Version 25

Trapeze
Enterprise Asset Management

Networkfleet

Administrator Guide

Trade Secret | February 2025

Technical Support

Trapeze provides several ways to connect with the Customer Care team. Please provide detailed information to the representative. If you are reporting an issue by e-mail, include any error messages, screen shots of your problem, and steps to replicate the issue.

Customer Care is available Monday through Friday, 8:00 a.m. to 8:00 p.m., Eastern Standard Time.

Toll-Free Telephone:	1-877-411-8727
E-mail:	cc@trapezegroup.com
FTP Site:	https://ftps.trapezegroup.com/
Web Site:	https://collaborate.trapezegroup.com

The website provides access to Trapeze Collaborate which offers resources to implement and operate the software, search knowledge, participate in communities, log/track service requests, sign-up for release alerts, view product health recommendations, and download updates or documentation. For secure access to Collaborate, contact Customer Care through the website or by calling the number above.

Product Compatibility

Refer to the latest Product Compatibility information on Trapeze Collaborate for requirements including operating system information, databases, Crystal reports, network protocol, HTTP servers and browsers that are supported.

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1. Overview

As vehicles and their on-board technology have become more sophisticated, so has the ability to gather and track the data associated with that vehicle via telematics. There are numerous sensors and systems within a vehicle to monitor its performance. Networkfleet offers patented telematics technology that communicates with a vehicle's onboard computer, interprets the data and transmits important information back to the operator, your service provider, or fleet managers.

Networkfleet's technology is integrated in real-time with the FleetFocus maintenance management system. This gives fleet managers quick and easy access to vehicle location as well as diagnostics and vehicle maintenance alerts without having to switch to another application. Additionally, real-time meter readings are sent directly from the vehicle to FleetFocus which saves time, increases accuracy and allows for timely scheduling of preventive maintenance.

If Networkfleet detects a diagnostic problem in a vehicle, a service request is automatically generated in FleetFocus. This helps streamline maintenance and reduce vehicle downtime. By knowing potential component failures ahead of time and being proactive with preventive maintenance scheduling, maintenance professionals can reduce the cost of repairs on the vehicle and ultimately increase that vehicle's uptime.

2. Setup

The following setup information is for customers who have purchased the Verizon Networkfleet Module which also includes the Telematics Module. The following information will provide details on how to properly configure the alerts, diagnostics, odometer, and how to configure Networkfleet interfaces to communicate with your asset management system.

Requirements

The Networkfleet module uses a combination of MAXQueue services, the MAXQueue.Networkfleet library, and the MAXQueue.Telematics library to communicate Networkfleet data through the MAXQueue Telematics API and into the asset management system.

Beginning with version 16.0 of FleetFocus, Verizon Networkfleet interfaces is using new REST web services provided by Verizon. The features and functionality of these interfaces have not changed, but the web services to support them have been upgraded from SOAP web services to the REST web services.

This change requires both new and existing clients with version 16.0 and forward to register for REST web services. You will need to create new credentials (login, password) to generate proper authentication for REST web services and to allow proper configuration of Verizon Networkfleet interfaces.

Existing Networkfleet credentials may be used to create the new credentials. Contact your Verizon Networkfleet representative or Verizon Networkfleet Customer Care (866.227.7323 or NWFSupport@Verizon.com) for assistance. Be sure to mention that this inquiry is regarding an account that uses the Networkfleet Integration.

Registration for REST web services can be done at any time prior to version 16.0 implementation and will not impact your existing Networkfleet integration. Your existing Networkfleet username and password will continue to work with previous versions of your asset management system.

Please contact Customer Support or your project manager if you have issues configuring Networkfleet Interfaces after following the above information.

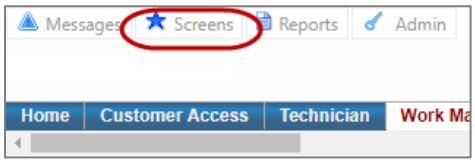
Components

MAXQueue

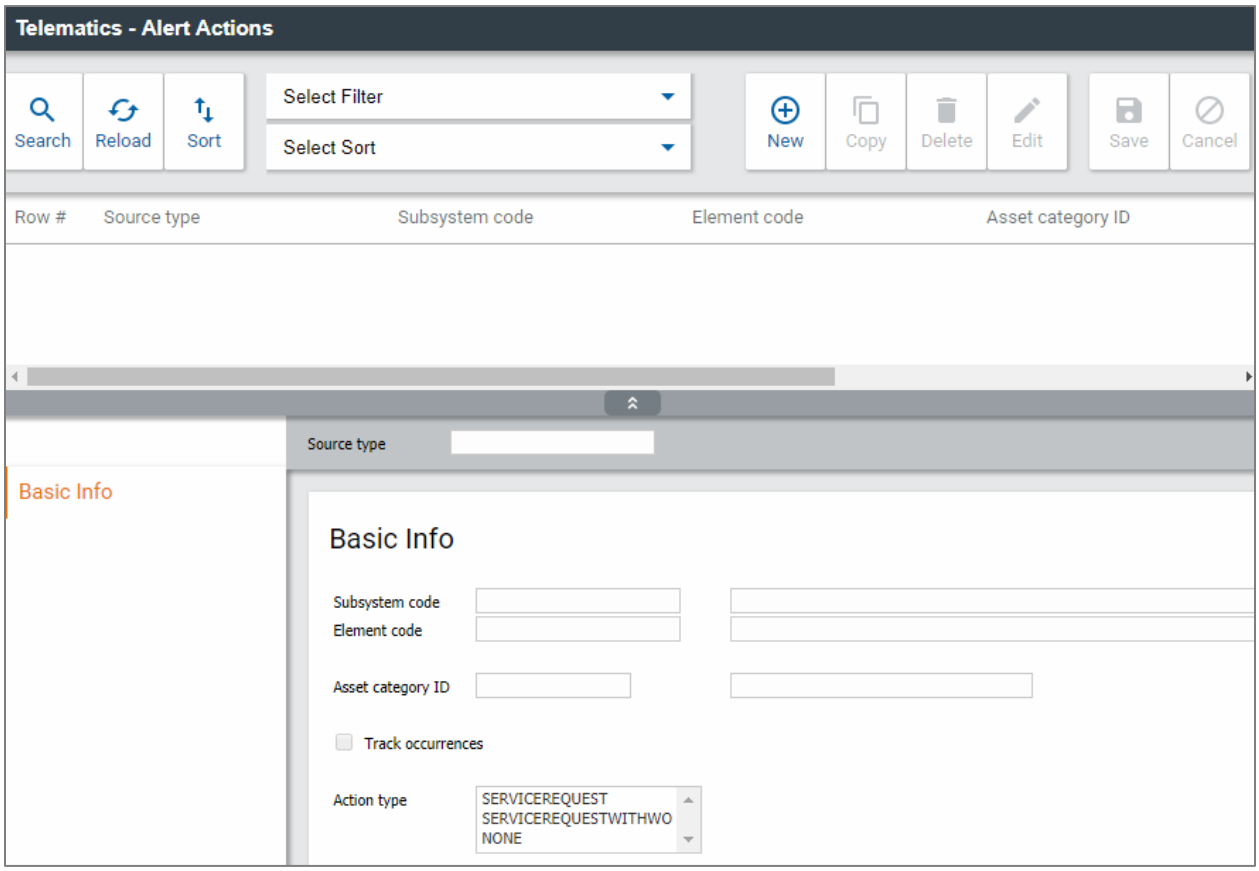
- Install MAXQueue base.
- Install/Configure the Networkfleet module.
- Create or load supporting lookup data by executing CreateTMData.sql/LoadTMData.sql.

System Configuration

In order to configure the system, you will need to go to the Enterprise Portal which is available by clicking the Screens button at the top of the application. Go to Setup > Data Capture > Telematics and access the following screens.

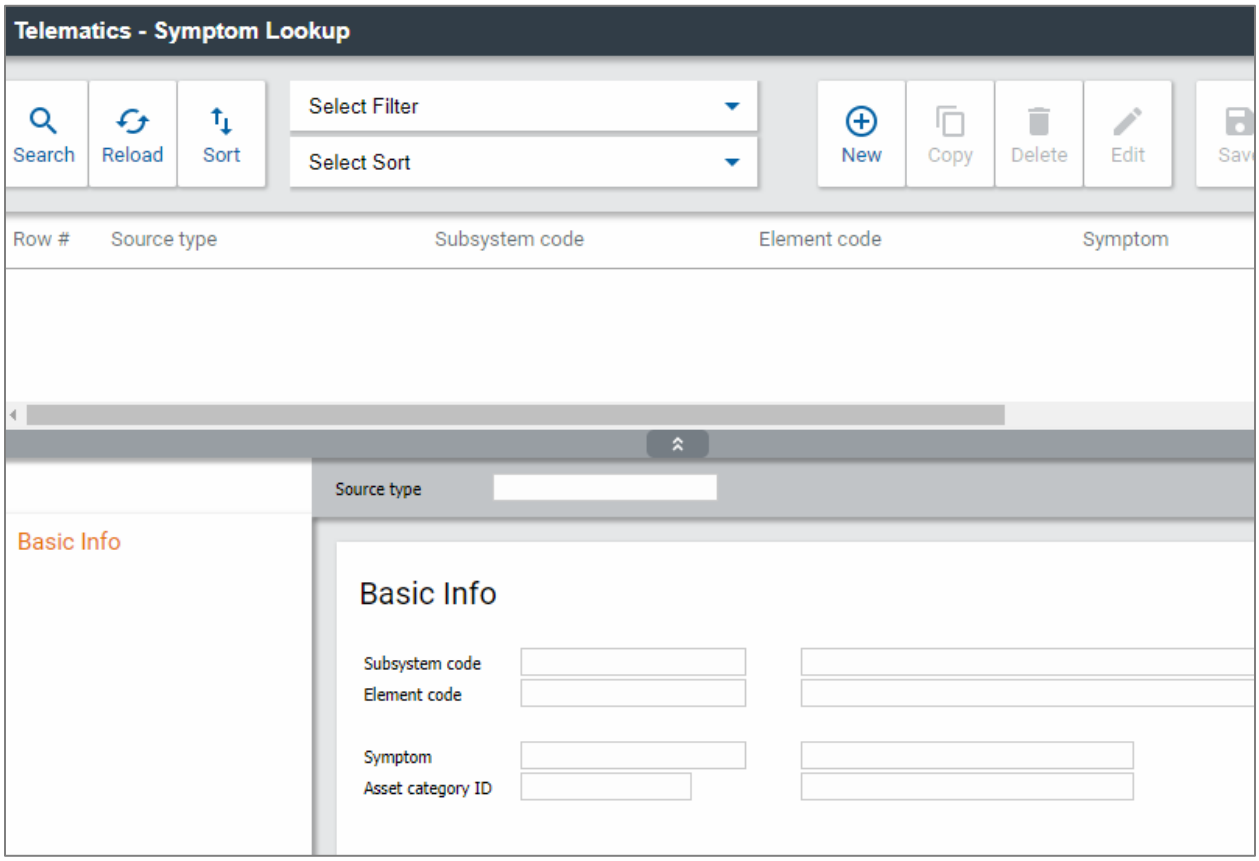


Alert Actions



- Configure whether you want to create a service request or service request with a work order for a given alert (subsystem code/element code/asset category).
- Configure whether to track occurrences for a service request.

Symptom Lookup



- Configure the Symptom code that will be associated with the given alert for cases where a service request is created.

ANY can be specified as a wildcard for a subsystem code/element or code/asset category. If it is not clear what element deserves a service request, you can start by using the ANY wildcard for these values.

3. Networkfleet

Configuration

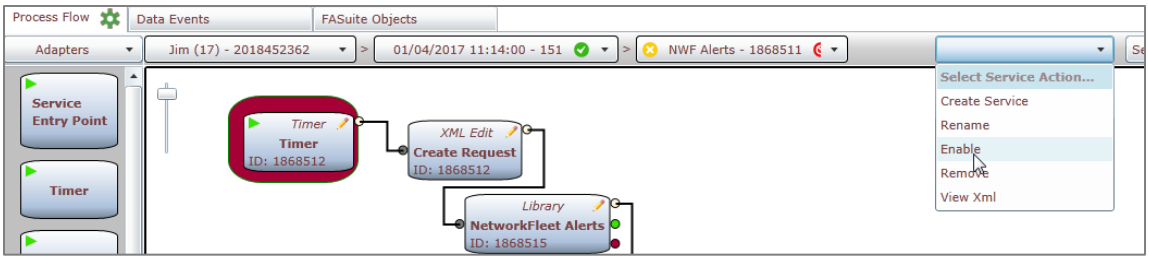
1. In MAXQueueDesigner on the Settings tab, create (or verify if they already exist) the following variables:

Variable	Value
vars.NWFUserId	NetworkFleet User ID
vars.NWFUserPass	NetworkFleet User Password
vars.NWFFAUserId	FA User
vars.NWFFAUserPass	FA Password
vars.NWFAlertWOClass	Default Work Order Class when creating Service Requests with Work Orders
vars.TMOdometerMapping	If all equipment with a distance meter is setup with a Meter Type of MILES or KILOMETERS, this can be left blank. If you have equipment types that represent distance that are not using MILES or KILOMETERS, list all distance Meter Types. Enter this as a semi-colon separated list (for example, MILES;KILOMETERS;DISTANCE).
Vars.TMHoursMapping	If all equipment with a time meter is setup with a Meter Type of HOURS, this can be left blank. If you have equipment types that represent time that are not using HOURS, list all time Meter Types.Enter this as a semi-colon separated list. (for example, HOURS;DURATION;TIME).
vars.NWFAPIUrl (16.0 and forward)	Defaults to https://api.networkfleet.com/ which is the end point to where REST requests are made
vars.NWFOauthUrl (16.0 and forward)	Defaults to https://auth.networkfleet.com/token which is the end point to where OAuth2 requests are made
Vars. NWFIgnoreTrackItemType	Defaults to ASSET. This will cause the service to filter off all vehicles that have a trackableItemType element with the value ASSET. If this variable is not present, or blank, then all vehicles will be included.

Notes:

- The above MAXQueue variables are required for proper Networkfleet configuration. Other variables may be necessary for proper Telematics setup (for example, vars.UseODBIICode and vars.TMHoursMapping).

- Networkfleet does not support setting both Meter 1 and Meter 2 as the same meter type (for example, they cannot both be set as time).
- Never change or attempt to change your Networkfleet credentials within the asset management system.
- Enable the following services: NWF Alerts, NWF DiagnosticData, NWF Meter, NWF Position.



2. Configure the following adapters:

Timer: Determines how often the service will run.

Create Request: Configure the quantity of vehicles to process for each initiating timer event. Configure the update interval which indicates how long, at a minimum, before a vehicle that was previously processed is eligible for processing again.

The Default settings for each Networkfleet service are as follows:

NWF Alerts: Every minute the service will retrieve Alerts for 15 vehicles. Any processed vehicle is again eligible for processing after 40 minutes.

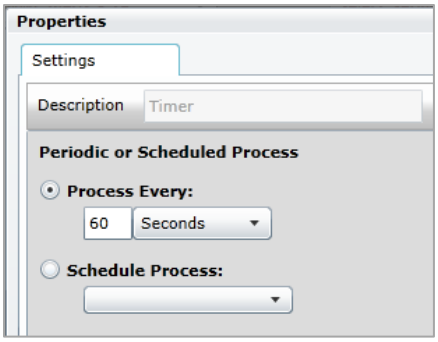
NWF Diagnostic Data: Every 30 minutes the service will retrieve the latest diagnostic data for 1000 vehicles. Any processed vehicle is again eligible for processing after 60 minutes. Only new readings will be retrieved.

NWF Meter: Every 30 minutes the service retrieves Meter data for all vehicles

NWF Position: Every hour the service retrieves current position data for all vehicles.

These default settings are configurable and AssetWorks can assist with ideal configuration to your specific Networkfleet setup.

Note: You may provide a VIN Value in any of the NWF Create Request adapters in order to limit the scope of data retrieved.



4. Telematics

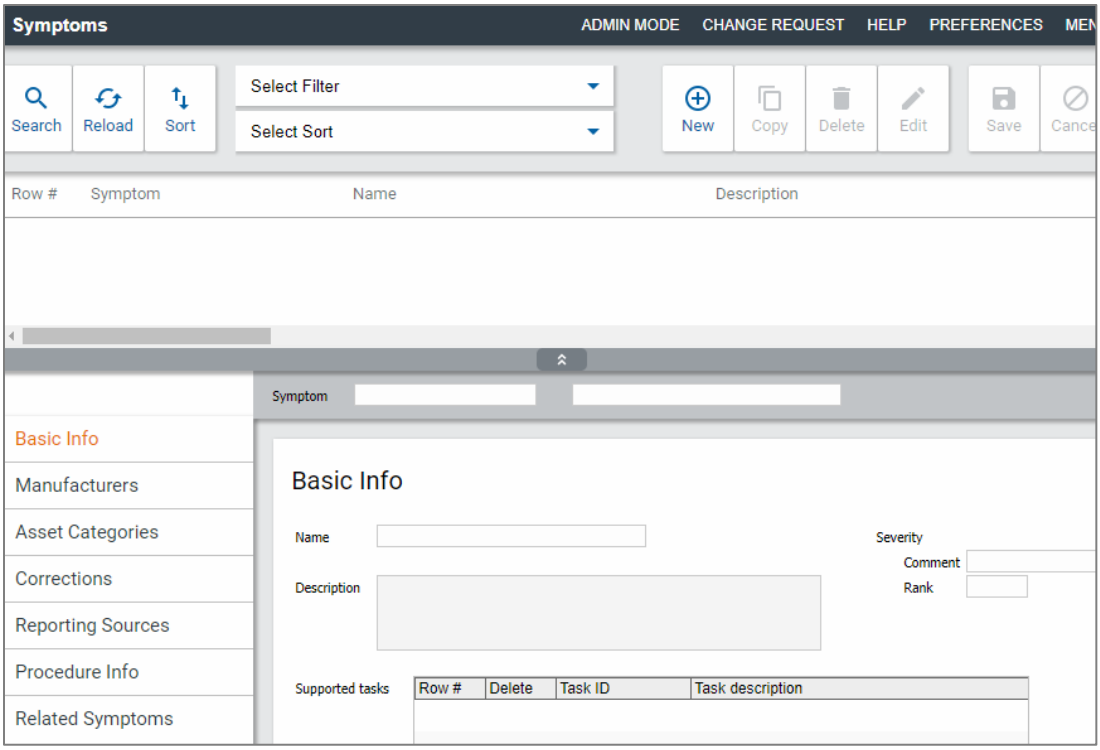
Configuration

1. Execute the scripts, CreateTMData.sql and LoadTMData.sql as emsdba. These scripts load all of the telematic data that can be captured.

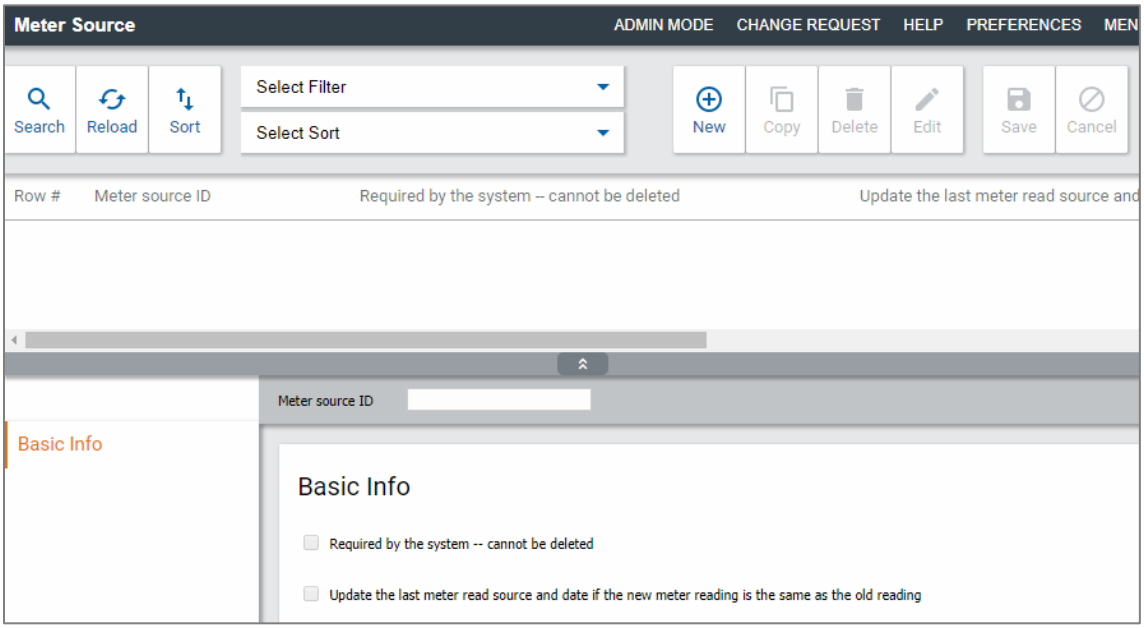
LoadTMData.sql

```
-- run while logged in as EMSDBA

SET define off


INSERT INTO TM_ALERT_RANGETYPE (row_id, source_type, code, description)
        VALUES (UNIQUE_ROWID.nextval, 'J1708', '0', 'Data valid but above normal operational range');
INSERT INTO TM_ALERT_RANGETYPE (row_id, source_type, code, description)
        VALUES (UNIQUE_ROWID.nextval, 'J1708', '1', 'Data valid but below normal operational range');
INSERT INTO TM_ALERT_RANGETYPE (row_id, source_type, code, description)
        VALUES (UNIQUE_ROWID.nextval, 'J1708', '2', 'Data erratic, intermittent, or incorrect');
INSERT INTO TM_ALERT_RANGETYPE (row_id, source_type, code, description)
        VALUES (UNIQUE_ROWID.nextval, 'J1708', '3', 'Voltage above normal or shorted high');
INSERT INTO TM_ALERT_RANGETYPE (row_id, source_type, code, description)
        VALUES (UNIQUE_ROWID.nextval, 'J1708', '4', 'Voltage below normal or shorted low');
INSERT INTO TM_ALERT_RANGETYPE (row_id, source_type, code, description)
        VALUES (UNIQUE_ROWID.nextval, 'J1708', '5', 'Current below normal or open circuit');
INSERT INTO TM_ALERT_RANGETYPE (row_id, source_type, code, description)
        VALUES (UNIQUE_ROWID.nextval, 'J1708', '6', 'Current above normal or grounded circuit');
INSERT INTO TM_ALERT_RANGETYPE (row_id, source_type, code, description)
        VALUES (UNIQUE_ROWID.nextval, 'J1708', '7', 'Mechanical system not responding properly');
INSERT INTO TM_ALERT_RANGETYPE (row_id, source_type, code, description)
```

2. In the Enterprise Portal, open the Symptoms screen. Create a new symptom: TROUBLECODE. Make sure the symptom is checked to support all asset categories and all reporting sources. This symptom code is the default used when generating Service Requests.

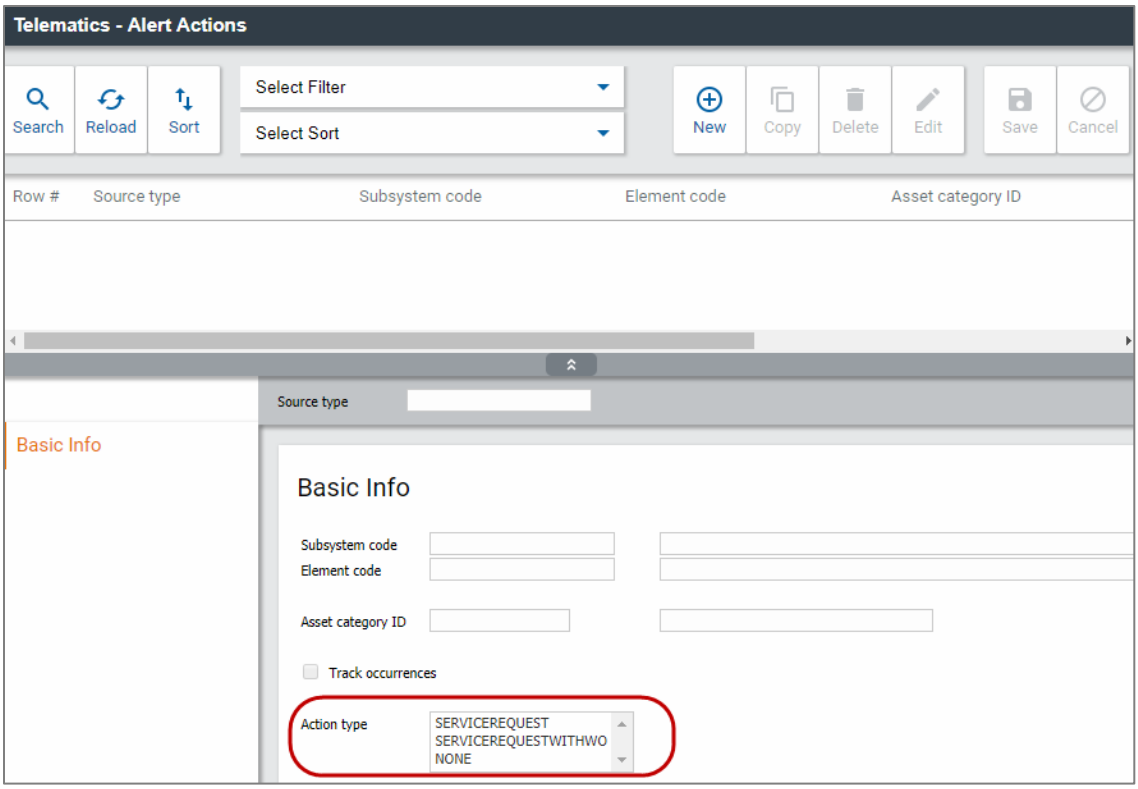


3. In the Enterprise Portal, open the Meter Source screen. Create a Meter Source for TELEMATICS and check the **Update the last meter read source and date if the new meter reading is the same as the old reading** option.



4. In the Enterprise Portal, open the Telematics – Alert Actions screen. Check the **Track occurrences** option to track for the action being created. Also set whether for a given alert (source type/subsystem, code/element, or code/asset category) you want to do one of the following:

- Create a service request (select **SERVICEREQUEST**)
- Create a service request with a work order (select **SERVICEREQUESTWITHWO**).
- Only track the alerts if received Fault Codes generate an action of creating a Service Request (specify **NONE**).



Functionality

Telematic Data is defined in the following tables:

- Subsystem Codes (stored in TM_SUBSYSTEM_LOOKUP)
- Elements (stored in TM_ELEMENT_LOOKUP)

Types of scenarios that the Telematics module can process:

- Alerts (stored in TM_ALERTS)
- Diagnostic Readings (stored in TM_READINGS)
- Odometer readings (stored in EQ_METER_READ)
- Position info (stored in EQ_POS)

Odometer readings, position info, and diagnostic readings do not require any system-related setup. For those readings, it is purely MAXQueue writing to the Telematic tables in the asset management system without any filter/restrictions applied. It is only the Alert transactions that use the Telematic screens, and as a result require that those screens are configured.

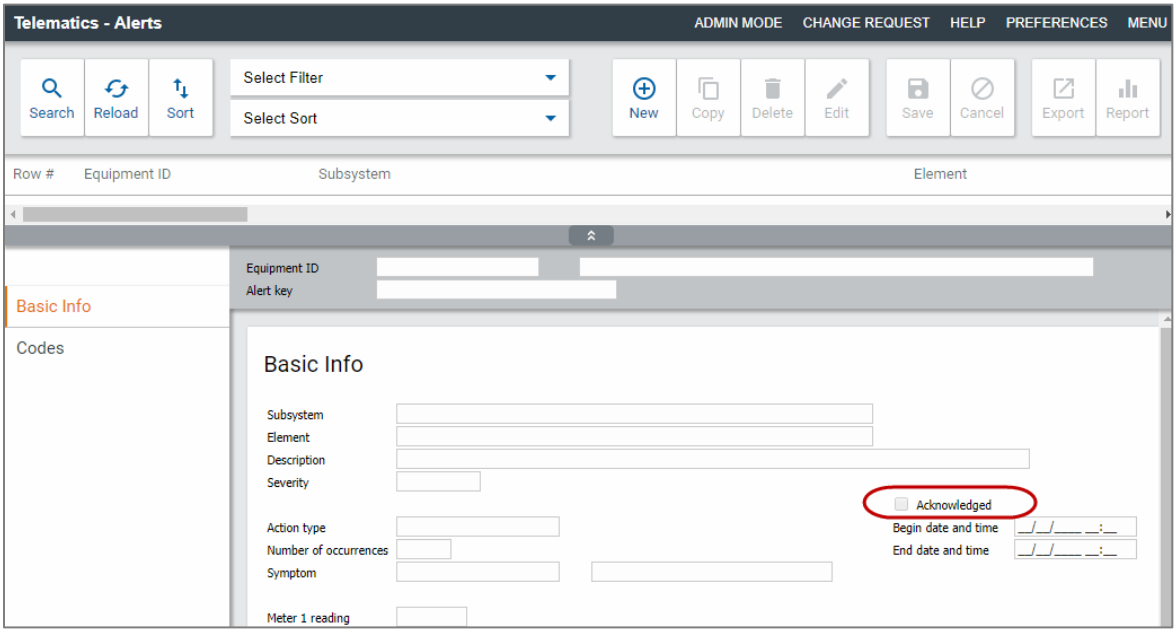
To retrieve odometer and position readings, the information is stored on the Equipment Primary record, Equipment Units – Fleet Equipment. Diagnostic readings currently can only be retrieved by creating an Ad hoc report using the TM_READINGS table.

Alerts Workflow

The alerts process works as defined below:

1. MAXQueue processes an alert into the Telematics – Alerts screen.
    - Alerts can automatically generate Service Requests (seen on the Service Requests/Defects screen).
    - Alerts can automatically generate a linked pair of a Service Request and Work Order (seen on the Work Order Center screen).
2. To clear the alert, on the Telematics – Alerts screen check the **Acknowledged** checkbox.

    Note: If the same alert occurs for this vehicle a second time, and this box has not been checked, MAXQueue will not generate another service request or work order, but will increase the occurrence count each time the same alert occurs.



Interfaces and Notifications

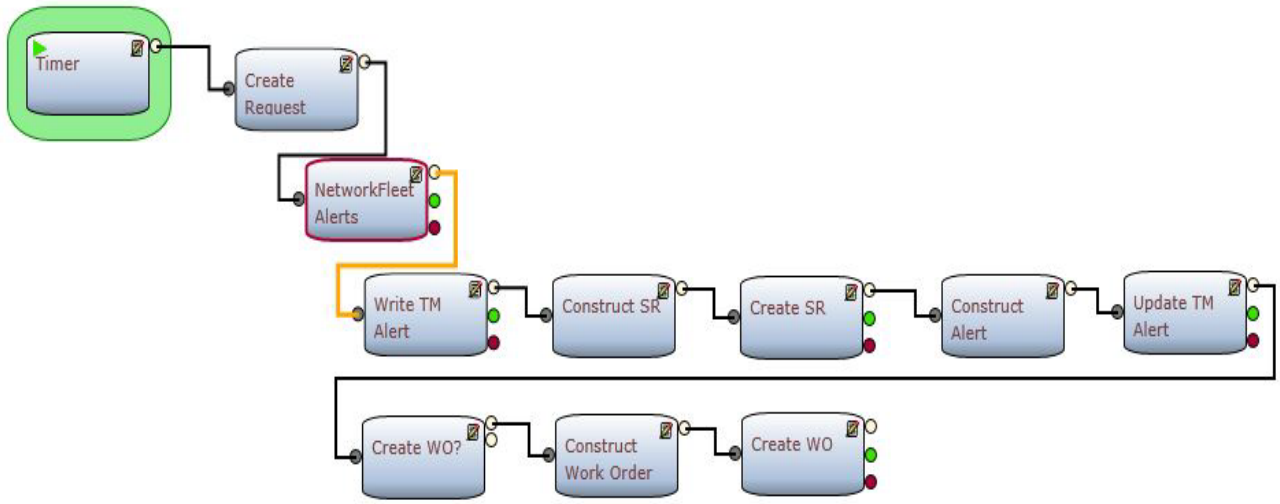
The following section gives a brief overview of each interface within the Telematic Library that interacts and utilizes Networkfleet data.

As previously mentioned, each interface has common workflow settings for determining how often, along with the amount of Telematic data being consumed. Also, each have default variables which can be configured to specific customer needs:

- **Timer:** Determines how often each service will run.
- **Create Request & Quantity**: Determines the setup variables to use for each interface and may also be used to determine the quantity of Telematic data (e.g. # of vehicles) to process for each initiating timer event.
- **UpdateInterval:** Determines how long, at a minimum, before the applicable data that was previously processed is eligible for processing again.

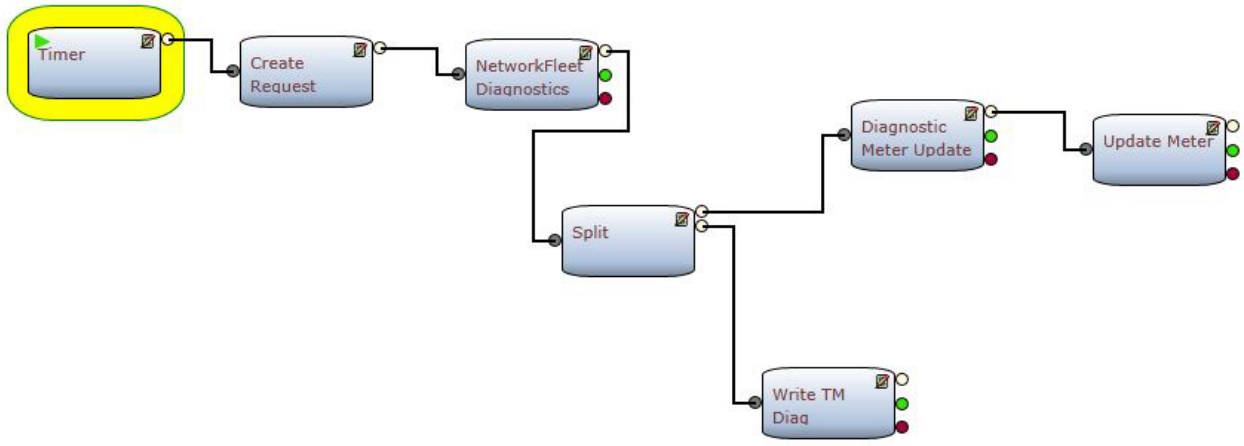
Alerts

This service queries Networkfleet for vehicles that have alerts. For each alert, telemetry data is recorded; when the alert type is for a service order, a Service Request and Work Order are created. When there are no alerts then nothing for that vehicle flows through the remainder of the workflow.



Diagnostics

This service retrieves and processes diagnostic data retrieved from vehicles with Networkfleet devices.

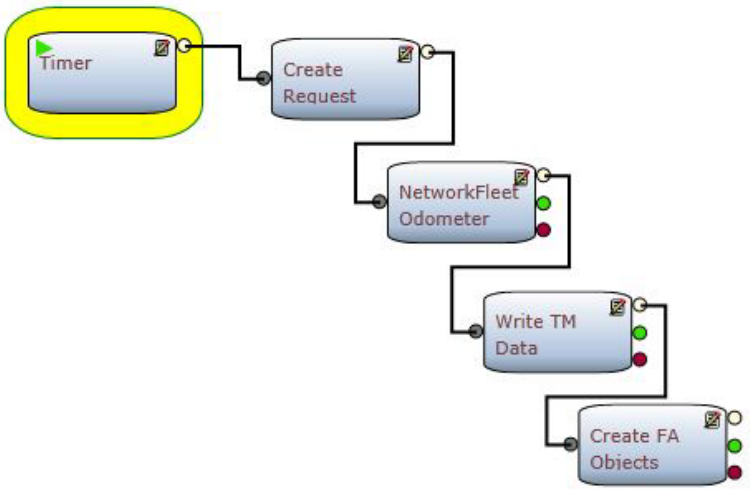


Notes:

- **MLDItems:** If the Mld Code is ENGHRS, the Diagnostics service will update the appropriate meter on the asset with the MldValue. The appropriate meter (1 or 2) is mapped through the vars.TMHoursMapping variable based on the Assets Meter Source.
- **vars.TMHoursMapping:** If the vars.TMHoursMapping and Meter 2 source is set to HOURS, and if the Mld code is ENGHRS, the service will update Meter 2 with the Mld value.
- **VIN:** If entered, will limit this workflow to only this VIN.
- Multiple Meter Source values can be separated by a comma in the vars.TMHoursMapping variable.

Odometer

This service retrieves the last known odometer reading for all equipment with Networkfleet devices and updates the assets odometer reading in the asset management system.

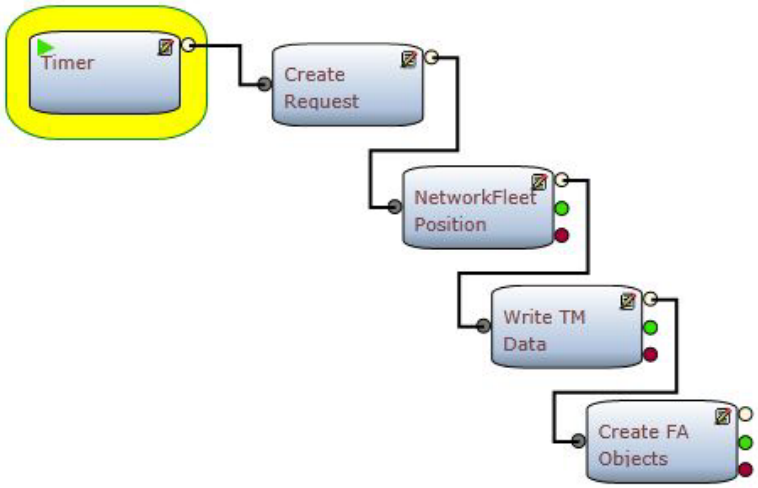


Notes

- **VIN:** If a VIN is entered, then this workflow will process only this vehicle.

Positions

This service retrieves the GPS data (current and historical) for all equipment with Networkfleet devices installed and stores it in the asset management system.



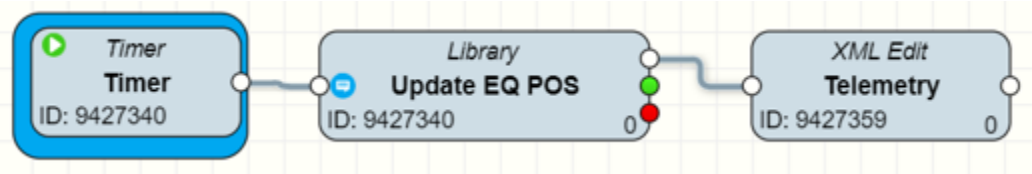
Note

- **VIN:** If a VIN is entered, then this workflow will process only this vehicle.

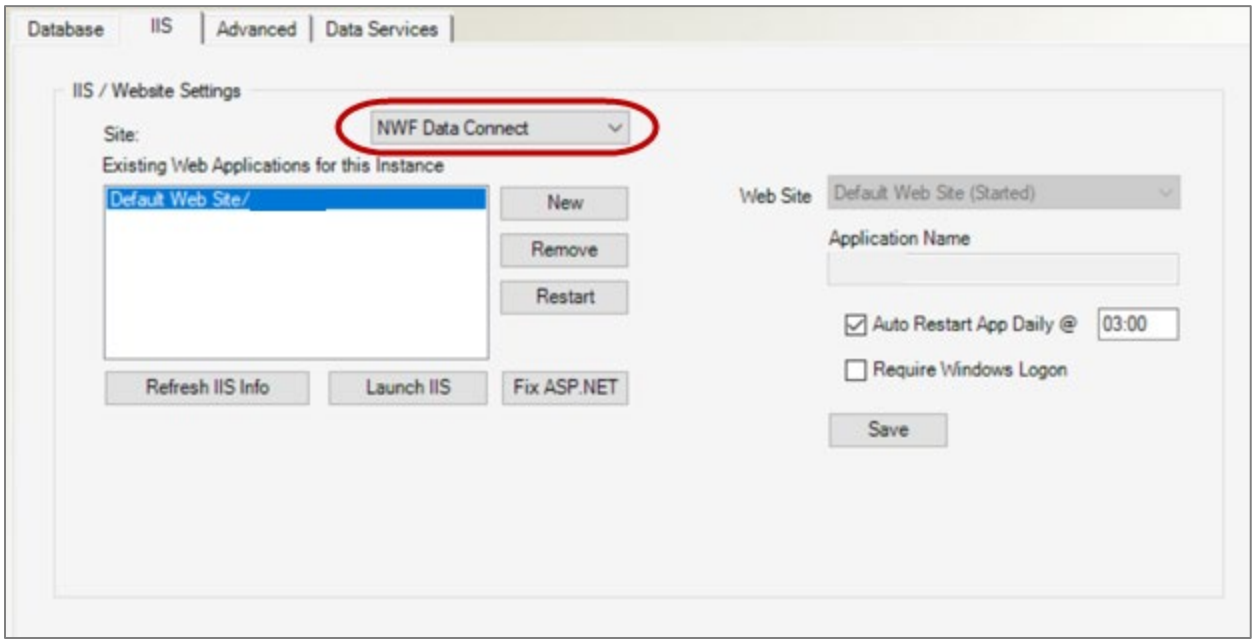
NWF - DataConnect – Location

Network Fleet provides location data via the above described Positions service. Some clients require the location data to be near real-time and have enough equipment that the Positions service will not keep their location data up to date. For these clients, Network Fleet and the system provide a **Data Connect** service. This is a separate service from both Network Fleet and the system.

When installed, the service looks like the following diagram and will update the equipment position in a near real-time fashion.



To use this service, it must be configured in the MAXQueue Configurator.



To configure NWF Data Connect, do the following:

1. Go to the IIS tab. From the Site drop down, select **NWF Data Connect**.
2. Click **New**.
3. Give it an Application Name and then click **Save**.

   Note: This IIS web site must be exposed to Network Fleet and Network Fleet needs the IP address for this IIS web site.