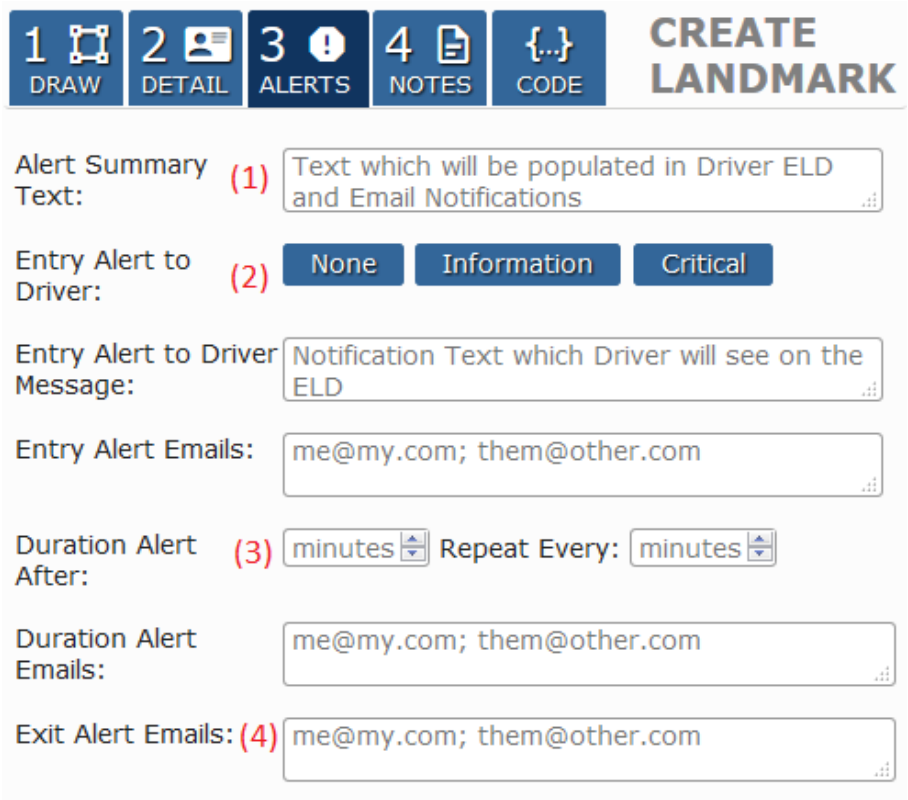
Mapping and Geofencing

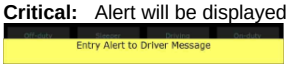
Adding Alerts for Geofence



(1) Alert Summary Text: Value which will be provided in

(2.a) Entry Alert to Driver: Enables an alert to be triggere
Select either Information or Critical to enable the Entry Ale
displayed to the driver upon triggering.

- **None:** No Alert will be displayed on the ELD when V
- **Information:** Alert will be displayed on the ELD using

- **Critical:** Alert will be displayed on the ELD using th


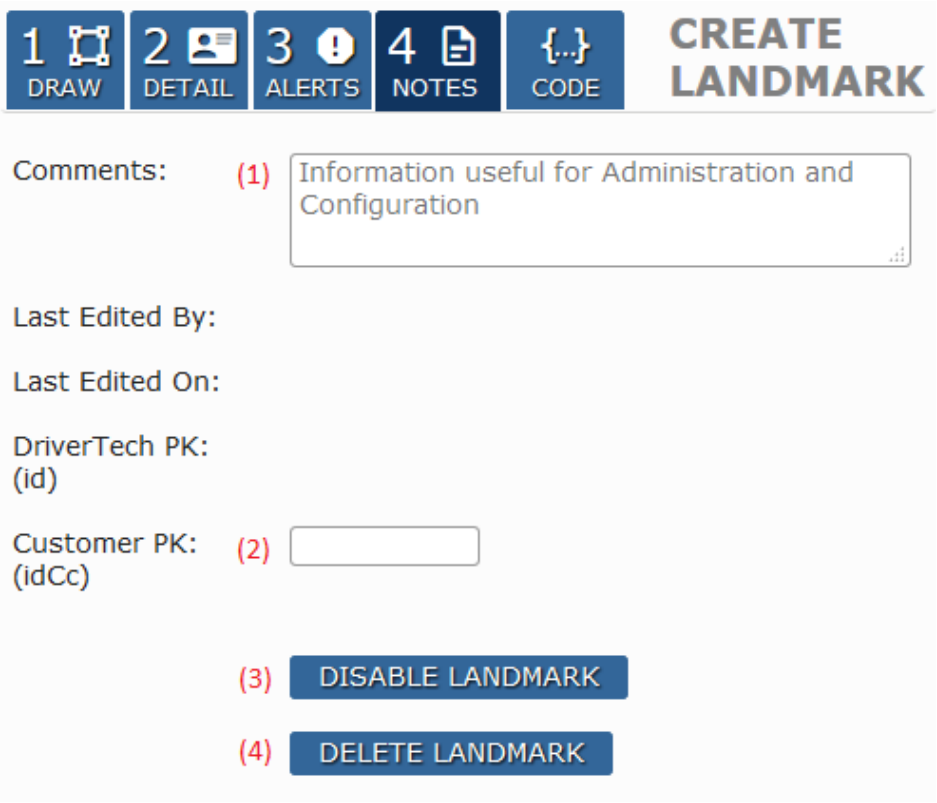
- **Entry Message:** The text which will be presented in

(2.b) Entry Alert Emails: Enter email addresses for those
This is Independent of the settings for Entry Alert to Driver
is set to 'none'

(3) Duration Alert Minutes and Notification Emails: En
remained inside the Geofence area for *X* amount of minut
of minutes the vehicle has continually remained in the Ge
who will be notified upon an alert triggering.

(4) Exit Alert Emails: Enables an alert to be triggered aft
email addresses for people who will be notified upon an al

Notes for the Geofence



(1) Comments: Enter any comments or details to be note

These are shown in the tab of the window that ap
Landmark Icon on the map.

(1.b) Last Edited By: Manager name who either created

(1.c) Last Edited On: DateTime of the creation or last edi

(2) Customer Primary Key: Primary key reference for the

(3) Disable Geofence: Disabling the Geofence will preve
be visible on the map.

(4) Delete Geofence: Deleting a Geofence is a 'Deferred
the Map BUT it will remain in the system until a minimum
💡 A previously Deleted Geofence can be restored by Se
option to view the geofence and allow editing to un-check

Restoring a Deleted Geofence

Deleting a Geofence is a 'Deferred Action' which will preve
remain in the system until a minimum of 15 days has elap

A previously Deleted Geofence can be restored by

1. Searching for Geofence using the *Deleted* filter optio
the Map

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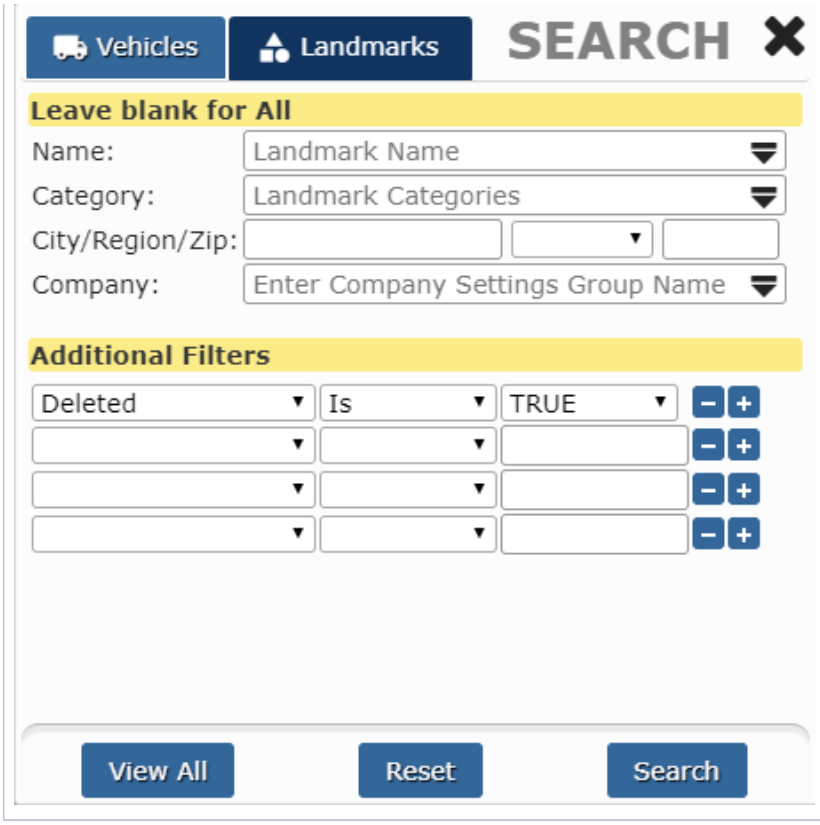
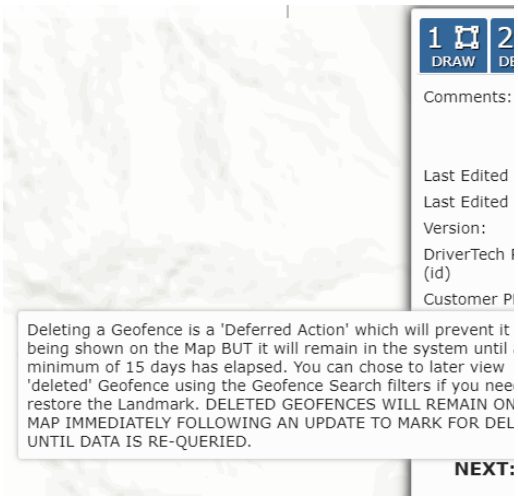
Mapping and Geofencing



2. Select the Geofence on the Map, or locate in the Res
3. Select the "NOTES" tab and click on "Delete Geofen
4. Save the change



Geofence Creation Detail and Tips

Important Details which pertain to every Geofence

The following specifications MUST ALL be considered when creating or editing a Geofence to ensure successful and reliable Entry and Exit detection around various Geofence types

Due to the GPS Selective Availability combined with GPS Triangulation you MUST account for where Entry and Exit will occur based upon the Geofence Polygon.
ENTRY events will be triggered approximately 33' (10 meters) within the Geofence and EXIT events will be triggered approximately 66' (20 meters) outside of the Geofence.

1. Geofence Entry: **The vehicle must be at least 33' (10 meters) inside of the Geofence to trigger *Entry*** [1]
2. Geofence Exit: **The vehicle must be at least 66' (20 meters) outside of the Geofence to trigger *Exit***
3. Time Required: **The vehicle must spend at least 10 seconds on either side of the Geofence in order to trigger entry or exit (in motion or not)**

[1] **Workflow Jobs with Location** of either Lat/Lon/Rad or Geofence require that the *Vehicle MUST ALSO cease motion after entering the Geofence to trigger Auto Arrival*.

Example 1: Basic Building, Lot, Dock Geofence

This Geofence is designed to trigger when a vehicle has entered and stopped moving within the parking lot or loading dock in back of the building.

In the example to the right:

- The area colored in ORANGE is the drawn polygon for the Geofence
- The dashed GREEN line illustrates the area within the Geofence where ENTRY will be detected once vehicle has crossed and remains inside for at least 10 seconds
- The dashed RED line illustrates the area outside the Geofence where EXIT will be detected once vehicle has crossed and remains outside for at least 10 seconds

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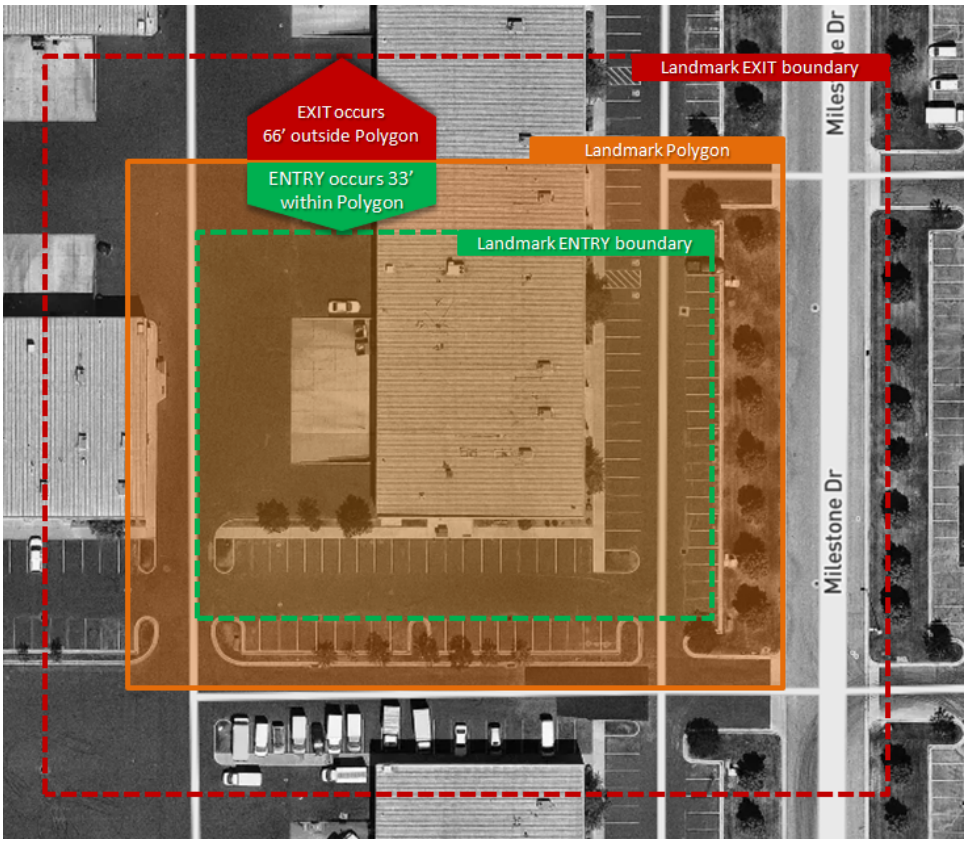
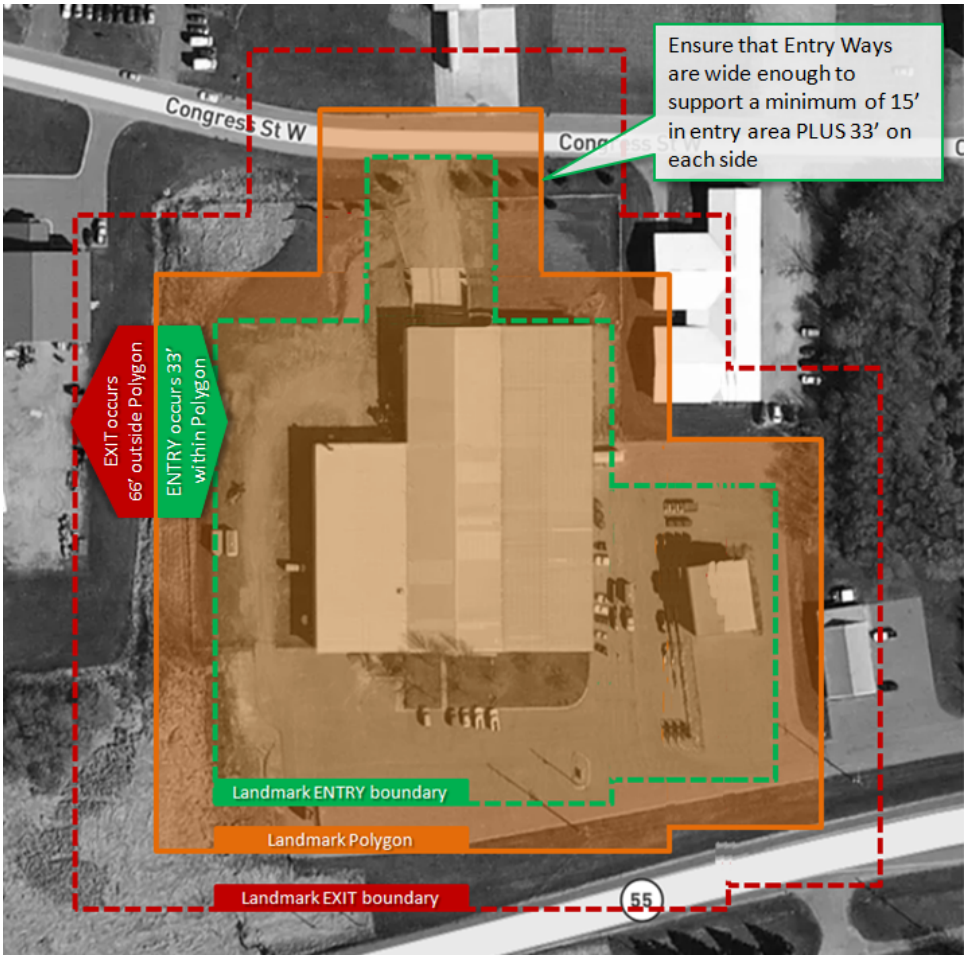
Mapping and Geofencing



Example 2: Geofence with Smaller Entry Way

Ensure that Entry Ways are wide enough to support a minimum of 15' in entry area PLUS 33' on each side to ensure that the Driver triggers entry when moving onto the Entry Road prior to entering the larger part of the fence (i.e. the lot).



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See Also

Geofence Events

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