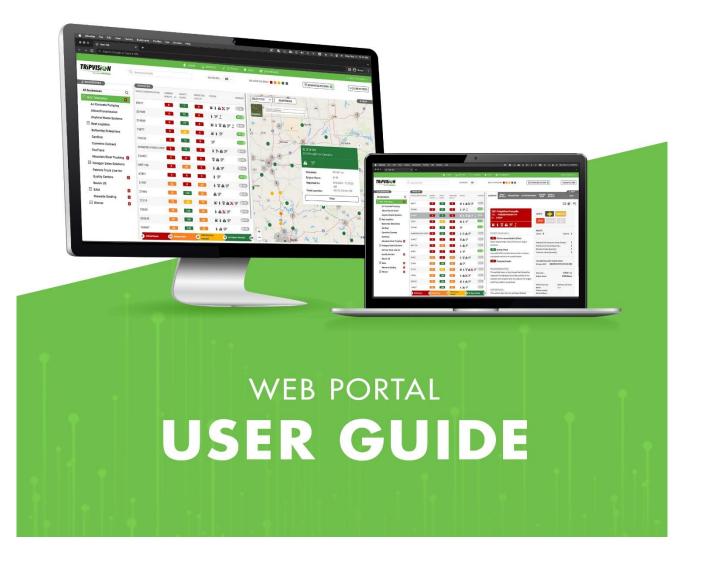


POWERED BY JPRO® TECHNOLOGY



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Does TripVision support multiple Telematics Service providers?		
Are there any limitations on which telematics devices can be added to which businesses?		
How are vehicle business associations managed with multiple telematics devices on a vehicle?		



1. PRODUCT OVERVIEW

TRiPVISi@N

The web portal is designed to provide fleets using telematics systems with a solution for managing their vehicle(s) when a fault occurs. It is a web-based user interface that allows a fleet to view the health status of all their enrolled vehicles, targeted toward Class 6-8 vehicles. Information about those vehicles is provided back to the fleet enabling them to make decisions that suit their business needs.

The web portal takes vehicle fault codes and other data provided by telematics service providers and returns information about the fault that is specific to that vehicle. This information includes:

- Overall Health Score
- Overall Safety Score
- Predicted Health Score
- Performance (Health) Effect
- Safety Effect
- Recommendation
- Action Plan
- Potential CSA Violations
- Fault History
- Fault Severity
- Sensor Data
- ADAS Issues
- Oscillating faults

A team of experts continuously analyzes and researches vehicle data including faults. This team includes data scientists and ASE certified technicians with multiple years of experience working on heavy-duty diesel vehicles. This team evaluates faults and assigns fault severity based on technician and industry knowledge and experience. The results of the fault assignment are further verified by examining vehicles under repair and comparing the severity with outside, independent diesel technicians.





When accessing the Login Page, you should be presented with a view similar to the figure below.

TRiP	VISi@N °	REMOTE DIAGNOSTICS			
USERNAME :	Username	 9+			
PASSWORD :	Password	5			
Log in					
	Forgot Username Forgot Password				

Figure 1 - Login Page

i. FORGOT USERNAME

Entering your username and password followed by pressing the Enter key or clicking the Log In button will grant access to the site. In the event your account was automatically generated, your username is likely to be the same as your email address.

If you are unable to remember your username, clicking "Forgot Username" on the Login Page will bring you to the following view.

Forgot your Username? Please enter the email address associated with your account.					
EMAIL : Email					
Send					
<< Back to Login					
If you have issues using the self service, places contact Nergen team at (226) 217					

If you have issues using the self-service, please contact Noregon team at: (336) 217-7442 or <u>TripVisionSupport@noregon.com</u>

Figure 2 - Forgot Username



USER GUIDE

Entering the email address associated with your web portal account and clicking the Send button will send a message to that email address with the web portal username.

If issues persist, please note the message regarding contacting the support team for assistance.

ii. FORGOT PASSWORD

If you are unable to remember your password, clicking "Forgot Password" on the Login Page will bring you to the following view.

Forgot your Password?					
Enter your username and email to recover your password.					
USERNAME : Username					
EMAIL : Email					
Send					
<< Back to Login					
If you have issues using the self-service, please contact Noregon team at: (336) 217- 7442 or <u>TripVisionSupport@noregon.com</u>					

Figure 3 - Forgot Password

Entering your name and email address associated with your web portal account and clicking the Send button will send an email to that address with details on recovering your password. If your account was automatically created, it is possible that your username is the same as your email address.

If issues persist, please note the message regarding contacting the support team for assistance.



3. HOME PAGE

i. NAVIGATION MENU

The navigation menu serves as the primary means of navigating the various pages of the website.

	🚹 НОМЕ		@ [®] SETTINGS	i Help	
--	--------	--	-------------------------	--------	--

These headers and pages will be explained in greater detail later in this guide with the available menu items depending on user access level (see <u>Access Levels</u>). From left to right:

- Home
 - Navigates to the Home page.
- Reports
 - Opens a menu which allows access to:
 - Run Reports
 - Schedule Reports
- Settings
 - Opens a menu which allows management of:
 - Risk Modifiers
 - Alerts
 - Businesses
 - Fault Settings
 - Filters and Tags
 - Geofences
 - Preventive Maintenance
 - Users
 - Vehicles
- Help
 - Opens a menu which allows access to:
 - Contact Us
 - Icon Legend
 - Submit Feature Request
 - User Guide
 - CSA Information
 - What's new
- Dashboards
 - Navigates to the Dashboards page.



ii. HOME PAGE MAP

The purpose of the Home Page Map is two-fold:

- i. Quick reference for location as it relates to Vehicle Health
- ii. Ability to locate Points of Interest, including repair facilities



Figure 5 - Home Page Map

CLUSTERS

The map will automatically group vehicles which are close together relative to the level of zoom. These groups or clusters are represented with a gray circle (vehicles) or lavender circle (points of interest) with a number in the middle indicating how many items are being grouped in that area. As you adjust the level of magnification on the map, clusters and counts will change.

COLORED DOTS

A vehicle, once out of a cluster, will be represented by a colored circle on the map. The color of the circle corresponds to the vehicle's health score. Filtering the vehicle list will also filter the list of vehicle circles on the map. Clicking on a colored circle will show more information about that vehicle and provide a link to navigate to that vehicle's summary page.



Map Views

To switch between satellite and standard map view, click the map format box found in the top lefthand corner of the map.

ADJUSTING THE MAP SIZE

To adjust the size of the map on the homepage, select the grey divider found between the fleet list and map, and drag the divider until the map is the desired size.

TIMING OF UPDATES

Each time the home page is refreshed, the latest available information is displayed. How often new information is available, however, will vary depending on the settings and policies adopted by the telematics service provider (TSP).

POINTS OF INTEREST

The web portal provides the ability for you to view their customized Points of Interest (POIs). To select specific POIs, click the Show/Hide Points of Interest and the resulting check mark boxes to display only the relevant locations.

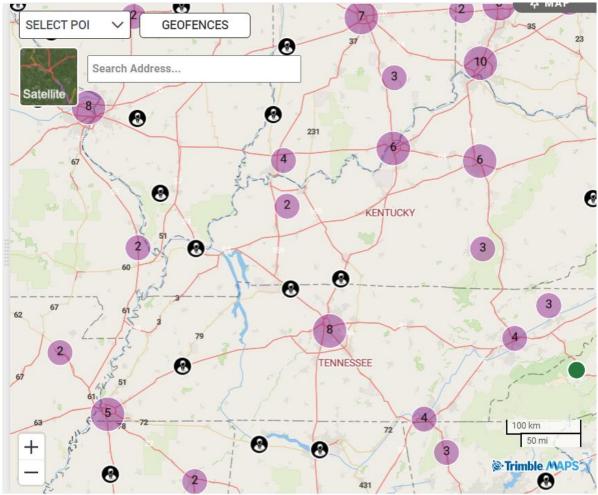


Figure 6 - Points of Interests



ADDING POINTS OF INTEREST

How to add new POI – each customer may provide their specific POIs. To add new POIs, contact your TSP representative for more information.

iii. VEHICLE LIST

The vehicle list is a high-level view of all vehicles which have recently reported fault/location information. This view includes a VIN/Asset ID, a Health Score, a Safety Score, and indicators for Fuel/CSA/Emission issues. A general warning icon may also appear depending on your add-in support.

As with the timing of updates under the Home Page Map section, the availability of new or additional information is dependent on the settings and policies of the telematics service provider. Each time the vehicle is selected, the latest available information which has been received will be displayed.



VEHICLES					
VEHICLE IDENTIFICATION		SAFETY SCORE	PREDICTED HEALTH	STATUS	HANDLED
MRT-158	0	25	0	• 🛪	YES
1HSHXAHR8AJ287131	3	50	3	ì A	NO
MRT-111	3	25	3	141	NO
MRT-116	3	25	3	1.6	YES
1M2LR06C8JM003397	53	75	53	• •	NO
MRT-136	53	0	53	●중▲茶	NO
MRT-11623	78	100	78	1 A ô	NO
MRT-135	100	100	100	ô A	NO
MRT-108	100	100	100	1 A ô	NO
MRT-160	100	100	100	ô A	NO
MRT-130	100	100	100	ô A	NO
MRT-104	100	100	100	1 🕰	NO
MRT-153	100	100	100	ô A	NO
MRT-148	100	100	100	A	NO

Figure 7 - Vehicle List

iv. STATUS ICON LEGEND

- 🔊 Fuel Dispenser
 - Indicates the presence of a fault with impact on fuel economy
- 🗢 Dash within Circle
 - o Indicates the presence of a fault with impact on CSA score
- Exhaust Stack
 - \circ $\;$ Indicates the presence of a fault with impact on emissions
- General Warning
 - Indicates a General Warning or Issue is present
- Kepair Tools



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- o Indicates preventive maintenance
- Predictive Faults
 - o Indicates the presence of a fault that is predicted to result in escalating faults if not addressed
 - **Ø Off-Line Vehicle**
 - Indicates the vehicle has not reported any data in the last 7+ days
- In Geofence
 - o Indicates that the vehicle is currently in a Geofence
- 🗑 ADAS
 - Indicates the presence of issue in the ADAS System
- H Fault Oscillation
 - Indicates the presence of an Oscillating Fault

v. VIN/ASSET ID

Vehicles are listed on the left side of the page by either VIN (default) or by a customer friendly name specified by you. By default, vehicles are sorted by Health Score in ascending order.

- Pages
 - The list is limited to fifteen vehicles per page. The number of pages available is at the bottom of the list.
 - If looking for a specific vehicle(s), use the search or filter features explained under Filtering & Searching.

Vehicle Display

For the web portal to display a vehicle, that vehicle must be registered with the 0 service. Depending on your TSP settings, vehicles will be automatically registered. For assistance registering vehicles in your TSP service, please contact your TSP representative.

vi. HEALTH AND SAFETY SCORES

Health Score

• The Health Score enlists a proprietary method for ranking a vehicle's overall health or readiness based on the aggregated fault and vehicle data received via your TSP and the connected device.

Safety Score

 Like Health Score, the Safety Score enlists a proprietary method for ranking the overall safety of the vehicle. This includes, but is not limited to, items from the CSA



USER GUIDE

list which can be electronically monitored. Additionally, the service considers other safety related faults (e.g. ABS).

• Predicted Health Score

• This is a composite of the Health Score plus any predicted / downstream faults.

• Color/Score Ranges

- Scores are based on a 0 to 100 scale with 0 being the worst possible score and 100 being the best possible score. In addition to score, there is a color system.
 - Red indicates a Critical Issue
 - Orange indicates a Severe Issue
 - Yellow indicates Maintenance Needed
 - Green indicates No Repair Needed
- Status
 - This column indicates whether the fault has an impact on fuel, CSA points, and/or emission levels by displaying fault type indicator icons. A warning sign may also appear to indicate another issue with the vehicle. See <u>Status Icon Legend</u> for more information.
- Handled
 - This column indicates whether a vehicle has been assessed by a web portal user after a new fault has been reported.

vii. FILTERING & SEARCHING

- Search
 - $\circ~$ The search field allows you to search for a specific vehicle by VIN/Asset ID.

Q Search by ID/VIN

Figure 8 - Search Field

Health Filters

• Above the Map are selection options for various stages of vehicle issue by color. Note: The color filter option only applies to Health Score.





NOTE: The Gray filter option is used to filter vehicles with PM's Due Soon and Due Now. Refer to the "<u>Preventive Maintenance Tab</u>" section for more details.

Advanced Filters



- This option will display a pop-up dialog which allows you to specify any of the following filter criteria:
 - Filter Provides a Drop-down menu of saved filters to choose from
 - Vehicle ID/VIN Full or partial VIN or customer-defined asset name
 - Tags Allows the user to select tags to filter by
 - Active Displays vehicles that have reported within a specific time period
 - Show All Displays all vehicles which have been enrolled and not disabled
 - Telematics Device– Telematics Service Provider
 - Vehicle Year Range
 - Fault Type CSA Faults, Fuel Economy Faults, Emission Faults, ADAS, Predictive
 - Handled Status Unhandled, Handled, All
 - Data In Range In Range, Out of Range, All
 - Health Score Range
 - Safety Score Range
 - Predicted Health Range
 - Other Filters Vehicle Not Communicating, PM Due, and In Geofence

ADVANCED F	ILTER
------------	-------

FILTER :	None	/ ID/VIN :	
TAGS :			~
ACTIVE :	🔿 1 Week 🔿 2 Week 🔿 3 Week	● 4 Week 🔘 Show All	
TELEMATICS DEVICE :	Show All	YEAR: None ~ to None	~
FAULT TYPE :	CSA Fuel Economy Em	ission 🗌 Predictive 🗌 ADAS	
HANDLED STATUS :	○ Unhandled ○ Handled	All	
HEALTH :	Critical Severe	Maintenance NoRepair	
SAFETY :	Critical Severe	Maintenance NoRepair	
PREDICTED HEALTH :	Critical Severe	Maintenance NoRepair	
OTHER FILTERS :	○ Vehicles Not Communicating ○	PM Due 🗌 In Geofence	
APPLY FILTERS	× CLEAR FILTERS		CANCEL

Figure 10 - Vehicle Filters

All applied health and vehicle filters can be removed by clicking the button in the top-right of the screen



labeled "Clear Filters" or by clicking the "Clear Filters" button in the Filter Pop-up window.

viii. CLEAR FILTERS BUTTON ABOVE THE MAP BUSINESS GROUPINGS

The Business Grouping feature provides customers with the following abilities.

- Display a hierarchy of businesses and the number of vehicles needing attention
- Select a business and display only vehicles assigned to that business, including sub-businesses

The Business Groupings View expands or collapses by dragging the divider between the Business Grouping List and the Vehicle List or by setting the default view via "Manage My Account". When fully expanded, the businesses and sub-businesses displayed in a hierarchy. The business/sub-business may be expanded by selecting the plus (+) to the right of the business. The minus (-) symbol will hide the businesses nested below that top level business. Selecting a business from the Business Tree Grouping section, 'impersonates' that business as if you were logged in to just that business.

The search box allows you to quickly search by the business or sub-business name.

4 BUSINESSES
All businesses Q
Business #1
Buffalo
New York City
+ North
South
+ Business #2
Business #3
Scranton
Figure 11 - Business Grouping Tree

ix. BUSINESSES WITH CRITICAL HEALTH VEHICLES

For a high-level view of your Fleet's Health, we provide an indication beside the Business Name to indicate how many vehicles have critical issues.

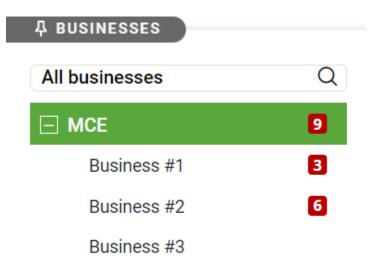


Figure 12- Businesses with Critical Health Vehicles

This is denoted by a red square with a number. The number indicates how many vehicles in or below the Business have critical issues. In the above example, the Top-Level Business "*MCE*" shows to have nine vehicles with a Critical Health status. Below that, the "Business #1" Sub-Business "Business #1" has three and Business #2" has 6 vehicles with a Critical Health status.

x. VEHICLE SUMMARY

Once a vehicle is selected from the Vehicle List, the large map view on the right will be replaced with a view showing information specific to the selected vehicle. Maintenance manager may also be available.

xi. SUMMARY TAB

The Summary tab is loaded by default once a vehicle is selected. It contains a box with the selected vehicle's year, make, model, VIN, Asset ID if one has been set, and any status icons.



MMARY FAULI VEHICLE PREVENTIVE ALERT DETAILS DETAILS MAINTENANCE HISTORY	HISTORY
2014 Kenworth/T800, T8 Series VIN : 1XKDAP8X0EJ414488 ID : 211	LAMPS: H
FFECT ON VEHICLE :	FAULTS : Active : 3 Inactive : 1
 Performance (Health) Effect Stop Engine Lamp will illuminate if issue persists. May cause ow power, fuel efficiency issues, or may not start/shutdown. Safety Effect Vehicle may be disabled suddenly in an unsafe location. Predicted Health 	Potential CSA Violations Score (Points) :0Fuel Economy Faults (Quantity) :1Emission Faults (Quantity) :2Predictive Faults (Quantity) :0
RECOMMENDATION :	TELEMATICS (LAST HEARD DATE) : Command Alkon (10/17/2022 10:40:09 AM)
ACTION PLAN : ACTION PLAN : f the vehicle is currently carrying a load and the driver can maintain safe vehicle speeds, then the driver may be able to leliver the load. Vehicle should be brought into a repair acility for professional diagnosis and repair as soon as convenient to prevent engine damage.	Odometer : 520846 mi Engine Hours : 17233 Hours Vehicle Contact : Business Contacts: Name : Alegre Trucking Inc Phone number : Email address :
PREVENTIVE MAINTENANCE :	Reported on: 10/17/2022 10:40:09 AM From Location: 17645 Victory Highway (CA-160), Rio Vista, CA

Figure 13 - Vehicle Summary

• Vehicle Information

- Color Health Indicator (based on current overall vehicle health)
- Vehicle Year (where available, decoded by VIN)
- Vehicle Manufacturer (where available, decoded by VIN)
- Vehicle Model (where available, decoded by VIN)
- o VIN
- Asset ID (if defined in the TSP interface or Manage Vehicles page)
- Fault Type Indicators see <u>Status Icon Legend</u> for more information
- Performance (Health) Effect
 - This indicates the current effect on vehicle performance.
- Safety Effect
 - This indicates the current effect on vehicle safety.



- Predicted Health Effect
 - Current faults and predicted future faults.
- Recommendation
 - \circ This provides overall recommendation based on the overall vehicle health score.
- Action Plan
 - This provides suggested course of action regarding continued operation and maintenance of the vehicle.
- Driver Action Plan
 - This provides a suggested course of action which the driver of the vehicle may be capable of enacting.

Handled Status

- Update Status allows a web portal user to indicate whether a vehicle has been assessed along with a description of the action(s) taken.
- The handled status grid indicates whether a vehicle has been assessed by a web portal user after a new fault has been reported as well.
- Lamps (as available by TSP)
 - This indicates whether the vehicle currently has active Malfunction Indicator, Warning, Stop, Protect, or Diesel Particulate Filter lamps, each having impact on scoring.
- CSA Score
 - The web portal provides you with the number of points which could be assessed by the DOT for items related to faults occurring on the vehicle.

• Fuel Economy Faults

- This indicates how many faults are currently affecting the vehicle's fuel economy.
- Emission Faults
 - This indicates how many faults are currently affecting the vehicle's emission levels.

• Predictive Faults

- This indicates how many faults may evolve into more severe faults in the near future.
- Telematics
 - This indicates the telematics device on the vehicle currently sending data to TripVision.

• Vehicles with multiple TSP devices will be reported here with their respective last heard dates and time.

```
        TELEMATICS (LAST HEARD DATE) :

        Noregon ND2
        (08/25/2022 8:05:04 AM)

        Geotab
        (08/25/2022 8:01:30 AM)
```

• Other Data Points

- o Total Active Faults
- o Total Inactive Faults
- Odometer (last reported)
- Engine Hours (last reported, as available by TSP)
- Reported On (last reported time)
- From Location (last reported location by physical address)

• PDF/Email Buttons

- Export to PDF will generate with a file of containing the current vehicle summary information and current fault details information.
- Send Email will allow you to enter a recipient's email address and custom notes to be included in the body of that email. Attached to the email will be the same PDF described in Export to PDF.

xii. FAULT DETAILS

FAULT GRID

Faults reported by the TSP will remain in the fault grid until the TSP reports them as inactive or until the fault has not been reported as active for 12 hours. Powering off a vehicle with faults will not remove a fault from the fault grid until one or both previous criteria have been met.



201: VIN : ID :	3 Volvo/VN 4V4NC9EH 4V4NC9EH1	11DN131922						
Ì	ዮ 🛦 🦻	Ŕ						
All C	omponents	~ Any St	atus 🗸					EXPAND ALL
	SEVERITY	FAULT TYPE	COMPONENT	REPORT DATE	ORIGIN	DESCRIPTION	STATUS	CODE
>	STOP	•	Engine	08/13/2021 12:12:53 PM	Noregon ND2	Aftertreatment SCR Operator Inducement Severity - Data valid but above normal operation range	Active	SPN 5246
>	۲	• B	Engine	08/13/2021 12:12:51 PM	Noregon ND2	Aftertreatment DEF Dosing 2 Valve - Current below normal or open circuit	Active	SPN 5394
>	í		Off Vehicle Gateway	08/13/2021 12:13:09 PM	Noregon ND2	Calibration memory EEPROM - Faulty device or component	Active	SID 253
>	i		Cruise Control	08/13/2021 12:12:59 PM	Noregon ND2	SAE J1939 data link - Data erratic, intermittent or incorrect	Inactive	SID 231
>	ŗ)	Engine	08/13/2021 12:13:13 PM	Noregon ND2	Aftertreatment SCR Operator Inducement Severity - Data valid but above normal operational range - Least Severe Level	Inactive	SPN 5246

00/10/0001 Figure 14 - Fault Grid

Induor

• Severity

• This column provides a color and icon representation of the fault's severity level. Red Stop Sign indicates most severe (Critical), Orange Wrench indicates severe, Yellow Wrench indicates Maintenance Needed, and a Green severity is informational.

Aftertreatment SCR Operator

at Covority Data valid

- Fault Type
 - This column indicates whether the fault has an impact on fuel, CSA points, emission levels or future problems (predictive). See Status Icon Legend for more information.

Component •

- o This column indicates the component on the vehicle which has reported the fault.
- Report Date
 - o This column provides the date which the fault was last reported by the vehicle. If a fault is no longer present in this list, it may be no longer occurring and may appear under Fault History.



- Origin
 - This column provides the TSP data source in which the fault originates from.
- Descriptions
 - This column provides a detailed description of the fault, descriptions which appearare prioritized in order of OEM, ASE-certified technician provided, and SAE.
- Status
 - This column provides the current reported status of the fault either Active (still occurring) or Inactive (no longer occurring). Some faults can oscillate between active and inactive. To help determine fault oscillation, check the fault count (details under Fault Drop-Down below).
- Code
 - This column provides the look-up code for the fault either by OEM code or by SAE code with FMI.

FAULT DROP-DOWN

Selecting a fault provides more information about the individual fault and its effects on the vehicle.

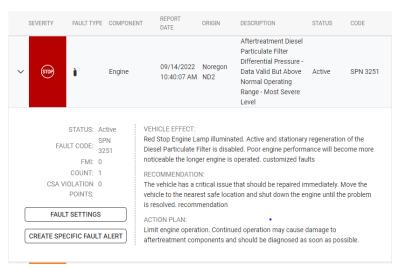


Figure 15 - Fault Drop-Down

- Status
 - This provides the current state of the fault either Active or Inactive.
- Fault Code
 - This provides the actual look-up code for the fault either by OEM code or



by SAE code with FMI.

- CSA Violation Points
 - This provides you with the number of points which could be assessed by the DOT for items related to faults occurring on the vehicle.
- Vehicle Effect
 - This provides a more specific description of the effect of the fault on the vehicle – a plain English understanding of what is happening to the vehicle based on the currently selected faults.
- Recommendation
 - \circ This provides a recommendation based on the severity of the selected fault.
- Action Plan
 - This information is customizable and can be used for users to communicate their Action Plans. This can be accessed for editing by higher level users under Fault Settings.
- Predictive Faults
- When a fault is likely to precede another, more serious fault if not addressed, the other fault(s) will appear here. These faults, including their probability and occurrence, are proprietary to Noregon Systems, LLC. and are not provided by the vehicle manufacturer. These are provided as a courtesy to TripVision customers. Select the Predictive Faults text to view more information

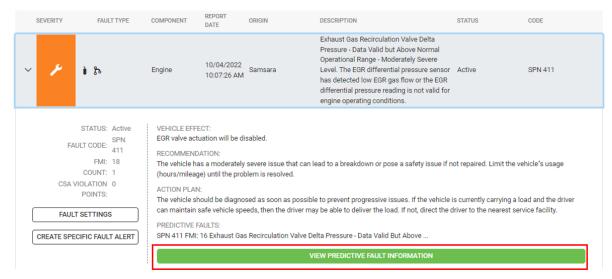


Figure 146 - Predicted Faults



Predictive Fault Information

Fault Code: FMI:	SPN 5394 5
Vehicle Effect:	MIL illuminated, yellow Check lamp illuminated.
Action Plan:	Driver should verify that lamps are on and whether engine performance has been affected or not. Depending on symptoms, driver may be able to continue normal vehicle operation but should have the fault diagnosed as soon as possible to prevent progressive issues such as an engine derate.
Current fault has	a 62% probability of escalating to a more severe fault in 24 miles
Predicted Fault Code:	SPN 5246
FMI:	15
Description:	Aftertreatment SCR Operator Inducement Severity - Data valid but above normal operational range - Least Severe Level
Vehicle Effect:	Moderate engine derate.

Figure 157 - Predicted Faults

- Oscillating Fault
 - This is a fault that toggles between statuses frequently in a limited time frame.
- Fault Settings
 - This will open a window, allowing additional, custom scoring, effect text and recommendation text to be added for the displayed fault.

SEVERITY FAULT TYPE	COMPONENT	REPORT	ORIGIN	DESCRIPTION	STATUS	CODE
· / la i i i i i i i i i i i i i i i i i i	Engine	10/11/2022 1:22:33 PM	Noregon ND2	Misfire on Alternating Cylinders Detected	Active	SPN 1322
STATUS: Active FAULT CODE: SPN 1322 FMI: 11 COUNT: 2 CSA VIOLATION 0 POINTS: FAULT SETTINGS CREATE SPECIFIC FAULT ALER	RECOMMENDA The vehicle has the problem is I ACTION PLAN: Action plan not PREDICTIVE FA SPN 1322 FMI: SPN 1325 FMI: SPN 1327 FMI:	start, low pow TION: a moderately s esolved. set ULTS: 10 Simultaneou 10 Cylinder 2 M 10 Cylinder 3 M 10 Cylinder 5 M	er or unable to start. evere issue that can lead is Misfire on Multiple Cyli lisfire Rate Above 5 Perce lisfire Rate Above 5 Perce lisfire Rate Above 5 Perce	nt Detected int Detected int Detected	red. Limit the vehicle's usa	ge (hours/mileage) until
				VIEW FAULT OSCILLATION INFORMATION		

Figure 168 – View Predictive and Oscillation information

OSCILLATING FAULT INFORMATION

Fault Code: SPN 97 FMI: 5	Vehicle Effect: None on performance.
	Action Plan:
Current Fault has oscillated 9 times in the last 3	30 minutes.
10/24/2022 12:50:00 PM	Active
10/24/2022 12:46:00 PM	Inactive
10/24/2022 12:44:39 PM	Active
10/24/2022 12:40:39 PM	Inactive
10/24/2022 12:35:40 PM	Inactive
10/24/2022 12:31:01 PM	Inactive
10/24/2022 12:30:19 PM	Active
10/24/2022 12:26:19 PM	Inactive
10/24/2022 12:21:37 PM	Inactive

Figure 179 – View Oscillation Details

• Create an Actionable Fault Alert

 This will redirect you to the page for setting up a new alert for the specific fault selected. The details for this fault will be automatically filled in where applicable during the alert creation process.

FAULT SETTINGS

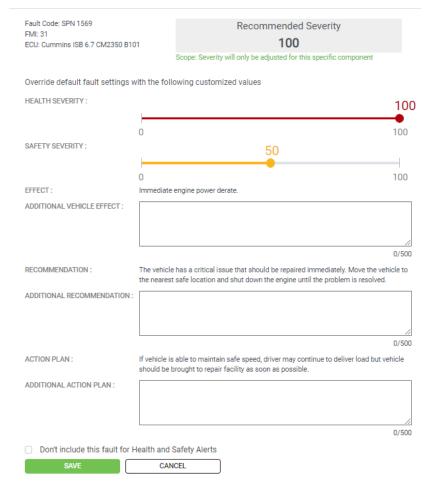
This button will appear under CSA Violation Points for *Admin* level users. It allows account administrators to add information for a fault which will display as appended for all other read-only users.

Changing these settings will affect all instances of the fault for a specific component or, if the component has not been identified in TripVision, for all instances of the generic SAE fault.

Use these fields to customize information for your fleet, and operating region, e.g. TripVision also provides a method to raise or lower a fault's severity.



CUSTOMIZE FAULT SEVERITY





Changing a fault's severity/color will not update any vehicle health scores until the fault is next processed. For example, when a fault is modified from the most severe level (red or 75-100 range) to the least severe level (green or 0-25), the fault's color as depicted in TripVision will not immediately change from red to green.



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o Checking this box will no longer include this fault in future Health and Safety Alerts

Under the 'Customize Fault' heading on the dialog, the text will appear indicating which component(s) are affected. If a fault appears for multiple components or OEMs, an admin level user must change the fault for each component or OEM. For example, if a fault severity is changed for a specific OEM, vehicles by other OEMs that have that same fault will NOT reflect the same change.

Note: Changing a fault for a component or OEM will not affect the same fault reported by other components or OEMs. For instance, if a fault is changed for a specific Cummins Engine, other engines will not be affected. The same applies to SAE Components. When you customize an SAE Fault, the "Scope" message will be in Red to help distinguish between OEM and SAE.

Fault Code: SPN 96 FMI: 19	Recommended Sev	verity
ECU: SAE Generic Engine	25 Scope: Default Severity for this fault will be adju	
	of type "Engine" "Engine"	isted for all component
Override default fault settir	gs with the following customized values	
HEALTH SEVERITY :	25	
	•	
SAFETY SEVERITY :	0	
SALETT SEVENTT .	0	
	0	
EFFECT :		
ADDITIONAL VEHICLE EFFECT	:	
RECOMMENDATION : ADDITIONAL RECOMMENDAT		
ADDITIONAL RECOMMENDAT	ON :	
ACTION PLAN :	Action plan not set	
ADDITIONAL ACTION PLAN :		
	for Health and Safety Alerts	

Figure 21 - Fault Settings (SAE)



xiii. FAULT HISTORY

Se	earch								
ll Te	elem	atics 🗸	Any Time	~ All Con	nponents 🗸	All Codes	\sim Any Status \sim		
	#	SEVERITY	FAULT TYPE	COMPONENT	REPORT DATE	ORIGIN	DESCRIPTION	STATUS	CODE
>	1	y	à	Engine	10/26/2022 8:42:39 AM	Geotab	Aftertreatment Diesel Particulate Filter Differential Pressure Sensor Circuit - Voltage Below Normal or Shorted to Low Source. Low signal voltage or open circuit detected at the aftertreatment differential pressure sensor circuit.	Active	SPN 3251
>	2	٦	s\$ €	Engine	10/26/2022 8:42:39 AM	Geotab	Aftertreatment Diesel Exhaust Fluid Tank Heater - Data Valid But Above Normal Operating Range - Moderately Severe Level. The diesel exhaust fluid tank heater is continuously in the ON position.	Active	SPN 3363
>	3	STOP	ዮ	Engine	10/26/2022 8:42:39 AM	Geotab	Engine Protection Torque Derate - Condition Exists. Critical fault codes related to engine operation are active.	Active	SPN 1569

If a vehicle was previously connected to a JPRO Professional diagnostic software or previously Figure 182 - Fault History

enrolled in the service, Fault History may be available for that vehicle up to the past 50 faults. Faults in the Fault History view will display their original status but do not necessarily reflect the current status of the vehicle. Currently occurring faults will appear in the Fault Grid.

xiv. VEHICLE DETAILS

This tab provides you with details about various component systems and telematics devices on the vehicle. The level of accuracy and detail is determined by the method of data being pulled. If a vehicle has been connected to a JPRO Professional diagnostic software previously, the data from the VIN will be pulled from Noregon's internal database. If the TSP can provide component identification, then the web portal will pull directly from the TSP. If none of these are available, the service will use a VIN decoding system to attempt to identify the components. The identification of component level systems helps in the accuracy of fault monitoring.



4			
METER: 2500	0 mi ENGINE HOURS : 250		EXPAND
SEVERITY	COMPONENT	DESCRIPTION	
STOP	Engine	Cummins - L9	
•	Brakes	WABCO - E Cab ESC	
,	Advanced Emergency Braking System	WABCO - OnGuard [™] Display Unit	
•	Instrument Cluster	Freightliner Corporation and Thomas Built Buses - N/A	
	On-Board Data Logger	Noregon - ND2	
	Transmission	Manual or Automatic -	
	Body Controller	Freightliner Corporation and Thomas Built Buses - N/A	
	Off Vehicle Gateway	Stoneridge Electronics - N/A	
	Headway Controller	WABCO - OnGuard [™] Radar Sensor	
	Chassis Controller	Freightliner Corporation and Thomas Built Buses - N/A	
10105			
ADAS Equip	ipea		

Figure 193 - Vehicle Details

• Severity

 This column provides a color and icon representation of the component's currently most severe fault. Red Stop Sign indicates most severe (Critical), Orange Wrench indicates severe, Yellow Wrench indicates Maintenance Needed, and a Green severity is informational.

Component

- This column indicates the term for the vehicle sub-system (e.g. engine, brakes, e.g.).
- Description
 - \circ $\;$ This column provides a brief description of the component.
- Drop-down
 - Description repeats the previous description
 - o Serial Number Component serial number if available by TSP/JPRO Professional
 - Software Version Component software version if available by TSP/JPRO Professional

• Tag Type

- This column shows the current Tag types that are associated with the vehicle (if applicable)
- Tags
 - o This column shows the tags that are assigned to this vehicle. (See "Manage



Vehicles" for more details)

4. **REPORTS**

The reports menu allows you to access the following report features:

- Run Reports
 - One-time reports; run immediately.
- Schedule Reports
 - Scheduled reports; run at user-defined intervals.

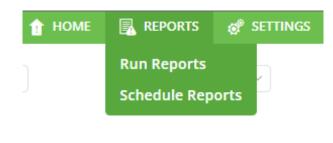


Figure 204 - Reports Menu

xv. RUN REPORTS

The reports page allows you to generate a CSV file of various high-level views of enrolled vehicles based on the businesses/groups you are assigned with some reports considering a user-defined date range.

Reports		
Report	Fault History	Ť
Start Date		
End Date		=
Filter	None	~
Business	Business Groups	
	 ND2 Telematics 	
	AutomationTesting	
	AutomationTesting2	
	Best Logistics Staging	
	 BulkWritesTesting 	
	 Diego's Engine Repair 	
	Target	

Figure 215 - Run Reports Page



xvi. REPORT TYPES

Available report types will vary by user level and add-in support. Generally, lists will include:

- Alerts Fired
 - Provides the User with a summary of Alerts that have Fired off over a defined period.
- Completed Preventive Maintenance
 - Provides the User with a Summary of Completed PM's.
- Distance Driven Per State
 - Provides the user with a report that displays the *estimated* Distance Driven Per State of each vehicle, per business.
- Distance Driven Per State (ND2 Only)*
 - Provides the user with a report that displays the *estimated* Distance Driven Per State of each vehicle, per business. *This only applies to vehicles equipped with an ND2 Device.*
- Fault History
 - Provides a summary of every single fault that Assets have set, as reported by a Telematics device, for a user defined period.
- Fleet Health Summary
 - Provides a current on-the-spot TripVision centric snapshot of every Asset visible to a user.
- Geofence Dwell Time
 - Provides users a historical record of Asset dwell activity specific to a Geofence and/or a Geofence Group.
- Handled Comments
 - Provides users with the ability to see a historical record of all applicable Assets.
- Health Trending
 - Showcases the number of distinct Assets that have reached a Critical Health level over a few defined periods of time.
- New Vehicle Registrations
 - Shows users the number of Assets brought on into the system (Registered/Enrolled/Onboarded) for a user-defined period of time.
- Parameters Out of Compliance**
 - o Provides users with an Asset level snapshot overview of the parameters



associated with a Business or Business Group.

- **Preventive Maintenance (All)**
 - Provides Asset-specific details related to PM events/routines, that are assigned to Assets as configured by a User/Business.
- Preventive Maintenance (Due Now and Soon)
 - Provides the same information as Preventive Maintenance (All), except the scope of visible information is limited to only those PM events/routines that have a Due Now or Due Soon status.

Top 10 Faults (SAE Descriptions)

- This report provides the User a list of the 10 highest occurring faults and their SAE Description for a user-defined period of time.
- **User Login**
 - Provides a historical record of each User that has logged into the system, for a specified period of time.
- **Vehicle Components**
 - Provides users with the ability to get a summary of the components (i.g. ECUs, 0 electronic controllers, e.g.) determined by the system to be present on the Asset.
- **Vehicle Enrollment Report**
 - This report provides the User with a list of vehicles/assets that have been enrolled in TripVision during the user-defined period of time.
- Vehicle Fault Count
 - Provides users with a list of their visible Assets, and a count of how many Unique/Distinct fault codes have occurred on an Asset, over the User defined period of time.

VIN Last Fault Request

o Provides users a summary of the Assets in their Business or Sub-Businesses, and when that Asset last reported a Fault Code to the system for processing.

*NOTE: Only when assets are equipped with a Noregon ND2 Telematics device, will the Distance Driven Per State (ND2 Only) report provide users with an actual report deliverable. This report is a focused report consisting of only ND2 derived data only.

****NOTE:** This report and the supporting feature is only available to TripVision Uptime customers

xvii. REPORT GENERATION

To generate a report:

- 1. Select a Report type
- 2. Enter or select start and end dates if applicable
- 3. Select a User Defined Filter if applicable*
- 4. Select the groups or businesses to be included in the report
- 5. Click Submit

You will either be prompted to save the generated CSV file, or the generated CSV file will be automatically downloaded to your browser's default downloads location.

*Note: The "User Login" report does not support the Filtering feature

xviii. SCHEDULED REPORTS

Scheduled reports allow you to set up reports which will recur at user-defined intervals.

TRiPVISi@N	Q Search by rep	Search by report name			
SCHEDULED REPORTS		+ ADD SC	HEDULED	REPORT	
NAME ^	TYPE	STATUS	EDIT	DELETE	
Alerts Fired Report	Alerts Fired		ľ		
Daily Fleet Health Summary	Fleet Health Summary	OFF	Ø		
Daily Odometer Report	Fleet Health Summary		ľ		
Fault History Report	Fault History		ľ		



- Scheduled reports can be searched by using the search bar in the upper left of the screen.
- New scheduled reports can be created by clicking the Add Scheduled Report button.
- Existing scheduled reports can be activated/deactivated by using the toggle switch under the Status header
- Existing scheduled reports can be edited by clicking the pencil icon in the right-most column.
- Existing scheduled reports can be deleted by clicking the recycle bin icon in the right-most column.



4.1.2 ADD/EDIT REPORT SCHEDULE

The available scheduled report types and businesses available will be based on your current user group assignment and permissions. Scheduled reports will be sent in CSV format in a ZIP file. EDIT REPORT SCHEDULE

	REPORT FREQUENCY	
FREQUENCY :	Daily	
SELECT TIME (HH) :	3 ~ PM ~	
	EMAILS	
EMAIL RECIPIENT(S) :	taylor@truckcompany.net	1
	Enter Email	1.
	ADD ANOTHER EMAIL	
If checked, business ar	Use Email from Business Groups	
	FILTERS	
FILTER :		·
	REPORT SCHEDULE INFORMATION	
NAME :	Alerts Fired Report	
REPORT :	Alerts Fired	~
	Update Report With New Sub Businesses	
BUSINESS :	All Business Groups	
	ND2 Telematics	

Figure 27 - Add/Edit Report Schedule

Frequency •

- Daily Choose an estimated time of report delivery
- Weekly Choose the time of report & day of the week
- Monthly Choose the time of the report and Choose 1st, 15th, or last day of month
- Email Recipient(s) •



- Enter recipient email (multiple recipients can be defined)
- Use Emails from Business Groups
 - If checked emails from the users in the selected business groups will receive the report
- Filters
 - Select a saved Filter to filter the report by
- Name
 - Enter a friendly name for the report to be easily identified in the scheduled report list
- Report
 - Choose a report type (list available under Report Types)
- Update Report with New Sub Businesses
 - o Checking this box will automatically add any new sub businesses to the report
- Business
 - Select one or more businesses with the toggle control to be included in the report.

5. USER ACCOUNT

Account Management is located on the top right of your screen.

• Change Password - This setting will allow you to change the password that is used to log in to TripVision website.



Figure 228



CHANGE YOUR PASSWORD

OLD PASSWORD :	
NEW PASSWORD :	
RETYPE NEW PASSWORD :	
By checking this box I agree to the <u>EULA</u>	
SAVE	

Figure 239

- Enter your current password
- Enter your new password
- o Re-enter your new password for confirmation
- \circ $\,$ Check the EULA box $\,$
 - Click this hyperlink to view TripVision's end-user license agreement.
- Select Save to have your new password take effect



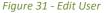
Figure 30



Manage My Account this page allows you to view and partially edit information associated with your web portal account. A gray text box indicates a field which is unable to be edited.

MANAGE MY ACCOUNT

USERNAME:	
EMAIL ADDRESS :	
NAME :	John Doe
PHONE NUMBER :	336-555-1212
	Show Detailed Health /Safety /Predicted Health Scores
	Metric
	Show Handled Column
	Display Dashboards As Landing Page
	Display Business Tree Expanded
	EULA
	SAVE



SHOW DETAILED HEALTH/SAFETY/PREDICTED HEALTH SCORE

Selecting this box will display all numerical (0-100) health/safety/predicted health scores in your view of the web portal. Even when the box is unchecked, these scores will persist in the system and can be displayed again at any time by selecting this checkbox.

- Unchecked (default): Numerical scores will not appear on the website, but color severity will be visible. Most score-based slide controls will be replaced with color severity selections.
- **Checked:** Numerical scores will appear on the website. Score based selections will be control by slide controls.

METRIC

Selecting this box will toggle a metric view for odometer information wherever it appears. These will include items such as vehicle summary odometer, odometer values in reports, parameter speed values, and email summaries.

- Unchecked (default): Odometer and speed-based values will appear in US customary units, i.e. miles, mi, or mph.
- **Checked:** Odometer and speed-based values will appear in metric units, i.e. kilometers, km, or km/h.

SHOW HANDLED COLUMN

Selecting this box will toggle a new column related to the maintenance manager when viewing the vehicle list. The handled column shows a user-selectable checkbox per vehicle indicating whether the vehicle status has been recently addressed since indicating new faults.

- Unchecked: The handled status column will not appear in the vehicle list.
- **Checked (default):** The handled status column will appear in the vehicle list and contain user selectable checkboxes to indicate the vehicle has been triaged, addressed, e.g.

DISPLAY DASHBOARDS AS LANDING PAGE

Selecting this box will toggle the user's default page loaded upon logging in.

- **Unchecked:** The home page map and vehicle list will be displayed upon successful login.
- **Checked (default):** The dashboards page will be displayed upon successful login.

DISPLAY BUSINESS TREE EXPANDED

Selecting this box will toggle the user's default preference for the Business Grouping View.

- Unchecked: The Business Grouping will be collapsed upon user login.
- Checked (default): The Business Grouping will be expanded upon user login.

EULA

• Click this hyperlink to view TripVision's End-User License Agreement. Username

- Email Address
- Name
- Phone Number
- User Preferences



- Show Detailed Health/Safety Score
- o Metric
- $\circ \quad \text{Show Handled Column} \\$
- o Display Dashboards as Landing Page
- o Display Business Tree Expanded
- EULA- Click "EULA" to open the hyperlink to view TripVision's End-User License Agreement.

i. LOGOUT

Clicking this option (located in the top-right corner of each screen) will log you out of your current session. Any other navigation to the website will be redirected to the login screen until login is completed again.



ii. SESSION EXPIRATION

For security reasons, login sessions will automatically expire after 8 hours. At this point, selecting vehicles will display an error message regarding an invalid token. Attempting to navigate to any other page of the web portal or clicking Logout will return you to the login screen where you can login and begin a new session.

6. SETTINGS

• The settings menu offers multiple options for managing various areas of the web portal and your



Options available may vary depending on user access level (see Access Levels).



Figure 33 - Settings

xix. MANAGE USERS

This page allows you to set up and edit additional users to access your fleet's web portal information. Depending on your TSP settings, user enrollment may occur automatically.

T	RiPVISi@N			Q, Search				STATUS :	Active	200
JSE	RS LIST								+ ADD	NEW USER
8	USERNAME	NAME	EMAIL	PHONE NUMBER	ACCESS LEVEL	BUSINESS NAME	STATUS	PASSWOR	D STATUS	EDIT
1	aparengharagen on 18	Sarney.	apareny (de compre- 2 apr)	10.70.007	Account Admin	an an air	C	CED Un	locked	ľ
2	Endersprecifique ani	Arrest to a	the legent	10410-004	Account Admin			CED Un	locked	ľ
3	the similar product of the second sec	inunt restrict	ikeriki.kujumi Ingrom	40140-101	Account Admin		(CNTE)	CCD Un	locked	ľ
4	problemation	anany .	in the second	1002100-00011	Account Admin	10000		CCD U	locked	ľ
5	inducing towing to a	the second	released to the second	NUMBER OF STREET	Account Admin	10000		CCD Un	locked	ľ
6	Kindherjinega Loss	Kenin Desetterin	Mestionjee apropri	0000000	Account Manager			CED Un	locked	ľ
7	Amatonagirong anan	NO.5	Modulus/point reprised	100.00.001	Account Admin		•	(ED) Un	locked	ß
8	steppingrouper: act	anne -	stoppignorp. Insta	101-102-0144	Account Admin			CCD Un	locked	ľ
9	Manifold Strengt	line Kashenaky	National State	10110-000	Account Admin	and includes		COD Un	locked	ľ
10	a comprospecto R	LANS .	inangrange total	101.00.000	Account Admin	100 March 100		CCD Un	locked	ľ
11	Enderheijschworksji Novimite	formal Informa	dadarophow Ngan sat	18-38-571	Account Admin	Sector Sector		CCD Un	locked	ľ
12	and the particular sector of the sector of t	ing .	destring/ourse an cont	101208-002	Account Admin	The second		CCD Un	locked	e
13	NUMPERATOR OF STREET	the second se	deriver years	100-202-00-1	Account Admin	100.000		CCD Un	locked	ľ
14	Lineticitude	lat.	ije mije organ. 199	100.0017101	Account Admin			CED Un	locked	ľ
15	Service	Territ Replace	Teoritestens) gradient	284-007-0104	Account Admin			(ED) (r	locked	ľ
								<< < 1	of7 ∨	> >>

Figure 34 - Users List

7	RiPVIS	i 🍪 N	USER	GUIDE					
#	USERNAME	NAME ^	EMAIL	PHONE NUMBER	ACCESS LEVEL	BUSINESS NAME	STATUS	PASSWORD STATUS	EDIT
1	RegionalSalesManage rs	Alec Johnson	rsm@Noregon.c om	999-999-9999	Account Admin	MCE Business #1 Business #2 Business #3 South Read more	ON	OFF Unlocked	ľ

Figure 35 – User Details

When the number of listed businesses exceeds is greater than the number that can be displayed, a Read more Hyperlink will appear allowing you to see all businesses that are associated with that user.

	BUSINESS NAMES
1	MCE
2	Business #1
3	Business #2
4	Business #3
5	South
6	Scranton
7	North
8	New York City
9	Buffalo

Figure 36 – Business List

xx. USERS LIST

This list provides a summary for each web portal account set up under the currently logged in user. This is the default view after clicking Settings > Manage Users.

• #

- \circ $\;$ A simple reference number for the listed entries
- Username
 - \circ The name used to log in to the web portal account, typically your email address
- Name
 - o Lists first and last names currently associated with that account's user settings
- Email



- \circ $\;$ The email address currently associated with that account's user settings
- Phone Number
- \circ The phone number currently associated with that account's user settings
- Access Level
 - The level of access granted to that account determines user's rights and permissions
- Business Name
 - Selection determines what groups of vehicles are viewable to you
- Status
 - 'On' designates the account is enabled, 'Off' states the user no longer has access to TripVision
- Password Status
 - 'On' designates the account locked and the user has tried to enter their password more than 3 times unsuccessfully, any Account Admin can unlock the user's account.
 'Off' states the user is not locked out of their account.
- Edit
 - \circ $\;$ Navigates to a page that allows you to edit certain settings for that user

xxi. ACCESS LEVELS

Currently, the web portal supports four levels of user accounts. All permissions are cumulative meaning Admins have all rights of Managers, Members, and Viewers. Managers have all rights of Members and Viewers. Additional rights may be available depending on add-in support.

- Account Viewer
 - o Run Reports
- Account Member
 - o Run Reports
 - o Enter Handled Comments
 - Close Scheduled Preventive Maintenance
 - Account Managers Additional Permissions
 - o Change Risk Modifier
 - o Maintenance Manager (Handled/Unhandled Vehicles)
- Account Admins Full Permissions
 - Schedule Reports
 - o Manage Users
 - o Manage Businesses
 - o Manage Vehicles
 - o Manage Alerts
 - o Change Risk Modifier
 - Fault Settings



xxii. ADD NEW USER

This page allows the creation of a new web portal user account.

New users will receive an email at the specified email address to complete setting up their accounts. The email will include a temporary password which must be changed upon the first

USERNAME :		â
EMAIL ADDRESS :		
NAME :		
PHONE NUMBER :		
ACCESS LEVEL :	Select access level	~
BUSINESS :	All Business Groups	OFF
	I MCE	OFF
	Business #1	ON
	Business #2	OFF
	Business #3	OFF
EULA		
	SAVE	



login. Each email address can only be used once and must be unique. If you are unable to register using a specific email address, it is possible the account was automatically created by the TSP for that address. Please use the Forgot Password page to receive a password reset link at that email address. Access level granted can only be equal to or less than your own.



xxiii. EDIT USER

The edit user (accessed from the Pencil icon in User List) allows you to edit certain details of any individual account placed under your business. Username and email address cannot be edited.

USERNAME :	marketing@noregon.com
EMAIL ADDRESS :	marketing@noregon.com
NAME :	Noregon Marketing
PHONE NUMBER :	336-555-5555
ACCESS LEVEL :	Account Admin v
BUSINESS :	All Business Groups
EULA	
	SAVE
I	Figure 248 - Edit User

xxiv. CHANGE RISK MODIFIER

Selecting Change Risk Modifier from the Settings menu will display a pop-up window for Health Score Settings.

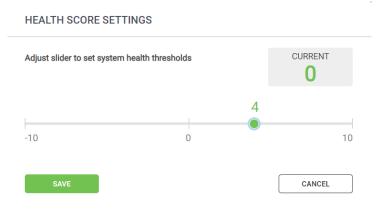


Figure 259 - Health Score Settings

This window allows you to globally set your risk adversity within +/- 10 points of the original value after all other vehicle health factors have been calculated. Recalculation of a vehicle's health score will occur once a new fault is received.

xxv. EXAMPLE OF MODIFYING THE RISK MODIFIER

- For example, if you adjust the slider to -10 and save settings, a vehicle's health score which previously would have been 80 (No Repair Needed) would instead be calculated to 70 (Maintenance Needed) after a new fault is received.
- 2. Conversely, if you tend to consider vehicles labeled with a Severe health score are being graded too harshly, you can increase the slider to +10 which will mean more even more severe issues will need to be present before the vehicle is graded with a Severe health score.

xxvi. MANAGE BUSINESSES

This page allows you to manage the hierarchy of businesses (also referred to as "groups") to which users and vehicles can be assigned. Depending on your TSP settings, business/sub-business creation may automatically mirror your TSP setup

On the left, a hierarchy of business structure is displayed. Selecting a business from this list allows several options to be managed.

BUSINESSES	MANAGE BUSINESSES	3
All businesses Q	ADD/DELETE BUSINESS	MANAGE THEME CONTACT INFO
Business #1		ADD SUB BUSINESS
North	ADD SUB BUSINESS FOR :	MCE
South		
Business #2	SUB BUSINESS NAME :	
East		
West		+ ADD SUB BUSINESS
Business #3		
		DELETE BUSINESS
	DELETE BUSINESS :	MCE
	DELETE BUSINESS :	MCE
		DELETE BUSINESS
	Figure 4	10 - Manage Businesses

xxvii. ADD A SUB-BUSINESS

Once a business has been selected from the business hierarchy tree, you may add a subbusiness to the tree directly underneath it. The selected business will appear next to the "Add Sub-Business for:" line. Typing in a name for the sub-business and clicking the Add Sub-Business button will add it to the hierarchy tree accordingly.



BUSINESSES	MANAGE BUSINESSES	3
All businesses Q	ADD/DELETE BUSINESS	MANAGE THEME CONTACT INFO
Business #1		ADD SUB BUSINESS
South Business #2 East	ADD SUB BUSINESS FOR : SUB BUSINESS NAME :	Business #1 North
West Business #3		+ ADD SUB BUSINESS
		DELETE BUSINESS
	DELETE BUSINESS :	Business #1
		DELETE BUSINESS
	Figure 41 - Add Busi	ness

xxviii. DELETE BUSINESS

Once a business has been selected from the business hierarchy tree, you may delete the selected sub-business. The selected business will appear next to "Delete Business:" and clicking the Delete Business button will remove it from the hierarchy tree.

It is important to note that any vehicles which were registered to the deleted businesses will be inherited by the parent business of the business hierarchy tree. If a deleted business was created automatically and is still active in your TSP portal, it will be reactivated upon the next TSP update.

	DELETE BUSINESS	
DELETE BUSINESS :	East	
	Figure 42 - Delete Business	



xxix. MANAGE THEME

Once a telematics provider level or parent company business has been selected from the business hierarchy tree, you may change the graphical appearance of some site features. The selected business will appear next to "Manage Business Theme".

Clicking in the "Theme Hex Color" box presents the options of typing in a hexadecimal color value or using the included color picker to choose a color. Samples of the selected color will be displayed beneath the color picker and to the far left of the Theme Hex Color box.

All businesses	Q	ADD/DELETE BUSINESS	MANAGE THEME	CONTACT INFO
- MCE				
Business #1		MANAGE BUSINESS THEME :	MCE	
North		THEME HEX COLOR :	#6dc04b	
South			1 modeo na	
Business #2		THEME LOGO :	0	
East				as a .jpg, .jpeg or .png extension.
West				imensions are 206px X 42px. Otherwise it will be resized
Business #3				



Clicking **Choose File** next to "Theme Logo" will allow you to browse your computer for an image file to be displayed as the logo on the web portal. This logo appears in the top-left of all pages of the web portal for users assigned to this business. If no color/logo is set, it will be inherited from the parent.

Acceptable image file formats include .jpg, .jpeg, and .png. If the image chosen is larger than 206px by 42px, it will be resized.

Clicking the Save Theme button will save and apply the changes to the Theme Color and Theme Logo.



MANAGE BUSINESSES

ADD/DELETE BUSI	NESS MANAGE THEME	CONTACT INFO	
NAME :			
EMAIL :			
PHONE :			
SAVE CONTACT			
	Figuro A	14 - Contact info	

Figure 44 – Contact info

Contact Info - This field is designated as the main point of contact for the business

xxx. MANAGE VEHICLES

This page allows you to manage vehicles by moving them between businesses or deactivating them. Depending on your TSP settings, this may occur automatically. You may only manage vehicles at your account's business level and for the business levels below your own.



7		BUSINESS :	All businesses v STATUS :	All	~
MA	NAGE VEHICLES			MAN	AGE TAGS
	VEHICLE IDENTIFICATION	BUSINESS	TAGS	STATUS	EDIT
	0	Walks: Truthis		OFF	0
	001230			ON	0
	001817	Walkens/ /Sport: Sametons, Inc.		ON	0
	001866	FamilPec Department		OFF	0
	001867	framilPre-Eurporation		ON	0
	001868	fraudPre-Eurporation		ON	0
	001869	FamilPre-Derporation		ON	0
	001870	FamilPro Deparation		ON	0
	002125	FamilPre-Derportition		ON	0
	003670	FamilPre-Deparation		ON	0
	003671	FamilPro Deparation			0
	003673	FamilPro Deparation		ON	0
	003674	FamilPro Deparation		ON	0
	003675	FamilPec Eurporation		ON	0
	004059	Hagerdowr (Black		ON	0
			<< < 1	of 951 🗸	> >>

Figure 45 - Manage Vehicles

• Vehicle Identification

- This column displays client-assigned Asset ID and VIN. If Asset ID was not set, it is set to the VIN. If VIN is not available, it is set to the Asset ID.
- Business
 - This is the list of businesses to which the vehicle is currently assigned.
- Tags
 - This displays a list of the Tags that are assigned to each Asset
- Status
 - This displays the current Status of the vehicle and allows a User with sufficient privileges to activate/deactivate individual Assets
- Edit
 - Clicking the Pencil icon will open a menu that allows the Asset ID to be renamed and the business/group list for that vehicle to be edited.
 - Clicking the Tag icon will open a menu that allows the User to add/edit Tags to a vehicle

xxxi. FILTERING & SEARCHING

Searching and filtering are currently available by four methods:

1. Filter/Search by ID/VIN

• If you have "All businesses" selected in the first dropdown box, entering a full or partial Asset ID or VIN, and clicking the search button (represented by a magnifying glass) will display all matches in the vehicle list.

2. Filter/Search by Business

- Selecting a business from the first dropdown box will filter the vehicle list to only vehicles currently belonging to that business.
- 3. Filter/Search by Business and ID/VIN
 - The business filter must be applied first followed by an entry in the ID/VIN field.
- 4. Filter/Search by Active/Inactive/All
 - Applying the "Show Recently Active" filter will filter the vehicle list to only vehicles that have been active within the last 90 days. **All** will return results from BOTH **Active** and **Inactive** vehicles.

xxxii. REASSIGNING VEHICLES

- 1. Filter/Search for your desired vehicle(s) as per the filter/search steps above.
- 2. Select Edit (pencil icon) next to your desired vehicle.
- 3. Select your new business assignment from the Business dropdown box.
- 4. Click the Save button.

Depending on your TSP settings, this may occur automatically. Any reassigned vehicles will no longer appear in the vehicle list for users associated with the old business when they are logged in, instead appearing in the vehicle list when users of the recipient business are logged in.

xxxiii. RENAMING VEHICLE ASSET ID

- 1. Filter/Search for your desired vehicle(s) as per the filter/search steps above.
- 2. Select Edit (pencil icon) next to your desired vehicle.
- 3. Enter the new name of the vehicle.
- 4. Click the Save button.



MANAGE VEHI	CLE	
VEHICLE ASSET ID :	N0305	
CONTACT NAME :	Judy Torres	
CONTACT EMAIL :	jtorres@esjlpfy.com	
CONTACT PHONE NUM	BER :	
BUSINESS :	All Business Groups	OFF
	I MCE	OFF
	SAVE	
Figure 46	– Manage Vehicle Assignment	

xxxiv. MANAGE ALERTS

This page allows you to manage email and text message alerts which will trigger based on user configurable health or safety scores, individual faults, or faults with additional attributes on vehicles.

AL	ERTS LIST			+	ADD NE	W ALERT
#	ALERT NAME	ALERT TYPE	VALUE	STATUS	EDIT	DELETE
1	DPF Regen	Driver Actionable Alert	N/A	OFF	ľ	
2	Alert 1002	Driver Actionable Alert	N/A	OFF	ľ	
3	Actionable Alert!	Driver Actionable Alert	N/A	OFF	ß	[1]]

Figure 47 - Alerts List

- #
 - o A simple reference number for the listed entries
- Alert Name
 - The name of the alert as configured by you
- Alert Type



•

- Value
 - The threshold for the alert vehicles under this score for the chosen alert type will trigger an email alert, text message alert, or both depending on alert settings
- Status
 - o Whether the alert is currently active
- Edit/Remove
 - o Edit, represented by a pencil icon, allows you to change the alert settings
 - Remove, represented by a recycle bin $\frac{1}{||||}$ on, allows you to delete the alert

xxxv. ADD/EDIT ALERT

Clicking the Add New Alert button or the Edit icon on an existing alert row will display a new window for alert settings.

HEALTH AND SAFETY ALERTS

When selected from the Alert Type dropdown menu, health and safety alerts allow you to receive notifications when a vehicle in the selected groups has a health score or safety score falls below a specific threshold.

CREATE ALERT		
ALERT NAME :	Enter Name	
ALERT TYPE :	Low Health Score ~	
FILTER :	None	
HEALTH SCORE :	Critical Severe Maintenance This field is required	
BUSINESS :	All Business Groups OFF	
EMAIL RECIPIENT(S) :	Enter Email	
	ADD ANOTHER EMAIL	
	 Use Email from Business Groups emails will be in addition to manually entered emails 	
PHONE NUMBER :		
	Cellular numbers only. SMS fees and data rates may apply. S IS Active	
	SAVE	

Figure 48 - Health/Safety Alert



- Alert Name
 - The name of the alert as configured by you
- Alert Type
 - ADAS Alert
 - CSA Violation Fault
 - Driver Actionable Alert
 - Emission Fault
 - Fuel Economy Fault
 - Geofence Alert
 - Idle Shut Down Time Parameter
 - Low Health Score
 - Low Safety Score
 - PM Event
 - Predictive Fault
 - Road Speed Parameter
 - Specific Fault
- Filter
 - Select a saved Filter to filter the Alert by
- Value Slider / Severity Selector
 - If numerical values are set to show, a slider will appear for you to choose the threshold for the alert trigger
 - If numerical values are set to hidden, a color-coded severity selector will appear for you to choose the threshold for the alert trigger
- Businesses
 - Which businesses this alert will monitor
- Email Recipient(s)
 - o If present, the email address(es) which will receive the alert notification
- Use Emails from Business Groups
 - o If checked, emails from the users in the selected business groups will receive an alert
- Phone Number
 - If present, the phone number which will receive the text alert notification
- Is Active
 - Whether the alert is currently active

SPECIFIC FAULT ALERTS

When selected from the Alert Type dropdown menu, specific fault alerts allow you to receive notifications when a vehicle in the selected groups has reported a specific fault code.

ALERT NAME :	Enter Name	
ALERT TYPE :	Specific Fault	~
FILTER :	None	~
FAULT TYPE :	SPN/PID	~
FAULT CODE :	required	
FMI :	Optional	

Figure 49 - Specific Fault Alert

While creating a new specific fault alert, you will be prompted for the following:

- Fault Type
 - o SPN/PID
 - Numerical identifiers for J1939 and J1708 parameters respectively
 - o SID
 - A numerical identifier for J1708 components
 - Proprietary/OBD
 - An alphanumeric identifier for standard OBD or manufacturer defined fault codes
 - Select this only if your TSP is capable of reporting non-standard vehicle faults
- Fault Code
 - The numeric or alphanumeric (see fault type) fault code
- FMI
 - \circ $\;$ The failure mode identifier associated with the fault code
 - o Proprietary/OBD faults do not have associated FMI values

xxxvi. CSA ALERTS

When selected from the Alert Type dropdown menu, fault attribute alerts allow you to receive notifications when a vehicle in the selected groups has reported a fault that is known to have an impact on CSA score violations, emissions performance, or fuel economy.

ACTIONABLE ALERTS

When selected from the Alert Type dropdown menu, actionable alerts allow you to receive notifications when a vehicle in the selected groups has reported a fault that has a suggested course of action that may be enacted by the driver of the vehicle.

xxxvii. MANAGE PREVENTIVE MAINTENANCE

TripVision allows customers to define Preventive Maintenance Events. Individual accounts at the 'Top Level' Business with Administrator or Manager Privileges may define this type of Preventive Maintenance. Other users, except for basic account member users, may assign vehicles to the PM.

MA	MANAGE PREVENTIVE MAINTENANCE +					
#	TITLE ^	DESCRIPTION	RECURRING	STATUS	EDIT	
1	2000 A	2000 A	NO	ON	ľ	
2	2400 B	2400 B	NO	ON	ľ	
3	300hr A service	Hourly interval for the Grease / A service	YES		ß	
4	60k B Service	Oil, filters, grease, inspection	YES	ON	ľ	
		5' 50 14 514 5				

Figure 50 - Manage PM's Page

On the "Manage Preventive Maintenance" page, you can view/edit current PM's or add new ones. To create a new PM (Preventive Maintenance), click on the "Add PM" button. From here, you can define the PM to fit your business needs. Interval based preventive maintenance can be defined by the odometer, engine hours, or month. Please note that these are intervals, not specific odometer readings, e.g. PM may also be defined for a specific date. However, the date specified PM cannot be recurring events.

- #
- o A simple reference number for the listed entries
- Title
 - This column displays the name of the PM
- Description

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- o This column displays the used-defined description of the PM
- Recurring
 - \circ $\;$ This column states whether or not the PM has been defined as Recurring or not
- Status
 - This column shows the current status of the PM and allows the user to set the status of a PM to active (slider to the right) or inactive (slider to the left)
- Edit
 - o This column provides a means to edit the existing PM



ADD NEW	PREVENTIVE	MAINTENANCE	EVENT

					6
ESCRIBE THE PREVENTIVE MAINTENANCE PROCE	DURE BELOW :				
	PM EVENT OC	CURS			
	BY INTERVAL	BY DATE			
Odome	ter (mi) :				
Engine	hours :				
Month(s) :				
Recurri	ng event				
Odometer values entered a	are the same (Imperial or N	letric) as the current acco	unt holder setting	s	
AP	PLY PM RULE TO THE FO	LLOWING VEHICLES			
BUSINESS : AI	ll businesses		~		
	⊖ VIN 🍵	Asset ID			
Asset ID		VIN/AssetID	LA	ST REVISION	
Q Search by ID/VIN			Odometer	Engine hours	Date
N1408	\rightarrow				
N7712	<				
N3737			No results		
N7736					
14075					

xxxviii. ADD/EDIT PREVENTIVE MAINTENANCE

The Add/Edit Preventive Maintenance screen allows the user to create/edit PM's. Below is a list of the fields and their meanings.

- PM Event Name
 - This is the name that will appear in the Manage Preventive Maintenance and under Non-Mechanical Maintenance within the vehicle's Preventive Maintenance tab.
- Describe the preventive maintenance procedure below



- This description will appear under Non-Mechanical Maintenance within the vehicle's Preventive Maintenance tab.
- PM Event Occurs (By Interval)

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- Selecting these will set the PM event to trigger when the vehicle(s) reach any of the defined thresholds. Any combination of Odometer, Engine Hours, or Month(s) can be selected.
- PM Event Occurs (By Date)
 - Selecting this will set the PM event to trigger when the vehicle(s) reach the defined date.
- Recurring Events
 - Selecting this will cause the PM event to persist and update after it has been closed. Once an event has been made a recurring event, it cannot be reverted.
 - E.g. An interval-based PM event of 40,000 miles is closed for a vehicle at 50,000 miles. The PM event will be updated to show the next event due at 90,000 miles.
- Business
 - o A list of business sub-groups is selected to find vehicles more quickly.
 - Vehicles can be searched by VIN or Asset ID and then be selected, if Asset ID was not provided, the Asset ID will be presented as a VIN.
- Vehicle List
 - The user must select all vehicles they wish to apply the PM rule to and click the > button to move it to the right-hand view. Vehicles in the left-hand box will not be affected by the PM being created/edited.



Creating an interval-based PM event will give the option for added vehicles to have alternate starting points for the last revision times.

		LAST REVIS	ION
VIN/AssetID	Odometer	Engine hours	Date
11VJ813A8MA001197 / T58611			Ë
11VJ813A1MA001199 / T58613			Ë

Figure 52 - PM Event Last Revision

When creating an interval-based PM event, adjust the odometer or engine hours for each vehicle to accurately reflect when the prior maintenance was done. If the 'Last Revision' is not

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specified, the next service interval will be based on the vehicle's current state.

As an example, a maintenance event needs to occur every 40,000 miles (40,000, 80,000, 120,000, e.g.). The odometer currently reads 100,000 miles, and the maintenance last occurred on schedule at 80,000 miles. When adding the vehicle to a new PM event, the Last Revision for Odometer should be entered as 80,000 miles so the PM event can adjust the maintenance interval correctly.

If the 'Last Revision' was not entered, the PM event will be triggered at 140,000, resulting in an initial 60,000 mile interval with 40,000 mile intervals thereafter.

xl. PREVENTIVE MAINTENANCE TAB

To view PM's at the Vehicle level, simply click on the Preventive Maintenance Tab to view the PM data.



Figure 53 - Preventive Maintenance Tab

In addition to the ability to filter the vehicle list by vehicle health, a user can also view vehicles that have a PM Due Now or Due Soon by clicking on the gray box beside the "Filter by Health".



Figure 54 - Select the Gray box to filter by PM's Due

Hovering over the gray box with the computer mouse will show the number of vehicles with PM due now or due soon.



To complete Scheduled Maintenance, simply click the black 'close' button found next to the PM event description. The "1" in the example below indicates that the Scheduled Maintenance is "Due Now".



SCHEDULED MAINTENANCE 1

PM EVENTS:

DUE	EVENT NAME	EVENT	DETAILS	CLOSE EVENT?
Now	300hr A service	Hourly interval for the Grease / A service	Engine Hours 9886	CLOSE
Later	DOT Inspection	Perform every 10 months	Date: 2022-12-27T14:12:55.997	CLOSE
Later	60k B Service	Oil, filters, grease, inspection	Mileage: 498082 mi	CLOSE
Later	PM Miles	Transmission Fluid Change	Mileage: 538082 mi Date: 2023-02-27T14:12:56.007	CLOSE

Figure 56 - Click "Close" to complete a Non-Mechanical PM

xli. DUE NOW, DUE SOON, AND DUE LATER DEFINED

TripVision's Preventive Maintenance implementation categorizes Preventive Maintenance events in one of three ways.

There is no "Overdue" designation. Vehicles with overdue maintenance are "Due Now".

VEHICLES					
VEHICLE IDENTIFICATION	CURRENT HEALTH	SAFETY SCORE	PREDICTED HEALTH	STATUS	HANDLED
S21339	8	5	8	≜ ⊁	NO
MRT-144	28	25	28	ì X	YES
MRT-118	100	100	100	ô A 🗙	NO

Figure 57 - Color Coded Wrenches for Due Now (red) and Due Soon (yellow)

- "Due Now" indicates that the service is within 5% (distance, engine hours, e.g.) or within 1 day of a date-based event. Vehicles with 'Due Now' have red service icons (X) on the Vehicle listing.
- **"Due Soon"** indicates that the service is within 20% or within 14 days of a date-based event. Vehicles with 'Due Soon' have yellow service icons (\gtrsim) on the Vehicle listing.
- **"Due Later"** indicates that service is outside of the above ranges and is not currently due. These Vehicles will not have a service icon listed for them.







Figure 58 - Vehicle has PM Due Now or Due Soon

Vehicles with PM Due Now or Due Soon also have a wrench displayed on the Vehicle view's label. The back color (green, yellow, orange, or red) indicates the vehicle's health and not whether the PM is Due Soon or Due Later.

7. ALERT HISTORY						
	PREVENTIVE MAINTENANCE	ALERT HISTORY	LOCATION HISTORY			
	Fig	gure 59 – A	lert History	-		

Alert history provides a historical snapshot of the Health, Safety, and overall status of the truck when ٠ an alert was sent.

10/11/2022 1:21:31 PM 546/564 FE ■) 2 ▲	2017 Freightliner/Cascadia VIN : 1FUJGLDR1HLHZ3695 ID : 1FUJGLDR1HLHZ3695
10/11/2022 1:21:31 PM 546/564 Low Health Score	D I A
10/11/2022 1:21:31 PM 546/564 PF ■	ODOMETER: 456896 mi ENGINE HOURS: 25655
10/11/2022 1:21:31 PM 546/564 EF	EFFECT ON VEHICLE :
■ \$ \$ ▲	28 Performance (Health) Effect
10/04/2022 2:36:07 PM 546/564 FE	None on Performance 100 Safety Effect 25 Predicted Health
10/04/2022 2:36:07 PM 546/564 PF	
■) ≫ A	RECOMMENDATION :
10/04/2022 2:36:07 PM 546/564 EF	The vehicle has a moderately severe issue that can lead to a breakdown or pose a safety issue if not repaired. Limit the vehicle's usage (hours/mileage) until the problem is resolved.
J. 1 3º 8	ACTION PLAN :
10/04/2022 2:36:07 PM 546/564 Low Health Score	This action plan has not yet been defined.
	ACTIVE FAULT(S) :
	Component: Engine
	Fault Code: SPN 1322
	FMI: 11

Figure 60 – Alert History Details

Fault Description: Misfire on Alternating Cylinders Detected



LOCATION HISTORY 8.

PREVENTIVE MAINTENANCE ALERT LOCATION HISTORY HISTORY

Figure 61 – Location History

The location History provides the GPS coordinates of a truck as it is driven so you can see the start and stop points. This data can be viewed at different time frames; Today (24 hours), Last 1 week, Last 2 weeks, Last 3 weeks, Last 4 weeks, 60 days and 90 days.

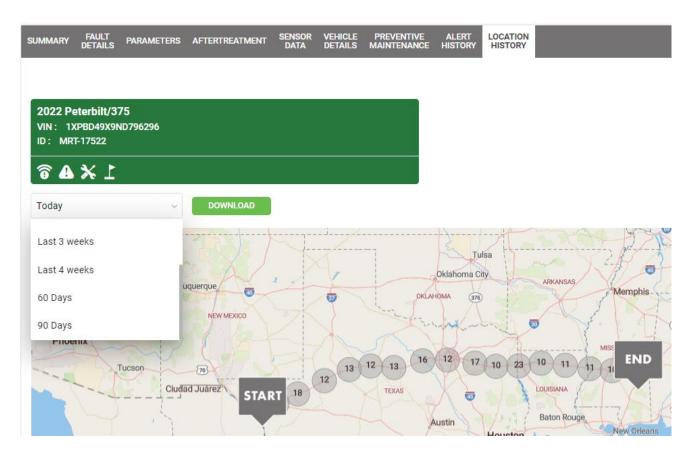
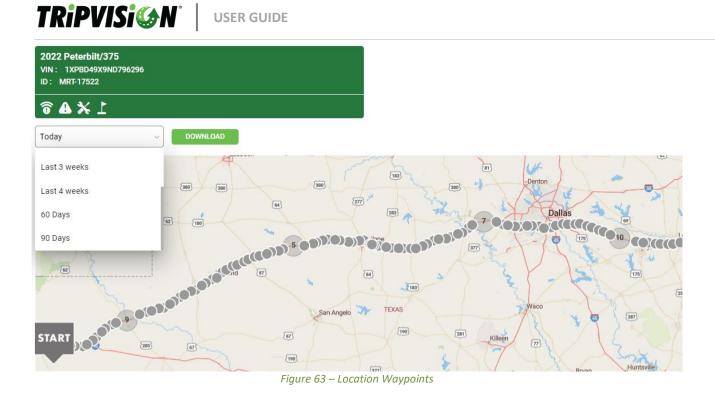


Figure 62 – Location History Details

The map will automatically group vehicles that are close together relative to the level of zoom. These groups or clusters are represented with a gray circle (vehicles) with a number in the middle indicating how many items are being grouped in that area. As you adjust the level of magnification on the map, clusters and counts will change.



All of the waypoints are exportable into a CSV report, which provides Asset ID, VIN, Request Time, Latitude and Longitude, and the Telematics service provider.

9. GEOFENCING

The Geofencing feature allows web portal users to define areas of interest and track vehicles entering and exiting areas of interest. The frequency of geolocation reporting updates is limited by the vehicle's onboard telematics device.

xlii. GEOFENCING USER PERMISSIONS

- Account Viewer, Account Member
 - o Run Reports
 - View Geofences in Map Views
- Account Manager (TSP or Top-Level Business), Account Admin (TSP or Top-Level Business)
 - Create/Edit/Delete Geofences
 - Create/Edit/Delete Geofence Groups
 - Create/Edit/Delete Geofence Alerts

xliii. VIEWING GEOFENCES

1. Click the Geofences button above the Map view.



SELECT POI	~	GEOFE	NCES	
Se Se	arch Ad	dress		
Satellite /			3	4

Figure 64 - Geofence Map Filter Button

2. Toggle Show Geofences.

SHOW GEOFENCES	
SHOW GEOFENCES : OFF	
CLEAR FILTERS	CANCEL APPLY FILTERS

Figure 65 - Geofence Map Filter Screen

3. (Optional) Click within the Geofences field to select specific Geofences.

SHOW GEOFENCES
SHOW GEOFENCES : ON
GEOFENCES :
~
م ×
Noregon parking 1
Freight Parking 1
Freight Parking 2
Figure 66 - Filter by Geofence(s)

4. (Optional) Click within the Groups field to select specific Groups.

SHOW GEOFENCES

SHOW GEOFENCES : ON	
GEOFENCES :	
Noregon parking 1 🛞 Freig	nt Parking 1 🛞 🛛 Freight Parking 2 🛞 🗸 🗸
GROUPS :	
Shipping and Receiving \otimes	\checkmark
CLEAR FILTERS	CANCEL APPLY FILTERS

Figure 67 - Filter by Geofence Group(s)

5. Click Apply Filters.

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6. Use map controls to navigate to or zoom in/out on defined geofences.



Figure 69 - Geofence Overview

7. (Optional) Clicking on a geofenced area will list the vehicles in that area.

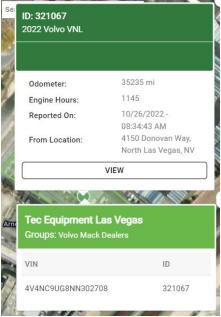


Figure 70 - Vehicle List in Geofence



xliv. CREATING GEOFENCES

To add a new Geofence (see Geofencing User Permissions), click Settings > Manage Geofences > Add New Geofence. This will populate a page where the user can create new Geofence groups with a variety of tools.

🚹 HOME 🛛 🛃 REPORTS	💣 SETTINGS 🕕 HELP 🖶 DASHBOARDS
TRiPVISi @N	Change Risk Modifier
Powered by NOREGON	Manage Alerts
MANAGE GEOFENCES	Manage Businesses
	Manage Fault Settings
GEOFENCES GEOFENCE GROUPS	Manage Filters and Tags
Q Search	Manage Geofences + ADD NEW GEOFENCE
	Manage Parameters
# NAME OWNER	Manage Preventive Maintenance DELETE
Figure 71 - G	Geofence Management



- - Use the Satellite view to make drawing your geofence easier
 - Geofences should be drawn slightly beyond the location to avoid GPS creep
 - New Geofences cannot overlap existing Geofences
 - Only one geofence can be added at a time

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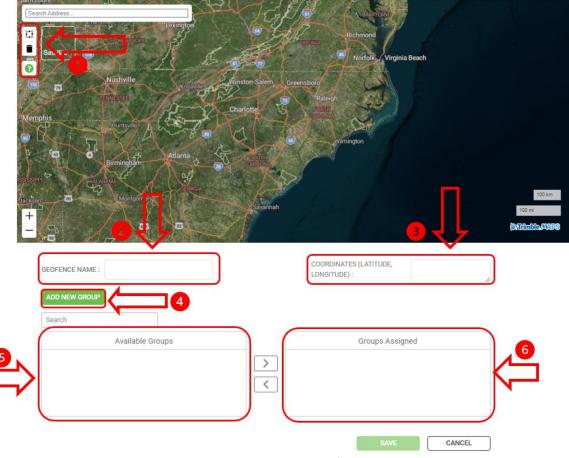
- Holding the left button on your pointing device and moving the pointer will allow you to see different parts of the map
- Using the keyboard CTRL key and moving your pointing tool you can change the orientation and perspective of the map

Creating Geofence

1. How to use Geofence Tools

- **Drawing** You can add as many points as you want, but a minimum of three points is required. Double-clicking with the left button of your pointing device completes drawing the geofence
- Adjusting If the geofence is blue, click on the geofence to turn it pink so you can adjust the shape perimeter and then move the perimeter to new positions
- **Reposition** When the geofence is pink, you can place your pointing device in the center of the geofence and hold the left button on your pointing device to allow you to move your geofence on the map

- TRiPVISi 🍪 N° 📗
 - **Completing** Click anywhere outside your newly drawn geofence or click the Polygon tool icon to finish your Geofence and the area will turn blue, now you can move to the next steps below
 - Recycle Bin Use this tool to delete your Geofence.





- 2. Geofence Name A reference name for the geofence in progress.
- 3. Coordinates (Latitude, Longitude) List of coordinates for each point of the geofence's polygon area. Note: The Coordinates are Read-Only. You cannot Copy and Paste Coordinates in this text box.
- 4. Add New Group Button to create a new group for the current geofence if it does not yet exist.
- 5. Available Groups Existing groups to which the current geofence can be assigned. Select and click the [+] or [-] buttons on-screen.
- 6. Groups Assigned The groups to which the current geofence will be assigned once saved. Select and click the [+] or [-] buttons on-screen.



xlv. MANAGING GEOFENCES

To edit an existing Geofence (see Geofencing User Permissions), click Settings > Manage Geofences > Edit. Edit is indicated by the pencil icon in the row of an existing geofence. This will populate a page where the user can change an existing geofence with a variety of tools. See the previous section for details.

xlvi. GEOFENCING ALERTS

To add a new Geofence Alert (see Geofencing User Permissions) navigate to Settings > Manage Alerts > Create New Alert. Setting up a Geofence Alert is the same as a typical alert except for the following options:

- Vehicle Direction
 - In Sends an alert when a vehicle enters one of the selected geofences.
 - Out Sends an alert when a vehicle exits one of the selected geofences.
 - Both Sends an alert when a vehicle enters or exits one of the selected geofences.
- Geofence
 - Available Geofences Full list of geofences created for the current business account.
 - Geofences in Alert List of geofences that will be considered for this alert.

xlvii. GEOFENCING REPORTS

With this feature, a Geofence Dwell Time Report is also available under:

- 1) Reports > Run Reports
- 2) Reports > Schedule Reports > Add Scheduled Report

Running a Geofence Dwell Time Report or setting up a Geofence Dwell Time Report is the same as their typical report types except for geofence selection (see Geofence under Geofencing Alerts).

The Geofencing Report contains the following data:

- Geofence Name
 - Name of the geofence containing the vehicle in this row.
- Group Names
 - Groups associated with the geofence listed in this row are separated by a forward slash (/).
- Vehicle Friendly Name
 - \circ ~ Vehicle's asset ID or Non-VIN identifier if one was assigned.
- Vehicle VIN
 - 17-digit vehicle identification number.
- Date/Time vehicle entered the Geofence
 - Date/time the vehicle entered the Geofence.
- Date/Time vehicle exited the Geofence
 - Date/time the vehicle exited the Geofence.
- Time in Geofence (hours)



• The total number of hours, and minutes within the Geofence shown reported in hours.

xlviii. ADDITIONAL GEOFENCING FEATURES

In addition to the features listed above, a quick start guide is available to help you get the most out of Geofencing. <u>Click here to learn more.</u>

10. FILTERING AND TAGS

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The "Manage Filter and Tags" menu allows the user to define Tags and Filters for use in the TripVision application. Tags are assigned to each Asset by the User to further define the Asset based on the User's needs (See "Manage Vehicle" section for more details). Predefined Filters can be created that utilize these Tags in addition to the existing filters. This adds an enhancement to the creation of Reports and Alerts to better suit the needs of each user. Not only does this create more intuitive Reports/Alerts, but it also allows for faster searches on the home page as well.

xlix. FILTERS AND TAGS USER PERMISSIONS

- Account Viewer, Account Member, Account Manager
 - View and Use Filters/Tags
- Account Admin (At any level Business)
 - Create Filters/Tags*
- Account Admin (TSP or Top-Level Business Only)
 - Edit/Delete Filters/Tags

***Note:** Any Filters/Tags created by a TSP account cannot be viewed/used by Top-Level and Lower Businesses. Also, any Filters/Tags created by a Top-Level and Lower Business cannot be viewed/used by the TSP account.



I. CREATING/EDITING TAGS

The Tagging system consists of Tag Types (Categories) and Tags. This allows the user to Create Tag Types (i.g. Engine, Transmission) and fill each with individual Tags (i.g. Cummins, Detroit, Allison, e.g.)

To Create a new Tag Type and Tags, navigate to "Settings" > "Manage Filters and Tags" > "Tags".

	🚹 НОМЕ	REPORTS	🧬 SETTINGS	 HELP 	H DAS	HBOARDS
TRiPVISi 🅪 N			Change Risk M	Aodifier		
Powered by NOREGON			Manage Alert	s		
MANAGE FILTERS AND TAGS			Manage Busir	nesses		
			Manage Fault	Settings		
FILTERS TAGS			Manage Filter	s and Tags		
Q Search			Manage Geof	ences		+ ADD NEW TAG TYPE
			Manage OnBo	oarding		
\sim cm			Manage Para	meters		ピ 前
Cummins		Manage Preve	entive Maint	enance		
			Manage Servi	ce Relations	hips	
✓ Truck Type			Manage User:			び 前
			Manage Vehic	:les		
NATLG Trucks Blue CVM R	etail					

Figure 73 - Tag Manager

Click "Add New Tag Type" – This will open with an editor console that will allow you to define the Tag Type and add individual Tags

Q. Search			
			+ ADD NEW TAG
∨ см			
Cummins		×	
	DD NEW TAG TYPE WITH TAGS		
	IG TYPE		
	Тад Туре		
	.G(S)		
	Tag	+Add tag	

Figure 74 - Adding Tags

- Tag Type
 - This is where you define the Tag Type (Category) Name
- Tag(s)
 - o This is where you Name each individual Tag
- 🛍
 - \circ $\;$ This deletes the current Tag/editor box $\;$
- Add Tag
 - This adds a Tag/editor box to allow the User to define an additional Tag
- Save Tag(s)
 - This Saves the current selection of Tags and Tag Type



- Cancel
 - This Discards the Tag Type and Tags that are being created currently

To Edit an existing Tag Type and Tags, click on the Pencil Icon next to the Tag Type. This opens an editor that is like the "Add New Tag Type" console.

FILTERS TAGS	
Q Search	+ ADD NEW TAG TYPE
~ CM	C iii
Cummins	
✓ Truck Type	C iii
NATLG Trucks Blue CVM Retail	

Figure 75 - Editing Tags

The fields will be auto populated and allow the user to change them, delete them, or add additional Tags.

To Delete a Tag in a Tag Type, you can either do so via the "Edit Tag" method or by clicking the recycle bin. Then find the Tag you want to delete and click the "**X**" next to it to Delete (See Note).*

DELETE FILTER	- CONFIRMATION
Are you sure you want to the filter PM Due?	delete
YES	NO

Figure 76 - Deleting Tags

To Delete a Tag Type, you simply click on the "X" next to the Tag Type (See Note).*

***Note:** when you go to delete a Tag or Tag Type, you may receive a message stating that the Tag(s) are assigned to a vehicle. You must remove the Tags from the vehicles that they are assigned before you can delete the Tag and/or Tag Type. When you delete a Tag Type, it deletes the Tags that are assigned to it as well.



li. CREATING/EDITING FILTERS

The Filters Tab consists of a list of currently defined Filters along with the ability to Create and Edit them. Each Filter consists of a User-Defined selection of filtered items (i.g. Tags, Health Score, TSP, ect.).

To Create a new Filter, navigate to "Settings" > "Manage Filters and Tags" > "Filters".

FILTERS TAGS

Q Search	+ ADD	NEW FILTER
FILTER NAME	TAGS EDI	DELETE
DOT inspection	[î 🗇
PM Due	٦ ا	ŝ
RD_Filter	I	î 🗇

Figure 77 - Filters Manager

Click "Add New Filter" to bring up a pop-up window for creating a new Filter.

FILTER NAME :				
		۵		
ADD OR REMOVE TAGS	:			
				~
YEAR :				
	🛱 to :		Ë	
	○ 1 Week	🔿 2 Week	🔿 3 Week	O 4 Week
ACTIVE :	Show All			
TELEMATICS DEVICE :	Show All			
FAULT TYPE :	CSA	Fuel Economy	Emission	Predictive
	ADAS			
HANDLED STATUS :	○ Unhandled	⊖ Handled	All	
DATA IN RANGE :	🔘 In Range	○ Out of Range	All	
HEALTH :	Critical	Severe	Maintenance	NoRepair
SAFETY :	Critical	Severe	Maintenance	NoRepair
PREDICTED HEALTH :	Critical	Severe	Maintenance	NoRepair
OTHER FILTERS :	Vehicles Not Comr	nunicating PM Due	📄 In Geofer	nce
× CLEAR FILTERS			CANCEL	SAVE FILTER

Figure 78 - Creating a New Filter

- Filter Name
 - \circ This is where you define the name of the Filter that you are creating
- Add or Remove Tags



- \circ This is where you add tags that you want to filter by. *
- Year
 - The model year range you want to search by
- Active
 - "Show Recently Active" show Vehicles that have communicated in the last 1, 2, 3, 4 weeks or "Show All" as the name implies
- Telematics Device
 - Filter by TSP Device
- Fault Type
 - o CSA
 - Fuel Economy
 - o Emission
 - \circ Predictive
 - o ADAS
- Handled Status
 - o Unhandled
 - o Handled
 - o All
- Data range
 - In Range
 - o Out of Range
 - o All
- Health
 - Filter by Vehicle Health Score
- Safety
 - Filter by Vehicle Safety Score
- Predicted Health
 - $\circ \quad \mbox{Filter by Vehicle Predicted Health Score}$
- Year
 - \circ $\;$ Allows the user to filter Vehicles between User selected Model Year Range $\;$
- Fault Type
 - o Allows the User to Filter the Vehicles that have a, or combination of, Fault Types
- Handled Status
 - Filter by Handled Status
- Other Filters
 - Depending on what features are enabled for your account, you may have additional filters that can be used, and they will be displayed here

***Note:** When Filtering with Tags, keep the following in mind:

Filtering uses "AND" and "OR" Logic. That being said, items selected together from Left to Right generally use the "OR" Logic, and items selected from top to bottom generally use the "AND" Logic.

- You can select multiple Tags of a Tag Type and they will use "**OR**" Filtering Logic
 - Example: We have a Tag Type of "*Color*" and we Select "*Blue*" and "*Green*" Tags for our Filter. When the Filter is applied, it will show a result for Vehicles that have "*Blue*" OR "*Green*" Tags.

Filter Add or Remove Tags	Color Add Tags	Green X Blue X his would yield results for Trucks with "Green" Tags and Trucks with "Blue" Tags			
Active	+ Add Tags Show Recently Active	Show All			



- When you select multiple Tag Types, they will use "AND" Filtering Logic
 - Example: We have a Tag Type of "*Color*" and a Tag Type of "*Truck Type*". We select the "*Blue*" Tag from "*Color*" and "*Sleeper*" Tag from "*Truck Type*". When the Filter is applied, it will show results for Vehicles that have "*Blue*" AND "*Sleeper*" Tags

Filter	None	~
Add or Remove Tags	Tag Type	Tags
	Color	Blue 🗙
	Truck Type	Sleeper 🗙
	Add Tags	This would yield results for Trucks with BOTH "Blue" AND "Sleeper" Tags
	<u>+ Add Tags</u>	
Active	Show Recently Ac	ctive 🔿 Show All

Figure 80 - "AND" Filtering Logic

These Logics can be combined. If we add a second color, (In this case "*Red*"), to the previous example, we would get the following results:

• We would get back Vehicles that have "Blue" AND "Sleeper" as well as "Red" AND "Sleeper"

Filter	None	v
Add or Remove Tags	Tag Type	Tags
	Color	Red X Blue X
	Truck Type	Sleeper 🗙
	Add Tags	This would yield results for Trucks with "Red" AND "Sleeper" Tags
	Add Tags	This would yield results for Trucks with "Red" AND "Sleeper" Tags in addition to Trucks with "Blue" AND "Sleeper" Tags
	Add Tags	
	Add Tags <u>+ Add Tags</u>	

Figure 81 - "OR" and "AND" Filtering Logic Combined

USER GUIDE

At the bottom of the Filter creation screen, there are three buttons:

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- Clear Filters Clears and Resets all of the Filter options
- Cancel Discards all changes made and does not save
- Save Filter This does as the name implies, it saves a new Filter with the selections the User has made

To edit a Filter, click on the Pencil icon next to the Filter name. This will bring up the same Pop-up window that was used for Filter Creation except that all of the current Filter settings will be prepopulated/shown.

FILTER NAME :				
		±		
ADD OR REMOVE TAGS				
				~
YEAR :				
	🛱 to :		Ë	
	1 Week	🔿 2 Week	🔿 3 Week	O 4 Week
ACTIVE :	⊖ Show All			
TELEMATICS DEVICE :	Show All			~
FAULT TYPE :	CSA	Fuel Economy	Emission	Predictive
	ADAS	_ ,		
HANDLED STATUS :	○ Unhandled	⊖ Handled	All	
DATA IN RANGE :	🔘 In Range	○ Out of Range	All	
HEALTH :	✓ Critical	✓ Severe	Maintenance	NoRepair
SAFETY :	Critical	Severe	Maintenance	NoRepair
PREDICTED HEALTH :	Critical	Severe	Maintenance	NoRepair
OTHER FILTERS :	Vehicles Not Con	nmunicating SPM Due	🥑 In Geofe	ence
× CLEAR FILTERS	٦		CANCEL	SAVE FILTER

Figure 82 - Editing a Filter

The three buttons perform the same action here as they did during the creation of a new Filter.

To Delete a Filter, simply click the "X" next to the Filter that you want to Delete. *

***Note:** When Deleting a Filter, you may receive an error message that states that the Filter is linked to a Report and/or Alert. If you receive this message, you will have to update the Report(s) and/or Alert(s) by removing said Filter from them before you will be allowed to Delete the Filter.



11. HELP

The Help menu provides access to the following information:

- Contact Us
- Icon Legend
- Submit Feature Request
- User Guide
- What is CSA?
- What's New

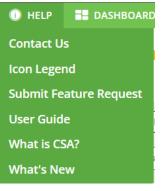


Figure 83 - Help Menu

i i. CONTACT US

This link will display a pop-up menu with the list of contacts for technical support.

CONTACT US

If you have any questions, please contact Noregon team at:

- (336) 217-7442
- TripVisionSupport@noregon.com

TripVision Support Portal

http://TripVisionSupport.noregon.com

Figure 84 - Contact Us



iv. ICON LEGEND

This will display a short visual guide to the iconography used across the web portal.

LEGEND

- B FUEL DISPENSER Indicates the presence of a fault with impact on fuel economy
- DASH WITHIN CIRCLE Indicates the presence of a fault with impact on CSA score
- EXHAUST STACK Indicates the presence of a fault with impact on emissions
- 🗿 SENSOR VEHICLE Indicates the presence of issue in the ADAS System
- \Lambda TRIANGLE Indicates a General Warning
- 🛠 REPAIR TOOLS Indicates preventive maintenance
- 🌐 OSCILLATING FAULT Indicates the presence of an oscillating fault
- 🗟 RD/GDC LINK Indicates that the vehicle has a fault with a TSB related to it
- **b** PREDICTIVE FAULTS Indicates the presence of a fault that is predicted to result in escalating faults if not addressed
- STOPPED COMMUNICATING Indicates that the vehicle stopped communicating in the last 7+ days
- 🕹 IN GEOFENCE Indicates that the vehicle is part of a geofence

Figure 85 - Icon Legend

i. SUBMITTING FEATURE REQUESTS

If there is a feature you would like to see added to web portal in the future, please provide as much detail as possible using the Submit Feature Request option under the Help menu.



FEATURE REQUEST

Do you have a feature you'd like to see incorporated? Let us know your idea and we'll review it.

Enter feature suggestion here	
Maximum allowed characters are 2000	///
SUBMIT FEATURE IDEA CANCEL	
Figure 86 - Fegture Request	

After you have completed typing your request and clicked the Submit Feature Idea button,

we will receive an email with your email address, business name, username, and your request for review.

vi. USER GUIDE

This link will open a new tab in your browser or prompt you to download a .pdf of the User Guide (This document). Other User Guides may be available depending on your TSP.

v i. WHAT IS CSA?

This link will open a pop-up with information related to the Compliance, Safety, and Accountability (CSA) program set by the Federal Motor Carrier Safety Administration (FMCSA). This information is included to assist users of the web portal with evaluating on-road vehicles which currently have potential CSA violations.



CSA VIOLATION SCORE

Electronically detectable CSA violations can be used by fleets to get faults repaired before a violation is issued.

Examples of detectable CSA violations:

- · Brake lamps, marker lamps, head lamps and turn signal lamps that are inoperative
- · Inoperative windshield wipers that may decrease driver visibility
- · Load detection faults, indicating an increased risk of a rollover
- · Antilock brake system faults that may decrease vehicle control and stability

> WHAT IS CSA?

Figure 86 - What is CSA?

In the pop-up window, there is also a link labeled "What is CSA?". Clicking this link will give you additional details about CSA and what each of the acronyms means. In addition to this, a handy link to a well published CSA document is also provided at the bottom of this pop-up as well. Alternatively, you can click here to see the same document – What is CSA? Factsheet

CSA VIOLATION SCORE

CSA (Compliance, Safety, Accountability) is FMCSA's (Federal Motor Carrier Safety Administration) safety compliance and enforcement program designed to identify high risk carriers by collecting data and assigning a CSA violation rating. Violations are grouped into 7 categories called BASIC's (Behavior Analysis and Safety Improvement Categories), and the SMS (Safety Measurement System) quantifies violations, assigning a rating from 1-10 with 1 being least severe and 10 being highest severity. The SMS uses collected data from roadside inspections, State-reported crashes, and the Federal motor carrier census to rate carriers in percentiles from 0 to 100 as compared to their peers. The higher the percentile rating, the more at risk the carrier is as determined using the SMS. The SMS assesses compliance and prioritizes carriers for intervention based on this score (SEE MORE HOW CSA CAN AFFECT YOUR FLEET

K BACK TO PREVIOUS

Figure 87 - CSA Additional Info

vi i. WHAT'S NEW

This link will display a page listing (newest to oldest) of web portal release updates. Additionally, if updates have been made since your last login, a message will appear at the top of the web portal notifying you your experience may have changed.



TRiPVISi@N [*]		Q Search	
WHAT'S NEW			
> 2022/10/10			
> 2022/09/29			
	Figure 88 - What's New		

12. DASHBOARDS

The dashboards page provides a high-level view of various fleet metrics. The availability of certain widgets may be based on your service agreement. The availability of certain data points may be based on data available from your telematics service provider.

13. DASH	IBOAR	DS FILTERS					
All businesses	~	Last 1 week	~		ADVANCED FILTERS 2	REFRESH	GO TO VEHICLE LIST
			Fig	ure 89 - Dashboards Filters			

• Business Filter

- Selecting a business from this list will refresh the widgets while including only data from the selected business and any of its sub-businesses.
- Date Range Filter
 - Selecting a date range from this list will refresh the widgets while including only data from the selected date range
- Advanced Filters
 - Allows you to further refine your search based on a variety of criteria
- Refresh
 - Updates the selected options in the filters
- Go to Vehicle List
 - Returns the user to the vehicle list and map view.

14. DASHBOARDS TABS

The dashboards are displayed using a tab view to switch between three data views:

- Summary Dashboards- Displays vehicle issues.
- Executive Dashboards Displays widgets applicable to fleet managers.
- Maintenance Dashboards Displays widgets applicable to maintenance managers.



Summary Dashboard

Executive Dashboard

Maintenance Dashboard

Figure 90 - Dashboards Tabs

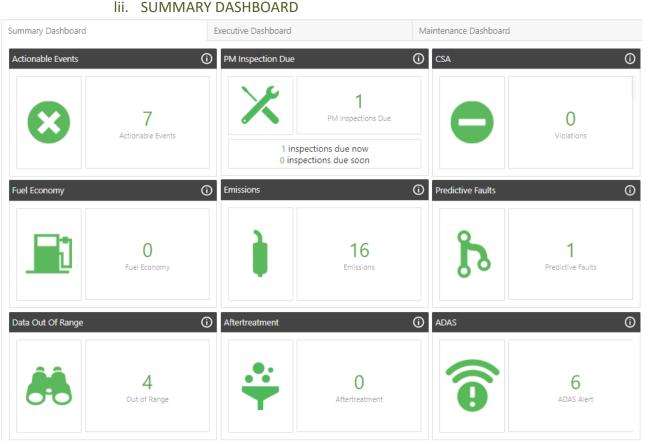


Figure 91 - Summary Dashboard

- Actionable Events
 - o Number of vehicles that may have driver actionable issues
- PM Inspection Due
 - o Number of vehicles that are due soon or now for a maintenance event
- CSA
- o Number of vehicles with potential CSA score violations
- Fuel Economy
 - o Number of vehicles with issues potentially affecting fuel economy
- Emissions
 - o Number of vehicles with issues potentially affecting emissions
- Predictive Faults
 - Number of vehicles with faults that may escalate to a more serious fault if not addressed promptly



• Data Out of Range

o Vehicles that have data items that are outside of the normal operating range

• Aftertreatment

- o Vehicles that currently have an Aftertreatment event
- ADAS
 - Vehicles that are exhibiting are exhibiting an issue with one of the systems of Advanced Driver-Assistance Systems

imary Dashboard	Executive Dashboard	Maintenance Dashboard		
set Utilization	Preventive Maintenance	Faults		
60.4%	19		13	
Percent Uptime	Expired PMs	Vehicles	with Active Fi	aults
16 vehicles reporting	Description	Count Faults by Business		
 1.16K total downtime hours 411 total engine hours 	Columbus PMs	8 BusinessName	College London	Non-Critical Fau
 411 total engine hours 12.8K total miles driven 	Jacksonville PMs	4 Best Logistics	17	66
	Milington PMs	3 Mountain River	6	40
Juainess Downtim Engine H Distance Driven	Routine Service 141	1 ND2 Telematics	4	15
lest Logi 669 213 5.54K	Routine Service 136	1 Stewarts Grading	2	13
Mountai 157 112 5.73K	5235 APM 04272022	1 All 0046	0	1
4D2 Tele 187 43.8 525				
bewarts 147 42.5 961				
al Health	Parameter Compliance	Faults By OEM		
		OemDescription	Critical	Non-Critica
alect. •	0	Eaton / Fuller Trammiss	ion	7 5
	Vehicles Out of Compliance	Cummins		7 2
5.34		Mack/Volvo		5 11
Average MPG Per Vehicle	0 total vehicles reporting	Unknown Manufacturer		3 27
		Detroit Diesel		3 1
	Road Speed	PACCAR, Inc.		2 5
	Cruise Speed	Mack4		0 11
15	Compliant	International		0 20
Average Idle Fuel Used (gallons)		Freightliner Corporation	and	0 5
	o	Bendix		0 41
nicle Safety	Vehicle Health	Top Faults		
40	78.3	faultDescription	TotalCritical (TotalNonCritical
		Request Parameter	5	5
Vehicles with Critical Safety Issues	Average Health	Aftertreatment 1 D.	2	0
elect. •	Select	Aftertreatment 1 Di	2	0
		Aftertreatment 1 Di	2	0
		Coolant Level - Dat	1	1
		Aftertreatment 1 Di	1	0
		Aftertreatment 1 Di	1	0
		Aftertreatment 1 Di	1	0
-		SAE Description Re	0	3
0 200 400 600	0 200 400	600 SAE Description Re	0	3
Safety Status by Vehicle Count	Health Status by Vehicle Count	Request Parameter	0	2
	the second			

liii. EXECUTIVE DASHBOARD

Figure 92 - Executive Dashboard



• Asset Utilization

- Average Uptime Percent
- Text card showing information about fleet
- \circ $\;$ Table showing a breakdown of text card by Business, Downtime Hours, Engine Hours and Distance Driven

Preventive Maintenance

- Number of PM events overdue
- \circ $\ \ \,$ Table showing breakdown of PM events overdue by Description and Count
- Faults
 - o Number of vehicles with active faults
 - Table showing a breakdown of Faults by Business Name, Total Critical Faults, and Total Non-critical Faults
 - Table showing breakdown of Faults by OEM Description, Total Critical Faults, and Total Non-critical Faults
 - Table showing a breakdown of Top Faults by Fault Description, Total Critical Faults, and Total Non-critical Faults
- Fuel Health
 - Average MPG across the fleet
 - Idle fuel being used across the fleet
- Parameter Compliance
 - Number of vehicles out of compliance
 - o Text card showing the number of total vehicles reporting
 - Chart showing breakdown of vehicles reporting by category
- Vehicle Safety
 - Number of vehicles with critical safety issues
 - Drop-down box for quick filtering
 - Chart showing breakdown of vehicles safety score by category
- Vehicle Health
 - Average health score across the fleet
 - Chart showing breakdown of vehicle health score by category
 - Drop-down box for quick filtering



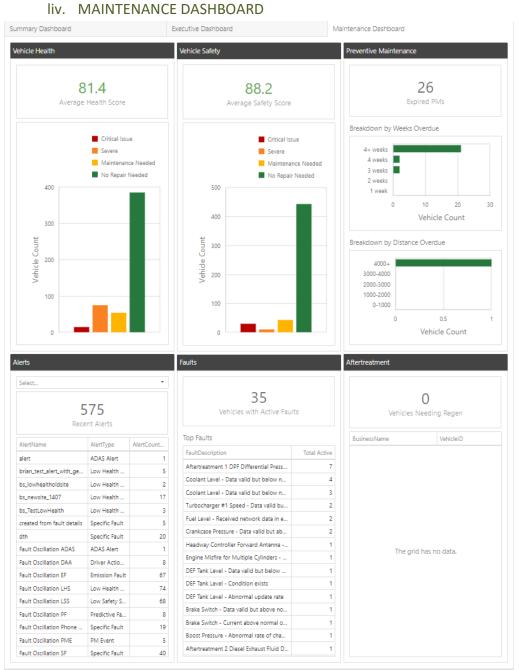


Figure 93 - Maintenance Dashboard

Vehicle Health •

- Average health score across the fleet 0
- Chart showing breakdown of the vehicle health score by category 0
- Vehicle Safety
 - Average safety score across the fleet 0
 - Chart showing breakdown of the vehicle safety score by category 0



• Preventive Maintenance

- Number of PM events overdue
- o Chart showing expired PM events by weeks overdue
- Chart showing expired PM events by odometer overdue
- Alerts
 - Number of alerts triggered
 - o Table showing a breakdown of triggered alerts by Alert Name, Alert Type, and Alert Count
 - Drop-down box for quick filtering
- Faults
 - o Number of vehicles with active faults
 - o Table showing the Top 20 faults with their description and total active count
- Aftertreatment
 - Number of vehicles needing a regen
 - o Table showing a breakdown of vehicles needing regen by Business and Vehicle ID

15. BUSINESS IMPERSONATION

Business Impersonation can be done by selecting from the business tree on the left and selecting a business or sub-business you would like to see. Selecting a business will begin the impersonation session. While you are impersonating another business, you may view the vehicle list and map as though you were logged in as a user assigned solely to that business.

 Business #1
Buffalo
New York City
North
Syracuse
South
Business #2
East
West
Business #3
Scranton
Figure 94 - Impersonation



if you want to end Business impersonation simply select the business at the top of the business tree to return to your standard view.

16. MAINTENANCE MANAGER (HANDLED/UNHANDLED)

The vehicle summary page and vehicle list (depending on user preferences) also contain details related to a selected vehicle's management history.

This feature can be used by manager and admin level users to add notes and mark vehicles as handled or unhandled along with a note which is viewable via the history view. Vehicles will never automatically be set to handled, but vehicles meeting the unhandled criteria will automatically be set to unhandled. The three latest status changes will be visible from the summary screen.

HANDL	ED STATUS : 🕐	UPDA	TE STATUS
STATUS	DATE/TIME	NOTES	EDITOR
Handled	10/14/2022 2:20:09 PM	Called the Driver and instructed them to pull over and begin a manual DPF Regen.	Volvo Trucks
View Full I	History		

Figure 95 – Handled Status

- Status
 - Indicates the status at the time of incident/entry
- Date/Time
 - o Indicates the date and time (local) that the entry was made
- Notes
 - o If the status was manually changed, this contains your input notes
 - o If the status was automatically changed, this contains the automated reason for the change
- Editor
 - If the status was manually changed, this contains the login of the user that entered the note.
 - If the status was automatically changed, this contains the word "Vehicle" which means it came from the telematics device.

Iv. UPDATE STATUS

Clicking this button allows you to select handled or unhandled status with the option of adding a note to indicate the action taken.



UPDATE HANDLED STATUS

Handled		~
Notes (Optional) :		
Driver called back, DPF light is complete a drive cycle and the	still Active. So, I advised the driver to allow the vehicle to light will stop illuminating.	//
SAVE	CANCEL	



Ivi. HANDLED STATUS HISTORY

Clicking View Full History will open a historical view of status changes. Like Fault History, several pages of history may be available depending on the number of status changes.

HANDLED STATUS HISTORY

STATUS	DATE/TIME	NOTES	EDITOR
Handled	10/26/2022 7:25:54 AM	Unit is out of service- RZ69745 created for NOx codes	Anna Fiore
Unhandled	10/24/2022 9:50:49 PM	New fault occurred on vehicle/asset.	Watticle
Handled	10/24/2022 12:57:07 PM	Case 16297703 created for NOx codes. suggested services- rear axle oil	Anna Fiore
Handled	10/24/2022 9:35:39 AM	sent codes to jack	Stary Snins

Figure 97 - Handled Status History

Ivii. UNHANDLED CRITERIA

The following factors will cause a vehicle to automatically enter unhandled status:

- The vehicle reports an active fault.
- The vehicle reports an inactive fault has changed state to active.

17. ADD-INS

Additional web portal features may be available based on your TSP service agreement. If available, the following add-ins may appear when you log in:

Parameters

18. PARAMETERS

This feature allows the web portal to display certain vehicle parameters to be monitored by web portal users. Depending on your TSP, currently supported parameters are:

- Max Road Speed
- Max Cruise Speed
- Idle Shutdown

Iviii. VEHICLE LIST PARAMETER ICON

The vehicle list will now display a general warning symbol to indicate vehicles that are not compliant with one or more of their groups/businesses. There are three ways to address non-compliance:

- 1. Change vehicle actuals by reprogramming the vehicle.
- 2. Change parameter requirements for the vehicle's associated groups/businesses in the Manage

Parameters page

3.

- 3. Navigate to the vehicle's Parameters page by selecting the vehicle and mark each checkbox for Acknowledgement.
 - T44640
 O
 T5
 O
 A

 TTA670
 O
 75
 O
 A

 T42058
 O
 50
 O
 I
 I

 T42071
 O
 50
 O
 I
 I
 A

 T43881
 O
 50
 O
 I
 I
 A

Figure 98 - Vehicle List Compliance

lix. FILTERING & SEARCHING PARAMETERS

The vehicle filter options will now include additional criteria for selecting various states of vehicle parameter properties.

ADVANCED FILT	ER
FILTER :	None v ID/VIN :
TAGS :	~ ·
ACTIVE :	● 1 Week ○ 2 Week ○ 3 Week ○ 4 Week ○ Show All
TELEMATICS DEVICE :	Show All \checkmark YEAR: None \checkmark to None \checkmark
FAULT TYPE :	CSA Fuel Economy Emission Predictive ADAS
HANDLED STATUS :	O Unhandled O Handled I All
DATA IN RANGE :	○ In Range ○ Out of Range ● All
HEALTH :	Critical Severe Maintenance NoRepair
SAFETY :	Critical Severe Maintenance NoRepair
PREDICTED HEALTH :	Critical Severe Maintenance NoRepair
OTHER FILTERS :	Vehicles Not Communicating PM Due In Geofence
APPLY FILTERS	× CLEAR FILTERS CANCEL

Figure 99 - Data Range Filter

- In Range
 - This selection will return vehicles that have compliant Parameters
- Out of Range
 - This selection will return vehicles that have any non-compliant Parameters.
- All
- This selection will bypass the "Data In Range" Filter and not affect the Vehicle List returned vehicle parameters tab.

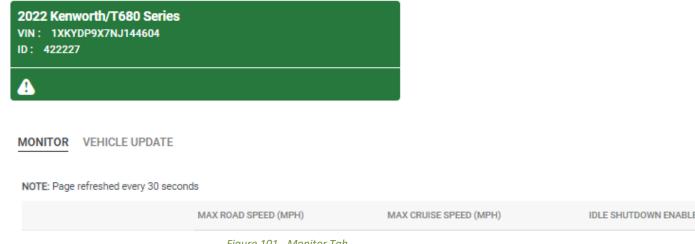
When the parameters add-in is enabled, a new Parameters tab will appear when a vehicle is selected from the vehicle list.

Selecting the Parameters tab will show you the parameters, if available, as reported by the TSP as



Figure 100 - Vehicle Para	imeters Tab
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"Vehicle Actuals." Compliancy values for each group or business associated with that vehicle will also be displayed.





In the Parameters tab/screen, you have two tabs to select from – Monitor and Vehicle Update.

Monitor shows the Vehicles Actuals vs. the Business/Group Assigned values.

MONITOR VEHICLE UPDATE			
NOTE: Page refreshed every 30 secor	nds		
	MAX ROAD SPEED (MPH)	MAX CRUISE SPEED (MPH)	IDLE SHUTDOWN ENABLED
Tri-State Truck Center			
Vehicle Actuals	N/A	N/A	N/A
	Figure 102 - Vehicl	e Parameters	

- Max Road Speed
 - If vehicle actuals are less than or equal to the Max Road Speed value for a group/business, it will be considered compliant.
- Max Cruise Speed
 - If vehicle actuals are less than or equal to the Max Cruise Speed value for a group/business, it will be considered compliant.
- Idle Shutdown
 - If the vehicle actuals match the Idle Shutdown value for a group/business, it will be considered compliant.

Note: Any vehicle actuals which are not reported or supported by the TSP will display as **N/A** and not be considered for compliance.

NOTE: Page refreshed every 30 seconds					
	MAX ROAD SPEED (MPH)	MAX CRUISE SPEED (MPH)	IDLE SHUTDOWN ENABLED		
Tri-State Truck Center					
Vehicle Actuals	N/A	N/A	N/A		

N/A indicates TripVision does not currently support parameter configuration on the vehicle's engine model.

Figure 103 - N/A Indicates that the TSP does not fully support this parameter change

Vehicle Update tab allows the user to update/override each vehicle individually

MONITOR VEHICLE UPDATE				
NOTE: Page refreshed every 30 seconds				CANCEL ALL
	MAX ROAD SPEED (MPH)	MAX CRUISE SPEED (MPH)	IDLE SHUTDOWN ENABLED	
Vacuum Truck Rentals				
Vehicle Actuals	71	71	Disabled	
Vehicle Override Values				
Vehicle Modified	MPH : CONFIGURE	MPH : CONFIGURE	CONFIGURE	
Last Updated				
Status				
Vehicle Modified changes can only be per Any parameter changed within +/-2 mph o	formed with autosync on or if there are no othe of a vehicle's actual will not be updated.	er pending actions for this vehicle.		

Figure 104 - Vehicle Update Tab

This Tab has the same columns as the Monitor Tab but has additional rows for viewing/editing each vehicle. The First row(s) indicate what Business/Group rules are applied to the vehicle

- Vehicle Actuals .
 - o This shows the current Parameter values that are being reported by the Vehicle
- **Vehicle Override Values**
 - This gives the user the ability to Clear an Override Value and let TripVision update the Vehicle back to the Business/Group Setting
- Vehicle Modified
 - o This is where the User can make individual changes to each Parameter per Vehicle*
- Last Updated
 - o This reports the Date that the last Parameter Override change has occurred for

this value

- Status
 - This shows the current Status of a Vehicle Override command. It will indicate whether the request was received, successful, or a failure message if it fails to write.

*Note: Changes to a Parameter can only be made if the AutoSync is enabled/on for that Parameter and the value is configured at the Business/Group Level. At this time, TripVision only supports updating one Parameter on a Vehicle at a time. Once you receive either a success or failure message in the Status row, then you can proceed and update the next Parameter on the vehicle.

Ix. MANAGE PARAMETER ALERTS

Three new alert types will be available if the Parameters add-in is enabled.

- Max Road Speed
 - If a vehicle's actuals exceed any of its assigned groups/businesses' compliancy values.
- Max Cruise Speed
 - If a vehicle's actuals exceed any of its assigned groups/businesses' compliancy values.

Idle Shutdown

• If a vehicle's actuals (enabled/disabled) do not match any of its assigned groups/businesses' compliancy values.

Alerts will be sent upon initial violation, then once a day until the vehicle is made compliant.

Ixi. PARAMETER REPORTS

A new Parameter Compliancy report will appear in the reports list. This report lists each vehicle in your groups/businesses and whether it is compliant with those groups.

Ixii. MANAGE PARAMETERS IN SETTINGS

Under the Settings menu, you will find a new entry for Manage Parameters.

MANAGE PARAMETERS		
CONFIGURE PARAMETERS		
Vehicle Group:		
FUNCTION	VALUE	
Max Road Speed	МРН	Speed value must be between 0 and 80 MPH
Max Cruise Speed	МРН	Speed value must be between 0 and 80 MPH
Idle Shutdown Enabled	OFF	
Any parameter changed within +/-2 MPH of	of a vehicle's actual will not be upd	ated.
SAVE		

Figure 105 - Manage Parameters

Selecting this link will take you to the Manage Parameters page. This page will allow you to set compliance values for each group/business in your fleet. Changes made to values will automatically cascade down to sub-groups/sub-businesses.

To configure Parameters for your Business/Group, click on the "Configure Parameters" tab.

CONFIGURE PARAMETERS	SET PAP	RAMETER	PASSWORD	S	
Vehicle Group: Acme Tru	cks				
FUNCTION	VALUE		AUTOS	YNC OPTION	
Max Road Speed		MPH	OFF	AutoSync Off	Speed value must be between 0 and 80 MPH
Max Cruise Speed		MPH	OFF	AutoSync Off	Speed value must be between 0 and 80 MPH
Idle Shutdown Enabled	OFF		OFF	AutoSync Off	
Any parameter changed within +,		vehicle's act			

Figure 106 - Configure Parameters

- Max Cruise Speed
- Idle Shutdown Enabled

*AutoSync must be toggled on for to allow TripVision to modify these values.

If your Fleet has password protected ECM/ECUs, click on the "Set Parameter Passwords" tab to set the predefined passwords.

NFIGURE PARA	METERS	SET PARAMETER P	ASSWORDS			
All OEM Makes	~	All models	~			
MAKE	MODEL		ECU PASSWORD	GENERAL PARAMETER PASSWORD	PARAMETER SPEED PASSWORD	PARAMETER SPEED PASSWORD IDLE SHUTDOWN PASSWORD
Cummins	ISB CM850)	N/A	N/A	N/A N/A	N/A N/A N/A
Cummins	ISM CM876	6, ISX CM871				
Cummins	X15 CM24	50 X124B	N/A	N/A	N/A N/A	N/A N/A N/A
Mack/Volvo	EPA 13 Eng System (EN	gine Management MS)	N/A	N/A	N/A N/A	N/A N/A N/A

N/A indicates TripVision does not currently support parameter configuration on the vehicle's engine model.

Figure 107 - Set Parameter Passwords

This screen provides an overview of all of the Engine ECUs that have been identified in your fleet along with any saved passwords that you currently have. To set a particular ECU password, click on the Pencil icon next to the ECU.

ISM CM876, ISX CM871 ECU PASSWORD: ECU Password GENERAL PARAMETER PASSWORD: General Parameter Password SPEED PASSWORD: Speed Password IDLE SHUTDOWN PASSWORD: Idle Shutdown Password SAVE CANCEL

MANAGE VEHICLE PARAMETER PASSWORDS

Figure 108 - Setting ECU Passwords

This brings up a new pop-up window that allows you to set the following:

- ECU Password
- General Parameter Password
- Speed Password
- Idle Shutdown Password

Once you have entered/edited each Password, click "Save" to keep your settings. *

***Note:** These passwords are saved based on ECU Model, not individual Vehicles. To get the most benefit from this service, you need to ensure that all Vehicles with like ECU Models have the same Passwords. That being said, if you are having an issue writing Parameter values to one Vehicle, but another Vehicle just like it has no issues, then you may want to have the ECU Password on the **Vehicle** checked.

19. GENERAL QUESTIONS

Does TripVision support multiple Telematics Service providers?

TripVision is capable of receiving data from multiple telematics devices. TripVision supports vehicles with multiple telematics devices. Users can seamlessly monitor data from multiple devices through TripVision's web portal.

To learn which telematics devices TripVision supports, please contact your Noregon Account Manager or email <u>TripVisionSupport@Noregon.com</u>.

Are there any limitations on which telematics devices can be added to which businesses?

There are some limitations relating to adding Volvo's TGW device to accounts that are not part of Volvo's official Uptime Program. If you are **not** an official Volvo Uptime user, you will not be able to add TGW telematics to your TripVision account. If you are an official Volvo Uptime user, you can add any telematics partner to your TripVision account.

For example, users of Volvo's official Uptime program will receive data from TGW devices and can add non-TGW devices like Geotab. However, users who are not using an official Volvo Uptime account and receive data from a device like Geotab will not be able to add a TGW device to their account.

How are vehicle business associations managed with multiple telematics devices on a vehicle?

TripVision is flexible and can be configured to allow any Telematics Device Provider to manage vehicle business associations.

For example, if a vehicle has "**Telematics Device A**" and "**Telematics Device B**" the user can choose whether they would like to manage vehicle business associations in the Geotab's system or Noregon's system.

To configure which telematics device will manage vehicle business associations, please contact your Noregon Account Manager or email <u>TripVisionSupport@Noregon.com</u>.