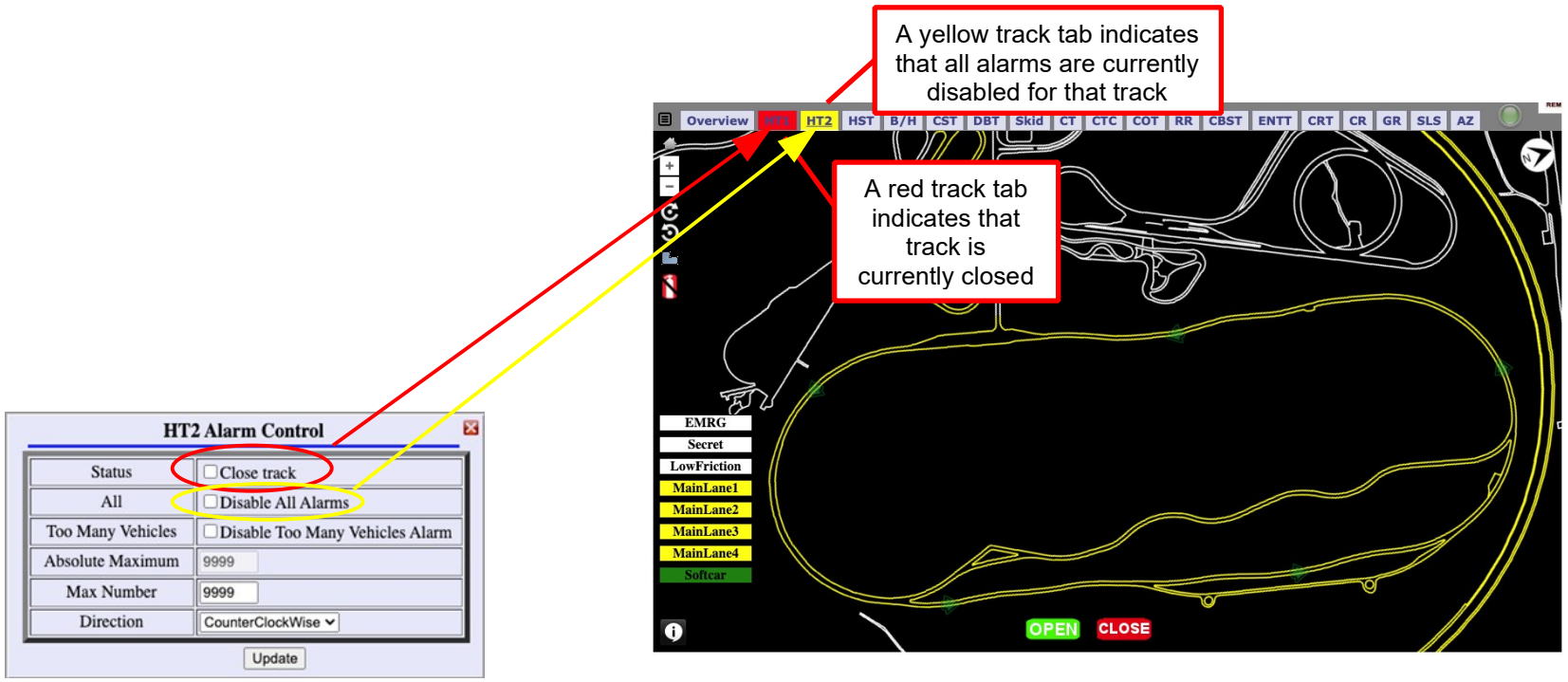
Additional RTS Tasks

1. Finalize Header Bar
2. Light Panel Menu
3. Geo-Fence Display Menu
4. Tracker Information Window (TBD)

1. Finalize Track Tab Requirements

Certain changes made in the Track Alarm control panel will be reflected in the color of the track tab. Closing a track turns the track tab red. Any changes to the Track Alarms will turn the tab yellow. Once the Track Alarms are reverted back to the default state, the tab will return to gray.



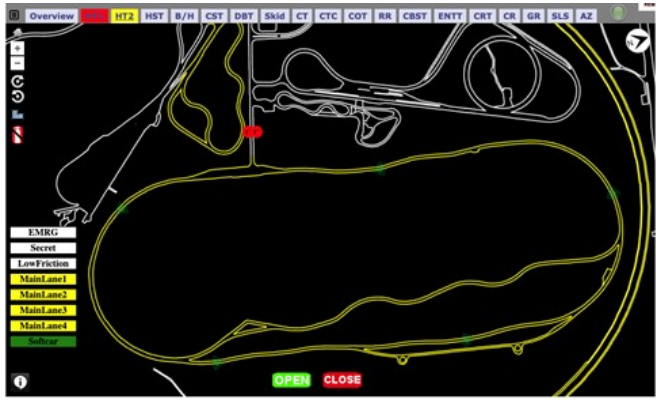
1. Finalize Track Tab Requirements

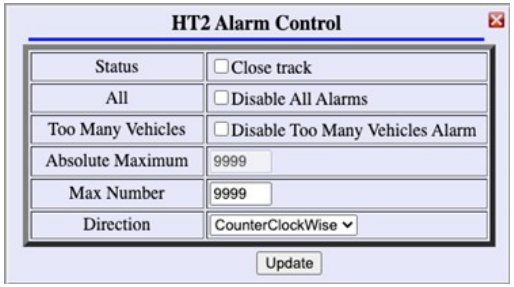
1.1 Only one Track Tab can be selected as the active view. The selected Track Tab (by left click) has a background color of white and the Track Tab abbreviation is underscored. The non-selected Track Tabs have a gray background.

1.2 If the selected Track Tab is background color is already red or yellow (see previous page), then the selected Track Tab remains red or yellow and is underscored.

1.3 Regardless of background color, non-selected Track Tabs are not underscored.

1.4 Mouse hover over Track Tab will show the Track Full Name.



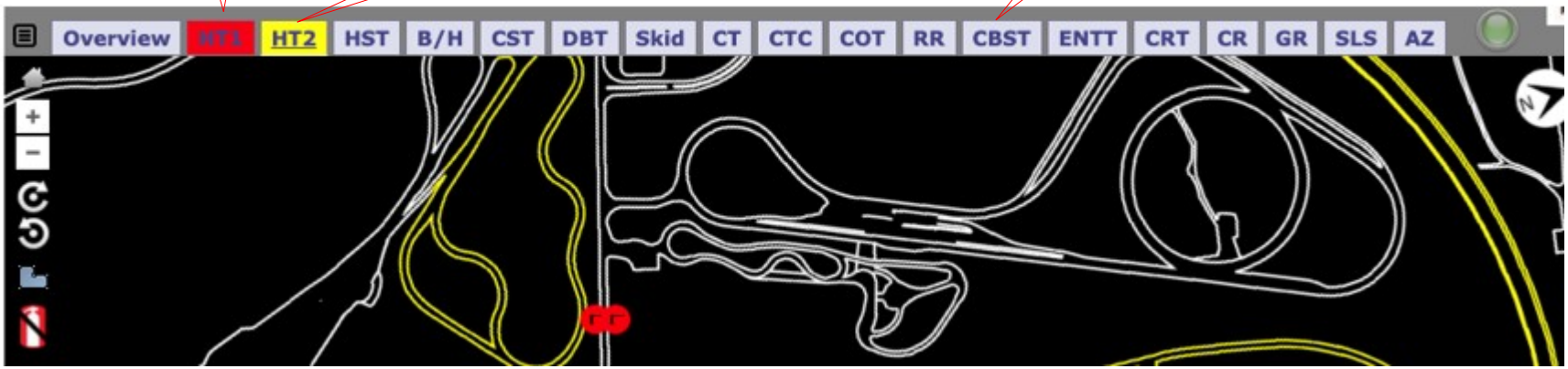


Track Tab Example #1

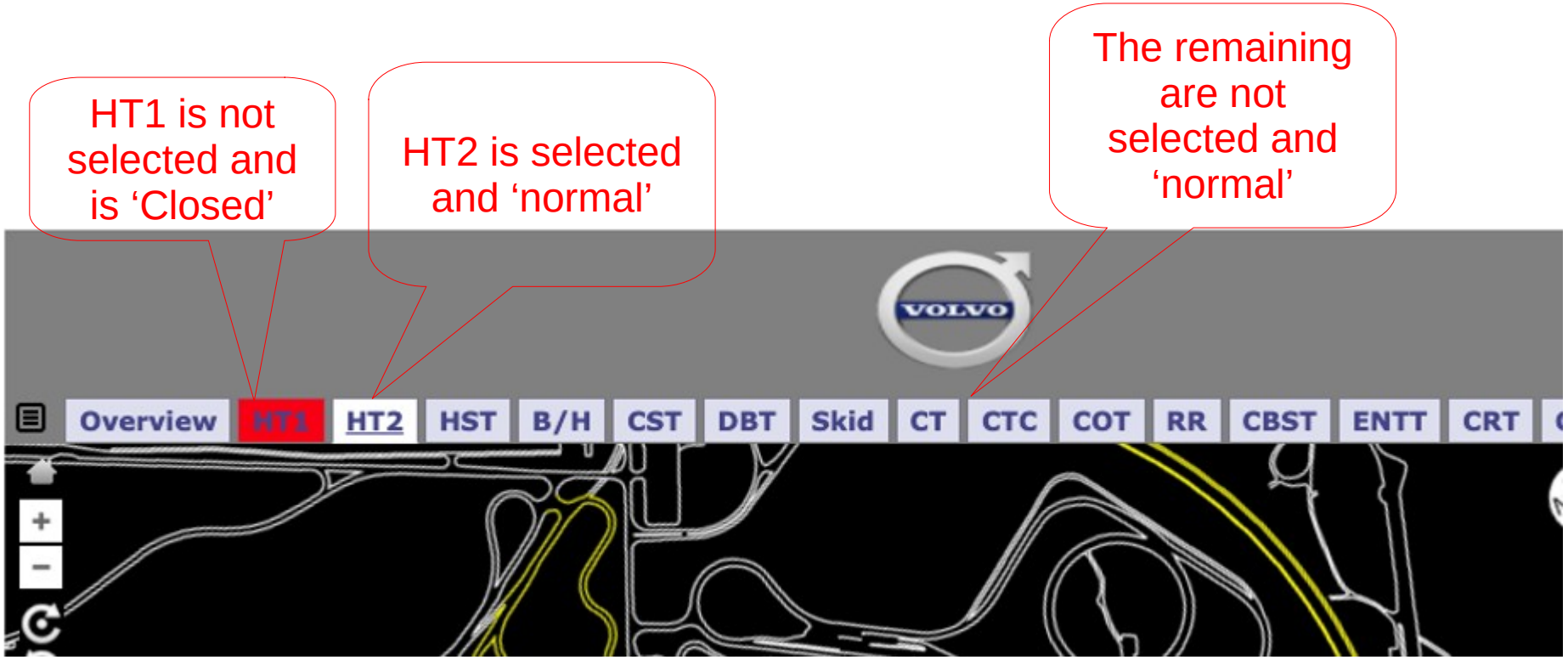
HT1 is not selected and is ‘Closed’

HT2 is selected and ‘Disable All Alarms’ is activated

The remaining are not selected and ‘normal’



Track Tab Example #2



Track Tab User Permissions

1.5 There are three user permission types :

- 1.5.1 Read Only
- 1.5.2 Read/Write
- 1.5.3 Read/Adjust

Note: you can create the variables needed above to run this logic. RTS will set these variables accordingly.

1.6 **Read Only** User Permission

- 1.6.1 All adjustable fields are grayed out
- 1.6.1 This user can not change any menu item

1.7 **Read/Write**

- 1.7.1 All fields can be changed (this is what you provided in version 1)

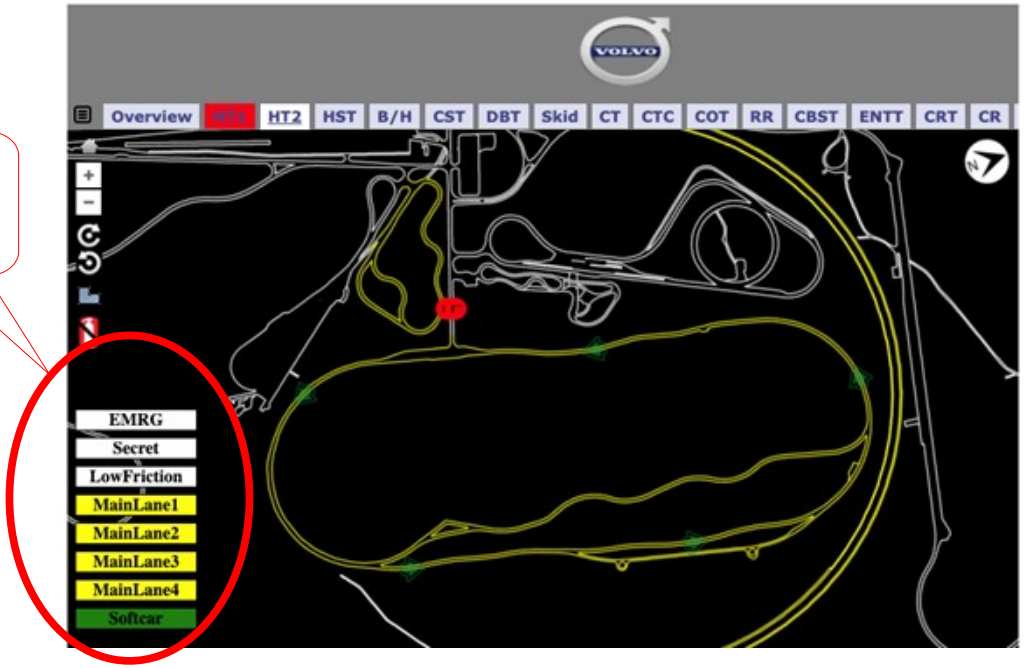
1.8 **Read/Adjust**

- 1.8.1 The user can only change these fields:
  - 1.8.1.1 Max Number
  - 1.8.1.2 Speed Limit and Stop Limit Values
  - 1.8.1.3 Change Direction

1.9 The field ‘Absolute Maximum’ is **always** read only.

1.10 The value of ‘Max Number’ can not be changed to be greater than them ‘Absolute Maximum’.

2. Light Panel Requirements



2.1 Selected color of the light matches the background color of the light type.

2.2 Left click on a light box, bring up a small window with the correct options for that light or you can use a pull down to give you color options to select.

2.3 need a placeholder to periodically poll to make sure the color matches the correct color. (when updated by another browser instance)

2.4 need a placeholder to send a message to the PLC to update the color.

2.5 the Light Panel can be removed and displayed by the customer (default state is displayed)

2.6 the Light Panel can be moved outside of the browser into it's own window

Light Name	Color Option
EMRG	White, Blue
Secret	White, Red
Low Friction	White, Yellow, Red
Main Lane 1	Green, Yellow, Red
Main Lane 2	Green, Yellow, Red
Main Lane 3	Green, Yellow, Red
Main Lane 4	Green, Yellow, Red
Softcar	Green, Red

Note: RTS will add the specific command for 2.3 and 2.4

2. Light Panel Requirements

2.7 Left click on a light box, will bring up a drop down lost with the specifc options for that light.

2.8 The drop down will show all available colors for that light (see table)

2.9 The current color of the light will be grayed out in the drop down.

2.10. There will be a user access flag for the Light Panel, **UserPlcAccess**. When this flag is true, then the user can change the light color and the behavior of the Light Panel is a described above. If the flag is false, then all the available colors for that light will be grayed out. The means that the person CAN NOT change any of the lights.

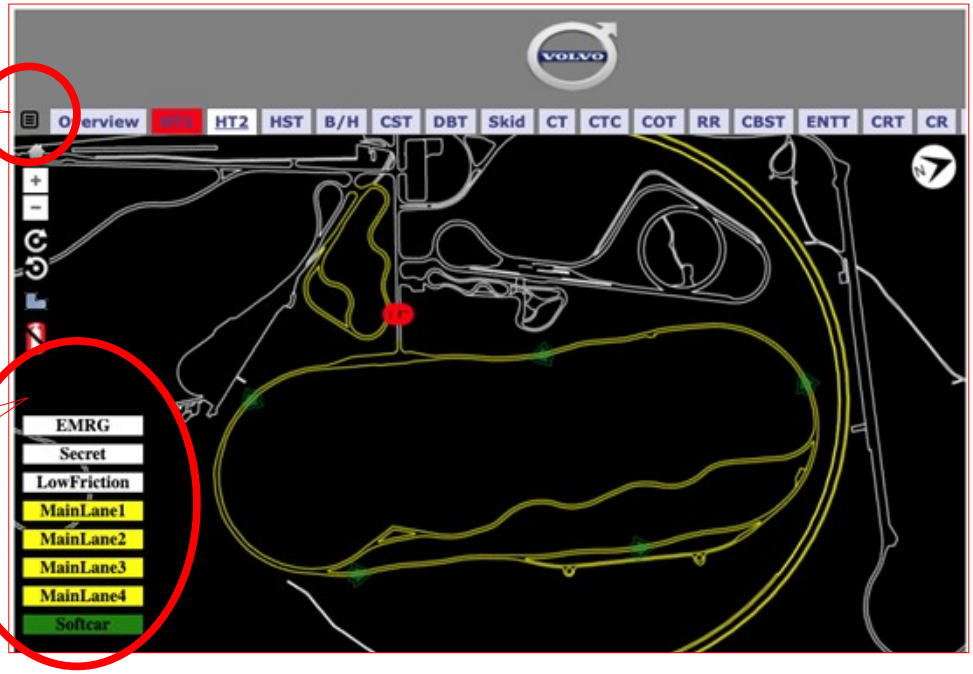
2.11 This flag is used for all of the light boxes of the Light Panel

2.12 RTS is responsible for determining whether the flag is true or false.

Light Panel Example #1

Click link here to display Light Panel

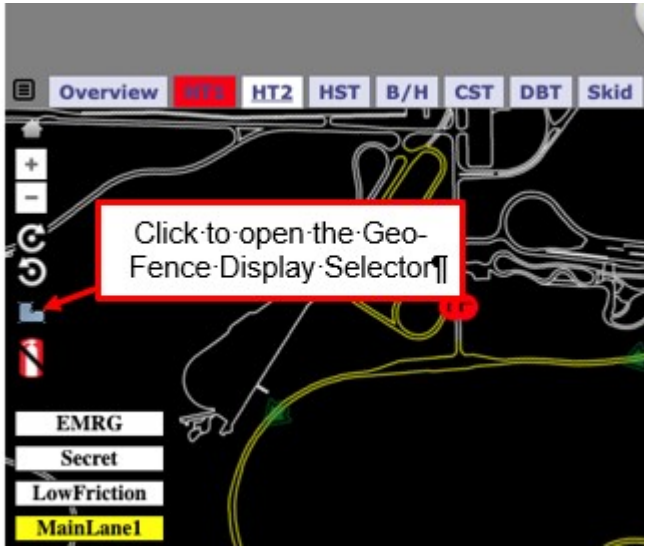
Should be a small icon which when left clicked, will allow the Light Panel to be a separate window

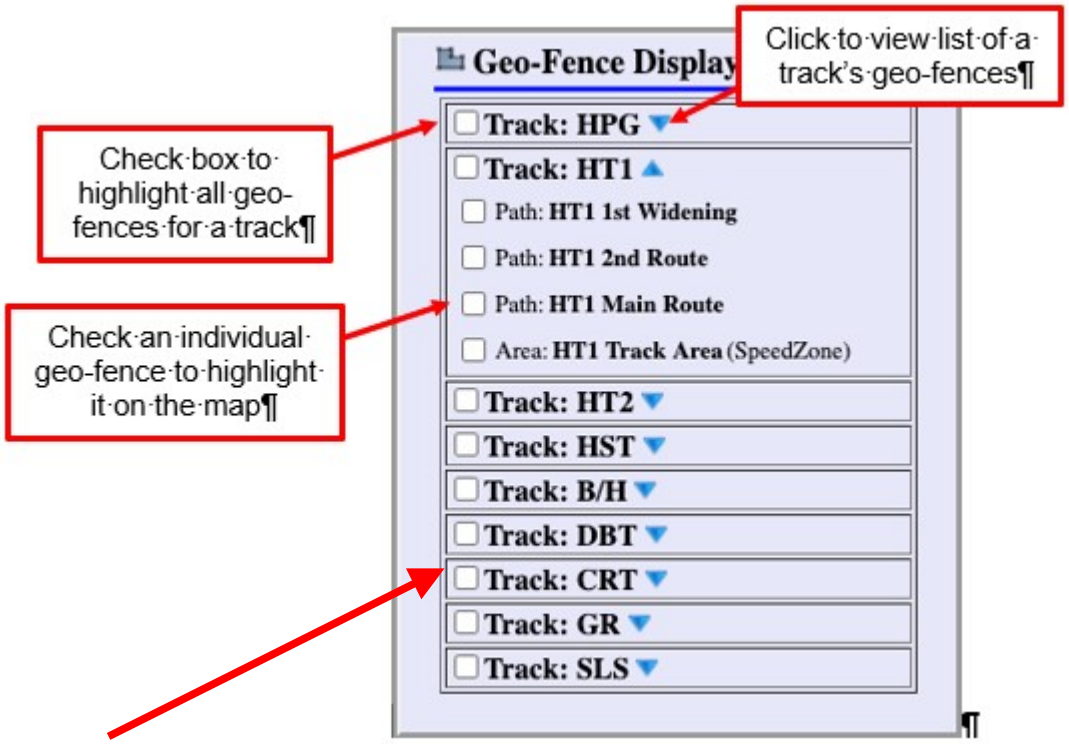


3. Geo-Fence Display Requirements

3.1 The Geo-Fence Display Selector opens with a list of all tracks in the system.
3.2 Check the box next to a track name to highlight all of the track's geo-fences.

3.3 Click the Arrow to the right of the track name to view a list of the track's individual geo-fences.





3.4 Initially, all of the geo-fences per track are collapsed and look like this section

3 Geo-Fence Display Overview Requirements

3.1.5 The heirachy is two levels deep. The top level is the ‘Track’ and every other item is on the second level.

3.1.6 When the window comes up, only show the top level, which can be expanded by clicking on the downward blue arrow and contracted by the upward blue arrow

3.1.7 Clicking on the checkbox for the top level will force the second level entities to be selected also. If the top level is contracted when it’s checkbox is selected, it remains contracted and all the entiries on its second level are selected as well. If the top level is then expanded, all the second level checkboxes will show selected.

3.1.8 When top level is expanded, all the second level checkboxes can be individually selected or deselected regardless of the top level selection state.

3.1.9 Selecting the checkbox for the top level will force its second level to be selected, regardless of their current selected state or whether they are displayed or not.

3.1.10 Deselecting the checkbox for the top level will force its second level to be deselected, regardless of their current selected state or whether they are displayed or not.

3.1.11 All the information needed for the Geo-Fence Display window is contained in a single JSON file. The following examples use snippets of that file.

3.2 Geo-Fence Type: Track

3.2.1 Scan the JSON file to get a list of all the different track names
3.2.2 Search for the Property: TrackPrefix
3.2.3 The track names will probably appear multiple times
3.2.4 The list contains all the unique track names (no duplicates)

3.2 Geo-Fence Type: Track

Format

Track: “TrackPrefix”

```
{
        "type" : "Feature",
        "geometry" : {
                "type" : "LineString",
        "properties" : {
                "TrackNo" : "13",
                "Track/area" : "City traffic course",
                "Track/Hällered subpart" : "2nd Route",
                "Type" : "Line",
                "Subtype" : "SpeedZone",
                "Width" : "15",
                "Autocad_layer" : "13 [City traffic course] 2nd Route # Line_SpeedZone_15m",
                "UniqueName" : "13 City traffic course 2nd Route Line SpeedZone 1",
                "Timestamp" : "2021-05-12",
                "TrackStatus": "true",
                "AbsoluteMaximum": "9999",
                "MaxNumber": "1",
                "DisableAllTrackAlarms": "false",
                "TooManyVehiclesAlarm": "false",
                "SpeedAlarm": "false",
                "SpeedLimit":"9999",
                "ExcessStopAlarm":"false",
                "ExcessStopLimit":"9999",
                "Direction": "Clockwise",
                "AlarmState": "Default",
                "TrackColor": "White",
                "BatteryWarningLevel":"20",
                "OffRoadTime": "5",
                "TooCloseDistance":"100",
                "TrackPrefix": "CTC",
                "SitePrefix": "HPG",
                "InternalAlarms": "true",
                "Count": "0",
                "Exclusive": "false",
                "OffTrackAlarm": "false",
                "TooCloseAlarm": "false"
        }
},
```

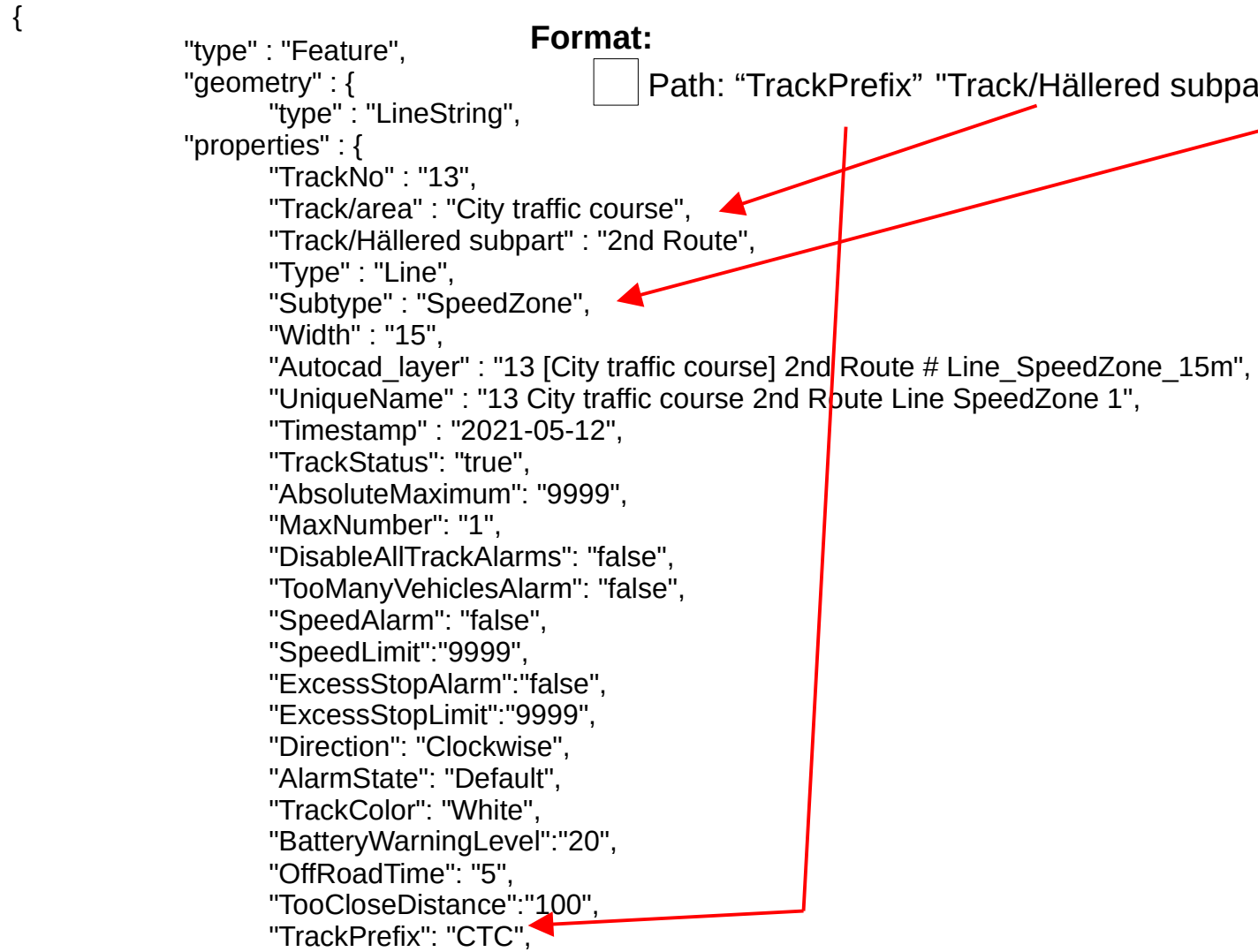
Track: CTC

Example

3.3 Geo-Fence Type: Path Search for “Type” = “Line

Format:

Path: “TrackPrefix” "Track/Hällered subpart” (“SubType”)



```
{
        "type" : "Feature",
        "geometry" : {
                "type" : "LineString",
        "properties" : {
                "TrackNo" : "13",
                "Track/area" : "City traffic course",
                "Track/Hällered subpart" : "2nd Route",
                "Type" : "Line",
                "Subtype" : "SpeedZone",
                "Width" : "15",
                "Autocad_layer" : "13 [City traffic course] 2nd Route # Line_SpeedZone_15m",
                "UniqueName" : "13 City traffic course 2nd Route Line SpeedZone 1",
                "Timestamp" : "2021-05-12",
                "TrackStatus": "true",
                "AbsoluteMaximum": "9999",
                "MaxNumber": "1",
                "DisableAllTrackAlarms": "false",
                "TooManyVehiclesAlarm": "false",
                "SpeedAlarm": "false",
                "SpeedLimit":"9999",
                "ExcessStopAlarm":"false",
                "ExcessStopLimit":"9999",
                "Direction": "Clockwise",
                "AlarmState": "Default",
                "TrackColor": "White",
                "BatteryWarningLevel":"20",
                "OffRoadTime": "5",
                "TooCloseDistance":"100",
                "TrackPrefix": "CTC",
                "SitePrefix": "HPG",
                "InternalAlarms": "true",
                "Count": "0",
                "Exclusive": "false",
                "OffTrackAlarm": "false",
                "TooCloseAlarm": "false"
        }
},
```

Example:

Path: CTC 2nd Route (speedzone)

3.4 Geo-Fence Type: Area Search for “Type” = “Polygon”

Format:

Area: “TrackPrefix” "Track/Hällered subpart” (“SubType”)


```
{
        "type" : "Feature",
        "geometry" : {
                "type" : "LineString",
        "properties" : {
                "TrackNo" : "13",
                "Track/area" : "City traffic course",
                "Track/Hällered subpart" : "2nd Area",
                "Type" : "Polygon",
                "Subtype" : "SpeedZone",
                "Width" : "15",
                "Autocad_layer" : "13 [City traffic course] 2nd Route # Line_SpeedZone_15m",
                "UniqueName" : "13 City traffic course 2nd Route Line SpeedZone 1",
                "Timestamp" : "2021-05-12",
                "TrackStatus": "true",
                "AbsoluteMaximum": "9999",
                "MaxNumber": "1",
                "DisableAllTrackAlarms": "false",
                "TooManyVehiclesAlarm": "false",
                "SpeedAlarm": "false",
                "SpeedLimit":"9999",
                "ExcessStopAlarm":"false",
                "ExcessStopLimit":"9999",
                "Direction": "Clockwise",
                "AlarmState": "Default",
                "TrackColor": "White",
                "BatteryWarningLevel":"20",
                "OffRoadTime": "5",
                "TooCloseDistance":"100",
                "TrackPrefix": "CTC",
                "SitePrefix": "HPG",
                "InternalAlarms": "true",
                "Count": "0",
                "Exclusive": "false",
                "OffTrackAlarm": "false",
                "TooCloseAlarm": "false"
        }
},
```


Example:

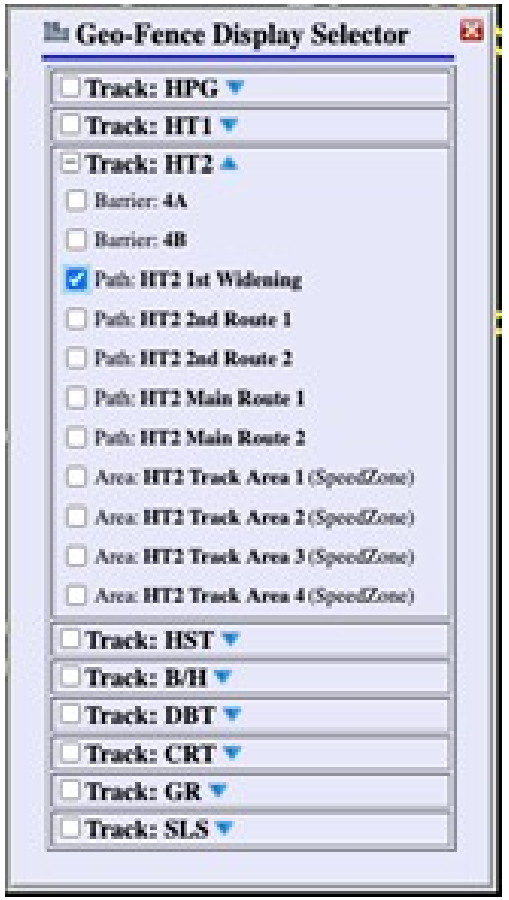
Area: CTC 2nd Area (speedzone)

3.5 Geo-Fence Type: Barrier Search for “Type” = “Barrier” AND “Subtype” = “Icon”

Format:

Barrier: “HPG number”

```
"properties": {
        "TrackNo": "00",
        "Track/area": "Hällered",
        "Track/Hällered subpart": "Approach",
        "HPG number": "2A",
        "Type": "Barrier",
        "Subtype": "Icon",
        "Autocad_layer": "00 [Hällered] Approach_2A # Barrier_Inbound",
        "UniqueName" : "00 Hällered Approach 2A Barrier Inbound 1",
        "Timestamp": "2021-05-12",
        "TrackStatus": "true",
        "AbsoluteMaximum": "9999",
        "MaxNumber": "1",
        "DisableAllTrackAlarms": "false",
        "TooManyVehiclesAlarm": "false",
        "SpeedAlarm": "false",
        "SpeedLimit": "999",
        "ExcessStopAlarm": "false",
        "ExcessStopLimit": "9999",
        "Direction": "Both",
        "AlarmState": "Default",
        "TrackColor": "White",
        "BatteryWarningLevel": "20",
        "OffRoadTime": "5",
        "TooCloseDistance": "100",
        "TrackPrefix": "HPG",
        "SitePrefix": "HPG",
        "InternalAlarms": "true",
        "Count": "0",
        "Exclusive": "false",
        "OffTrackAlarm": "false",
        "TooCloseAlarm": "false"
    }
},
```



Example:

Barrier: 2A