

CONUSIFTA GUIDE V2.0

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Objective

MyGeotab enables the users to create reports based on *fuel tax details* or retrieve the said details using the SDK. The fuel tax reports are required by the [IFTA](#) (International Fuel Tax Agreement).

Fuel Tax Details

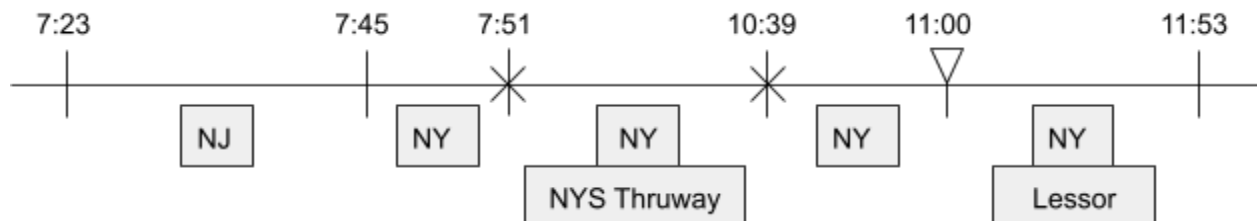
A fuel tax detail for a vehicle is identified by its *Enter* and *Exit* time. Each detail starts when and where the previous, if any, detail ended. Each detail contains a set of *parameters* at both ends of its time interval, as well as at each hour within that interval. The parameters include:

- *Odometer* values, based on engine status data.
- *GPS Odometer* values, based on distances between GPS records.
- *Latitude* and *Longitude*.

Each detail is characterized by a set of *attributes*, including:

- *Jurisdiction*, i.e. a U.S. state or a Canadian province.
- *Driver*.
- *Toll Road* name.
- *Authority*.

A new detail starts whenever any of the attributes changes. Specifically, *Jurisdiction* changes when the vehicle crosses a state boundary. *Driver* changes when a driver is assigned to the vehicle or when the current driver is assigned to a different vehicle. *Toll Road* changes when the vehicle takes, or quits, an identifiable toll road, such as NYS Thruway or Massachusetts Turnpike. *Authority* changes when a duty status record is made to that effect.



The diagram above contains five details. At 7:23 the vehicle started driving in NJ. It crossed into NY at 7:45, took the NYS Thruway toll road at 7:51, quit the toll road at 10:39. At 11:00 a duty status record was made to switch authority from *None* to *Lessor*. At 11:53 the vehicle quit NY.

Each detail stored in the database has the same attributes for its entire duration. However, users may wish to select some of the attributes and ignore others. In that case adjacent details that share the selected attributes are fused, even though the ignored attributes differ. On the diagram above, a report that ignores the Toll Road attribute will contain just 3 details: NJ, NY, and NY-Lessor.

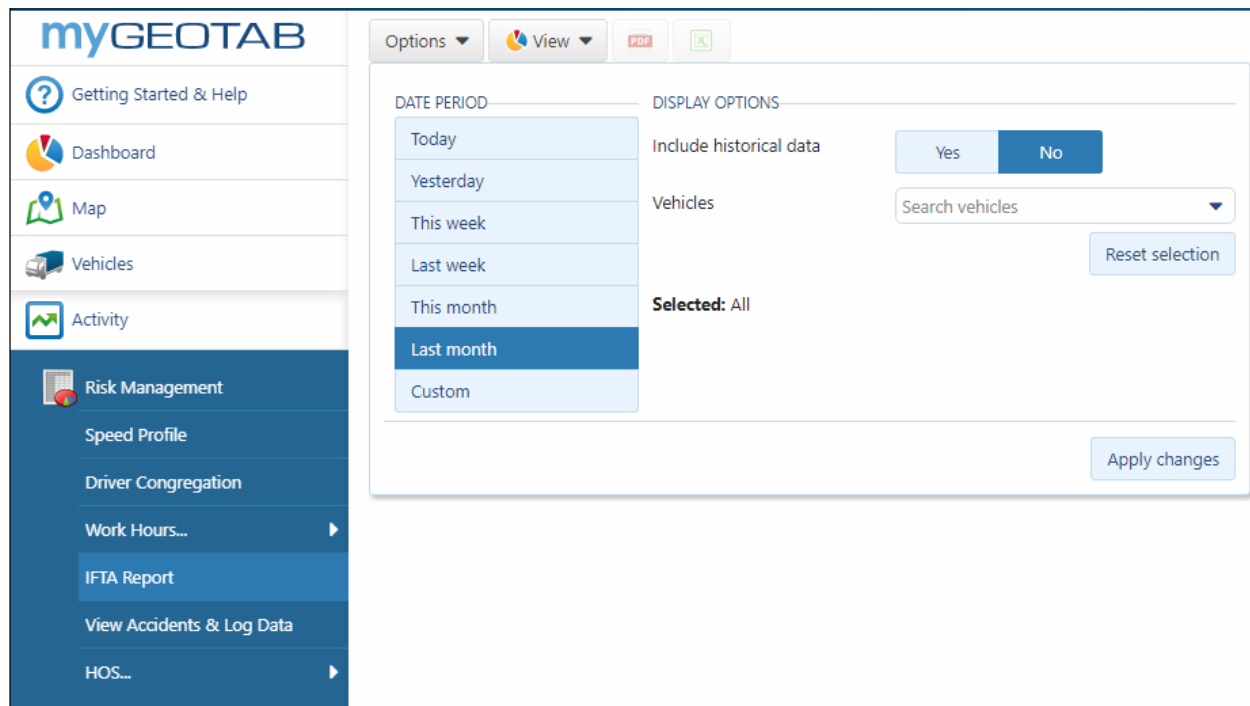
Note that Jurisdiction is a mandatory attribute. All other attributes are optional.

Usage

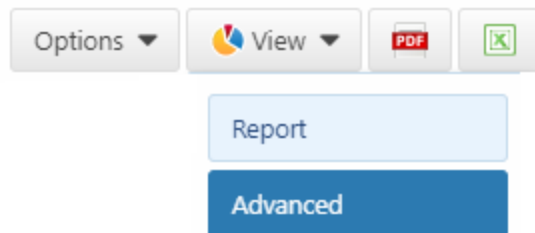
Report

To execute the IFTA report in MyGeotab UI:

- Select Activity / IFTA Report on the navigation bar.
- Click the Options button.
- Select the time interval and the vehicles.
- Click the Apply changes button.



The default report ignores all optional attributes. Adjacent details differ by jurisdiction alone.



To execute the advanced report, select Advanced from the drop-down View menu. The advanced report includes all optional attributes and fuel usage data.

For large reports, only the first three pages are displayed in the UI. To download the full report in Excel or PDF format, click the corresponding icon.

Time Interval

The report interval must start and end on the hour. Any other interval will be extended to meet that requirement. For example, 8:15 - 17:30 will be extended to 8:00 - 18:00.

Custom Reports

To enable optional attributes or add fuel usage to a custom report, make sure the following columns are present in the Data sheet of the report template:

Attribute	Column
Driver	Any combination of: • UserName • UserFirstName • UserLastName • UserId
Toll road	FuelTaxTollRoad
Authority	FuelTaxAuthority
Fuel usage	FuelTaxFuelType, and any combination of: • FuelTaxFuelPurchased • FuelTaxFuelUsed • FuelTaxNetTaxableFuel • FuelTaxFuelEconomy

Fuel Usage

Stored fuel tax details do not contain fuel usage. It is calculated by the server application at report execution time. The calculation is based on fuel transaction records and stored details, as follows:

- Get all fuel transaction records for the report period.
- For multiple fuel type vehicles, group the transactions by fuel type.
- Group the purchased fuel by jurisdiction into the FuelPurchased column.
- Get all fuel tax details for the report period.
- Group the details by jurisdiction.
- Pro-rate purchased fuel by total distances driven in each jurisdiction into the FuelUsed column.
- Calculate the fuel economy for the report period.

Authorization

IFTA reports can be viewed by any user with View Only or higher authorization.

The user must have data access to driver groups. If the report contains info on a driver who does not share a group with the user, the info on that driver will be blanked out in the report.

Emailed Report

IFTA reports can be executed automatically and emailed to users, as set up by an administrator.

SDK

The fuel tax details can be retrieved using the API. A web API example is available [here](#). A .NET example can be downloaded from [here](#). The .NET example includes fuel usage calculation.

Unlike the IFTA Excel report, which contains only parameters at the enter and exit time, with API it's possible to retrieve also detail parameters at each hour, by setting the *includeHourlyData* search parameter to *true*. The default value of *includeHourlyData* is *false*.

Retrieving hourly data incurs a performance penalty. For example, for a vehicle that drove in Ontario since its first GPS record 3 years ago, the server will send back to the API caller over 100,000 parameters. Consequently, if used improperly, an IFTA API call may result in the API client failure due to inordinate size of the response.

For a small fleet, it is safe to retrieve hourly data. Requesting hourly data over more than a month, for a group of more than a dozen or so vehicles may result in API failure.