Fleet Complete User Guide

Version 3.8

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WELCOME TO FLEET COMPLETE

This on-line help system explains how to use Fleet Complete to:

- track, on a single screen, the real-time location, speed, and direction of travel of all vehicles in your fleet
- distinguish between *events* and asset activities that occurred during working hours from those that occurred on personal time
- record when assets (with in-vehicle devices, handheld devices, or asset tags) enter or exit an identified location
- capture vehicle information such as state of ignition, battery voltage, or PTO sensor reading, and more
- create rules that can identify inappropriate driver behaviour, such as harsh braking or speeding, or use of a vehicle outside of work hours, so you can take corrective actions
- produce powerful operational and management reports that show vehicle activities throughout the day, allowing you to analyze the congregation or overlapping of assets, idling or stop time, speeding patterns, and more
- create activities and assign them to resources to be performed

Every function and feature of Fleet Complete is described in this help system. Keep in mind that the security profile that your user account is assigned to might not grant you access to all of Fleet Complete's functions.

GETTING STARTED

About Fleet Complete Data Collection

Devices

Every asset you can track in Fleet Complete has some type of GPS-enabled device:

- vehicles and other equipment with an engine have an in-vehicle device
- individuals have a mobile phone (GPS and/or LBS-enabled handheld device)
- equipment may have an asset tag

Your organization may also make use of *sensors* (for example, a sensor to indicate whether or not a door is open), including those that collect and transmit information about a PTO (for example, to record when a beacon was on while the vehicle was painting lines on a road).

Vehicles may also have an *ECM* box that records diagnostic trouble codes and engine information.

Both sensors and ECM boxes communicate information to the in-vehicle device, which transmits it to the server along with the GPS data.

Collection and Transmission of Data

Data is collected and stored on the device at intervals, then transmitted to the Fleet Complete server (when in cell coverage) at either the same or a different interval (typically each transmission includes multiple snapshots of data):

- in-vehicle devices and GSP handheld devices collect and transmit data at configurable intervals, with the option to collect and transmit additional data each time the vehicle changes direction or each time a specific set of conditions is in effect
- LBS handheld devices and asset tags collect and transmit data at hard-coded intervals

ECM data is sent to the in-vehicle device and to Fleet Complete when there any DTCs and again when the engine starts and stops.

About Fleet Complete Data Storage

Asset-related data is stored in Fleet Complete for a limited period of time (typically, three months). To capture and store information outside of Fleet Complete, use scheduled Operations reports and/or the data export function. Data used for Management reports (a beta feature) is kept for a contractual period of time.

Using Fleet Complete to Meet Your Needs

Fleet Complete is a powerful and flexible system that can bring greater efficiencies to your organization. To make the best use of Fleet Complete, you first need to understand some of the basic concepts involved and how they relate to your needs and requirements.

Controlling Access to Fleet Complete Functions

To determine which users can have access to Fleet Complete, the functions they can perform, and the scope of information available to them, you configure user accounts with assigned security profiles.

Making Data Meaningful

Raw data is collected from assets at intervals. You can make that data more meaningful for your specific needs by implementing the features described below.

To distinguish between data collected during times when an asset is expected to be working from times when it is being used on personal time, use work schedules.

To capture meaningful information about driver behaviour (such as harsh braking or speeding), or to collect data that will help you save money (such as knowing when assets are used outside of scheduled working hours), use rules.

To track and report on the activities of people, or to use MDT messaging, set up resources.

To be aware of the interaction of assets with geographical areas of particular interest, use POIs. POIs might be locations where assets and resources are supposed to be (for example, client sites, warehouses, border crossings) or where they are not supposed to be (casinos, coffee shops).

Taking Advantage of Additional Functions

Use the Activities function to create location-specific activities such as service calls, assign them to resources/crews, and monitor their progress.

Use the Maintenance function to track and manage asset maintenance (safety checks, oil changes).

Considering Reporting Needs

Fleet Complete offers a full range of reports that can be generated manually or based on a schedule.

We Recommend Before you begin configuring your system, take a moment to review the list of available reports. Seeing how report data is organized and presented in Fleet Complete can help you make better configuration choices.

About the Interface

In Fleet Complete, you navigate to functions using the main menu (click) or ribbon toolbar. Function windows open as tabs: to close any tab, click the **x** on the far right of a tab to close it.

When you log on to Fleet Complete, you see the Welcome screen, as well as the last function screen you opened in your previous session. To re-display the Welcome screen, on the main menu, click **Welcome**.

Function screens display data on a grid.

Depending on your user account and system configuration, you may see an Alert panel on the right side of the main window.

You can customize the interface to suit your preferences.

Configuration Steps

As a best practice, you should configure Fleet Complete in the following order:

1. Create asset work schedules that help your organization distinguish between when a vehicle is being used for business purposes and when for personal use.
2. Create asset types to group similar assets for reporting purposes and to limit user access (through security profiles) based on asset type.
3. Modify the default asset configuration to take advantage of your specific work schedules, vehicle information, and asset types.
4. Set up rules to monitor driver behaviour, sensor readings, and other critical information.
5. If you want to track when assets enter or exit a specific geographic area, set up POIs.
6. If you are using an *MDT* device or driver ID Fob, or will be dispatching activities to handhelds, set up resources and crews.
7. If you want to monitor and manage your assets' maintenance schedule, set up the Maintenance function.
8. To provide access to Fleet Complete for users, set up users and security.

Before doing extensive data entry at any stage, consider the need for custom fields and, if necessary, set them up.

TRACKING

Background

About Tracking

Why Use This Function?

Tracking allows you to monitor the real-time activities and locations of assets. Even if you have not done any Fleet configuration, you can begin tracking immediately, using the default configuration provided by Complete Innovations. Tracking also lets you monitor and manage activities.

What is the Default Configuration?

By default, the Tracking screen shows all the assets you have access to .

What Do I Need to Understand About Tracking?

The Tracking function is integrated with the Fleet configuration function: you can edit or add to your configuration from the Tracking screen.

Note: Not all configuration functions are available from within Tracking. For example, you cannot configure rules from the Tracking screen.

About the Tracking Screen

To open the Tracking screen, on the *ribbon toolbar* or main menu, click **Fleet > Tracking**.

The Tracking screen is made up of the following:

- a Command Bar of *icons*
  (icons become available depending on what is selected in the Map Items area)
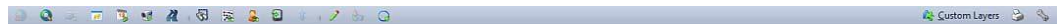
- *a Map Items panel*
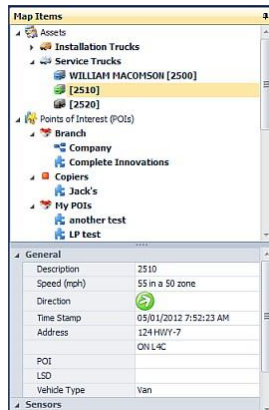
- a map with *map controls*
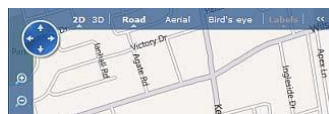
- an activities panel
- a messaging panel

Note: You can open and close the panels to allow you to focus on information of interest.

The **Map Items** area is made up of several sections:

- on the Activities panel
- a tree of items that are displayed, or available to be displayed, on the map
- details on the selected item (the one you have clicked on most recently on the map or Map Items tree)

Note: You can drag the divider between the tree and details sections of the Map Items area to change the height of each section.

The **map** shows selected assets, POIs, and/or custom layers.

Features available from this screen include:

- activating/deactivating output
- adding a POI
- assigning resource or run to an asset
- changing item or type configuration
- being informed when an asset moves (departure notification)
- controlling which items appear on the map
- displaying place details
- focusing the map display
- following an asset in a new window
- locating the closest assets to a specific location or other asset
- printing the map
- replaying trips of assets
- requesting the current position of an asset
- setting map options
- setting the unit of measurement for the map
- showing additional map information (custom layers, labels, and/or traffic)
- viewing details of an asset's recent activities
- viewing events
- working with the Activities panel

Working with the Map

The map portion of the Tracking screen shows the location of assets and *POIs*, along with any custom layers you have configured and chosen. By default, the map shows all configured assets that have an active device, and all configured POIs. However, you can control which of these appear on the map.

Assets and circular POIs are displayed showing the **icon** configured for their type; other POIs are displayed showing the **colour** configured for their type along with an information icon .

*Note: If an asset is in more than one POI, only the POI that takes up the smallest area is shown.*

LBS devices are shown in a peach-coloured circle that represents the possible location of the device: the diameter of the circle indicates the radius of accuracy of the LBS signal.

Hovering the cursor over an item on the map opens a pop-up containing detailed information about the item or, if icon clustering is enabled, about the cluster.

Clicking an item in the Map Items panel focuses the map around that item (which is surrounded by a yellow circle) or, if icon clustering is enabled, around the cluster in which the item is situated. As the selected asset moves, it may move out of sight on the map, unless the follow selected asset option is enabled.

The map controls offer features similar to those of many online maps:

- to move the map area, click on the map and drag it until the desired section is shown, or use the *pan control*

- to zoom in or out, use the *zoom controls* or your mouse's scroll wheel

- to change the map view, use the *view controls*

To hide these controls, click **<<** (to the right of the view controls); to show them again, click **>>**.

To find a specific location on the map (address, latitude/longitude, or LSD), enter location information in the right-hand search box above the map and press ENTER. To clear your entry, click X.

To find a specific asset, resource, or POI on the map, enter all or part of the name of the item in the left-hand search box above the map and press ENTER. If more than one match is found, you see a list of search results: double-click on the item of interest to locate it on the map.

About the Map Items Panel: Tree

Contents of Tree

The tree portion of the Map Items panel on the Tracking screen shows configured assets, POIs, and custom layers in a tree structure, with assets and POIs grouped by type. Asset types are identified by name, along with the icon configured for that type (the same icon is also used to represent assets of that type on the map).

Note: If an asset type or POI type has no associated assets or POIs, it is not shown.

Depending on the option chosen (click [icon] in the top right portion of the screen to open the map options and check the desired **Display Asset As** option), the list may show asset name followed by the asset's resource in square brackets, or the resource followed by the asset's name in square brackets. Choose the display option that meets your needs best.

For Example

You may prefer to see:
van101 [jsmith]

or
jsmith [van101]

If the asset type or POI type name is in bold face type, items of that type are viewable on the map. If the asset type or POI type name is in regular face type, items of that type are being hidden from the map.

By default, offline assets (those not transmitting snapshots) are listed under their asset type, the same as assets that are online (transmitting snapshots). If you prefer, you can have all offline assets, regardless of type, appear in the tree under the "Offline" group. To do this, click [icon] in the top right portion of the screen to open the map options and check **Group Offline Assets Together**.

Working with the Tree

Nodes on the tree can be expanded (click the ⏵) or collapsed (click the ⏶).
Selecting an item in the Map Items panel focuses the map around that item or, if icon clustering is enabled, around its cluster.

Features available in the Tracking screen vary depending on whether you have selected an asset/POI type or a specific asset/POI.

Meaning of Asset Icons and Colours

Assets are shown with the icon representing the Fleet product your organization subscribed to for the asset:

- assets with the In-Vehicle Tracking product use the icon
- assets with the Asset Tag/*LBS* Tracking product use the icon
- assets with the Resource Tracking product use the icon

The colour of the asset's icon indicates the status of the asset.

Note: These icons and colours also appear on the asset grid.

This icon...	Means...
red	Asset is off-line or out of cell range, or its in-vehicle device is yet to be installed.
red	The LBS asset is not being tracked at the moment.
red	No transmission is being received from the handheld.
green	There is ongoing communication with the in-vehicle device and the vehicle is in motion.
green	The asset has a good GPS signal.
green	The LBS asset is in a location that is within the high range (less than 500 metres).
green and speedometer	The asset with an in-vehicle device is travelling over the posted speed limit.
green and two pipes	The asset with an in-vehicle device is *idle*.
blue	The asset's ignition has been off for no more than 12 minutes.
yellow	There is ongoing communication with the in-vehicle device but the device's GPS is not valid.
yellow	The LBS asset is in a location that is within the medium range (500 - 5000 metres).
black	The asset has had its ignition off for more than 12 minutes.
black	The handheld asset has been *still* for at least 20 minutes.
exclamation mark	The handheld asset's GPS is restricted (such assets are not affected by the Group Offline Assets Together feature).

A red bar behind an asset's description and icon indicates an *alarm* state: if you find alarm states are being triggered frequently, consult Fleet Complete technical support.

About the Map Items Panel: Detail

The bottom portion of the Map Items panel of the Tracking Screen consists of multiple panes.

The General pane shows general information about the currently selected asset or POI.

For an asset, the General pane shows:

- description
- current speed
- current direction
- time of last snapshot
- current address
- current POI, if any
- current LSD, if any
- *vehicle type*
- for an *LBS* device, the label associated with the signal accuracy

For a POI, the General pane shows:

- description
- address

Other panes show:

- on the Custom Fields pane, the values for any custom fields configured for the currently selected asset or POI
- if the asset is associated with a resource, on the Assigned Resource Custom Fields pane, the custom fields, if any, for that resource g
- if the asset is associated with a crew, on the Members tab, the list of crew members
- on the Sensors pane, the value of each of the currently selected asset's *sensors*
- on the Events pane, any *events* for the currently selected asset

Use the scroll bar to the right of the details area to scroll through all the available panes of information.

About Map Options

Use the map options of the Tracking Screen (click in the top right portion of the screen) to:

- group offline assets together
- follow the selected asset
- allow icon clustering
- show/hide traffic information
- use direction icons for assets
- set unit of measurement for maps
- display asset or resource name first in the Map Items tree

Working with Tracking

Activating/Deactivating Output

If a device has an associated output, you can activate or deactivate that output from the Tracking screen. You can choose to pulse or activate the output.

"Pulse" is used to turn the output on and off rapidly.

For Example *A vehicle has a special sensor that unlocks the door. A driver has locked himself or herself out of the vehicle. Activating the output as a pulse sends three frequencies for 1.5 seconds and unlocks the door for the driver.*

"Activate" is used to turn the output on.

For Example *A vehicle has a buzzer you use to check in with a driver to indicate they should call the office. You activate the output when the driver is working alone late at night, so you can be reassured about the driver's safety.*

The function toggles between activating and deactivating the output.

1. Right-click on the asset in the map or Map Items tree and choose
   Activate/Deactivate Output or click ⬍.

2. Choose from the available outputs and choose whether you want to **Pulse** or **Activate**
   the output.

3. The output is sent based on the time of the device data settings for the asset: it is not
   sent immediately.

4. If you chose to activate, once the asset receives the output and responds, the button
   changes from **Activate** to **Deactivate**. To deactivate the output, click **Deactivate**.

Adding a POI from the Tracking Screen

From the Tracking screen:

1. Right-click on any location in the map or any asset in the Map Items tree.

2. Choose **Add POI Here**.

3. Complete the POI configuration.

Assigning Resource/Crew or Run to Asset

You can quickly assign a resource or run to the asset if necessary. The asset's current
resource and run are shown in square brackets after the item's name in the Map Items tree.

1. On the Tracking screen, right-click on an asset in the map or Map Items tree and
   choose **Assign Run** or **Assign Resource/Crew**.
   - or -

   Select the asset in the map or Map Items tree and click 🖼 (assign run) or 👤(assign
   resource).

2. You are prompted to choose from the list of configured runs or resources.

Changing Asset or POI Configuration from the Tracking Screen

From the Tracking screen, to edit the configuration for any asset or POI:

1. Right-click on the item on the map or in the Map Items tree.

2. Choose **Edit the Asset** or click ✏.

To edit any asset or POI type:

1. Right-click on the type in the Map Items tree.

2. Choose **Edit the Asset** or click ✏.

See Changing Asset Configuration.

Controlling Map Contents and Appearance

Note that these features may affect maps used throughout Fleet Complete, not just those on
the Tracking screen map.

Showing or Hiding Items

By default, all configured assets and POIs appear on the Tracking screen map. To speed up
the time of map loading, and to help focus only on those items you want to track, you can
choose to hide assets and/or POIs of a particular type.

*For Example You might have configured POIs for reporting purposes only. Since information
about those POIs is not significant for tracking purposes, you hide them from the map.*

Right-click on an asset or POI type in the Map Items panel and choose **Hide From Map** or
Show On Map.
- or -

Click on a type and click 🌐 (hide) or 🌐 (show).

Items of the selected type will appear or disappear on the map (hidden types are shown in the
Map Items tree in regular font, revealed ones are shown in bold). Even though items are

hidden, their information remains in the Map Items tree, and *alerts* continue to be received from assets of the hidden type.

Showing Items as a Cluster

If individual icons are too close together to be seen as distinct entities on the map, you can choose to show a cluster icon instead. Clustering reduces icon clutter when mapping many items that are in close proximity. It also speeds up map rendering because there are fewer icons to display.

Click in the top right portion of the screen to open the map options, and check **Allow Icon Clustering**.

Illustration Of Icon Clustering

When the mouse pointer is hovered over a cluster, a clickable list of icons and POIs in the cluster appears in a caption box.

Example of Caption for Clustered Items
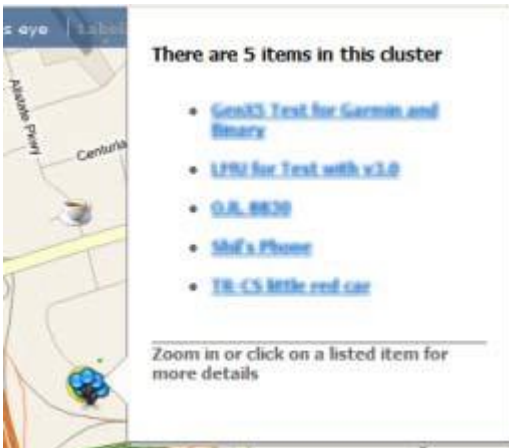
Note: At the maximum zoom level, icons are never clustered.

Displaying Direction Arrows or Icons

By default, assets are shown on the Tracking screen map with the icon associated with their asset type. If you wish, you can instead have assets show arrows indicating the direction the asset is travelling. Click in the top right portion of the screen to open the map options, and check **Use Direction Icons for Assets On Map**. A legend explaining the different icons and colours also appears.

Note: The same icon is shown in the map items panel.

Temporarily Overriding Asset or POI Type Icon

To temporarily change the icon used to represent assets or POIs of a particular type, right-click on the type name in the Map Items tree and choose **Override Icon**. Choose from a list of possible icons, then click **Set**. To restore to the original icon, click **Restore**.

Displaying Place Details

If you wish, you can display detailed information, including address, latitude, and longitude, about any position on the Tracking screen map.

For Example You want to quickly identify the address at the intersection where an asset has stopped.

1. On the Tracking screen map, right-click on any location and choose **Get Place Info**.
2. Details about the position appear in a pop-up window.

Focusing the Map Display

To focus the Tracking screen map on a specific asset or POI, click on the item in the Map Items tree. The current map zoom level is retained: to zoom in on the item, right-click on the *item* in the Map Items tree and choose **Zoom To** or click 🌐.

To zoom the map so it shows all the items in an asset or POI type, right-click on the *type* in the Map Items tree and choose **Zoom To** or click 🌐.

As assets move, they may disappear from the map. To avoid this, click 🔧 in the top right portion of the screen to open the map options and check **Follow Selected Asset**. This ensures the map remains focused around the selected asset or assets of the selected type, regardless of where they move.

To focus the map on a specific address, enter the address (including street, city, and province/state) in the right-hand field above the map and press Enter.
If more than one address matches your entry, a list appears, from which you select the correct address. The address is marked with a yellow circle on the map. This marking remains only until you exit Fleet Complete, or until you enter a new address. To remove the mark, click the **x** beside the address field.

Following an Asset in a New Window

If you want to monitor several assets simultaneously, you can follow each in a new map window, keeping the main map available for monitoring multiple assets.

1. On the Tracking screen, right-click on an asset in the map or Map Items tree and choose **Follow in New Window**.
   - or -

   Select the asset in the map or Map Items tree and click 🗺️.
2. A new window appears, focused around the selected asset and offering the usual map controls.
3. To close a window, click the ❌.

Note: You can open as many windows as you need and move them independently to new locations on your workspace.

Locating Closest Assets

It can sometimes be useful to find out if any assets are near a specific location on the map.

For Example You want to see which assets, if any, are near the location where a pickup is waiting.
A vehicle is disabled and you want to find out which assets are near that vehicle at the moment, so they can provide assistance or transfer the cargo.
A customer wants to know how far away an asset is from their office, so they can anticipate how long until that asset arrives.

To locate the closest assets to any location, asset, or POI:

1. On the Tracking screen, right-click on the item in the map or, for assets and POIs, on the Map Items tree.
2. Choose **Locate Closest Assets** or click 🗺️.
3. A list of the closest assets, including their driving distance from the selected location, appears.
4. Double-click on any asset to focus the map around it.

Note: Fleet Complete defines "closest" as an asset that was within 50 km/31 miles of the selected location, asset, or POI any time within the past 48 hours.

Printing the Map

To print the current map view, from the Tracking screen, click 🖨 (in the top right corner of the screen).

Replaying a Trip (Trip Replay)

Use this function to identify issues that might be involved in a specific trip. To explore the issues in more detail, or to make comparisons (for example, comparing one day's trip with another), use the Reports function instead. Note that any alerts triggered during the original trip are not shown in the replay.

Note: This function is available only for assets with in-vehicle devices that have valid ignition sensors. The Breadcrumb Trail offers a similar feature for other assets.

1. On the Tracking screen, right-click on an asset in the map or Map Items tree and choose **Trip Replay**.
   - or -

   Select the asset and click 🔻.
   The Trip Replay screen opens.
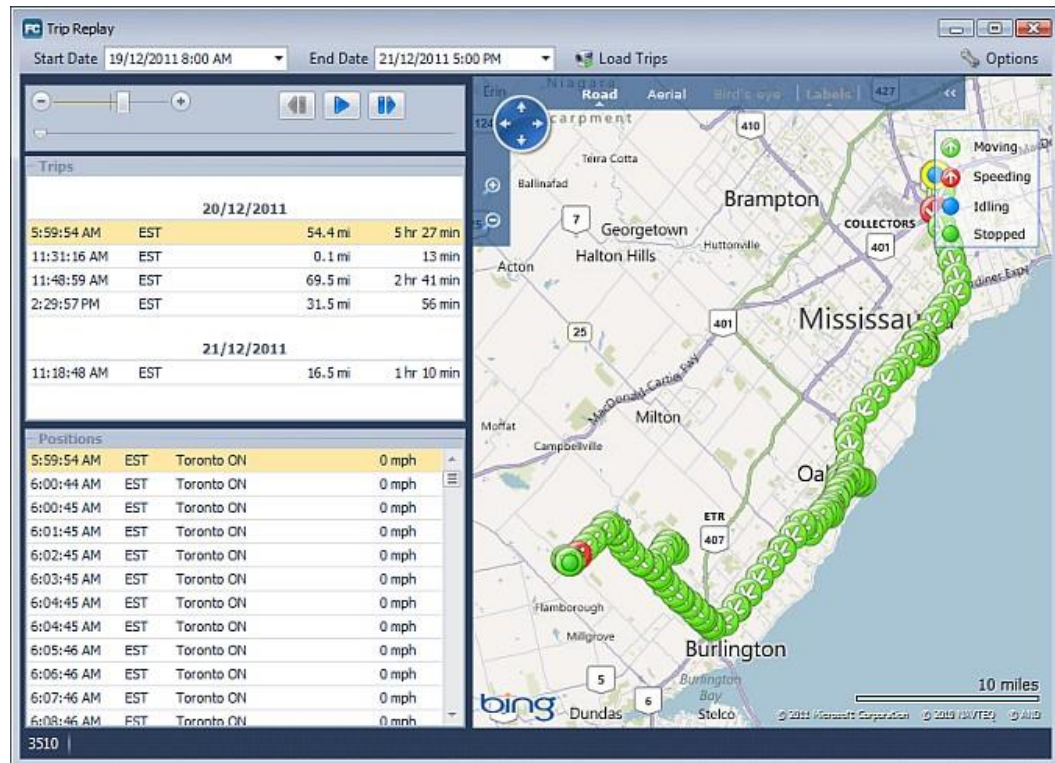
2. By default, the trip replay shows the most recent trips for the current day's work schedule. If necessary, choose a **Start Date** and **End Date** for the trip you want to replay and click **Load Trips.**

3. To play all the listed trips, click ▶.
   - or -
   Click the trip you want to replay.
   shows the path followed by the asset. Any *events* triggered during the trip are labelled on the map and appear when you hover over the ⓘ in the **Positions** list. The map offers the usual map controls and a legend explaining the different icons and colours.

4. The Trips list shows a summary of each trip in the replay period, including it start time, timezone, distance travelled and length of trip. Trips are sorted based on UTZ.

The Positions list shows the details of each snapshot. To highlight a specific position in the map, click on it: its positional arrow becomes yellow. To see the time the asset was at any marked position on the map, hover over it.

5. If desired, show custom layers and/or POIs in the trip replay map by clicking **Options** and choosing the appropriate option(s).

To move through the trip, click the appropriate option to start (▶), (pause (❚❚), go to the next position (❚▶), or go to the previous position (◀❚). The progress of the asset on the trip is shown by a blue dot at the currently selected position.

To increase or decrease the speed of the replay, *drag the slider*.

Note: You can re-size the Trip Replay screen if necessary.

Requesting Current Position of Asset

Caution: This function requires communication with the asset. Depending on your service plan, this may lead to additional service charges. Access to this function should be restricted.

At times it can be useful to immediately update the display of an asset to show its current position, without waiting for the next *snapshot*.

1. On the Tracking screen, right-click on an asset in the map or Map Items panel and choose **Get Position**.
2. A confirmation message appears.

Setting Unit of Measurement for Maps

You can set the unit of measurement used on the map. This setting does not affect other users, and is retained when you log off. Your choice will be in effect everywhere that a map appears in Fleet Complete.

Click 🔧 in the top right portion of the screen to open the map options and click either **Metric** or **Imperial**.

Showing Additional Map Information

Using Custom Layers

If you have access to custom layers, you can use them as an overlay on the Tracking screen map. Business rules that are associated with custom layers are not used in Fleet Complete.

The following types of custom layers are supported:

- Bing Collection (a shared collection from Microsoft Live)
- GeoRSS
- KML
- Tile

To add a custom layer:

1. Click **Custom Layers** (top right part of the Tracking screen).
2. Click **Add** and choose the type of custom layer to add.
3. Enter a **Description** (name) for the custom layer.
4. Enter the necessary identifying information for the custom layer type.
5. Click **Accept & Close**.

To display a custom layer, right-click on its name in the Map Items panel of the Tracking screen and choose **Show on Map**. You can hide a layer again by right-clicking and choose **Hide on Map**.

Note: For LSD users, LSD information is presented on a custom layer provided with your configuration.

Showing/Hiding Labels

Assets are identified on the map by their type icon and POIs by their type colour. If you need to see more details, you can display labels (names) adjacent to each item. To do this, right-click on a type in the Map Items tree and choose **Show Labels** or click ![icon]. To hide them again, right-click and choose **Hide Labels** or click ![icon].

Showing Traffic Information

This function is useful for directing assets to more efficient routes, if the planned route seems congested.

Click ![icon] in the top right portion of the screen to open the map options, then check **Show Traffic Information**.

A legend explaining the colour-coding appears in the top right corner of the map, and all roads are colour-coded to indicate the amount of traffic on that road at the current time. This information is updated instantly.

Note: It may be necessary to zoom the map out to display traffic information.

Using Departure Notification

At times it is useful simply to know when an asset starts to move beyond a certain point, even if that asset is offline. The departure notification function places a circle around the asset on the Tracking screen map. When the asset moves beyond that radius, you receive an e-mail message.

1. Set the departure notification radius in system options.
2. On the Tracking screen, right-click on an asset in the map or Map Items panel and choose **Departure Notification**, or select the asset and click ![icon].
3. A circle of the appropriate radius surrounds the asset, and the map focuses on the asset.
4. Once the asset moves outside the circle, an e-mail message is sent to you, indicating the name of the asset and the time it moved. The circle on the map disappears. The departure notification will not appear again unless you repeat the process.

To cancel departure notification, repeat step 1.

Viewing An Asset's Activity

Use this function to get a quick view of the activity, in the current or previous work schedule hours, of an asset with an in-vehicle device. The meaning of "previous" depends on your work schedule configuration and the day on which you use this function.

For Example If an asset's work schedule does not include weekends, looking at the previous activity on a Monday will show the data gathered during Friday's work schedule.
If the asset's work schedule starts at 8 am and the driver starts the vehicle at 7:45 am and turns it off at 7:59 am, no "ignition on" or "ignition off" activity will be seen because the activity happened outside the work schedule.

Only activities that started or ended within the work schedule appear.

For Example If the asset's ignition was turned on before the work schedule began, the Asset Activity screen could show an "ignition off" but not the previous "ignition on".

1. On the Tracking screen, right-click on an asset in the map or Map Items tree and choose **Asset Activity**.
    - or -
    Select the asset and click ![icon].
    The Asset Activity screen opens.
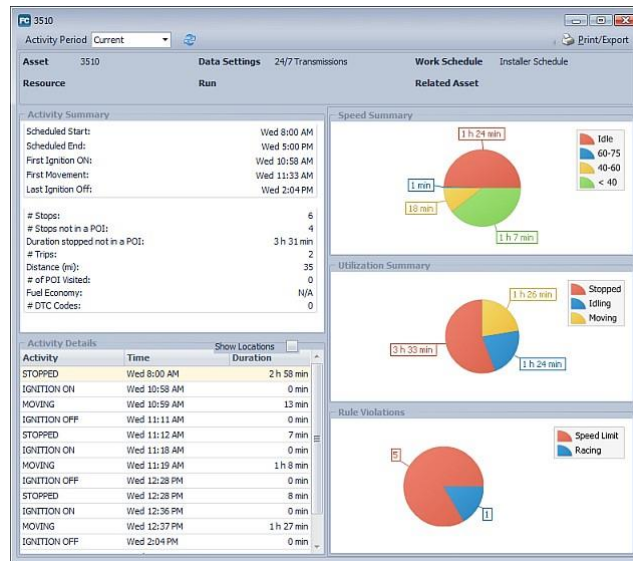
Note: You can have several Asset Activity screens open at the same time.

2. To show the previous *work schedule* day, choose **Previous** from the **Activity Period** list.

3. By default, activities are shown as a list of names, without indicating the location at which the activity occurred. To show the location for each activity, check **Show Locations**. The location for each activity appears below the activity name.

Note: Information in the Asset Activity screen continues to refresh as long as the screen remains open.

Activity information includes information about the asset — the name of its work schedule, device data settings, associated resource, and so on.

The Activity Summary area shows a summary of the activities for the asset:

*   the start/end time of its work schedule
*   the time of first ignition on, last ignition off, and first movement
*   the total number of *stops* the asset made and the total number of those that were not within a POI
*   the length of time the asset was stopped but not in a POI
*   the total number of trips the asset made
*   the total distance the asset travelled
*   the total number of POIs the asset visited
*   the fuel economy of the asset (if the vehicle has an ECM device)
*   the number of DTC codes triggered by the asset (if the vehicle has an ECM device)

The time, duration, and (optionally) location of each activity is listed.

Pie charts show:

*   the relative proportions of time the asset was travelling at specific speed ranges (this is intended not to track driver behaviour, but to monitor fuel consumption by identifying asset speeds that are known to affect fuel consumption)
*   the relative proportions of time the asset was *idle*, moving, or stopped
*   the relative proportion of specific rules triggered by the asset

Note: To see activity details for a longer timeline, or outside of the asset's work schedule, use the Activity report.

Viewing Breadcrumb Trail for a Trip

Use this function to view the details (such as speed-related information, asset's position, readings from sensors, and odometer readings) of each snapshot taken during a specific time period.

This feature is available for assets that have ignition sensors. For assets with in-vehicle devices, the snapshot on the map will show the direction the vehicle was travelling at the time of the snapshot. For assets with hand-held devices, the snapshot will show a solid circle on the map where the snapshot took place.

1. On the Tracking screen, right-click on an asset in the map or Map Items tree and choose **Breadcrumb Trail**.
   - or

   Select the asset and click [icon].
   The Breadcrumb Trail screen opens.
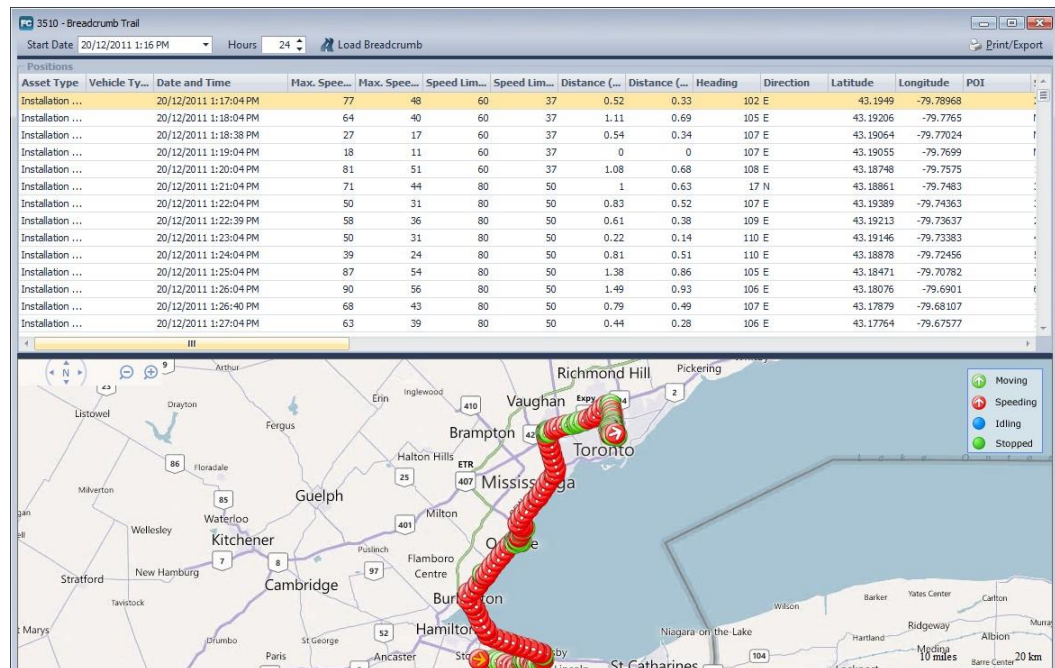
2. Use the top portion of the screen to view details of each position of the asset (as in the Position report). Click on a row to centre the map around that position.

3. By default, the Breadcrumb Trail shows the past 24 hours of data (the Start Date defaults to 24 hours before the time the screen was opened): to change the data shown, change the **Start Date** and/or number of **Hours** and click **Load Breadcrumb**.

4. Click on an item in the map to display details about it, including sensor readings at that point.

Note: For assets with in-vehicle devices, a legend explaining the icons and colour-coding appears on the map portion of the screen.

Note: If you print the breadcrumb trail, the report will show all entries in the grid and the map as currently displayed on the screen.

Viewing Events

If a rule has been triggered, the relevant event information is shown in various parts of the Tracking screen:

- in the Map Items details area, when you select that asset
- in the pop-up details that appear when you hover the cursor over an asset on the main map or on the map shown when you follow the asset in a new window
- in the Asset Activity displayed for the asset (shows the number of times the rule was triggered, but not the details of the event)
- in the Trip Replay for an asset

Note: If the rule was configured to result in an alert, an alert also appears.

Working with Map Controls

A map appears in numerous configuration screens in Fleet Complete. Wherever the map appears, it offers the following controls:

- to pan, click on the map and drag it until the desired section is shown, or use the *pan control*

- to zoom in or out, use the *zoom controls*

- to change the map view, use the *view controls*

COMMON CONFIGURATION FUNCTIONS

Adding Notes

A Notes tab appears on the activity properties screen.

To add a note:

1. On the Notes tab, click ➕.
2. Choose a note type (see below).
3. Enter the text of your note and click **Save & Close**.

Notes types for activities include:

- internal only — notes that can be viewed only within your organization
- external — notes that can be viewed outside your organization
- resource — notes that can be viewed only by the resource to whom the activity is assigned

Adding Placeholders

Many configuration tasks in Fleet Complete require you to choose from a drop-down list (for example, an asset needs to be assigned an asset type). If the list does not contain the element you want, you can add a placeholder. The element you add this way is not fully configured: you will need to modify it to define it further.

To add a placeholder:

1. On a configuration screen (such as the asset configuration screen), look for drop-down lists with a **+** beside them and click the **+**.
2. A truncated version of the configuration screen for that element (for example, the asset type screen) appears.
3. Enter the necessary information (typically, at least the element's name) and click **Accept & Close** in that screen.

   *Important: The element you have added has **not** been saved at this point. It will only be saved if it is shown in the relevant field when you click Save & Close on the screen from which you clicked the +.*

4. If necessary, re-display the element's configuration screen by clicking the ellipsis (**...**) and revise your entry.
5. Continue with data entry on the original screen and click **Save & Close**. Both the data you entered, and the new element shown in the placeholder field, are saved.
6. Be sure to navigate to the appropriate area in Fleet Complete (for example, asset type configuration) and complete the configuration of the element you added.

Customizing Data Collection Using Custom Fields

Why Use This Function?

If additional information is required that cannot be accommodated in the predefined fields for assets, POIs, and/or resources, you can create custom fields to hold that information. Information stored in custom fields may appear on the Tracking screen (in the Custom Fields area), in e-mail notifications, and in reports.

You can use custom fields to hold any information you want to gather and/or display to users. For example, you might want to use custom fields to:

- display a picture of a POI
- record the qualifications of a resource (such as ability to cross a border, whether or not certified to handle hazardous materials)
- record descriptive information (such as colour or distinguishing markings) about an asset

We Recommend Before you choose to use custom fields, become aware of the data that is normally collected by Fleet Complete so you can identify which additional data you want to collect.
*If you decide you need custom fields, it saves time if you set them up **before** doing extensive data entry or allowing users access to Fleet Complete, so that all the necessary information is collected at the same time.*

What is the Default Configuration?

No custom fields are configured by default.

What Do I Need to Understand About Custom Fields?

Custom fields apply only to a specific item: for example, the custom field defined for an asset cannot be used for a resource. .

We Recommend Once you configure your custom fields, test them thoroughly before adding other users to your system. Although custom fields can be added at any time, it is best to add them before much data entry is done.

Custom fields are available for assets, POIs, and resources.

How Do I Configure Custom Fields?

To configure custom fields:

1. On the resources, assets, or POI grid, click **Custom Fields**.
   A list of the currently configured custom fields for that entity appears.
2. Click **Add** and choose the type of custom field.
   A new screen opens.
3. Enter the appropriate values. The contents of the screen vary depending on the type of field chosen.

If you want to capture...	Use this type of custom field...
true/false (yes/no) value	Boolean
a date	Date (can default to current day)
a time	Time (can default to specific time)
a date and time	Date/Time (can default to specific time on current day)
an image	Image
one value from a list of	List

If you want to capture...	Use this type of custom field...
items	
a monetary value	Money
a numeric value	Numeric
text	Text

4. Enter the **Field Label** to be displayed to the user.

5. If custom actions (used to retrieve information from a web service) have been set up for you by Complete Innovations, choose the **Custom Action** for the field.

6. Where applicable, choose the visibility of the field. You can specify that the field's values appear in one or all of the following:

   - the Map Items panel of the Tracking screen, which shows details of the selected asset
   - the map itself, as part of the asset's label
   - e-mail notifications that result from an event being triggered
   - reports

7. Enter or specify the field's default value, if relevant.

8. For a List type of field, add at least two items and set their order.
   For a Text type of field, enter a mask.

The order in which the fields appear on the Custom Fields screen is the order in which they will appear on data entry screens. Click the up and down arrow buttons to change the order of fields.

Important: Deleting a custom field also permanently deletes any data associated with that field.

Deleting Data

This help file explains only "add" functions. To delete data, simply select it in the appropriate grid and click **Delete**. If your deletion could affect data integrity (for example, you attempt to delete an item that is used in a rule), you are warned of this and may not be able to proceed.

Specifying Addresses

In many Fleet Complete screens, you need to specify an address (for example, the address of a POI). In most cases, the screen on which you specify the address offers two ways to enter it: by entering the address information in fields, or by using the map that appears on that screen.

Specifying Address by Entering Data in Fields

Note: Do not use this feature for POIs where you want to specify the POI as a line or area rather than a circle.

Enter address details in the provided fields (Street, City, Postal/Zip Code, State/Province, and Country). As soon as you have entered enough defining information, a pin appears on the map, indicating the address location. (To remove the pin and re-specify the address, click **Erase**.) Change the **Buffer** size (field below the map). When you save the record, a circle of that size is drawn around the address.

Specifying Address Using the Map (Circle)

1. Use the map controls to navigate the map to show the area containing the address.
2. If desired, change the **Buffer** diameter.
3. Click **Circle**, then double-click on the map to indicate the centre of the address location.

   A 📍 surrounded by a circle the size of the buffer is drawn and the address fields are populated.

Specifying Address Using the Map (Line)

1. Use the map controls to navigate the map to show the area containing the address.
2. If desired, change the **Buffer** diameter.
3. Click **Line**.
4. Click on the map to set the starting point.
5. Drag the mouse pointer to draw the line (clicking at each change in direction)
6. At the end point, double-click to finish the line.
   A line the buffer's width is drawn, with boxes at each point where you changed direction.
   Show Screen
   The address of the end point of the line appears in the address fields

Specifying Address Using the Map (Area)

1. Use the map controls to navigate the map to show the area containing the location.
2. Click **Area**.
3. Click and drag on the map to draw the first line.
4. Continue clicking and drawing additional lines to represent the area.
5. When you have completed the area, return to the starting point and click twice to complete the area.
   An area is drawn, with boxes at each point where you changed direction.
   The address in the middle of the drawn area appears in the address fields.

Modifying Address on Map

You can change the **Buffer** diameter after specifying the address.

To change the parameters of a line or area, click the ☐ on the line and drag it to a new location.

To remove the address selection from the map, click **Erase** and use the map to specify the address again. You will need to manually enter the address information in the fields.

Note: Changes to the address fields do not apply to the map version of the address, and changes to the map do not change the address fields. The address shown on the map is the one that Fleet Complete considers valid.

Entering Data

When entering data in Fleet Complete, be aware of the following data entry conventions:

- a red asterisk beside a field's name indicates a required field
- a **+** beside a drop-down list indicates you can add a placeholder

To clear an entry selected from a list, click the **x** to the right of the arrow.

Entering E-mail Addresses

In fields where you enter e-mail addresses, you can enter multiple addresses, separated by semicolons or commas.

Entering Hours

Several configuration functions in Fleet Complete require you to specify a schedule of days and hours (for example, an asset's work schedule or a POI's *working hours*).

Where this function is available, follow these steps:

1. In the hours display, be sure that only those days you want included in the schedule are checked.
2. For each checked day, click the Window column and choose whether you will be defining the hours in that day's 24 hour period as **Between** or **Outside Of** the specified times.
3. Enter or choose a **Start** and **End** time for the day.

Modifying Data

This help file explains only "add" functions. To modify existing data, select the item in the grid and click **Edit**, or double-click on it.

Working with Multiple Languages

Fleet Complete supports multiple languages for the interface itself, the alerts it displays, and the e-mails it sends. A user's account specifies their preferred language, but you can choose a different language at login time. The selected language is saved as part of the user's account.

Whenever you configure e-mail communication with someone who is not a Fleet Complete user (such as a specific *contact*, you can specify the language to be used for e-mail messages sent to them.

Working with Masks

Masks are used in custom fields. Fleet Complete follows Microsoft conventions for mask definitions.

For example, the mask for an Ontario driver's license would be L0000-00000-00000; the mask for a phone number would be 000-000-0000.

BRANCHES

About Branches

Note: The branch feature is optional. To activate the feature, add a branch to the root (company) branch, log off, and log on again.

Why Use This Function?

Use this function if you want to control access to data entities (*assets*, resources, etc.) based on the data's relevance to a specific part of your organization's hierarchy, most typically a geographic one. Each element in the hierarchy is called a "branch". You can have as many or as few branches and levels as suits your needs.

Example Hierarchy
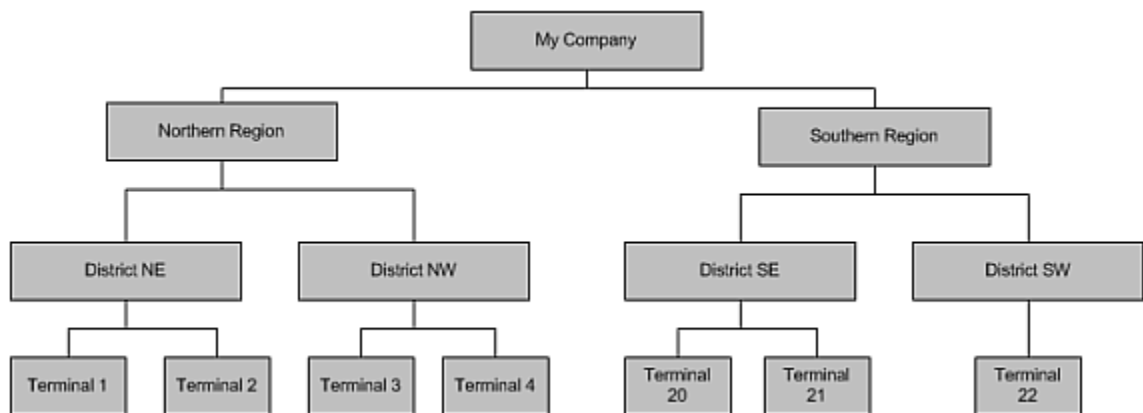
What is the Default Configuration?

By default, Fleet Complete provides a root (company) branch that applies to all users and data. To use the branch feature, you need to create a hierarchy of additional branches and then associate existing data to the appropriate branch. As you add data to Fleet Complete, you will be prompted (where necessary) to choose the branch to which the data belongs.

Note: An entity's branch is shown in the bottom right corner of its properties screen.

What Do I Need to Understand About Branches?

Branches exist at different levels in a hierarchy: you can name those levels, or the system will automatically assign them a numeric name. For example, the system uses "Level 1", "Level 2", "Level 3", and "Level 4" but you could replace those with more meaningful names, such as "company", "region", "district", and "terminal". Level names are just labels: they do not appear to other users and have no functional significance.

For most (but not all) entities assigned to branches, you choose whether that entity should be available only within its branch or also available in all that branch's sub-branches ("shared").

Some entities exist independent of branches: all types (asset types, POI types, vehicle types, etc.), *MDT* messaging, custom fields, runs, and types of maintenance services (but not maintenance data itself).

Careful planning is required to ensure that all entities are assigned to the appropriate branch. For the most part, entities are associated with branches at creation, so it is easier to get associations correct from the start rather than attempt to adjust them later. Give careful thought to the impact of allowing sub-branches access to branch-specific data — this provides more flexibility, but somewhat less control.

Holidays for the entire hierarchy are added at the root branch level. Whether a branch is open (the default) or closed on any configured holiday depends on the configuration of the branch

itself. You will need to add, in the root branch, holidays for any day where at least one branch is closed.

What Do I Need to Understand About Branch Configuration?

Branches can be either administrative (do not have a physical location) or physical (have a physical location). In all other ways, the two types of branches are identical: you choose the type of branch when you create it.

Note: Only physical branches can act as the home base for an asset or a resource. A branch's type cannot be modified once the branch is created.

Branch configuration includes defining:

- which user should be the branch manager (receives alerts and notifications related to the branch — for future implementation)
- working hours for the branch
- optionally, different system defaults than those in the branch above
- users who are branch administrators (for future implementation)
- which of the custom fields set up in Fleet Complete should be hidden in this branch — for example, you might want to capture the ability of an asset to cross the border only for those branches that deal with cross-border travel
- whether the branch is open or closed on specific holidays (you are warned, but not prevented from proceeding, if you book an activity for a holiday)

Except for system defaults, all other configuration settings apply only to the current branch, not any sub-branches that might exist or be created.

For more guidance on setting up branching, see the Branch Planning Guidelines PDF.

Opening the Branches Grid

1. On the *ribbon toolbar* or *main menu*, click **System > Administration > Branches**.
2. The Branches screen opens, showing a grid of existing branches, displayed in a tree hierarchy which can be expanded and collapsed. The description and branch level of each branch is shown.

Setting up Your Company

To set up your company:

1. On the Branches grid, double-click on your company name.
   The Branch screen opens.

2. On the General tab, enter a **Description** (name) and a unique identifying **Code** (used for reporting purposes).

3. Choose the user who will be the **Manager** of the company within Fleet Complete (for future implementation).

4. Specify the **Working Hours** of the company.

5. Set the system defaults.

6. Enter the address for the company.

7. On the Users tab, check the user who should be a company administrator (for future implementation) .

8. On the Exclusions tab, you see three sub-tabs listing the custom fields defined in Fleet Complete for different entities. This tab is not applicable to environments that do not use the branch feature.

9. On the Holidays tab, set up holidays that may result in company closure.

   a. Click **Add**.
      The Holiday screen opens

   b. Enter a **Name** for the holiday and the dates on which the holiday occurs. Holidays are static so, for holidays that change from year to year, you will need to enter year-specific holidays (for example, Labour Day 2012, Labour Day 2013).

   c. Choose whether your company is open or closed on the holiday.

   d. Click **Save & Close**.

   Note: If you attempt to create activities for holidays on which your company is closed, you will be warned of this.

10. Click **Save & Close**.

You can also use this screen to see which users have made changes to this information and what those changes were (Audit tab).

COMMON USAGE FUNCTIONS

Changing Your Password

For security purposes, you should change your password at regular intervals.

To change your password:

1. From the main menu, click **Change Password**.
   The Change Password screen opens.
2. Enter your old password and a new password (made up of at least six alphanumeric characters).
3. Confirm your new password.
4. Click **Save & Close**.

Customizing the Appearance of Your Interface

These functions apply only to your user account, and do not affect other users.

Controlling Contents of the Quick Access Toolbar

It can be useful to hide functions that are not available to your user account: to do this, right-click on an item and choose **Remove from Quick Access Toolbar**.

You can customize the quick access toolbar to show the functions you use most often. To add an item to the quick access toolbar, right-click on any item in the main menu or the ribbon toolbar and choose **Add to Quick Access Toolbar**.

For Example If you have access only to the Tracking or Maintenance functions, add those functions to the Quick Access Toolbar, then minimize the ribbon and use that toolbar as your main navigation tool.

Choosing a Colour Scheme

You can choose a colour scheme for the Fleet Complete interface that reflects your personal preferences.

Click , then choose from the available themes.
- or -
From the main menu, click **Preferences** > **Themes** and select a theme.

Showing or Hiding the Ribbon Toolbar

You can hide the ribbon toolbar, allowing more room on your display for data screens.

Click , then check or clear **Toolbar**.
- or -
From the main menu, click **Preferences** > **Toolbar**.

Rearranging Order of Toolbars

To move the quick access toolbar to below the ribbon toolbar, right-click on any item in the main menu or the ribbon toolbar and choose **Show Quick Access Toolbar Above Ribbon**.

Printing/Exporting Data

Most grids in Fleet Complete provide a print/export function you can use to print and/or export the information shown in the grid. This is useful for troubleshooting, for more detailed analysis of data, or to allow you to export data from Fleet Complete for use in another system.

Note: Since data is retained for a limited time, you may want to regularly export important data.

To print or export data:

1. On any grid, click **Print/Export**.
   A Preview screen opens, showing the data as it will be printed or exported.
2. If you plan to print the data, you can add headers and footers, add background colour, and perform other formatting functions, then choose **File > Print**.
   - or -
   If you plan to export the data, choose **File > Export Document** or **File > Send via e-mail** and choose the appropriate export format. Choosing the e-mail option creates the export file and then automatically attaches it to an e-mail message in your default e-mail program. You are prompted for information that reflects the needs of the output format.

The most common export formats are XLS (Microsoft 2003 Excel format) and XLSX (Microsoft 2007 Excel format). These formats prompt for:

- the name to give the worksheet created by the export process
- whether you want to export data or text (exporting data means the data's format, not just the data itself, will be exported)
  For Example If the grid includes a date, exporting text means the date will appear as a text string in Excel; exporting it as data means it will appear in a date format cell in Excel.
- whether you want gridlines to show

Note: The hyperlink feature is reserved for future use.

Recovering a Lost Password

If you have forgotten your password, on the login screen click **Forgot Password? Click here**. You will receive an e-mail message with instructions on how to recover the password. This message also includes your client number.

Viewing Events

If a rule has been triggered, the relevant event information is shown in various parts of the Tracking screen:

- in the Map Items details area, when you select that asset
- in the pop-up details that appear when you hover the cursor over an asset on the main map or on the map shown when you follow the asset in a new window
- in the Asset Activity displayed for the asset (shows the number of times the rule was triggered, but not the details of the event)
- in the Trip Replay for an asset

Note: If the rule was configured to result in an alert, an alert also appears.

Viewing History of Configuration Changes

Virtually all data entry screens in Fleet Complete include an Audit tab. This tab shows which user made changes to a specific item (such as an asset type) and what those changes were.

To see the details of changes made by a specific user across the whole system, use the Audit Trail.

Viewing History of Status Changes

Maintenance items show a History tab that records the progress of a maintenance item or task, for example, its change in status over time.

Working with Alerts

Note: You only see alerts if your user account is set up to show them.

Alerts appear in:

- pop-up messages
- the Alerts panel (where they remain until you clear them, or until you close your session and log off)

In the Alerts panel you can click the [icon] to roll up and [icon] to expand a given alert.

To clear all displayed alerts, click **Clear Alerts**.

Note: Even when alerts are cleared, the alert data remains in your Fleet Complete system and is shown in reports.

Working with Grids

Fleet Complete configuration and report screens display data in a grid which you can customize to meet your information needs.

Changing What Columns of Data are Displayed

To remove a column, do one of the following:

- drag the column into the grid until an "X" appears
- right-click on a column header and choose **Remove This Column**
- click **Column Chooser** and drag the column to the Customization screen that appears

To add a column, right-click on a column header and choose **Column Chooser**, then in the Customization screen that appears, either double-click on the desired column to restore it to its original location, or drag the desired column to the appropriate location in the grid.

Changing How Data is Displayed

To change the sort order of data, click on a column heading (toggles between sorting in ascending and descending order), or right-click on the column heading and choose **Sort Ascending** or **Sort Descending.**

To change the order in which columns are presented, click a column heading and drag the column to the desired location.

To resize a column so that more columns can be shown, do one of the following:

- drag the dividing line between columns
- right-click on the column heading and choose **Best Fit** to resize just the selected column
- right-click on the column heading and choose **Best Fit (all columns)** to resize all the columns in the grid.

To group information, giving a more compressed view of the data, right-click on a column heading and choose **Group By This Column** and then do one of the following:

- drag the desired column to the header area of the grid
- right-click on the column heading and choose **Group by This Column**

Data in the grid is compressed based on the "group by" column.

For Example

The rules grid shows rules of all types. When you drag the Rule Type column to the Group By heading, data is compressed by rule type:

*To display the contents of a single group, click the "+" to the left of a group. To display the contents of all groups, right-click on the item in the Group By box and choose **Full Expand**.*

You can group by more than one column (this is particularly useful for reports and activities). For example, if the grid shows assets and asset types, you can group by asset type and then, within that type, by asset name. For more on this option, see Working with Report Output or Searching for Activities.

Finding Data

To filter the display so it shows only records that contain a specific string:

1. Right-click on a column heading and choose **Show Find Panel**.
2. In the panel that appears at the top of the grid, enter the string you want used for the search.
3. Click **Find** (if necessary: the grid filters as you type).
   The grid changes to show just data that contains the string, with the string highlighted.

To show the full set of data again, click **Clear**.

Filtering Data

To filter the display so it shows only records that contain a specific value for a column, click the 🔽 beside a column name to display a list of possible values for the column, then choose one of the values. The grid changes to show only records with that value.

For Example The rules grid shows rules of all types. When you filter the Rule Type column to show the value "Idle", only Idle rules are shown in the grid.

Note: Not all columns can be filtered.

The bottom of the grid shows *a filter bar.* Use this bar to clear the current filter (clear the checkbox or click the ❌). You can also clear the filter by right-clicking on the column heading and choosing **Clear Filter**.

*Note: A Filter Editor is available (right-click on a column heading and choose **Filter Editor**) for more advanced filtering. For help on using the editor, consult with Fleet Complete technical support.*

Working with Panels

Several screens in Fleet Complete offer information in several panels.

When a panel is closed, it appears *as a tab.*

To temporarily open a panel, hover the mouse pointer over the tab (the panel will close when you move the mouse pointer away). To keep the panel open, click the [icon].

To open the panel, click on the tab (the panel will remain open until you click outside it).

To close a panel, click [icon].

USERS AND SECURITY

Background

About Security Profiles

Why Use this Function?

Use this function to control which Fleet Complete functions users can perform.

What is the Default Configuration?

Fleet Complete ships with profiles that grant access to all functions: these profiles cannot be deleted or edited. You will want to create additional profiles that meet your user access needs and assign them to your user accounts.

What Do I Need to Understand About Security Profiles?

There are two types of security profiles: system profiles and security profiles.

System profiles allow users to work with (add, edit, and/or delete) data that is not associated with the company (root) branch, as well as generate reports (all reports or only specific ones).

Security profiles allow users to work with data associated with the company (root) branch, such as assets and resources. They also control access to administrative functions such as editing system options. Access can be limited to only specific asset types, allowing users to work with and receive alerts for only assets of specific types.

For Security Profiles, We Recommend If you want to limit users to working with specific types (e.g. resource types), you should configure all the types for your organization before setting up users and security, to avoid having to return and add type restrictions later. Security functions affect all Fleet Complete users and should be restricted to few, if any, users. Functions associated with data costs, such as getting an asset's current position, sending a message to a resource, or activating an asset's output, should be restricted, to avoid unnecessary expense.

Suggested Planning Plan security profiles that reflect your organization's specific needs. Keep in mind that some tracking information may have privacy issues, so you should consider restricting access to certain views and reports. Typically, security profiles are used to control access based on a user's geographical location, while system profiles are used to provide access to the type of Fleet Complete functions users need in order to do their jobs.

About User Accounts

Why Use this Function?

Use this function to control who has access to your Fleet Complete system. User accounts control access only: the functions that users can perform in Fleet Complete are determined by their security profiles.

What is the Default Configuration?

Fleet Complete ships with a built-in Administrator user account associated with built-in security profiles that grant access to all functions. This user account cannot be deleted or edited. You will want to create additional users who will be granted their own, more limited, access to Fleet Complete.

What Do I Need to Understand About User Accounts?

A user account specifies the user's login name, e-mail address, desired language, and whether the user sees alerts and/or MDT messages. It does not include the user's password: when you create a user, a message is sent to the user's e-mail address with their login name, system-created password, and instructions on how to log in. At first login, the user is prompted to create a password.

Opening the Users Accounts Grid

1. On the *ribbon toolbar* or *main menu*, click **System > Administration > Users Accounts**.
2. The Users Accounts screen opens, showing a grid of existing user accounts and summary information about each one, including the time that user last logged in, and their security profiles.

Opening the Security Profiles Grid

1. On the *ribbon toolbar* or *main menu*, click **System > Administration > Security Profiles**.
2. The Security Profiles screen appears, showing a grid of existing security profiles, the branch to which the security profile belongs (or "SYSTEM" for system profiles), and whether or not the security profile is a system profile.

Setting up Users and Security

Setting up Security Profiles

Note: Be sure you are familiar with the overall concepts of security profiles before proceeding.

To set up a security profile:

1. On the Security Profiles grid, click **Add Profile**.
   - or
   On the Security Profiles grid, click **Add System Profile**.
   The Security Profiles screen opens.
2. On the General tab, enter the **Description** (name) of the security profile.
   We Recommend Use a descriptive name that will make it easy to choose the appropriate profile when creating user accounts.
3. On the Allowed Actions tab, check the kinds of functions users with this security profile may perform. Checking a parent function automatically checks the functions below it, although you can individually clear the child functions.
   Checking just the parent function (this requires checking it, then clearing all the child functions) provides view-only access to that function.
4. If setting up a security profile, on the Hidden Asset Types tab, check any asset types whose assets you do not want available to users with this security profile.
5. Click **Save & Close**.

You can also use this screen to see which users have made changes to the system security profile and what those changes were (Audit tab).

Setting up User Accounts

Note: Be sure you are familiar with the overall concepts of user accounts before proceeding.

To set up a user account:

1. On the User Accounts grid, click **Add**.
   The User screen opens.
2. On the General tab, enter the necessary information about the user (name, login name, e-mail address, and preferred language).
   Note: Login names must be unique in the system. Root Access Branch and Default Working Branch default to the company branch.
3. Choose the **Security Profile** this user account is *assigned* to or add a placeholder.
4. Optionally, choose the **System Security Profile** this user account is assigned to.
5. Check the options to indicate if this user must change their password at next login, and/or should receive alerts and/or *MDT* messages.
6. Click **Save & Close**.

Note: Encourage users to customize their interface so the quick access bar shows just those functions to which they have access.

You can also use this screen to:

- See which users made changes to the user account and what those changes were (Audit tab).
- Lock a user account.

From the user accounts grid, you can open the Audit Trail, a consolidated view of all Fleet Complete changes made by a user.

Working with Users and Security

Forcing Users to Change Their Password

Use this function if a user's password has been compromised in some way. The user will be required to choose a new password when they next log in.

Note: This function does not help a user recover a lost password.

1. On the User Accounts grid, double-click the user account.
   The User screen opens.
2. Check **Must Change Password on Next Login**.
3. Click **Save & Close**.

Locking or Unlocking a User Account

Use this function to temporarily or permanently prevent a user from having access to Fleet Complete.

To lock or unlock a user account:

1. On the User Accounts grid, double-click the user account.
   The User screen opens.
2. Check or clear **Lock Account**, then click **Save & Close**.

Viewing Audit Trail Details of Changes Made

Use this function to see the details of changes made in Fleet Complete, for auditing and troubleshooting purposes. This function gives you a consolidated view of all changes made by a specific user. Keep in mind that you can also see, on the Audit tabs that appear on data entry screens throughout Fleet Complete, which users made changes to a specific item (such as an asset type) and what those changes were.

1. On the User Accounts grid, select the user you want to track and click **Audit Trail**.
   The User Audit Trail screen opens.
2. On the left, the screen lists the user's sessions in the last week. If necessary, choose a
   different start and end date for the range of sessions to display and click   .
3. Select a session. The right side of the screen shows every change the user made during that session.

Viewing When a User Last Logged In

The User Accounts grid shows when each user last logged in.

CONFIGURING FLEET

Background

About Fleet Configuration

Fleet configuration encompasses numerous optional and required functions.

By default, your system has been configured with assets. However, you will want to modify or expand the configuration of those assets to meet your organization's specific needs.

To set company-wide defaults and holidays, you need to configure your company.

To take advantage of optional Fleet Complete features, you also need to perform additional Fleet configuration. By default, Fleet Complete collects and records detailed GPS and, where relevant, *sensor* or PTO data from all assets. This data is always available through reports. However, optional Fleet configuration functions allow you to make that data more meaningful for your organization.

For Example *The speed at which an asset is travelling will be viewable on a report, and you can filter that report to show just those assets whose speed is 120 kph or more. However, if asset speed is a concern, configure a rule that will monitor asset speed or percentage by which assets are exceeding the speed limit.*

The location of all assets will be viewable on a report, but to identify when locations of interest have been visited by assets, you need to configure POIs.

If you want to...	For example...	You should configure this function...
track driver behaviour or asset conditions	record an event whenever an asset exceeds the speed limit or has been subject to harsh braking so you can correct inappropriate driver behaviour	rules (without *notifications*)
notify individuals of driver behaviour or conditions	e-mail designated individuals when an asset's temperature exceeds a certain amount, so those individuals can contact the driver and ensure that the cargo is not damaged	rules (with *notifications*)
	display an *alert* whenever an asset's GPS is invalid for a period of time, allowing a user to take corrective actions	
track the interaction of assets with specific geographical locations	know when assets are at a refuelling station, so you can reconcile fuel receipts provided by drivers	POI
	know when assets are at non-working locations, such as coffee shops, and for how long	
notify individuals about the interaction of assets with geographical locations	e-mail a customer when *any asset* arrives at their location; note that this function should be used with caution, since it applies to **all** assets that interact with the location	POI with contact e-mail

have an asset's interaction with a specific geographical location trigger a notification	e-mail a customer when *a specific asset*, such as a snowplow, arrives at their location so they are aware the service is being provided	POI and rules
	display an alert when an asset of a particular type arrives at a supplier site, so users have the opportunity to ask the driver to pick up additional supplies if necessary	
assign *activities* to individuals	direct individuals to travel to a specific location to perform an activity such as stocking a machine	resources
assign *activities* to groups of individuals	direct a group of individuals to travel to a specific location to perform an activity such as stocking a machine	crews
be able to report about supervision of resources and crews	produce a management report that compares the performance of the different crews or resources working under a specific supervisor	service groups
record who is using a specific asset	know who is operating an asset with specific events occur; know when a driver is in a vehicle and is working	resources
notify operators when a rule is triggered, so they can take corrective action	e-mail a driver if their vehicle, which they take home overnight, is moving outside of working hours	resources (with e-mail addresses defined) and rules
capture run-specific information for reporting purposes	generate a report that shows which assets operate on the Northwest run	runs
provide resources with appropriate messages and replies to be used for communication through *MDT* devices	make standardized messages such as "yes", "no", "wait", and "don't know" available to resources	canned messages and replies
ensure vehicles remain in good repair	have oil changes scheduled automatically for all relevant assets, to avoid unnecessary repair costs	maintenance
	schedule annual safety expectations so they are not overlooked	

Opening the Fleet Configuration Screen

1. On the ribbon toolbar or main menu, click **System > Configuration> Fleet Configuration**.
   - or -
   On the ribbon toolbar, click **Fleet** and then the name of the function you want to configure.
   The Fleet Configuration screen opens.

2. Available functions are listed on the left, in logical groups.

3. In the appropriate group, click on the function (for example, work schedules) you want to configure. You see a grid of existing items configured for that function.

Note: To collapse a group, click ⌃ *beside its name. To expand the group, click* ⌄ *.*

Assigning Assets

For Entities Other Than Rules

To set or change which assets are assigned to an entity:

1. Click the Asset Assignments tab of the relevant screen (for example, asset type). You see a list of assets available to you. The assets currently assigned to the relevant item are checked.

   Note: Assets can be assigned to only a single asset type, device data setting, and work schedule.

2. To assign an asset individually, check it.
   - or -
   Click **Quick Set** (if available). To assign all assets of a particular type, check the **Assign** box beside the asset type's name. To clear assignments for all assets of a particular type, check the **Unassign** box beside the asset's type name. Quick Set choices do not change individual asset assignments.

3. If you used Quick Set, confirm the asset selections are correct.

4. Click **Save & Close**.

For Rules

To set or change which assets are assigned to a rule, do one of the following.

On the Asset screen's Rule Assignments tab, check the rules to be assigned to the asset or click **Assign All**. Click **Unassign All** to clear selections. Confirm your choices and then click **Save & Close**.
- or -
On the Rule screen's Asset Assignments tab, check the assets to be assigned to the rule. To assign or unassign by asset type, click **Quick Set**, then check the **Assign** or **Unassign** box beside the appropriate type name. Click **Save & Close**.

   Note: Assets can be assigned to multiple rules or no rules at all.

About Work Schedules

Why Use this Function?

Configuring a work schedule for an asset and *resource* lets you distinguish between data collected while the asset/resource was working and data collected while it was not scheduled to work (for example, when an asset is being used on personal time). This lets you configure *rules* and produce reports that exclude data not related to scheduled work, or that focus exclusively on data collected during personal time. For resources, this feature can help verify that the resource is logging in/out within their work schedule parameters, identifying when the resource has an early or late start or works overtime.

What is the Default Configuration?

By default, all assets and resources use the same work schedule, which states they work 24 hours a day, 7 days a week. This satisfies the requirement for work schedules, but does not distinguish work time from personal time. To gain the advantages of the work schedule function, you need to create your own work schedules.

What Do I Need to Understand About Work Schedules?

Work schedules do not affect the data collected or the visibility of the asset/resource: regardless of work schedule, data continues to be collected and information about the asset/resource continues to be visible on the Tracking Screen map. However, an asset's work schedule does determine what data is shown in the Asset Activity display, and can be used both in reporting and to determine the time period during which rules are triggered.

Configuring System Defaults

Why Use This Function?

Use this function to change the default configuration of options that affect Fleet Complete users. Regardless of the settings, users can choose a different measurement unit when entering data.

We Recommend Choose measurement units based on the conventions used by the greatest number of users in your organization.

What is the Default Configuration?

The default configuration depends on your country.

What Do I Need to Understand About System Defaults?

These settings can affect large numbers of Fleet Complete users and therefore should be used with caution. Access to this function should be restricted through security profiles, to avoid user confusion.

How Do I Change System Defaults?

To change system options:

1. On the ribbon toolbar or main menu, click **System > Administration > Branches.** The Branches grid opens.
2. Select your company (root) branch and click **Edit**.
3. On the General tab, specify the default **Distance Unit** (meters or feet). This is used throughout Fleet Complete whenever distance measurements are needed.
4. Specify the default **Dimension Unit** (cm or in) and **Weight Unit** (kgs or lbs). setting up package types
5. Specify the default **Temperature Unit** (Fahrenheit or Celsius). This is used when representing temperatures in temperature rules and the Asset Temperature report.
6. Specify the radius of the **Departure Notification** area. This function allows you to receive an e-mail when an asset moves outside a specific radius. This is a one-time notification that must be requested for a specific asset.

7. Specify the default **Country**. This is used throughout Fleet Complete whenever distance measurements are needed.

8. Specify the default **Time Zone**. This is used throughout Fleet Complete whenever a timezone is needed.

Setting Up Assets

About Handheld Assets

Fleet Complete supports two types of handheld assets.

"True" devices, purchased specifically for Fleet Complete purposes, are tracked, used for receiving and reporting on activities, and, if MDT devices, used for messaging. They are configured as assets, with their own device data settings that determine how frequently (or on what days) information is sent from the asset to Fleet Complete.

Dispatch-only devices are not tracked and are used simply for messaging, typically to supplement an in-vehicle tracked device. These devices are not configured as assets, but are associated with a specific resource. They can be used for receiving and responding to activities and, if MDT devices, for messaging. They communicate with the system every two minutes.

About Asset Configuration

Asset configuration involves several separate functions working together:

- an asset's **type** groups it with other assets throughout Fleet Complete — actions can be taken on all assets of the same type (for example, you can hide assets of a particular type from the Tracking Screen map) and assets are identified by their type's icon on the map
- an asset's **Device Data Settings** determine how frequently (or on what days) information is sent from the asset to Fleet Complete
- an asset's **work schedule** specifies when the asset is considered to be working, so you can separate data collected during working hours from that collected outside those hours
- an asset's **vehicle type** captures information useful for reporting, such as costs associated with the vehicle and whether it is meeting your utilization targets
- an asset's *home base* is useful for monitoring and reporting on the asset's start and end of the work day (for example, to monitor for late departures)

Prior to your access to your Fleet Complete system, Complete Innovations creates an asset for each device you have purchased. These asset records:

- contain minimal information — you can choose to add to (for example, assign a resource to an asset) or change (for example, change the asset's name) an asset's configuration: more complex changes, such as changing the configuration of a *sensor*, should be done only in consultation with Fleet Complete technical support
- are assigned to the "My Fleet" asset type — you will want to set up your own asset types and assign assets to them
- are assigned to a device data setting — use caution when changing Device Data Settings, to avoid data overages
- are assigned to a default work schedule that indicates they are available at all times — you will want to set up your own work schedules to reflect your organization's needs (if you do not set up work schedules, you will not be able to run reports that distinguish between data gathered during and outside of work schedules, or use rules that rely on work schedules)
- have no relationship to each other — if you want to show, in reporting, a relationship between two assets (for example, between a handheld device and a vehicle, or between a truck and a trailer), modify the asset configuration

Depending on the asset's device data settings, advanced configuration settings may be available. These include:

- which POIs should trigger an in-vehicle alert, and the output sensor that should be used for that alert — alerts are triggered when the asset leaves and enters the POI
- the conditions under which device data settings should be overridden and a different transmission frequency to be used when those conditions are met (for example, you might want to have data transmitted more frequently while the asset's *PTO* is on and its speed is greater than a specific value)
- whether or not the engine disable feature is to be used — this feature disables the starter if a driver ID Fob is not detected (note that this function relies on Output1, which must not be used for other sensors)
- whether or not additional snapshots should be recorded when the vehicle's direction changes
- whether or not the asset uses *ECM*

Note: Overriding device data settings and recording additional snapshots when the asset changes direction will increase monthly data usage and, as a result, may increase costs.

About Invalid Sensors
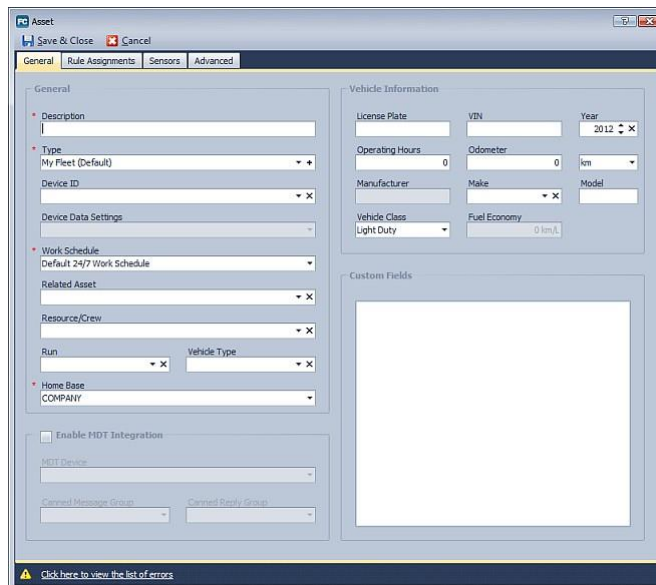
Wherever sensors are listed in Fleet configuration (for example, when you configure sensor-specific rules), the icon ⚠ appears if the sensor is invalid. Contact Complete Innovations technical support immediately for help fixing the sensor.

Changing Asset Configuration

Note: Be sure you are familiar with the overall concepts of asset configuration before proceeding.

To change asset configuration:

1. On the Fleet Configuration screen, click **Assets** (in the left panel).
   A grid of existing assets and their details appears. The icons and colours shown on this grid are the same as shown in the Map Items area.

2. Select the asset you want to modify and click **Edit**.
   The Asset screen opens.

3. Complete the General tab (see below).

4. If rules have been configured, assign this asset to the appropriate rules on the Rule Assignments tab.

5. If the asset has *sensors* defined for it, you can modify sensor configuration on the Sensors tab, but should do so only in consultation with Fleet Complete technical support.

   Note: If a sensor is invalid or configured incorrectly, the icon ⚠ appears. Contact Fleet Complete technical support immediately for help fixing the sensor.

6. If the asset has output sensors, complete the Advanced tab, in consultation with Fleet Complete technical support.

7. Click **Save & Close**.

Completing the General Tab

Make only the changes that are necessary.

1. Change the **Description** (name) of the asset.

   Note: You may prefer to name assets based on vehicle number or license plate, rather than driver name, since the driver is likely to change over time.

2. Choose the appropriate asset **Type** or add a placeholder.

   *Note: Do **not** adjust the Device ID unless directed to by Fleet Complete technical support.*

3. The **Device Data Settings** appropriate for the selected device were set up by Complete Innovations. Under normal circumstances, you should leave this setting unchanged: choosing a different device data setting may result in overage charges.

4. Choose the appropriate **Work Schedule** for the asset.

5. An asset can be related to another asset, for reporting purposes. If you want to use this function, choose a **Related Asset**.

   Note: The asset being modified is considered the parent of the related asset: the configuration of the related asset does not show this relationship.

6. A specific resource/crew can be assigned to an asset, for reporting purposes. If you want to use this function, choose the appropriate **Resource/Crew**.

   Note: Manually assigning a resource to an asset is not recommended for MDT and/or driver ID Fob resources. Instead, have resources recognized by their PIN or driver ID Fob.

7. A specific run can be assigned to an asset, for reporting purposes. If you want to use this feature, choose the appropriate **Run**.

8. If using the vehicle types feature, choose a **Vehicle Type**.

9. Choose the POI that constitutes the **Home Base** for the asset (used to report on departure and arrival times).

10. If MDT integration is being used, check **Enable MDT Integration**, choose the appropriate **MDT Device**, and choose the **Canned Message Group** and **Canned Reply Group** to be used for communication with the driver of this asset.

11. If you will be using the Maintenance function, you can enter **Vehicle Information** here. (This information can also be added in the Maintenance function itself.)

12. Enter values for custom fields, if any have been set up.

Completing the Advanced Tab (If Applicable)

To have an ***in-vehicle*** alert (driver notification) be triggered when an asset enters or exits a POI, choose the appropriate POI and choose the **Output Sensor**. If you will be using the engine disable feature for this asset, do not choose Output1 for this function.

To have data transmitted at a different frequency based on specific conditions. choose from the available sensors and enter the value to be used for the calculation, then enter the transmit override value.

To have the starter disabled if a driver ID Fob is not detected, check **Supports engine disable**.

To record additional snapshots when vehicle direction changes (defined as a 30 degree change in direction for at least five consecutive seconds), check **Record additional positions when...**.

To use *ECM*, check **Has ECM**.

CAUTION: If the device is not an ECM, selecting an ECM type will disable the normal reporting functionality of the device (e.g. Trip Replay).

You can also use this screen to see which users made changes to the asset and what those changes were (Audit tab).

About Asset Types

Why Use this Function?

Use this function to associate assets together so you can work with them as a group. Asset types simply group assets together: they do not determine any characteristics of the assets themselves. For example, assets used to perform different types of work, that collect data at different intervals, or that have different work schedules can all be part of the same type.

We Recommend If you want users to work only with assets for their area of responsibility or geographical location, set up asset types for regions, provinces, or states. You can then restrict users (through security profiles) to working with only assets of the relevant type.
If you want to be able to report on assets operating within or outside of their work schedule, create asset types for each work schedule. This will ensure that reports include data gathered over the same lengths of time.

What is the Default Configuration?

A single My Fleet asset type is configured, and all assets are assigned to this type. My Fleet identifies assets on the map with a star icon.

What Do I Need to Understand About Asset Types?

Asset types are used throughout Fleet Complete, so give careful consideration to how you want to use them.

Asset types are used in:

- security profiles, to determine which assets users can have access to
- the Tracking screen, to organize assets and allow them to be shown or hidden as a group
- reporting, to report on all assets of a specific type
- the Tracking screen map, to determine the icon that represents assets on the map
- asset assignment, to quickly assign all assets of a type

Asset types might be set up for assets with different:

- services (long distance vs. short distance drivers)
- types of operator (installers, operators, supervisors)
- types of vehicles (snowplows, tow trucks, or cars)
- locations (regions, states, provinces)
- sizes or purposes of assets
- *sensors*
- work schedules (morning shift, afternoon shift, evening shift, weekend shift)

Setting up Asset Types

Note: Be sure you are familiar with the overall concepts of asset types before proceeding.

To set up an asset type:

1. On the Fleet Configuration screen, in the Assets group, click **Types**.
   A grid of existing asset types and their details, including the number of assets of that type and whether that type is currently set to show and/or be labelled on the Tracking Screen map, appears.

2. Click **Add**.
   The Asset Type screen opens.

3. On the General tab, enter a **Description** (name) for the asset type and choose the default **Map Image** to represent assets of this type on the map.

4. To assign assets to this type, use the Asset Assignments tab.

   Note: If you are modifying an asset type and your security profile does not allow you to view assets that are assigned to that type, a message indicating the number of such "hidden" assets appears at the bottom of the Asset Assignments tab.

5. Click **Save & Close**.

Note: You can also use this screen to see which users have made changes to the asset type and what those changes were (Audit tab).

Setting up Work Schedules

Note: Be sure you are familiar with the overall concepts of work schedules before proceeding.

To set up a work schedule:

1. On the Fleet Configuration screen, in the Assets group, click **Work Schedules**.
   A grid of existing work schedules and their definition appears.

2. Click **Add**.
   The Work Schedule screen opens.

3. On the General tab, enter a **Description** (name) for the work schedule.

4. Enter the grace period for **Departure** and **Return**. This is used to determine when an asset or resource is late departing (late departure rule) from or returning to its home base. For example, if the Departure Grace is 15 minutes and the work schedule calls for the resource to start work at 8:30 am, the resource will not be considered late until 8:45 am. The Work Schedule report excludes data from the grace period.

5. Specify the hours for the work schedule.

   For Example An asset is used during business hours on weekdays.
   You configure the following schedule:

A paramedic does night shift work, working Sunday through Thursday nights from 6 pm until the next morning at 6 am. You configure the following schedule:

6. To assign assets to this work schedule, use the Asset Assignments tab.
    To assign resources to this work schedule, on the Resource Assignments tab, check the appropriate resources.

7. Click **Save & Close**.

Note: You can also use this screen to see which users have made changes to the work schedule and what those changes were (Audit tab).

About Device Data Settings

Why Use this Function?

Device data settings determine how frequently (or on what days) *snapshots* are sent from an asset to Fleet Complete. These settings are used to ensure that the asset complies with the requirements of your wireless service.

Note: To avoid service overages, use caution when modifying these settings or creating new ones and assigning them to assets.

What is the Default Configuration?

By default, all assets based on the same product use the standard device data settings established for that product (your organization can subscribe to different products). In general, these settings will meet your needs while ensuring you are operating within the parameters of your wireless service plan.

What Do I Need to Understand About Device Data Settings?

Device data settings vary depending on the Fleet product being subscribed to.

For in-vehicle tracking and resource tracking (part of Complete Innovations' advanced bundle), device data settings control:

*   how frequently devices in a vehicle record data, and how frequently they send snapshots to Fleet Complete
*   whether or not the assets use DCM

For asset tag/*LBS* tracking, device data settings control the hours in the day during which snapshots are sent. By default, these settings are 9 am to 5 pm on weekdays. If using this form of tracking for loss prevention, **change the settings** to capture data constantly.

Setting up Device Data Settings

Note: Be sure you are familiar with the overall concepts of device data settings before proceeding.

To set up device data settings:

1. On the Fleet Configuration screen, in the Assets group, click **Device Data Settings**.
   A grid of existing device data settings and definitions, grouped by product, appears.
2. Click **Add** and choose the product the settings apply to.
   The appropriate screen opens.
3. Complete the General tab (the fields differ depending on the product chosen).
4. To assign assets to this device data setting, use the Asset Assignments tab. Note that this tab will show only those assets that belong to the selected product.
5. Click **Save & Close**.

Note: You can also use this screen to see which users have made changes to the device data setting and what those changes were (Audit tab).

About Vehicle Types

Why Use this Function?

This function allows you to capture additional information (related to costs and utilization targets) for vehicles. It is used for the Asset Utilization management report.

What is the Default Configuration?

No vehicle types are configured by default.

What Do I Need to Understand About Vehicle Types?

You need to create your vehicle types, then associate them with assets. Vehicle types have an associated cost used in reporting.

Setting up Vehicle Types

Note: Be sure you are familiar with the overall concepts of vehicle types before proceeding.

To set up a vehicle type:

1. On the Fleet Configuration screen, in the Assets group, click **Vehicle Types**.
   A grid of existing vehicle types appears.
2. Click **Add**.
   The Vehicle Type screen opens.
3. On the General tab, enter a **Description** (name) for the asset type.
4. Enter a **Mileage** and/or **Hourly** cost to be associated with assets of this type (shown in reports).
5. Choose the **Maximum Weight** of assets of this type.
6. Enter the target **Utilization Percentage** of assets of this type.
7. To assign assets to this type, change the asset's configuration.
8. Click **Save & Close**.

Note: You can also use this screen to see which users have made changes to the vehicle type and what those changes were (Audit tab).

Changing Asset Tag (LBS) Device Data Settings

Note: Be sure you are familiar with the overall concepts of device data settings before proceeding.

To set up asset tracking (LBS) device data settings:

1. On the Fleet Configuration screen, in the Assets group, click **Device Data Settings**.
   A grid of existing device data settings, grouped by product, and their definition appears.

2. Select the Asset Tag/LBS device data setting you want to change and click **Edit**. The Device Data Setting screen opens.

3. On the General tab, check each day and hour within the day during which assets associated with this device data setting should track data. If tracking is being used for loss prevention, check every hour of every day.

4. To assign assets to this device data setting, use the Asset Assignments tab. Note that this tab will show only those assets that belong to the selected product.

5. Click **Save & Close**.

Note: You can also use this screen to see which users have made changes to the device data setting and what those changes were (Audit tab).

Setting up Rules

About Rules

Why Use this Function?

Without rules, the data collected based on the asset's GPS and *sensor* readings is simply stored as transmitted. You can track real-time asset movements on the Tracking screen and review detailed data through reports. However, you may want to be proactive in your tracking by flagging events of interest as they happen.

For Example An asset exceeds the speed limit several times on Monday. Someone monitoring the asset on the map might notice that it exceeded the speed limit, but only if they were watching the asset closely. On Tuesday when you run a Speeding report you see which assets were speeding on Monday, but have lost the chance to notify drivers while the situation was actually occurring.

All rules can save your organization money, but the specific rules you choose, and how you configure them, dictate the value that rules offer.

For Example A harsh braking rule can save money when it identifies driver behaviour that may affect the life of the vehicle.

Rules allow you to track the behaviour of assets and/or the readings of the asset's sensors. Rules can be used to monitor assets for incorrect behaviour (speeding, or harsh braking), to ensure data integrity (invalid GPS), to ensure cargo safety (unacceptable temperature or humidity), or to ensure personal safety (panic button), to name just a few.

When a rule is triggered, an event is recorded. The event appears on the Tracking screen and in the Event report. In addition, you can have an event configured to send a *notification*.

You can choose to have rules triggered immediately or after a delay (for example, you might want to wait five minutes to establish that a vehicle is speeding consistently before a speeding rule is triggered). You may have a different notification (for example, notify a different person) if the asset continues to trigger the rule for a continuous period of time.

What is the Default Configuration?

Some commonly used rules have been configured by default (these are prefixed with the word "Default"). You may want to modify them to suit your organization's needs.

What Do I Need to Understand About Rules?

There are many different types of rules, some of which rely on assets having a particular sensor.

Rule details vary based on type, but most rules consist of:

- the rule's name
- the parameters that define the rule (for example, the speed at which an asset needs to be travelling to trigger the rule)
- the amount of time to wait, after a rule has been triggered, before recording an event
- whether you want notifications sent when a rule is triggered and, if so, what kind of notifications to produce and who is to receive them (see below)

- whether rules should be considered only during the asset's work schedule, only outside the asset's work schedule, or anytime
  For Example *You may be concerned with an asset's temperature only while it is working.*
- whether the asset's interaction with POIs should be taken into account when determining if a rule should be triggered
  For Example *You may want to know when a vehicle is stopped and not at any client site, or when a vehicle is stopped at a specific warehouse.*
- the assets to which the rule applies

What Happens if a Rule is Triggered?

When a rule is triggered, an event is recorded. In addition, you can choose to have one or all of the following notifications occur:

- create an alert
- e-mail the *resource* currently assigned to the asset that triggered the rule
- e-mail specific Fleet Complete users
- send an e-mail to a specific e-mail address (non-Fleet Complete user or alternate address for a Fleet Complete user) with information about the event

Generally speaking, use notifications only for those events that need immediate attention: all events will appear in the Event report for later analysis.

For Example *Critical events, such as "outside work hours usage", trigger an e-mail to your security staff, for quick theft detention.*
To deter inappropriate driver behaviour, when an asset triggers a speed limit rule, an e-mail is sent to the resource's manager.
The lowering of a plow while a snowplow is at a customer's office results in an e-mail to that customer, making them aware that their snow plowing service is being provided.

Types of Rules

A variety of types of rules are available. Note that some rules depend on asset *sensors* being available: for example, a temperature rule can only be *assigned* to assets that have a temperature sensor. Rules that rely on sensors are marked with an * below.

Use this type of rule…	When you want to know if…
Analog*	an asset's sensor readings fall outside a specific range (for example, a battery's voltage is below a certain level), potentially indicating a problem with the asset
Antenna Malfunction	an asset's antenna has stopped working (for example, has a short or has been disconnected); applies only to assets that have in-vehicle tracking
Code*	a defined code transmitted by a sensor equals or does not equal a value (for example, the vehicle moved with no ignition state change), indicating a potential problem
Distance	an asset moves more than a defined distance
First Ignition	an asset's ignition is turned on for the first time within its work schedule
GPS Lost	an asset's GPS signal has been lost; applies only to assets that have in-vehicle tracking
Harsh Braking*	an asset's in-vehicle device sensor indicates it is being driven harshly (while braking); applies only to assets that have in-vehicle tracking

Harsh Cornering*	an asset's in-vehicle device sensor indicates it is being driven harshly (around corners); applies only to assets that have in-vehicle tracking
Humidity*	an asset's sensor indicates its humidity falls outside a specific range, indicating a potential risk to the vehicle's cargo
Idle	an asset's position remains constant with the ignition on (for example, the driver is leaving the vehicle without turning it off), indicating a potential security risk and/or added fuel costs (a rule of this type is configured by default)
Illegal Power Off	an asset has lost power while not in DCM; applies only to assets that have in-vehicle tracking
Input*	an asset's input sensor has changed its state (for example, door is open or closed), indicating a valid reason for the vehicle to be *idle* (for example, it is loading supplies) the asset's ignition state can also be taken into account, for example, the door is open while the ignition is on
Invalid GPS	an asset's GPS is not providing enough valid information (perhaps the antenna is not in an optimal position), allowing you to take preventative measures to ensure you are always receiving and recording accurate data
Late Departure	an asset was late leaving its home base, indicating a potential work performance issue — the grace period associated with the resource's work schedule or, if no resource is assigned, the grace period associated with the asset itself, is taken into account when determining lateness
Outside Work Hours Usage	an asset's ignition is turned on outside of its work schedule, indicating a potential use of the asset for personal reasons or a potential theft
POI	an asset enters or exits a POI, indicating a potential problem (entering an inappropriate location) or opportunity (entering an appropriate location) an asset remains within a POI for more than the configured time (for example, the driver is remaining at a client site for longer than should be necessary, compromising customer server for subsequent clients) or less than the configured time (for example, the POI is the site for a safety check which should take at least 15 minutes, so leaving earlier may indicate the check was not done)
Racing	an asset's speed exceeds the speed limit by a specific value for more than 2 consecutive minutes
Rapid Acceleration*	an asset's sensor indicates it accelerates by more than 11 km/h in 2 consecutive seconds, indicating a potential problem with driver behaviour (a rule of this type is configured by default)
Speed	an asset exceeds a specific speed, indicating a potential problem with driver behaviour
Speed Limit	an asset exceeds the speed limit by a specific percentage of the allowed limit, indicating a potential problem with driver behaviour (a rule of this type is configured by default)
Still	an asset's position remains constant, indicating a potential

	problem with driver behaviour; use in conjunction with a POI rule to ensure this rule is not triggered when the vehicle is in a legitimate location such as your company's parking lot
Super	the parameters set in more than one type of rule have occurred simultaneously (for example, an asset's sweeper is engaged while the asset is travelling above a safe speed for the use of that sweeper)
Temperature*	an asset's sensor indicates its temperature falls outside a specific range, potentially indicating risk to the vehicle's cargo
Unauthenticated Resource	an asset's ignition is on but the resource has not been authenticated by a *driver ID Fob*, potentially indicating a security problem

Setting up Rules: Overview

Note: Be sure you are familiar with the overall concepts of rules before proceeding.

These instructions do not apply to super rules.

To set up rules:

1. On the Fleet Configuration screen, in the Assets group, click **Rules**.
   A grid of existing rules, their type, and a summary of each rule's definition, appears.
2. Click **Add** and choose the type of rule you want to create.
3. The details of the rule screen that appears vary depending on type.
   Sample Screen

4. Enter a **Description** (name) for the rule.
5. Define rule parameters (these vary depending on rule type).
6. Define rule restrictions (what work schedules or POIs, if any, should be taken into account when determining if a rule has been triggered).
7. Define rule notifications (what notification, such as an alert or an e-mail, is to occur when a rule has been triggered).
8. To assign assets to this rule (these assets will have their behaviour and sensors monitored for conformance to the rule), use the Asset Assignments tab.

   Note: Assets with more than one sensor will be listed once per sensor on the Asset Assignment tab. If a sensor is invalid, the icon appears. Contact Fleet Complete technical support immediately for help fixing the sensor.

9. Click **Save & Close**.

Note: You can also use this screen to see which users have made changes to the rule and what those changes were (Audit tab).

Setting up Rules: Rule Parameters

1. In the rules screen, enter the rule parameters specific to the rule type, if any.

For this rule type...	Define...
Analog	the acceptable values for the *sensor* (values outside this range will trigger a rule)
Code	the code value that triggers the rule (if equal to or not equal to the specified value); known codes are: 4 = movement of 1000 meter + ignition is off
Distance	the distance beyond which an asset must move to trigger the rule how long the asset must be stopped before the distance counter is re-set *For Example The rule is defined to trigger if the asset moves more than 500 meters and reset the counter after 5 minutes. If the asset moves 400 meters, stops, then moves again after 2 minutes, the rule will be triggered if the asset moves without stopping for another 100 meters.*
Humidity	the acceptable percentage range of humidity for the asset (readings outside this range will trigger the rule)
Input	the state of the input sensor (on, off, open, or closed) and state of ignition (any, on, or off) that triggers the rule
POI	the length of time the asset remained within the POI for "less than", the event will be triggered if the asset leaves the POI and has stayed less than the configured time for "greater than", the event will be triggered once the time has elapsed or, if the asset is asleep, as soon as the asset wakes up and it is determined that the specified time has elapsed
Racing	the fixed speed over the speed limit the asset must be travelling to trigger the rule
Speed	the speed the asset must exceed to trigger the rule
Speed Limit	the amount over the speed limit (either a fixed value or a percentage) the asset must be travelling to trigger the rule

2. Specify when the rule is **Triggered** (after a specific period of time has passed, or immediately). (Not applicable for distance rules.)
For Example To avoid having a rule triggered by a temporary condition, such as when a vehicle's speed is temporarily increased when passing another vehicle, set a delay in triggering the rule, such as 3 or 4 minutes.

Note: For the Invalid GPS rule, allow a reasonable amount of time, such as half an hour, to pass before triggering the rule. The asset may simply be in an underground facility or loading area where GPS signals are weak.

3. If you want repeat occurrences of a triggered rule to result in additional events, from the **Repeated** list choose "every" and specify the frequency with which the event will be repeated. You can specify a different *notification* for repeated triggers than was used for the initial trigger.

For Example If an asset exceeds the posted speed limit for 4 minutes, you want an event recorded. If it continues to exceed the posted speed limit for another 15 minutes, it has now been speeding for 19 minutes and you want an e-mail message sent to the driver's manager.

4. Set up rule restrictions.

Setting up Rules: Restrictions

1. In the rules screen, choose if you want work schedules taken into account when determining if a rule has been triggered. If work schedules are to be taken into account, choose a **Work Schedule Reinforcement**: rules can be triggered either during or outside the work schedule.
   For Example

   You may want to know if an asset triggers a POI rule, such as one that occurs if a vehicle is at a casino, only when that asset is scheduled to be working.

2. If POIs are configured, choose if you want those taken into account when determining if a rule has been triggered. By default, POIs are ignored. Note that POI rules are triggered only by the assets assigned to this rule.

3. If POIs are to be taken into account, choose a **POI Restriction Type:**

To have events triggered when the asset is...	Choose this POI restriction type...
anywhere	None
in any POI that has been configured	In Any POI
in only specific POIs	In Specific POI, then check each POI type and/or POI to be taken into account
not in any POI that has been configured	Not in Any POI
not in specific POIs	Not In Specific POI, then check each POI type and/or POI to be taken into account

For Example You want a rule triggered if an asset remains at client offices for more than 30 minutes. You choose a restriction of "In Specific POI" and then choose the POIs that represent client offices.
You want to ignore the length of time an asset remains idle if it is in a legitimate location such as a parking lot or yard. You choose a restriction of "Not in specific POIs" and choose the POIs that represent such locations.
You want to know if a vehicle is speeding regardless of where it is located. You choose a restriction of "None".

4. Set up rule notifications.

Setting up Rules: Notifications

1. In the rules screen, choose the **Initial Notification** (you can choose more than one) that should occur when the rule is triggered. You can choose to:

   - have an alert appear to all users whose security profile allows them to see alerts — check **Alert Users**
   - send an e-mail message to the resource currently assigned to this asset — check **E-mail Resource/Crew**
   - send an e-mail message to Fleet Complete users — check **E-mail User(s)** and then check the appropriate user name(s)
   - send a message to someone else, such as a customer — check **E-mail Recipient(s)** and enter the appropriate e-mail address(es)

2. If you chose to alert users, optionally choose the **Sound to play** when an alert is received.

   Tip: Sounds can be used to help identify the importance of the received alert. The sound used for initial and repeated events is the same.

3. If you chose an e-mail notification, on the E-mail Options tab, choose the **Language** of the e-mail, choose up to three fields to appear in the **Subject** of the e-mail message, and check or clear the checkboxes in the **Body Fields** area to identify the fields that should make up the e-mail message's body.

   > *Note: Depending on the type of rule you are configuring, some Body Field choices cannot be cleared.*
   >
   > ***Contents of E-mail Message***

   The rule notification e-mail includes:
   * the words "Rule Notification" in the subject line
   * the address where the event took place
   * the asset's name, type, and other identifying information
   * description of the event
   * time/date the event occurred

4. If you chose to track repeat occurrences of a triggered rule, choose the **Repeat Notification** that should occur when the rule continues to be triggered (same options as for the initial notification).

5. If the rule should be automatically assigned to all new assets that Complete Innovations provisions for you, check **Assign this rule by default**.

6. Assign assets to rules.

Setting up Rules: Assigning Assets

1. In the rules screen, use the Asset Assignments tab.

   Note: Assets with more than one sensor will be listed on the Asset Assignment tab once for each sensor.

2. Click **Save & Close**.

Setting up Super Rules

To set up super rules:

1. On the Fleet Configuration screen, in the Assets group, click **Rules**.
   A grid of existing rules, their type, and a summary of each rule's definition, appears.

2. Click **Add** and choose **Super Rule**.

3. Choose the type of rules that will make up the super rule. You can combine no more than three rule types and only one of those can be a sensor-based rule type (indicated on the interface by a ⚙.

   Note: It is possible to select rule types that are illogical, such as selecting both "distance" and "still" types, which will produce irregular or no results.

   Show Screen

4. Click **Continue**. The screen that appears is similar to that of regular rules, but shows parameters for the selected rule types.
   Show Sample Screen

5. Enter a **Description** (name) for the rule.

6. Define rule parameters (these vary depending on rule type): general parameters appear below the restriction, rule type-specific parameters appear in the Rule Items area).

7. On the Notifications sub-tab, define rule notifications (what notification, such as an alert or an e-mail, is to occur when a rule has been triggered).

8. Define rule restrictions (what work schedules or POIs, if any, should be taken into account when determining if a rule has been triggered).

9. To assign assets to this rule (these assets will have their behaviour and sensors monitored for conformance to the rule), use the Asset Assignments tab.

    Note: Assets with more than one sensor will be listed once per sensor on the Asset Assignment tab. If a sensor is invalid, the icon ⚠ appears. Contact Fleet Complete technical support immediately for help fixing the sensor.

10. Click **Save & Close**.

Note: You can also use this screen to see which users have made changes to the rule and what those changes were (Audit tab).

Setting up Runs

About Runs

Why Use This Function?

Runs are simply names you grant to specific travel that an asset typically does (such as the run that takes an asset to customer sites in the eastern region). Runs are used for reporting purposes, and their assignment to assets appears in the Map Items panel of the Tracking screen, but runs do not appear on the map itself.

What is the Default Configuration?

By default, no runs are configured.

What Do I Need to Understand About Runs?

Runs are used only for reporting purposes.

Setting up Runs

Note: Be sure you are familiar with the overall concepts of runs before proceeding.

To set up a run:

1. On the Fleet Configuration screen, in the Assets group, click **Runs**.
   A grid of existing runs, and their associated assets, appears.
2. Click **Add**.
3. In the screen that opens, enter a **Description** (name) for the run.
4. Click **Save & Close**.

Note: You can also use this screen to see which users have made changes to the run and what those changes were (Audit tab).

Setting up POIs

About Points Of Interest (POIs)

Why Use This Function?

Without POIs, all locations an asset visits are considered of the same significance. Configuring POIs allows you to track and report on the interaction of assets with specific locations that are important to your organization. Examples of POIs include customer sites, warehouse locations, border crossings, prohibited zones, and refuelling stations. Defining a POI can help ensure that your assets are in appropriate work locations, working efficiently, and/or are secure. POI-specific reports allow you to compare data for several different assets or to report on unvisited POIs, for greater customer service.

For Example To ensure efficiency, you want to know how long a vehicle waits at a border crossing, when it arrives at a supplier's location, or when it leaves a refuelling station.
To provide customer service, you want to know when an asset arrives at or leaves a customer site.
For security purposes, you want to know if an asset is travelling inappropriately, such as on residential streets.

For employee performance assessment purposes, you want to know when an asset is at a personal location such as a coffee shop or shopping mall.
For budgetary purposes, you want to know when assets are travelling on toll roads where tolls are charged to your organization.
For validation purposes, you want to ensure that information in the receipts you receive from a driver for refuelling costs correspond to the time that the company asset was at a refuelling station.

What is the Default Configuration?

By default, no POIs are configured, but a default POI type is provided.

What Do I Need to Understand About POIs?

All POIs are associated with all assets. To capture data about a specific asset's interaction with a POI, use a POI rule.

Each POI has a **type** which determines its appearance on the map. A POI also has a **category** which is used to group it with similar POIs for reporting purposes (for example, there is a "supplier" and a "client" category).

A POI's configuration determines the geographical location (bounded by a circle, line, or area) of the POI. Optionally, you can also define:

- the working hours for the POI (this can be useful to determine if an e-mail notification to a POI contact is necessary, , and to populate the Curfew report
- *custom fields*
- a contact person at the POI
- e-mail notifications to be sent in relation to the POI

Because POIs are not assigned to assets, use the contact e-mail notification function with caution. **Any** asset's interaction with the POI will trigger the e-mail notification, even if that interaction is not significant to the contact.

For Example A lunch truck service might want to e-mail a client when a lunch truck arrives at their office. However, if a delivery truck from that company also arrives at the client's office (to make a pick-up), the same e-mail notification is triggered.
To avoid this situation, use POI rules.

A single POI can overlap with other POIs, for example, a POI might include an entire city block and that block might contain two specific client office POIs. Data will be collected about each POI an asset visits.

For Example A POI covers an entire facility, with separate POIs for each factory and the security kiosk at the facility. When an asset arrives at the facility, they are deemed to have arrived at the facility POI, so an e-mail notification is sent. When they arrive at the security kiosk, they are deemed to have arrived at the security kiosk POI as well as at the facility POI, so another e-mail notification is sent.

How do POIs Work with Rules?

A rule can take POIs into account, with events triggered only when an asset it in or not in a POI.

A POI rule can be defined to deliver a notification (for example, to a customer) when a **specific** asset arrives at or leaves a POI.

For Example A lunch truck service wants to e-mail a client when a lunch truck, rather than any other type of asset, arrives at the client's office.
A snowplow service wants to e-mail clients when the plow arrives (indicating that the parking lot is being plowed) and when it leaves (indicating that the parking lot has been cleared). It does not want this notification sent if another asset visits the client's location.
A company wants to have an alert sent when a high-capacity asset arrives at a warehouse, so that the warehouse staff is prepared.

How do POIs Work with Activities?

Activities are associated with a specific POI.

Setting up POI Types

Note: Be sure you are familiar with the overall concepts of POIs before proceeding.

We Recommend Set up at least two POI types: one for locations you want to track on the map, and one for locations used for reporting or rules.

1. On the Fleet Configuration screen, in the Points of Interest group, click **Types**.
   A grid of existing POI types appears. The grid also shows the name and icon used to represent POIs of that type, the number of POIs of that type, and whether that type is currently set to show and/or be labelled on the Tracking Screen map.

2. Click **Add**.
   The Point of Interest Type screen opens.
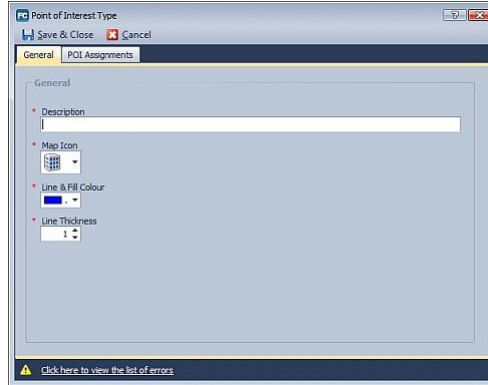
3. On the General tab, enter a **Description** (name) for the POI type.

4. Choose the default **Map Icon** to be used to represent POIs of this type on the map.

5. Choose the default colour to be used for the **Line and Fill** representing the borders of POIs of this type on the map.

   We Recommend Choose colours that indicate to the user the importance or significance of POIs of that type. For example, if you are creating POIs for potentially dangerous locations, you might give their POI type a red fill.

6. Choose the **Line Thickness** to be used for the border of POIs of this type on the map.

7. On the POI Assignments tab, check those POIs to be assigned to this type.

8. Click **Save & Close**.

Note: You can also use this screen to see which users have made changes to the POI type and what those changes were (Audit tab).

Setting up POIs: Overview

Note: Be sure you are familiar with the overall concepts of POIs before proceeding.

You can set up POIs in any of the following ways:

- from the configuration screen (described here) — you will need to navigate to the map location for the POI
- from the map (described here) — the position of the cursor on the map will be used as the centre of a circular POI area (a fast way to add POIs)
- by importing
- when creating an activity

1. On the Fleet Configuration screen, in the Points of Interest group, click **Points of Interest**, and click **Add**.

2. *The Point of Interest screen opens.*
   - or -
   Right-click on the Tracking Screen map at any location and choose **Add POI Here.**
   The Point of Interest screen opens.

3. Complete the General tab.

4. Optionally, complete the Details tab.

Note: You can also use this screen to see which users have made changes to the POI and what those changes were (Audit tab).

Setting up POIs: General Tab

1. On the POI screen's General tab, enter a **Description** (name) for the POI.

2. Specify the address for the POI.

3. Optionally, enter a unique identifying **Code** for the POI. This appears in reports and can be used like an account number.

4. Choose this POI's **Type** or add a placeholder.

5. Choose this POI's **Category** (this is a fixed list of categories used for reporting purposes).

6. Choose the **Time Zone** in which the POI exists.

7. Optionally, enter descriptive **Notes**.

8. Optionally, complete the POI Details tab.

Setting up POIs: Details Tab

1. On the POI screen's Details tab, if you want to specify working hours for the POI, complete the **Working Hours** area. This is especially useful for the Curfew report.

2. If you want to enter custom fields for the POI, click the Details tab and complete them.

3. If you want to record a *contact* person at the POI, enter the contact's name, phone numbers, and e-mail address(es), separated by semicolons.

4. If you want to e-mail someone when an asset is at this POI (use this function with caution, since any asset's interaction with the POI will trigger the e-mail), check **E-mail Contact**. Default e-mail text appears.

   a. Enter a **Subject** for the **Arrival** (sent when the asset enter the POI) and/or **Departure** (sent when the asset leaves the POI) message.

   b. Change or add to the default **E-mail Text** for the arrival or departure message. Optionally, insert one of the following variables in the text: @Resource, @Asset, @Date, and/or @Time.

> *For Example* The text "Notification: @Resource (@Asset)departed Starbucks-
> 09856 on @Date at @Time"
> *becomes*
> "John Smith (snowplow-001) departed Starbucks-09856 on 1/29/2010 at 7:39
> AM.

    c. Optionally specify **Notification Restrictions** to restrict e-mail notifications to being sent only within or outside of the POI's working hours.

    d. Set a **Delay** interval: Fleet Complete will wait for that time to elapse before sending the e-mail.

5. Click **Save & Close**.

Importing POIs

Note: Be sure you are familiar with the overall concepts of POIs before proceeding.

The file to be imported must be a CSV format file, with the first row specifying column names. Fleet Complete will prompt you to match the columns in the CSV to the appropriate POI fields.

Street, City, and Province or Longitude/Latitude must be specified in the CSV. (If you specify Longitude/Latitude, other address information in the file is imported, but is not required.) Other fields are optional but you may want to include them so your POI configuration data is as complete as possible.

Example CSV

All POIs created by the import process are created as circles around the specified addresses. All POIs in the same CSV file are created with the same type, buffer (radius), POI contact e-mail notification delay, and category, although these can be changed later. If you have addresses you want treated differently (for example, you want to assign POIs to several different POI types) put them in separate files and import them individually.

1. On the Fleet Configuration screen, in the Points of Interest group, click **Points of Interest**, then click **Import**.
   The Import Points of Interest screen opens.

2. Click **Browse** and navigate to the location of the CSV file, opening the file.

3. Choose whether or not the file contains latitude and longitude fields. (If it does, geocoding is done on the latitude and longitude rather than the address, even if an address is included in the CSV.)

4. Click **Next**.
   The next screen in the wizard opens.

5. Map the columns of the CSV to the POI fields or, if necessary, ignore a column.

   Note: As with data entry, required fields are shown with an asterisk.

   Choose the POI **Type**, **Buffer** (circumference of the POI circle area), **E-mail Notification Delay**, and **Category**.
   The next screen in the wizard opens.

6. Click **Next**. The CSV data is imported or, if errors were found, an error file is created.

Exporting POIs

In addition to the usual print/export function, you can export your configured POIs to Excel format.

1. On the Fleet Configuration screen, in the Points of Interest group, click **Points of Interest**, then click **Export Spatial Data**.
   A new screen opens.

2. Browse to the location where you want the file containing exported data created, enter a file name, and choose a file type.

3. Click **Next**.
   The next screen of the wizard opens.

4. Choose the POI types whose data you want to export and click **Next**.
   The next screen of the wizard opens.

5. Choose the fields of data you want exported and click **Next**.
You see a preview of the data to be exported.
6. Click **Finish**. The export file is created.

Setting up Resources

About Resources and Crews

Why Use This Function?

Without resources, tracking can refer only to assets, not the people responsible for those assets. If you want to know who did something, not just what was done, you need to configure resources. You also need to configure resources if you want to have the individuals responsible for assets receive e-mails when an *event* for their asset is triggered and/or when the asset is due for maintenance. Resources are integral to messaging features as well.

It is possible to configure resources that are not tracked, but are only assigned to activities. This is particularly used when you are already tracking the assets that people are using. The only visible difference between these resources and tracked ones is that they do not appear alongside an asset in the Map Items tree of the Tracking screen.

If several resources work together as a single entity, grouping them together into a crew means that activities can be sent to the crew as a whole rather than to a single resource.

What is the Default Configuration?

By default, no resources or crews are configured.

What Do I Need to Understand About Resources?

A resource is an individual (not necessarily a Fleet Complete user) who works for your organization and operates an asset.

Although resources are assigned to assets, you have several choices for how to make that assignment. The asset configuration screen allows you to manually choose from the list of configured resources, but this fixed assignment is not advisable. It is more appropriate to have resources assigned to assets dynamically, through a PIN or driver ID Fob. This allows multiple resources to share responsibility for an asset. It also allows you to manage security by defining an Unauthenticated Resource rule that records an event when someone operates the vehicle without being authenticated through a driver ID Fob. The temporary association between asset and resource appears in the Tracking screen map as well as in the asset's configuration and in reports.

Additional resources information can be captured:

- the resource's code (e.g. driver number) and category
- the resource's category (used for reporting)
- a vehicle type
- a home base (useful for monitoring and reporting on the resource's interaction with the home base, for example, to monitor for late departures from that base, or to record how often they return to the home base during working hours)
- the hourly cost for the resource (used in reporting)
- the maximum length of time the resource should travel between stops (for example, at POIs) — used for management reports
- mobile contact information such as email address

Resources can have an associated *work schedule* used for activity and reporting purposes.

Resources are grouped by type for reporting and security profile purposes.

What Do I Need to Understand about Crews?

A crew is a group of resources (can be of different resource types) that is considered a single entity. A resource can be part of only one crew. The crew itself is assigned a resource type, allowing type-based reporting to include crews as well as individual resources.

Resources are associated with crews through the crew configuration, not from the resource configuration.

One member of the crew is designated as the crew chief: when the chief logs in, the entire crew is assumed to be logged in and available for work. Each member of the crew is given the same status as the crew chief (for example, "on break"). If a crew member logs on independently, they are assumed to be working outside of the crew and their status is recorded separately.

What Do I Need to Understand about Service Groups?

Service groups are logical groupings of resources and crews, with a defined supervisor (a Fleet Complete user, not a resource). They are typically used to group resources based on geographical area. Service groups can be associated with an activity, and are also used for management reporting purposes.

For Example

You set up service groups to reflect geographical areas in which you provide service. You can then report on resource activities within those areas.

Setting up Resource Types

Note: Be sure you are familiar with the overall concepts of resources before proceeding.

1. On the Fleet Configuration screen, in the Resources group, click **Types**.
   A grid of existing resource types, indicating the number of resources assigned to each, appears.
2. Click **Add**.
   The Resource Type screen opens.
3. On the General tab, enter a **Description** (name) for the resource type.
4. On the Resource Assignments tab, check those resources to be assigned to this type.
5. Click **Save & Close**.

Note: You can also use this screen to see which users have made changes to the resource type and what those changes were (Audit tab).

Setting up Crews

Note: Be sure you are familiar with the overall concepts of resources before proceeding.

1. On the Fleet Configuration screen, in the Resources group, click **Crews**.
   A grid of existing crews, showing status, number of resources (crew members), and other information, appears.
2. Click **Add**. *The Crew screen opens.*

3. On the General tab, enter a **Name** for the crew.
4. Choose the crew's **Type** or add a placeholder.
5. Choose the POI that constitutes the **Home Base** for the crew.

*Note: The crew's **Work Status** and **Status Time** shown here relates to the MDT functions and cannot be modified.*

6. Enter the **Hourly Cost** for the crew (used in reporting).

7. On the Resource Assignments tab, check those resources to be assigned to this crew. (If resources are currently logged on, they will be logged off when the crew is saved.)

8. Designate one of the resources as the crew chief: select their name and click **Set as Crew Chief**. Only one resource can be the chief of any given crew (by default, the first member of the crew is set as the chief).

9. Click **Save & Close**.

Note: You can also use this screen to see which users have made changes to the crew and what those changes were (Audit tab).

Setting up Resources: Overview

Note: Be sure you are familiar with the overall concepts of resources before proceeding.

1. On the Fleet Configuration screen, in the Resources group, click **Resources**.
A grid of existing resources, showing summary information about each, appears.

2. Click **Add**.
The Resource screen opens.

3. On the General tab, enter the resource's **Name**.

4. Choose the resource's **Type** or add a placeholder.

5. Optionally, enter contact, license, and demographic information (including a photo) for the resource.

6. Complete any custom fields.

7. Optionally, enter the resource's start and end date of employment.

8. If using a Fob to authenticate resources, populate the **Mobile ID** field by reading the driver ID Fob.

9. If you will be using MDT messaging, enter the resource's **PIN**. Resources will use this PIN when logging in to their handheld or MDT device.

10. If the resource uses a dispatch-only handheld, enter the handheld's phone number in the **Dispatch Device** field and choose, from the **Communication Method** list, either MDT or Handheld, depending on the nature of the handheld.

11. Optionally, choose the resource's communication method. The method chosen will determine the destination for information related to activities for the resource.

12. Choose the resource's work schedule.

*Note: The resource's **Work Status** shown here relates to MDT and cannot be modified.*

13. Optionally, enter license and insurance information for the resource.

14. Complete the Additional Settings tab.

15. Click **Save & Close**.

Note: You can also use this screen to see which users have made changes to the resource and what those changes were (Audit tab).

Setting up Resources: Additional Settings

1. On the Additional Settings tab of the resource screen, enter additional information about the resource.
   Show Screen

2. Enter the **Resource Code**, used for reporting purposes.

3. Choose the resource **Category** from the built-in list (used for reporting purposes).

4. Choose which resource, if any, is the resource's *managing resource*.

5. Choose the **Vehicle Type** the resource drives.

6. Choose the **Home Base** of the resource.

7. Enter the **Hourly Cost** for the resource.

8. Specify the maximum number of hours the resource should travel between jobs (for example, you might want a resource to travel no more than 30 minutes between POIs). Used for reporting purposes.

9. Enter **Additional Contact Information** for the resource, such as mobile number or email.

10. Click **Save & Close**.

Setting up Service Groups

Note: Be sure you are familiar with the overall concepts of resources before proceeding.

1. On the Fleet Configuration screen, in the Resources group, click **Service Groups**.
   A grid of existing service groups appears.

2. Click **Add**.
   The Service Group screen opens.

3. On the General tab, enter a **Description** for the service group.

4. Choose the service group's **Supervisor** (a system user).

5. On the Resource/Crew Assignments tab, check those resources and crews to be assigned to this service group.

6. Click **Save & Close**.

Note: You can also use this screen to see which users have made changes to the service group and what those changes were (Audit tab).

Using Driver ID Fobs with Fleet Complete

If you will be using driver ID Fobs to authenticate resources:

1. Before you configure resources, install the appropriate software on a computer that has access to Fleet Complete.

2. Attach the appropriate reader to your computer via USB and make sure the necessary software drivers for the reader are installed.

3. Open the Resource screen and complete the basic fields.

4. Place a driver ID Fob in the reader and click the ellipsis (...) beside **Mobile ID**. The field is populated automatically with the driver ID Fob in the reader.

5. Continue setting up the resource.

6. Remove and label the Fob and give it to the driver.

7. Repeat for each driver.

WORKING WITH FLEET

Viewing Time of Last Snapshot

In the Assets grid, the time and date of the last *snapshot* of data for that asset is shown.

Viewing Resource, Run, and Related Assets

An asset's current resource, run, and related asset are shown in:

- the Assets grid
- the Tracking screen.

Viewing Current Location of Asset

An asset's current location is shown in:

- the Assets grid
- the Tracking screen.

Viewing Work Status of Resources and Crews

The resources grid shows the work status of each resource; the crews grid shows the work status of each *crew* and the time that status began.

WORKING WITH ACTIVITIES

Background

About Activities

Why Use This Function?

Use the Activities function to define simple activities (such as a service call) to be done at a specific location, assign them to a *resource*, and monitor their progress.

What is the Default Configuration?

The names of the available statuses for activities are configured by default: you can change these if you wish.

What Do I Need to Understand About Activities?

The information associated with an activity includes:

- the POI at which the activity should take place
- the activity number (system-assigned)
- when the activity should start and by when it should be completed — this information helps flag activities that are late or almost late to start or finish
- its status (see workflow below)
- what resource/crew has been assigned the activity, if any
- what service group is associated with the activity
- notes and instructions about the activity (for example, describing the activity to be performed, such as "replace air conditioner unit")

The workflow of an activity is as follows:

1. The activity is created: its status is *Open*.
2. The activity is assigned to a resource: its status is *Dispatched*.
3. The resource accepts or rejects the activity: the activity status is *Accepted* or *Rejected*. A rejected activity can be assigned to a different resource.
4. The resource completes the activity: the activity status is *Completed*.

An Open activity is one which has no resource. This may be because a resource/crew has not yet been assigned to the activity, or because the previously assigned resource/crew has been removed from the activity.

An activity can be cancelled at any stage before it is completed.

Note Activities are sent to mobile devices, where resources can use their GPS to navigate to the location of the activity.

Changing Activity Status Names

1. On the ribbon toolbar or main menu, click **Activities > Template**.
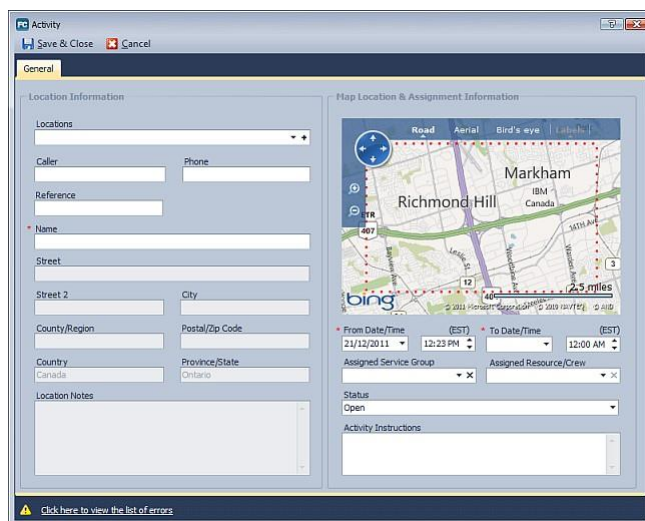   *The Activity Template Screen opens.*
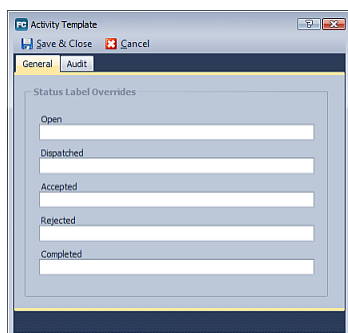
2. Enter alternative names for any or all statuses.

3. Click **Save & Close**.
   You are informed that your changes will take effect only once you have logged off and on again.

Creating Activities

You can create activities from the:

- Activity — Search screen
- Activities Panel
- Activity — Booking screen

1. Click **Add** or or, on the Booking screen, right-click on the appropriate start date/time and choose **Add Activity**.
   The *Activity screen* opens.

2. If the activity is to take place at a POI, from the **Locations** field choose a POI.
   - or -
   If the activity is to take place at a location not configured as a POI, click the **+** beside the **Locations** field.

3. If you chose a POI, the POI name appears as the activity **Name** by default (you can override this) and the address details from the POI are filled in.
   - or -
   If you chose to specify a location, the fields on the left side of the panel are cleared. Enter a **Name** and complete the address fields and **Location Notes** field.

4. Optionally, enter information about the request (the **Caller**, **Phone** number, and **Reference**, such as service order number).

5. Specify when (both date and time) the activity should start and end.

   Note: If the start or end date is configured as a holiday when the company will be closed, an icon appears next to the date indicating the conflict with the holiday

6. Optionally, choose the **Service Group** responsible for the activity. Only resources/crews associated with the selected group can be assigned to the activity.

7. To assign this activity immediately, choose an **Assigned Resource/Crew** (an activity can only be dispatched to a resource whose work schedule overlaps with either the start or end date/time of the activity). The status changes to **Dispatched**.
   - or -
   To assign this activity later, from the Status list choose **Open**.

8. Optionally, enter **Activity Instructions** that provide guidance to the resource.

9. Click **Save & Close**.
   The activity is assigned a system-generated number.

Searching for Activities

You can choose from two methods when searching for activities: basic and advanced search.

Use basic search to search based on a single criterion. Basic search looks for an activity based on its number, reference, location (POI), or assigned resource/crew (enter all or part of the number or name).

Use advanced search to search based on multiple criteria, including activity number, current status, or status within a date range. Multiple criteria are cumulative (this AND that AND the other).

For Example

*To find all activities that have been created but not yet assigned, from the **Status** list choose **Open**, then click **Search**.*

*To find all activities that were created in June this year, from the **Date Type** list choose **Created**, then set the **From Date** to June 1 and the **To Date** to June 30 of the current year, then click **Search**.*

To perform a search:

1. On the ribbon toolbar or main menu, click **Activities > Search**.
   The Activity — Search screen opens, show two tabs: *Basic Search* and *Advanced Search*

2. Choose the appropriate tab.
3. Enter the appropriate search criteria and click **Search**.
   The search results appear in the grid.

You can work with the search results using the same functions as any grid, including deleting and printing/exporting.

Editing Activities

You can edit activities from any of the following:

- Activity — Search screen
- Activities Panel
- Activity — Booking screen

Editing an activity allows you to change any of its details, and is the only way to transfer responsibility for an activity once it has been dispatched to a resource/crew.

Select an activity and click **Edit** or ✏, double-click on the activity or, in the Booking screen, right-click and choose **Edit Activity**. The activity's properties screen opens.

You can then:

- If necessary, change activity details on the General tab, including changing the resource assigned to the activity or removing the assigned resource/crew (the activity becomes Open).

  Note: The activity's location cannot be changed once the activity has been accepted.
  Note: The list of resources will reflect only those whose work schedule overlaps with the activity's start or end time/date.

- View the activity's workflow history (Status History tab).
- View notes (added by other users or by the resource) on the Notes tab.
- Add notes about the activity.
- See which users have made changes to the activity and what those changes were (Audit tab).

Assigning Activities to Resources

You can assign activities to resources when you add or edit an activity: choose an **Assigned Resource/Crew** and save the activity.

You can also assign activities without opening them:

1. On the Activities panel, select an activity that has a status of Opened or Rejected (that is, has no assigned resource/crew).
2. From the **Resource/Crew** list, choose a resource (only logged-in resources are listed), then click **Dispatch**.
   The activity's status changes to Dispatched.

Note: You cannot assign an activity to a resource if the resource's work schedule does not overlap with the activity's start or end time/date, or if the resource is not a member of the service group associated with the activity.

Note: The activity is sent immediately unless the start date for the activity is not today's date, in which case the activity will not be sent to the resource until 60 minutes before the start time/date.

If you want to transfer responsibility for an activity to another resource, you need to edit the activity and choose a new resource. Note that the status will remain Dispatched — it is assumed that the new resource has accepted the activity.

Monitoring and Managing Activities

Working with the Activities Panel

Open the Tracking screen, then open the Activities panel.
Show Example

The panel shows activities for the current date or earlier. Activities are colour-coded by status.

The flags beside the activity number indicate the timeliness of the activity:

- a red flag indicates the activity is late in starting or finishing (the start or end date/time has passed without the activity being accepted)
- a yellow flag indicates the activity is almost late in starting (the start date/time is within 20 minutes of the current time)
- a blue flag indicates the activity is almost late in finishing (the end date/time is within 20 minutes of the current time)

To locate an activity on the map, select the activity and click **Zoom To**.

To change which resource is assigned to an activity, select the activity (of any status but "Accepted") and choose from the **Resource/Crew** list. The list shows only resources/crews who are available (logged in or on break).

You can also use this screen to edit or add activities and to sort information as with other grids.

Working with the Booking Screen

Opening the Booking Screen

On the ribbon toolbar or main menu, click **Activities > Booking**.
The Activity — Booking screen opens.

Components of the Booking Screen

The Booking Screen is made up of:

- a list of resources who are logged in or on break (on the left)
- a view showing day, work week, week, month, or timeline views (in the middle)
- a calendar of the current and next two months (on the right), with holidays marked

Determining What Activities are Shown

By default the Booking Screen shows activities for all resources: check the checkbox to select those resources whose activities should be shown, clear the checkbox for those whose activities should be hidden (or click **Select All** or **Un-Select All**).

By default the Booking Screen shows activities with a status of Open, Dispatched, Rejected, or Accepted: to change this, use the **Filter by Status** list and check the status(es) to show.

Working with the Calendar

The Resources and Calendar sections operate as panels.

The Booking screen operates in a way similar to Microsoft Outlook and other task management programs.

The calendar view shows the activities assigned to the selected resources during the selected time period. Activities are colour-coded by status. Holidays configured for the company are shown: a red cell indicates a day on which the company is closed.

Double-click on any activity to open and edit it. In the Month view, if not all the activities on a given day can be displayed, a ☑ appears in the cell: click on it to open the day view for that day.

Note: You cannot drag an activity to a new location on the calendar to change its start or end time/date: open the activity and edit it to change times and dates.

You can right-click on any cell in any view to:

- add an activity
- go to today's date or a selected date
- change the calendar view
- group the data by resource
- group the data by date

Activity Colour Coding

On both the Activities panel and the Booking screen, activities are colour-coded by status:

- green indicates an Accepted activity
- blue indicates an Open activity
- purple indicates a Dispatched activity
- red indicates a Rejected activity

USING MAINTENANCE

About Maintenance

Why Use This Function?

The Maintenance function allows you to schedule, record, and manage the service requirements of your assets. The service items most commonly needed to meet service requirements are automatically created. In addition, relevant resources and other *contacts* (such as a mechanic) can be automatically e-mailed a reminder about the need for maintenance.

For Example *Your delivery vehicles need oil changes every 5,000 kilometres. You want both resources and service managers reminded when this service is due.*
Some vehicles require annual safety inspections. You want your safety officer notified when this service is due.

What Do I Need to Understand About Maintenance?

Each time maintenance is required for an asset, a maintenance item is created (using a nightly job). Typically, items are created based on a service schedule (for example, oil changes are scheduled every 5000 kilometers/3000 miles) for each asset assigned to that service schedule, based on the asset's operating hours (length of time in operation) and odometer reading. Service items can also be manually created for a specific asset. Service items can be either Open (not yet completed), Completed, or Disregarded. Service items cannot be deleted.

For Example *Assets X, Y, and Z are scheduled to have oil changes every 5000 kilometres. When asset X has travelled 5000 kilometres, a service item is automatically created for that asset. When the other assets reach that distance travelled, service items are created for each of them as well. The next time those assets have travelled 5000 kilometres, another service item is created for each.*

Designated individuals can receive reminder e-mail messages about service needs. The e-mail includes the name of the asset and the type of service required.

Maintenance users open or create service items and use them to record completed service, or to indicate that service was not done.

What Do I Need to Understand About Service Schedules?

Service schedules determine how often maintenance items are created.

Service schedules fall into the following categories:

- None — occurs only once
- Annual Date — occurs routinely, every year (specify the month and date on which the service is required)
- Recurrence Date — occurs routinely, every x months or weeks
- Fixed Odometer/Operating Hours — occurs just once, when the asset reaches a specific number of operating hours or odometer reading
- Rolling Odometer/Operating Hours — occurs routinely, whenever the asset reaches a specific number of operating hours or Odometer reading
- Fixed Date — occurs just once, on a specific date (specify exact date)
- Recurrence Date or Rolling Odometer/Operating Hours — occurs every x km/mi/hour OR every x days/months (whichever comes first)

What is the Default Configuration?

By default, a "non-scheduled" maintenance category and schedule are provided: these cannot be modified or deleted. Non-scheduled maintenance is used for unplanned maintenance such as vehicle repairs following an accident. As a result, it has a "None" schedule and is not assigned to any asset.

How is Maintenance Configured?

Configuring maintenance involves:

- if necessary, entering accurate vehicle information for the assets to which maintenance will apply (this is normally done automatically by Fleet Complete)
- setting up service categories that group related service schedules together (service categories might include "calibration", "cleaning", "lubrication", or "warranty")
- setting up service schedules that specify how often (based on time, operating hours, and/or odometer reading) the service needs to be performed, the assets that require such service, and who to notify via e-mail about the service

Setting up Maintenance

Adding Vehicle Information

Note: Be sure you are familiar with the overall concepts of the Maintenance function before proceeding.

1. On the Fleet Configuration screen, in the Maintenance group, click **Vehicle Information**.
   A *grid* of the assets with in-vehicle devices appears.
2. Select the asset to which you want to add maintenance-specific vehicle information and click **Edit**.
3. Optionally, change the **Description** (name) of the asset. (Note that your changes will affect the asset's configuration, with the name change seen by all users.)
4. Optionally, enter the **License Plate**, **VIN**, and **Year** of the asset.
5. Specify the **Operating Hours** and/or current **Odometer** reading of this asset. These values act as the starting point for calculating when the scheduled maintenance, if any, is required.
6. Enter the **Make** and **Model** of the vehicle. Depending on the asset's ECM configuration, some or all of these fields may be required.
7. If using ECM, choose an **EMC Type**.
   The **Odometer** and **Fuel Economy** reading will appear (this is updated regularly), as well as any ECM alerts (a specialized alert transmitted from the ECM device) received in the past 24 hours for this asset.

Setting up Service Categories

Note: Be sure you are familiar with the overall concepts of the Maintenance function before proceeding.

1. On the Fleet Configuration screen, in the Maintenance group, click **Service Categories**.
   A grid of existing service categories, showing the number of service schedules configured for each category, appears.
2. Click **Add**.
   The Maintenance Category screen opens.
3. Enter a **Description** (name) for the service category.
4. Click **Save & Close**.

Note: You can also use this screen to see which users have made changes to the service categories and what those changes were (Audit tab).

Setting up Maintenance Service Schedules

Note: Be sure you are familiar with the overall concepts of the Maintenance function before proceeding.

1. On the Fleet Configuration screen, in the Maintenance group, click **Service Schedules**.
    A grid of existing service schedules, showing their type and their category, appears.
2. Click **Add** and choose the type of maintenance schedule to be created.
3. The Maintenance Service Schedule screen opens. The fields on the screen vary depending on the type of schedule chosen.
4. Enter a **Description** (name) for the service schedule.
5. Choose a service **Category** or add a placeholder.
6. Choose a **Schedule Type** and define the recurrence (varies depending on the type chosen).
7. Set up the recurrence timeline.
8. To e-mail a reminder to the resource/crew associated with the assets assigned to this service schedule, reminding them about the maintenance requirement, check **E-mail Resource/Crew**.
9. To e-mail a reminder to someone else (perhaps a technician or mechanic) about the maintenance requirement, check **E-mail Recipient(s)**, and enter the appropriate e-mail addresses.
10. Specify the **Language** of the e-mail messages.
11. Specify how much in advance of the due date for the service schedule the reminder e-mails should be sent.
12. To assign assets to this service schedule, use the Asset Assignments tab. Depending on the **Schedule Type** chosen, the Asset Assignment tab may allow you to enter when the next scheduled service is required. To enter the necessary information, first check the asset, then click in the appropriate column.

If you chose this Schedule Type…	You can enter…
Recurrence Date	the next date on which the maintenance should be performed
Recurrence Date or Rolling Odometer/Operating Hours	the next Odometer reading or operating hours the asset needs to reach before the maintenance will be required, and/or the next date on which the maintenance should be performed
Rolling Odometer/Operating Hours	the next Odometer reading or operating hours the asset needs to reach before the maintenance will be required

13. Click in the appropriate column of a checked asset and enter the appropriate values.
14. Click **Save & Close**.

Note: You can also use this screen to see which users have made changes to the service schedule and what those changes were (Audit tab).

Working with Maintenance

About the Maintenance Screen

Once maintenance is configured, service items are created automatically when an asset requires any type of service. You can also add service items if necessary.

The Maintenance screen shows active service items in a grid. For each item, you see the name of the asset, the type of service, the status of the service item, and the date the service is due.

Opening the Maintenance Screen

To view, edit, and add maintenance items:

1. On the ribbon toolbar or main menu, click **Fleet > Maintenance**.
2. The Maintenance screen opens, showing active service items in a grid.

Adding Maintenance Items

If unscheduled maintenance needs to be performed for an asset, you can add a service item to track that item.

1. From the Maintenance screen, click **Add**.
   The Maintenance Service Item screen opens.

2. Choose the **Asset** that requires the maintenance.
3. Choose a **Service Schedule** to be used to schedule this service, or add a placeholder.
4. Choose Open or Completed from the **Status** list.
5. Enter the **Odometer** reading and/or **Operating Hours** (hours in operation) for the asset at the time the maintenance was performed. This will be used to calculate the next service item needed for the asset, if applicable.
6. Indicate the **Service Date** (when the service was performed) and **Cost**. These will be used in reporting.
7. Add any explanatory comments.
8. Click **Save & Close**.

Note: Service items remain in Fleet Complete indefinitely. Marking an item as completed or disregarded will not remove it from display.

You also use this screen to record maintenance performed.

Recording Maintenance Performed

As maintenance is performed, or if it is to be disregarded for this instance (for example, the Odometer reading is incorrect and the vehicle does not require the scheduled maintenance yet), you should record its status.

1. From the Maintenance screen, double-click on a service item to open it.
   The Maintenance Service Item screen opens.

2. Choose Completed from the **Status** list.
3. Enter the **Odometer** reading and/or number of **Operating Hours** for the asset at the time the maintenance was performed. This will be used to calculate the next service item needed for the asset.
4. Indicate the **Service Date** (when the service was performed) and **Cost**. These will be used in reporting.
5. Add any explanatory comments.
6. Click **Save & Close**.

*Note: Items remain in Fleet Complete indefinitely. Marking an item as completed or disregarded will **not** remove it from display. Maintenance history can be viewed on the Maintenance report.*

You can also use this screen to:

- view the changes to this item's status, who changed the status, and when (History tab)
- see which users made changes to the maintenance service item and what those changes were (Audit tab).

WORKING WITH MDT MESSAGING

About MDT Messaging in Fleet Complete

If your organization uses vehicle devices that have an MDT connected for two-way communication, that communication can be streamlined and managed through Fleet Complete.

Note: This function must be enabled by Complete Innovations for your organization's account. Users can only view MDT messages if their user account is set up to show them.

Dispatchers can send free-form messages and drivers can send a canned message or reply. Canned messages and replies are organized into groups (for example, supervisors, technicians). All assets that have MDT capability are associated with a canned message and reply group and the messages and replies in that group are automatically available to those assets. In addition, when you send a message to a driver you can specify the choice of replies available to them when responding to that message.

MDT messages sent to and received from assets appear in a Messages panel on the bottom of the Tracking screen.

About the Messaging Panel

MDT messages sent to and received from resources appear as pop-up messages as well as in a Messaging panel at the bottom of the Tracking screen. A separate tab is opened for each driver with whom you are communicating: the tab shows the thread of communication with that driver, including information on when messages were received or sent.

Note: You only see the Messaging panel if your user account is set up to show MDT messages, and only for the assets in your security profile.

The Messaging panel lists either all available drivers (**All Online**) or just those with whom you are communicating (**In Live Sessions**). Whether drivers are displayed with resource name or asset name first depends on your map options. To locate a driver in a lengthy list, enter their name in the search box at the top right of the panel and press Enter or click .

Use the panel to send messages to resources or reply to messages from resources.

Configuring MDT Messaging

Once MDT messaging is enabled for your organization, you need to do the following to implement it:

1. Set up message groups and messages.
2. Enable MDT for assets and choose a canned messages and canned reply group for each asset.
3. Enable MDT messaging for the user accounts of those who will use this function.

Setting up Canned Messages and Replies for MDT Messaging

1. On the Fleet Configuration screen, in the Assets area, click **Canned Messages** or **Canned Replies**.
   A grid of existing messages or replies appears.
2. To add a message/reply to an existing group, select a message for that group and click **Edit**.
   - or -
   Click **Add**, then enter the name of the new group.
3. To add a message/reply to the group, click and enter the text of the **Message** or **Reply**.

To remove a message/reply from the group, select it and click ✖.

To change the order of messages/replies in the group, use the ⬆and ⬇ buttons.

4. Click **Save & Close**.

Sending an MDT Message from the Tracking Screen

Note: You can only send messages to assets to which your security profile granted you access.

If an asset has an MDT device, and is associated with a resource, you can send a message to its driver from the Tracking screen.

1. On the Tracking screen, right-click on an asset in the map or Map Items panel and choose **Send Message**.
   The Message screen opens.

2. Enter a **Message**.

   Note: Special characters within a message may not be transmitted properly. Your message as seen by the resource is shown in the Messaging panel.

3. Optionally, check the canned replies that should be available to the driver when replying to the message. The list reflects the canned replies configured for the reply group to which the asset was assigned. The order in which you check replies is the order in which they will appear to the driver.

4. Click **Send & Close**.

5. Your message appears on the Messaging panel on the bottom of the Tracking screen.

Note: Other users will not be able to see your messages or the replies to them.

Sending a POI Stop

If an asset has an MDT device, and is associated with a resource, you can send the address information for a *POI* as a stop to that resource. This communication does not appear on the Messaging panel.

1. On the Tracking screen, right-click on a POI in the map or Map Items panel and choose **Send to Device**.
   - or -
   Right-click on any location in the map and choose **Send this Location as a Stop**.

2. When prompted, choose from the available assets, then click **Send**.

Sending an MDT Message from the Messaging Panel

By default, resources can respond to messages sent from the Tracking screen or Messaging panel using any of the replies in their canned replies group. However, you can choose to limit the drivers' responses to just some of those replies.

To send a message to one or more drivers without limiting responses:

1. Select the resource (one, several, or all) in the Messaging panel.

2. Enter the message in the lower portion of the panel.

3. Press Enter.
Tabs for each of the resources to which you sent the message open. You can use these tabs to view replies and send additional messages.

To send a message to a single resource and, optionally, limit responses:

1. If the Messaging panel does not already show a tab for the resource, double-click on the resource name on the main tab of the panel to open a tab for that resource.

2. To send the message without restricted responses, enter the message for the resource in the lower portion of their tab and press Enter.
To restrict the available replies to only some of those in the canned replies group associated with the resource's asset, click (in the bottom right corner of the tab) and check each allowed reply, then click **Send**.

Replying to an MDT Message

When a message has been received from a driver, an appears on their tab in the Messaging panel.

To reply:

1. Click the appropriate tab.
2. Select the message you are replying to.
3. Enter the reply in the lower portion of the panel.
4. Press Enter.

Messages Report

What the Report Shows

For each *MDT*-enabled asset, shows:

• date and content of message sent
• time the message was received, read, and sent
• content of reply and resource who sent it
• number of canned messages that have been generated
• resource/crew engaged in the communication

How to Generate Report

1. On the Reports screen, click **Report > Fleet > Messages.**
2. From the top list, choose whether you want to report on individual **Assets**, whole **Asset Types**, individual **Resources/Crews** or whole **Resource Types**.
3. Select one or more items to be included in the report.
4. Choose the date range for the report.
5. Click **Get Data**. The report appears in a grid on the right.

If necessary, you can click **Cancel** to stop the report generation process. This is useful if you realize you need to refine your report parameters before the report finishes generating.

WORKING WITH OPERATIONS REPORTS

Background

About the Operations Reports Function

Why Use This Function?

Reports give you a detailed view of all Fleet Complete data, whether captured from GPS, sensors, events, or interactions with POIs. Reports can be used for a wide variety of purposes that offer your organization additional value, such as:

- validating timesheets or receipts
- substantiating claims for government rebates
- demonstrating service to customers for enhanced customer service
- identifying patterns of behaviour that affect fuel economy
- identifying possible inefficiencies in scheduling and dispatching
- identifying potentially inappropriate driver behaviours

It is important to produce reports regularly: data in your Fleet Complete system is retained for a limited period of time (typically, three months). Reports can be scheduled and the report output e-mailed to any number of individuals automatically, providing an archive record of your important data.

What is the Default Configuration?

A full set of Operations reports is provided by default. Custom reports may be purchased from Complete Innovations.

What Do I Need to Understand About Operations Reporting?

Report functions include:

- the reports themselves (Fleet reports and custom reports provided by Complete Innovations)
- the Reports Dashboard, a customizable view of important graphical data
- reports schedules used to automatically produce and distribute Operations reports

Report data is shown in both imperial and metric measurements: you can hide the columns that contain measurement information you do not use.

Report information shows values recorded in custom fields: you may want to hide this data if it is not relevant for reporting purposes.

We Recommend As a best practice, you should choose the reports that meet your specific needs, generate them manually so you can determine the best layout and criteria for your purposes, then create a schedule. If a report can provide data for several individuals (for example, for both your payroll and operations departments), create more than one schedule for the same report, customizing the contents and layout as appropriate for each recipient.

Opening the Operations Reports Screen

On the ribbon toolbar or main menu, click **Reports > Operations**.
The Reports — Operations screen opens.
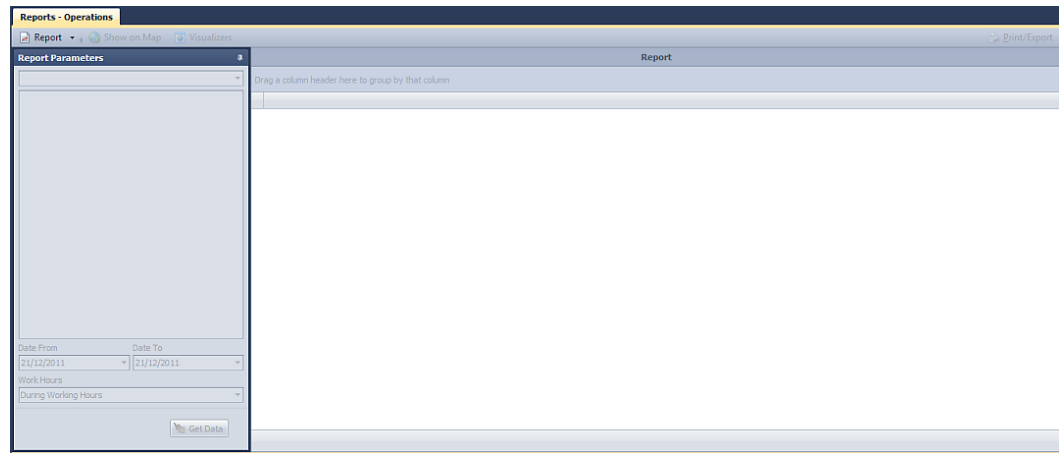
About the Operations Reports Screen

The Reports — Operations screen is made up of the following elements:

- a **Report** menu from which you can choose a type of report and then a report name (for example, **Report** > **Fleet** > **Speeding**)
- a Report Parameters panel used to choose the appropriate parameters for the selected report

  Note: Once you have set the parameters for one report, Fleet Complete applies relevant parameters to all subsequent reports until you log off.

- the output of the selected report: you can customize the report's layout to suit your needs, show any report data point on the map, or (for some reports) use a Visualizer

*Note: To generate a report once you have specified the parameters, click **Get Data** or press **F5** (as long as the parameters panel is the active one).*

About Scheduling Operations Reports

Why Use This Function?

Once you have established which reports are most useful to your organization, scheduling them ensures that those reports are generated automatically and e-mailed to the appropriate contact. The same report can be scheduled in different ways for different purposes, such as for different recipients or to focus on different groups of information.

For Example Your payroll staff use the Activity report to reconcile driver timesheets, while management uses it to monitor driver behaviour. You can create two schedules for the report, one that generates the report weekly (for payroll) and one that generates it daily (for management). For payroll purposes, you set up the report layout so that the report shows only the asset's activities, the amount of time they took, and the start and end location/POI. For management, you set up the report layout so it also includes total distance and speed.

Once you have created a report schedule, you can run it manually whenever necessary

What is the Default Configuration?

No reports are scheduled by default.

What Do I Need to Understand About Report Scheduling?

Report schedules specify:

- the type of report (e.g. Speeding) to be generated
- the report's parameters (for example, the asset types to be included in the report)
- how much data is to be included in the report
- how frequently the report schedule is to run, at what time it is to run, and who should get the results
- the report layout (what columns of data are shown, how data is ordered, and how data is grouped and organized)
- the report format (PDF, Excel, etc.)

Note that scheduled reports will be deleted if the security profile of the user who scheduled them is deleted.

We Recommend *Before you schedule reports, experiment with manually generated report results to determine the most useful output for the report recipient. Only those columns shown in the scheduled report's layout will be available to the report recipient.*

Scheduled report results are e-mailed in zip files. Recipients will need access to an "unzip" application and to the application appropriate for the report's format, such as Acrobat Reader or Excel, to view the reports.

Available Operations Reports

Fleet Reports

Use this report...	If you want to see...
Activity	the details of asset activities (for example, to compare the report results with submitted worksheets, or for general resource management)
Asset Temperature	that the temperature of the asset remained appropriate throughout its journey (for example, when transporting medical supplies or livestock)
Congregation	when more than one asset was at the same location at the same time (for example, to identify potential duplicate efforts such as two individuals being at the same supplier; to identify possible inappropriate gatherings of multiple individuals)
Curfew	if assets were at a POI outside the POI's specified working hours (for example, to ensure assets are arriving at supplier offices only when those offices are open)
Distance	the distance an asset travelled within a province/state on a particular day, including distance driven on private roads
DTC	DTC details for assets with an ECM device
Event	when an *event* was triggered (for example, when an asset experienced harsh braking or exceeded the speed limit by 15%)
Fleet Performance	a measurement of asset performance based on events (total number of events per asset and an overall weighted score using event rankings)
Idle	how often and for how long assets were *idle*
Input	details of sensors (for example, when an asset's snowplow was up or down at a customer location)
Last Position	last snapshot time and location of assets

Use this report...	If you want to see...
Maintenance	the full history of maintenance items (for example, what maintenance has been performed on your delivery vans in the past six months so service bills can be reconciled)
Messages	two-way communication exchanges with MDT-enabled assets/resources
Non-Transmit	which assets were offline (for example, to identify any recurring problems with devices)
POI	interactions that assets had with specific categories of POIs (for example, to see when assets were at client sites during their work schedule)
Position	every snapshot taken for assets during specified times
PTO Usage	details of a PTO's usage
Speeding	the speed an asset travelled, or the speed in excess of the posted speed limit an asset travelled if a rule was defined for this situation, you can also use the Event report for this purpose
Stop	when an asset was stopped for a specific length of time (for example, to see if assets remain at warehouses longer than desired) — for assets with valid ignition states
Time Card	work, break, and login/logout times for resources
Trip	details of an asset's trips (for example, how long it took the asset to get to a specific address), based on time between ignition on and ignition off
Unknown Movement	when there is questionable activity of an asset
Unvisited POIs	the last time a POI was visited
Who Was There	what asset was at a particular location at a particular time
Work Schedule	when first ignition on and last ignition off took place in relation to assets' current work schedule

Operations Report Functions

Setting System Options

1. On the ribbon toolbar or main menu, click **System > Options**.
   The System Options screen opens.

2. Choose your company's **Year End** and press Tab: the quarterly dates are completed automatically.

3. Enter the distance to be used when generating Management reports: for example, if you enter a **Distance Break** of 200 km, the report will calculate the average number of events that occurred each 200 km and use that calculation to determine averages shown in some reports.

4. Enter values for each of the three **Speed Windows** shown on the dashboard.

5. Enter the **Event Rank** for each of the possible events (Speeding, Racing, Idle, Braking, Acceleration, Cornering, Open Maintenance Item) to determine the weight each has in relevant Management reports, the Fleet Performance report, and on the Dashboard. Performance will be calculated by multiplying the value associated with a parameter by the number of event occurrences for the asset. For example, if the open maintenance items parameter is set to 3, an asset with 5 outstanding maintenance items will have a score of 15.

6. Define, in more granular way, when an asset is considered to be "working". This is used for calculations in Management reports. For example, if a technician gets paid for each service call they make, when they are stopped at any client site, they are considered to be working.

7. Click **Save & Close**.

Note: Management reports are a beta feature.

Scheduling Operations Reports

Be sure you are familiar with the overall concepts of report scheduling before proceeding.

1. On the ribbon toolbar or main menu, click **Reports > Report Schedules**. The Reports Schedules screen opens, showing the schedules you have configured.

2. Click **Add**, choose a type of report (Fleet), then choose a report. (For example, **Add**> **Fleet** > **Speeding**.)
   The Report Schedule screen opens, showing the parameters available for that specific report, the fields to be used to define the report schedule, and a layout area.
   Show Example

3. Choose the parameters as you would for a manually-produced report.

   Note: The report period is not available as a parameter, since the report's period is determined by the schedule.

4. Enter a **Description** (name) for the report.

5. Set how frequently you want the report to be generated (every day, every weekday, or only on a specific day each week).

6. Enter the e-mail addresses of the report recipients.

7. Choose the **Export Format** appropriate for the data and recipient.

   Note: Report outputs of all formats will be e-mailed in a zip file.

8. Choose the reporting period:

This period...	Includes data from...
current date	midnight of the current day to the time when the report is scheduled to run
current week	midnight of Sunday of the current week to the time and day when the report is scheduled to run
previous full day	previous day
previous full week	Sunday midnight to Saturday 23:59 of previous week
previous 7 days	previous 7 days
last XX hours	the last XX hours, regardless of day

For Example *A report is scheduled to run at 2 p.m. on Wednesday, January 20.*

If the reporting period is...	The report covers data from...	To...
Current date	Midnight Jan. 20	2 p.m. Jan. 20
Current week	Midnight Jan. 17	2 p.m. Jan. 20
Previous full day	Midnight Jan. 19	11:59 p.m. Jan. 19
Previous full week	Midnight Jan. 10	23:59 Jan. 16
Previous 7 days	2 p.m. Jan. 13	2 p.m. Jan. 20
Last 24 hours	2 p.m. Jan. 19	2 p.m. Jan. 20

9. Choose the **Time** (and time zone) when the report should run. If generating reports for use by clients who are in other time zones, be sure to set the time zone to that of the client. This ensures that reports are delivered in accordance to the client's working time.

10. Choose the **Language** to be used for the report output and the e-mail body.

11. Use the Layout section to set up the report output as you want it to appear to the recipient(s).

12. Click **Save & Close**.

    You can also use this screen to see:

    - The history (when the schedule ran and its results) of the report schedule.
    - Which users made changes to the report schedule and what those changes were (Audit tab).

Suspending and Releasing Report Schedules

Be sure you are familiar with the overall concepts of report scheduling before proceeding.

1. On the ribbon toolbar or main menu, click **Reports > Report Schedules**. The Reports Schedules screen opens, showing the schedules you have configured.

2. Open a report schedule by double-clicking on it, or select it and click **Edit**.
    The Report Schedule screen opens.

3. To suspend the report schedule, check **Suspended**.
    To release a suspended report schedule, clear **Suspended**.

4. Click **Save & Close**.

Running Scheduled Reports on Demand

Be sure you are familiar with the overall concepts of report scheduling before proceeding. Reports produced using this feature will use the parameters (recipient, report period, report format, etc.) configured for the scheduled report.

1. On the ribbon toolbar or main menu, click **Reports > Report Schedules**. The Reports Schedules screen opens, showing the schedules you have configured.

2. Select a report schedule and click **Run Now**.

3. The report runs immediately.

Note: The report will continue to run at its normal scheduled time.

Using the Reports Dashboard

On the ribbon toolbar or main menu, click **Reports > Dashboard**.

The Report Dashboard shows real-time graphical data that can be useful to monitor. You can control which types of data appear and how much data is shown.

By default:

- The top 10 items are shown, although you can choose a different number from the **Top** list to show more (maximum of 25) or fewer items.

- Data for today (the current 24 hours) is shown, although you can choose to show historic data (up to the previous full month) by choosing from the **Period** list. Only data gathered during the asset's work schedule is shown.
- Information is reported by asset (to report by resource, click **Options**, then choose **Resource** from the Report On list).

You can configure the Report Dashboard to show just the information that most interests you. Available information includes:

- High Speed Incident Counts
- Speed Windows (maximum speed per window set in system options)
- Fleet Performance
- Distance Travelled
- Moving Time
- *Idle* Duration
- PTO Time
- Least Fuel Efficient
- POI Visits

To rearrange panels, drag and drop them to the appropriate locations on the dashboard.

To show different types of information:

1. Right-click on a graph header (not the data area) on the Dashboard and choose **Customize layout**. The Customization screen opens.
2. Drag panels of the Dashboard to the Customization screen to remove them from the Dashboard.
   Drag panels from the Customization screen to the position where you want them to appear on the Dashboard.

To choose the unit of measurement for the display, click **Options**, then choose Metric or Imperial.

To set the frequency with which the display automatically refreshes, click **Options**, then enter a value (between 1 and 60 minutes). By default the display does not automatically refresh, although you can manually refresh it by clicking 🔄 .

Using the Report Visualizers

The Input, Position, and PTO Usage reports each include a Visualizer that shows the full report output on a map for up to 10 assets.

To use a Visualizer, from the report output click **Visualizers** and choose the appropriate Visualizer.

For the Input report, the Visualizer shows a map with a flag representing each location where the input status of the selected asset(s) changed.

For the Position report, the Visualizer shows the travel of each selected asset during the reporting interval. If the report includes multiple days, each day's data is shown with the same colour.

For the PTO Usage report, the Visualizer shows where the sensor had a state change during the reporting period, what the change was, and its time and duration.

The Visualizers use the regular map controls.

Use the checkboxes to show data for any or all of the selected assets.

To show *POIs* on the map display, click **Show POI**.

To show custom layers on the map display, click **Custom Layers**.

To print the Visualizer output, click **Print**.

Viewing Report Data on a Map

Once you have generated a report, select any row of the report input and click **Show on Map**

or double-click on any row. A map window, showing the selected data point as a pin   ,
opens. This window uses the regular map controls. For Input and PTO Usage reports, both
start and end locations are also flagged. For the PTO Usage report, all points between the start
and end locations have a red circle with a direction arrow (indicating the direction of the
snapshot), where a direction can be determined.

Note: This feature is not available for all reports.

Working with Report Output

Report output appears in a grid. You can work with this grid as with the other grids in Fleet
Complete. Some of the most useful grid functions for report purposes are outlined here. These
techniques can be used for both manually generated and scheduled reports. The format for a
manually generated report does not apply to the scheduled version of that report.

Once you have set up the report output for a specific report (manually generated or
scheduled), your choices will be retained and used any time the report is generated again in
the same manner.

Grouping Data

For many reports, you will find it useful to group the output by asset type and asset. For
example, an Activity report generated for multiple assets shows a row for each asset activity
performed by each asset, which can make the report quite lengthy. To make it easier to view
the report, you can group by asset type and asset: drag those columns to the "group by"
header.

Show Results
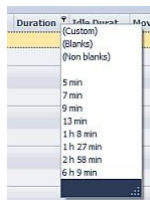
Filtering Data

For all reports, you can focus the view by filtering data: click the   in the column header
and choose the item you want to filter by. For example, you can use this function to show just
specific asset activities in the Activity report.

Show Results

Because the grid for scheduled reports does not show any data (data is filled in when the
report is generated), the filter list is more limited in the report schedule screen. However, you
can click the   and choose **(Custom)** to create a custom filter.

Hiding Columns

Some columns may not be relevant for your reporting purposes and can be hidden by right-clicking and choosing **Remove This Column**. Typical uses for this are:

- to hide the column showing units of measurement (for example, miles, mph) not relevant for your organization
- to hide columns made redundant by your reporting parameter choices (for example, if you select a category when running the POI report)

Fleet Reports

Activity Report

What the Report Shows

For each selected asset, shows the asset's activity information during the reporting interval, including:

- name of the asset's activity, when it started and ended, and how long it lasted
- amount of time the asset was *idle* or moving while performing the activity
- asset's average and maximum speed while performing the activity
- total distance the asset travelled during the activity
- start and end location (address) of the activity
- start and end POI (if any) of the activity — to report specifically on POI interaction, use the POI Report
- start and end LSD (if any) of the activity
- latitude and longitude of the start of the activity
- whether the activity occurred during the asset's work schedule
- whether the asset's GPS was valid at the time of the activity
- run, resource/crew, and related asset to which the asset was *assigned* during the activity
- values of any custom fields for the asset at the time of the activity

How to Generate the Report

1. On the Reports — Operations screen, click **Report > Fleet > Activity**.
2. From the top list, choose whether you want to report on **Assets** or **Asset Types**.
3. Select one or more assets (or asset types) to be included in the report.
4. Choose the date range for the report.
5. Choose whether the report should include all data, just data collected during the work schedule of the asset(s), or just data collected outside the work schedule of the asset(s).
6. By default, the report includes only ignition on/off. To include data for inputs, check **Include Input States**.
7. Choose the **Minimum Duration** an activity needed to last in order for it to be included in the report.

    We Recommend Choose a duration that will ensure only meaningful activities are captured, for example, those that lasted longer than two minutes. Note that doing this will not filter out ignition on/off states, since those are always immediate.
8. Click **Get Data**. The report appears in a grid on the right.

    If necessary, you can click **Cancel** to stop the report generation process. This is useful if you realize you need to refine your report parameters before the report finishes generating.

Asset Temperature Report

This report requires the asset to have a temperature sensor.

What the Report Shows

For each selected asset, shows the reading, during each snapshot throughout the reporting period, of each temperature *sensor* associated with the asset.

How to Generate Report

1. On the Reports — Operations screen, click **Report > Fleet > Asset Temperature**.
2. From the top list, choose whether you want to report on **Assets** or **Asset Types**.
3. Select one or more assets (or asset types) to be included in the report.
4. Choose the date and time range for the report.
5. Choose whether the report should include all data, just data collected during the work schedule of the asset(s), or just data collected outside the work schedule of the asset(s).
6. Click **Get Data**. The report appears in a grid on the right.

   If necessary, you can click **Cancel** to stop the report generation process. This is useful if you realize you need to refine your report parameters before the report finishes generating.

Congregation Report

What the Report Shows

For any location where more than one asset was in close proximity to other assets during the reporting period (maximum 7 days), shows:

- number of assets within the buffer zone around the location
- start, end, and total time more than one asset was at the location at the same time
- identifying information about the location (latitude, longitude, address, and *POI*, if any)

The details of each row show:

- which assets were present at that location (and their type)
- start, end, and total time each asset was at the location
- run, resource/crew, and related asset to which the asset was *assigned* at the time
- values of any custom fields for the asset

How to Generate Report

1. On the Reports — Operations screen, click **Report > Fleet > Congregation**.
2. From the top list, choose whether you want to report on **Assets** or **Asset Types**.
3. Select at least two assets (or asset types) to be included in the report.

   We Recommend Choose a limited number of assets to speed up report generation.
4. Choose the date range for the report (no more than 7 days).
5. Choose whether the report should include all data, just data collected during the work schedule of the asset(s), or just data collected outside the work schedule of the asset(s).
6. Choose the size of the **Buffer** around the location: this identifies the "congregation" area.

   We Recommend Use a buffer appropriate for the environment. For example, in a dense urban environment, too large a buffer might result in assets that were in different locations for different purposes being considered "congregated" at the same location.
7. Click **Get Data**. The report appears in a grid on the right.

If necessary, you can click **Cancel** to stop the report generation process. This is useful if you realize you need to refine your report parameters before the report finishes generating.

*Note: To see report results for a line item on the map, click **Show on Map**.*

Curfew Report

What the Report Shows

For the interaction of each selected asset and any POI, outside the POI's working hours and during the reporting period, shows:

- name of the POI where the asset was during the reporting period
- time at which the interaction occurred — if the curfew violation was "arrived late", this is the time/date the asset arrived at the POI; if "departed early", this is the time/date the asset left the POI
- "curfew time" for the POI — if the curfew violation was "arrived late", this is the time/date the POI was open; if "departed early", this is the time/date the POI was closed (based on the POI's working hours)
- type of curfew violation ("arrived late" or "departed early")
- run, resource/crew, and related asset to which the asset was *assigned* during reporting period

How to Generate Report

1. On the Reports — Operations screen, click **Report > Fleet > Curfew**.
2. From the top list, choose whether you want to report on **Assets** or **Asset Types**.
3. Select one or more assets (or asset types) to be included in the report.
4. Choose the date range for the report.
5. Enter the length of the **Grace Period** granted to assets in determining if they are early or late.

   For Example If you set a grace period of 15 minutes, an asset can be at a POI 15 minutes before it opens, or 15 minutes after it closes, without being considered to have a curfew violation.
6. Choose whether the report should include all data, just data collected during the work schedule of the asset(s), or just data collected outside the work schedule of the asset(s).
7. Choose the **POI Category** to which POIs must belong to appear in the report.
8. Click **Get Data**. The report appears in a grid on the right.

   If necessary, you can click **Cancel** to stop the report generation process. This is useful if you realize you need to refine your report parameters before the report finishes generating.

Distance Report

What the Report Shows

For each selected asset that has asset activity during the reporting period, shows distance travelled by date and location (province/state), including:

- length of time the ignition and PTO were on
- total distance travelled within a province/state each day
- distance travelled on private roads
- run, resource/crew, and related asset to which the asset was assigned during the reporting period
- custom fields related to the asset

How to Generate Report

1. On the Reports— Operations screen, click **Report > Fleet > Distance**.
2. From the top list, choose what you want reported: assets, runs, related assets, resources/crews, or asset or resource types.
3. Select one or more items to be included in the report.
4. Choose the date range for the report.
5. Choose whether the report should include all data, just data collected during the work schedule(s) of the asset(s), or just data collected outside the work schedule(s) of the asset(s).
6. Click **Get Data**. The report appears in a grid on the right.

   If necessary, you can click **Cancel** to stop the report generation process. This is useful if you realize you need to refine your report parameters before the report finishes generating.

DTC Report

What the Report Shows

This report requires that assets have an *ECM* device.

For each selected asset that had a Diagnostic Trouble Code (DTC) detected during the reporting period, shows:

- asset name and type
- resource and related asset to which the asset was *assigned* during reporting period
- DTC's description and code
- date and time the DTC was detected
- number of times the DTC was detected during reporting time
- values of custom fields

Expand a record to show DTC details, such as the speed at which the asset was travelling, air pressure, oil temperature, etc.

How to Generate Report

1. On the Reports — Operations screen, click **Report > Fleet > DTC**.
2. From the top list, choose whether you want to report on **Assets** or **Asset Types**.
3. Select one or more assets (or asset types) to be included in the report.
4. Choose the date range for the report.
5. Choose whether the report should include all data, just data collected during the work schedule of the asset(s), or just data collected outside the work schedule of the asset(s).
6. Click **Get Data**. The report appears in a grid on the right.

Event Report

What the Report Shows

This report requires that rules be configured.

For each selected asset, shows details about each *event* that occurred in the reporting interval, including:

- name of the event, when it started and ended, and when it was triggered
- name of the *sensor* that was triggered and its value during the event
- duration of the event
- speed of the asset at the time of the event and the posted speed limit in force at that time
- where the event took place — start and end location, start and end POI (if any), start and end LSD (if any), latitude and longitude of both start and end location

- whether the event occurred during the asset's *work schedule*
- whether there was a valid GSP reading at the time of the event
- run, resource/crew, and related asset to which the asset was *assigned* during the event
- values of custom fields for the asset

How to Generate Report

1. On the Reports — Operations screen, click **Report > Fleet > Event**.
2. From the top list, choose whether you want to report on **Assets** or **Asset Types**.
3. Select one or more assets (or asset types) to be included in the report.
4. Choose the date range for the report.
5. Choose whether the report should include all data, just data collected during the work schedule of the asset(s), or just data collected outside the work schedule of the asset(s).
6. Click **Get Data**. The report appears in a grid on the right.

   If necessary, you can click **Cancel** to stop the report generation process. This is useful if you realize you need to refine your report parameters before the report finishes generating.

   *Note: To see report results for a line item on the map, click **Show on Map**.*

Fleet Performance Report

What the Report Shows

Displays the number of events that occurred for the asset(s), and the number of maintenance items open for those assets, during the reporting interval. Also calculates an overall score for each asset/asset type based on the weighting established in system options.

How to Generate the Report

1. On the Reports — Operations screen, click **Report > Fleet > Fleet Performance**.
2. From the top list, choose whether you want to report on **Assets** or **Asset Types**.
3. Select one or more assets (or asset types) to be included in the report.
4. Choose the date range for the report.
5. Choose whether the report should include all data, just data collected during the work schedule of the asset(s), or just data collected outside the work schedule of the asset(s).
6. Click **Get Data**. The report appears in a grid on the right.

If necessary, you can click **Cancel** to stop the report generation process. This is useful if you realize you need to refine your report parameters before the report finishes generating.

Idle Report

This report applies only to in-vehicle devices with a valid ignition sensor.

What the Report Shows

For each selected in-vehicle device, during the report period, shows:

- vehicle type of asset
- length of the *idle* time (start time, stop time, and duration)
- length of time PTO was ON
- net amount and location of the idle time — address, POI (if any), LSD (if any), latitude and longitude
- whether the idle time occurred during the asset's work schedule
- whether there was a valid GPS reading when idling was detected
- run, resource/crew, and related asset to which the asset was *assigned* during the idle time

How to Generate Report

1. On the Reports — Operations screen, click **Report > Fleet > Idle**.
2. From the top list, choose whether you want to report on **Assets** or **Asset Types**.
3. Select one or more assets (or asset types) to be included in the report.
4. Choose the date range for the report.
5. Choose whether the report should include all data, just data collected during the work schedule of the asset(s), or just data collected outside the work schedule of the asset(s).
6. Enter the **Minimum Idle Time** duration: idle times below this limit do not appear on the report.
7. Click **Get Data**. The report appears in a grid on the right.

   If necessary, you can click **Cancel** to stop the report generation process. This is useful if you realize you need to refine your report parameters before the report finishes generating.

   *Note: To see report results for a line item on the map, click **Show on Map**.*

Input Report

This report applies only to in-vehicle devices with sensors.

What the Report Shows

For every sensor connected to the selected asset within the reporting period, shows:

- vehicle type
- state of sensor
- time the sensor state started and ended and how long the sensor remained in that state
- whether the ignition was on during a sensor state
- location where the sensor started and ended that state — address, POI (if any), LSD (if any), latitude/longitude
- whether the sensor state occurred during the asset's work schedule
- whether there was a valid GPS reading when the sensor state started
- run, resource/crew, and related asset to which the asset was *assigned* during the sensor state
- values of custom fields related to the asset

How to Generate the Report

1. On the Reports — Operations screen, click **Report > Fleet > Input**.
2. From the top list, choose whether you want to report on **Assets** or **Asset Types**.
3. Select one or more assets (or asset types) to be included in the report.
4. Choose the date range for the report.
5. Choose whether the report should include all data, just data collected during the work schedule of the asset(s), or just data collected outside the work schedule of the asset(s).
6. By default, the report includes data only when sensors have been enabled (such as a light beacon powered on). To also include the default input state (such as a light beacon powered off), check **Include Default State**.
7. Click **Get Data**. The report appears in a grid on the right.

   If necessary, you can click **Cancel** to stop the report generation process. This is useful if you realize you need to refine your report parameters before the report finishes generating.

   Note: To see report results for a line item on the map, click Show on Map. The start and end of the input state are shown with flag icons.

In addition to the usual **Show on Map** function, this report also includes a Visualizer which allows you to see on a map where the sensor had a state change.

Last Position Report

What the Report Shows

For each selected asset, during the report period, shows:

- phone number associated with the asset
- asset's status (as shown in the Map Items panel on the Tracking screen)
- date and time the asset reached its last position
- if the asset was moving at the time of the report — the maximum speed of the asset, the posted speed limit in force at its location, the distance the asset had travelled since the ignition was turned on, and the heading (degree) and direction the asset was travelling
- latitude and longitude of the asset's last position
- address of the asset's last position — latitude/longitude, address, POI (if any)
- run, resource/crew, and related asset to which the asset was *assigned* at the time
- *w*hether the GPS was valid at the time of the snapshot
- *LBS* accuracy and description of the asset's last position, if applicable
- LSD of the asset's last position (if any)
- whether the last position was reported during the asset's work schedule
- whether the asset was on a private road
- state of the PTO (if any)
- battery level (level of the power source connected to the device)
- alarm, if any, indicating a code error such as movement with no ignition
- values of any custom fields for the asset

How to Generate Report

1. On the Reports — Operations screen, click **Report > Fleet > Last Position**.
2. From the top list, choose whether you want to report on **Assets** or **Asset Types**.
3. Select one or more assets (or asset types) to be included in the report.
4. Click **Get Data**. The report appears in a grid on the right.

   If necessary, you can click **Cancel** to stop the report generation process. This is useful if you realize you need to refine your report parameters before the report finishes generating.

   *Note: To see report results for a line item on the map, click **Show on Map**.*

Maintenance Report

What the Report Shows

This report requires that maintenance be configured.

For each maintenance item associated with the selected asset or asset type, shows:

- e-mail recipients for the reminder
- cost of the maintenance item
- service schedule of the item
- asset and asset type being maintained
- category of the maintenance
- status of the service
- date the service was completed
- odometer reading and/or operating hours of the asset at the time the service was completed
- when the maintenance item was created
- values of any custom fields for the asset

How to Generate Report

1. On the Reports — Operations screen, click **Report > Fleet > Maintenance**
2. From the top list, choose whether you want to report on **Assets** or **Asset Types**.
3. Select one or more assets (or asset types) to be included in the report.
4. Choose the date range for the report.
5. Click **Get Data**. The report appears in a grid on the right.

   If necessary, you can click **Cancel** to stop the report generation process. This is useful if you realize you need to refine your report parameters before the report finishes generating.

Non-Transmit Report

What the Report Shows

For each asset that failed to transmit data for the specified duration of time, shows information about the last *snapshots* received, including:

- date and time snapshots occurred
- elapsed time since last snapshot
- location — latitude/longitude, POI (if any), address of last snapshot transmission
- whether the GPS was valid during the last transmission
- state of the ignition when the last transmission occurred
- current state of the asset
- LSD (if any)

How to Generate Report

1. On the Reports — Operations screen, click **Report > Fleet > Non-Transmit**.
2. Choose the **Duration** of the non-transmit state: any asset, of any type, that was offline for that number of hours is included in the report.
3. Click **Get Data**. The report appears in a grid on the right.

   If necessary, you can click **Cancel** to stop the report generation process. This is useful if you realize you need to refine your report parameters before the report finishes generating.

   *Note: To see report results for a line item on the map, click **Show on Map**.*

POI Report

What the Report Shows

This report requires that POIs be configured.

For each selected asset and POI, shows:

- POI name, type, and category
- time asset entered ("from" time) and exited ("to" time) the POI
- amount of time asset was *stopped* or *idling* while at the POI
- duration of time the asset spent in the POI
- run, resource/crew, and related asset to which the asset was *assigned* during the reporting period
- values of any custom fields associated with the asset and/or POI

How to Generate Report

1. On the Reports — Operations screen, click **Report > Fleet > POI**.
2. From the top list, choose whether you want to report on **Assets** or **Asset Types**.
3. Select one or more assets (or asset types) to be included in the report.
4. Choose the date range for the report.

5. Choose whether the report should include all data, just data collected during the work schedule of the asset(s), or just data collected outside the work schedule of the asset(s).

6. Choose the **POI Category** to determine which POIs appear in the report.

7. Enter the **Minimum Duration** (in minutes) that an asset needed to have been inside the POI in order to be included in the report.

8. Click **Get Data**. The report appears in a grid on the right.

   If necessary, you can click **Cancel** to stop the report generation process. This is useful if you realize you need to refine your report parameters before the report finishes generating.

   Note: To see report results for a line item on the map, click **Show on Map***.*

Position Report

What the Report Shows

For each selected asset, asset type, run, resource/crew, or resource type, shows each *snapshot* of data taken during the reporting period, including:

- asset and asset type
- vehicle type
- date and time of *snapshot*
- asset's maximum speed during the snapshot
- posted speed limit during the *snapshot*
- distance travelled since the previous snapshot
- asset's heading and direction
- address where asset was at time of snapshot — latitude/longitude, POI (if any), address, LSD (if applicable)
- run, resource/crew, and related asset to which the asset was *assigned* during the snapshot
- whether the GPS was valid during the snapshot
- state of ignition at the time of the snapshot
- accuracy of *LBS*, if applicable
- state of ignition and PTO (if any) at the time of the snapshot
- reason code
- whether the snapshot occurred during the asset's work schedule
- whether the asset was on a private road
- values of the asset's sensors
- strength of GPS signal
- odometer reading
- current (from reported snapshot) and previous (from previous snapshot) asset status
- values of any custom fields for the asset(s) and resource(s)

How to Generate Report

1. On the Reports — Operations screen, click **Report > Fleet > Position**.

2. From the top list, choose what you want reported: assets, runs, related assets, resources/crews, or asset or resource types.

3. Select one or more items to be included in the report.

4. Choose the date range for the report.

   We Recommend Since this report shows every snapshot for the selected assets in the reporting period, use a relatively short date range to speed up report generation. If you plan to use the Visualizer, we suggest you restrict the report to a single day, since data is not differentiated by day on the Visualizer.

5. Choose the time range for the report.

6. Choose whether the report should include all data, just data collected during the work schedule(s) of the asset(s), or just data collected outside the work schedule(s) of the asset(s).

7. If you want the report to contain only data collected during the specified times (for the selected date range), click **Time Slice**. Otherwise the report will include data from the 24 hours between the first specified time on the first date to the last specified time on the last date.

   For Example *You run a position report for any workhours with a date range of Monday April 30 to Wednesday May 2, and a time range of 9 am to 5 pm, without the time slice option. The results show data from:*
   Monday 9 am to 11:59 pm
   Tuesday 12:00 am to 11:59 pm
   Wednesday 12:00 am to 5:00 pm

   With the time slice option, the results show data from:
   Monday 9 am to 5 pm
   Tuesday 9 am to 5 pm
   Wednesday 9 am to 5 pm

8. Click **Get Data**. The report appears in a grid on the right.

   If necessary, you can click **Cancel** to stop the report generation process. This is useful if you realize you need to refine your report parameters before the report finishes generating.

   *Note: To see report results for a line item on the map, click **Show on Map**.*

   This report also includes a Visualizer that can be used to see and compare the paths taken by each asset.

PTO Usage Report

This report applies only to in-vehicle devices with PTO sensors.

What the Report Shows

For each selected asset, and each PTO sensor associated with that asset, within the reporting period, shows:

- asset name and type
- state of PTO sensor
- vehicle type
- time the PTO sensor state started and ended and how long the sensor remained in that state
- state of ignition
- location where the sensor started and ended that state — address, POI (if any, LSD (if any), latitude/longitude
- whether the sensor state occurred during the asset's work schedule
- whether the GPS was valid when the PTO state started
- run, resource/crew, and related asset the asset was *assigned* to during the state change

How to Generate the Report

1. On the Reports — Operations screen, click **Report > Fleet > PTO Usage**.
2. From the top list, choose whether you want to report on **Assets** or **Asset Types**.
3. Select one or more assets (or asset types) to be included in the report.
4. Choose the date range for the report.
5. Choose whether the report should include all data, just data collected during the work schedule of the asset(s), or just data collected outside the work schedule of the asset(s).

6. Choose whether or not to include just **PTO ON** states. If the option is checked, the report shows only durations where the PTO state was "ON". If cleared, the report will show both ON and OFF durations (on separate lines).

7. Choose whether or not the report should break the PTO state duration based on ignition state, showing a separate line each time the ignition state changes. If this option is cleared, the report will not show an ignition state value.

8. Click **Get Data**. The report appears in a grid on the right.

   If necessary, you can click **Cancel** to stop the report generation process. This is useful if you realize you need to refine your report parameters before the report finishes generating.

   Note: To see report results on the map, click Show on Map. The start and end of the input state change are shown with flag icons.

   In addition to the usual **Show on Map** function, this report also includes a Visualizer which allows you to see on a map where every sensor had a state change during the reporting period.

Speeding Report

What the Report Shows

For any asset with an in-vehicle device that exceeded the posted speed limit or a specified speed during the reporting interval, shows:

- start and end time of speeding occurrence
- duration of speeding occurrence
- address at which the occurrence began
- maximum and average speed reached for the duration of the occurrence
- posted speed limit at the time the occurrence began
- POI, if any, where the occurrence began
- LSD, if any, where the occurrence began
- latitude/longitude where the speeding began
- whether the speeding began during the asset's work schedule
- whether the GPS was valid at the time the occurrence began
- run, resource/crew, and related asset to which the asset was *assigned* during the asset's activity

How to Generate Report

1. On the Reports — Operations screen, click **Report > Fleet > Speeding**.
2. From the top list, choose whether you want to report on **Assets** or **Asset Types**.
3. Select one or more assets (or asset types) to be included in the report.
4. Choose the date range for the report.
5. Choose whether the report should include all data, just data collected during the work schedule of the asset(s), or just data collected outside the work schedule of the asset(s).
6. Choose the speeding level that warrants an asset being included in the report:
   - travelling at or over a specific speed
   - travelling in excess of the posted speed limit by a value (km/h or mph) or a percentage.
7. Click **Get Data**. The report appears in a grid on the right.

   If necessary, you can click **Cancel** to stop the report generation process. This is useful if you realize you need to refine your report parameters before the report finishes generating.

   *Note: To see report results for a line item on the map, click **Show on Map**.*

Stop Report

This report applies only to in-vehicle devices with a valid ignition sensor.

What the Report Shows

For the selected asset and reporting interval, shows:

- the vehicle type
- when the stop began and ended, and its duration
- *idle* duration, if applicable
- the location of the stop — address, POI code (if any), LSD (if any), latitude/longitude
- whether the stop occurred during the asset's work schedule
- whether the GPS was valid when the stop began
- run, resource/crew, and related asset to which the asset was *assigned* during the stoppage
- values of custom fields during the reporting interval

How to Generate Report

1. On the Reports — Operations screen, click **Report > Fleet > Stop**.
2. From the top list, choose whether you want to report on **Assets** or **Asset Types**.
3. Select one or more assets (or asset types) to be included in the report.
4. Choose the date range for the report.
5. Choose whether the report should include all data, just data collected during the work schedule of the asset(s), or just data collected outside the work schedule of the asset(s).
6. Choose the minimum length of time the asset needs to be stopped to appear in the report.
7. To have data include stops with engine running, check **Ignore Ignition State**.
8. Click **Get Data**. The report appears in a grid on the right.

   If necessary, you can click **Cancel** to stop the report generation process. This is useful if you realize you need to refine your report parameters before the report finishes generating.

   *Note: To see report results for a line item on the map, click **Show on Map**.*

Time Card Report

What the Report Shows

For each resource/*crew* on each working day in the reporting period, shows:

- configured work schedule
- login and logout time
- number of breaks taken
- total amount of time on breaks
- amount of time working
- resource type

If a resource switched devices during the reporting period, their logout from one device and login to another are both shown.

How to Generate Report

1. On the Reports — Operations screen, click **Report > Fleet > Time Card**.
2. From the top list, choose whether you want to report on **Resources/Crews** or **Resource Types**.
3. Select one or more resources/crews (or resource types) to be included in the report.
4. Choose the date range for the report.
5. Click **Get Data**. The report appears in a grid on the right.

If necessary, you can click **Cancel** to stop the report generation process. This is useful if you realize you need to refine your report parameters before the report finishes generating.

Trip Report

This report applies only to in-vehicle devices with a valid ignition sensor.

What the Report Shows

For the selected asset/type and reporting period, shows:

- vehicle type
- time ignition went on and off
- time asset moved and stopped
- amount of delay between ignition on and moving
- amount of *idle* time during the trip
- amount of moving time during the trip
- average and maximum speed of asset during the trip
- total distance travelled during trip
- duration of trip from ignition on to ignition off
- start and end location of trip — address, latitude/longitude, POI, POI code (if any), LSD (if applicable)
- whether the trip occurred during the asset's *work schedule*
- whether the GPS was valid at the start and end of the trip
- run, resource/crew, and related asset to which the asset was *assigned* during the trip
- if the asset is equipped with an *ECM* device, the fuel economy rating for the trip
- the values of any custom fields for the asset

How to Generate Report

1. On the Reports — Operations screen, click **Report > Fleet > Trip**.
2. From the top list, choose whether you want to report on **Assets** or **Asset Types**.
3. Select one or more assets (or asset types) to be included in the report.
4. Choose the date range for the report.
5. Choose whether the report should include all data, just data collected during the work schedule of the asset(s), or just data collected outside the work schedule of the asset(s).
6. Click **Get Data**. The report appears in a grid on the right.

   If necessary, you can click **Cancel** to stop the report generation process. This is useful if you realize you need to refine your report parameters before the report finishes generating.

   *Note: To see report results for a line item on the map, click **Show on Map**.*

Unknown Movement Report

What the Report Shows

For the selected asset or asset type, during the specified dates, shows:

- distance travelled
- whether or not the GPS was valid at the time of the movement
- reason code in effect during the reporting interval
- elapsed time

How to Generate Report

1. On the Reports — Operations screen, click **Report > Fleet > Unknown Movement**.
2. Select one or more assets (or asset types) to be included in the report.
3. Choose the date range for the report.

4. Choose whether the report should include all data, just data collected during the work schedule(s) of the asset(s), or just data collected outside the work schedule(s) of the asset(s).

5. Click **Get Data**. The report appears in a grid on the right.

   If necessary, you can click **Cancel** to stop the report generation process. This is useful if you realize you need to refine your report parameters before the report finishes generating.

   *Note: To see report results for a line item on the map, click **Show on Map**.*

Unvisited POIs Report

What the Report Shows

This report requires that POIs be configured.

For each POI in the selected category and date range, shows:

- asset/asset type that last visited the POI
- POI name, type, and category
- date/time POI was last visited

How to Generate Report

1. On the Reports — Operations screen, click **Report > Fleet > Un-visited POIs**.
2. Choose the date range for the report.
3. Choose the **POI Category** to determine which POIs appear in the report.
4. Click **Get Data**. The report appears in a grid on the right.

   If necessary, you can click **Cancel** to stop the report generation process. This is useful if you realize you need to refine your report parameters before the report finishes generating.

Who Was There Report

What the Report Shows

For the specified location, during the specified dates, shows:

- what assets were at that location, and their type
- date and time the asset was at that location
- latitude and longitude of the asset at that time
- run, related assets, and resource *assigned* to the asset at the time

How to Generate Report

1. On the Reports — Operations screen, click **Report > Fleet > Who Was There**.
2. Choose the date range for the report.
3. Choose whether the report should include all data, just data collected during the work schedule(s) of the asset(s), or just data collected outside the work schedule(s) of the asset(s).
4. Enter the **Latitude/Longitude**, or **Address/LSD** of the location.
5. Enter the **Buffer**: an asset will be considered to have been at the location if it is within this buffer.
6. Click **Get Data**. The report appears in a grid on the right.

   If necessary, you can click **Cancel** to stop the report generation process. This is useful if you realize you need to refine your report parameters before the report finishes generating.

   *Note: To see report results for a line item on the map, click **Show on Map**.*

Work Schedule Report

What the Report Shows

For the specified assets and date range, shows:

- resource/crew *assigned* to the asset at the time
- asset type
- date and day of week of the schedule
- total length of time the ignition was on during the work scheduled day
- PTO duration during the work schedule day
- scheduled start and end times to the work schedule on that day
- when the asset's ignition was first turned on that day, and if that occurred within the work schedule
- when the asset first moved on that day, and if it occurred within the work schedule
- amount of *idle* time from first ignition to first movement
- whether the asset's movements started during the work schedule
- elapsed time between the scheduled start and the first movement of the asset
- when the asset's ignition was last turned off that day, and if it occurred within the work schedule
- resource/crew, run, and related assets associated with the asset at the time
- location (address, POI, if any) where the asset first started the ignition on the work scheduled day
- total distance the asset travelled during the work scheduled day
- total asset costs incurred during the work schedule day — calculated as the hourly cost of the asset (number of hours between first ignition on and last ignition off multiplied by the hourly cost of the asset's vehicle type) plus the mileage cost of the asset (total distance travelled multiplied by the mileage cost of the asset's vehicle type)
- total resource costs incurred during the work schedule day — calculated as the number of hours between first ignition on and last ignition off, multiplied by the resource's hourly cost (if any)
- total idle time (total time between first ignition on and last ignition off) during the work schedule day
- net idle time (total idle time minus the idle time that occurred while PTO was ON) during the work schedule day
- values for custom fields during the report date range

Note: This report reflects the current work schedules for assets. If the work schedule has changed, data from before the change will not be represented.

For Example During the month of July, assets of the type "day shift" had a work schedule of 9:00 am to 4:00 pm. In August, it was decided to expand the work schedule to include the half hour before and after work. If a report is run for both July and August, the report schedule calculation will be based on the current schedule (Monday to Friday 8:30 am to 4:30 pm) rather than the schedule in effect when the data was collected.

How to Generate Report

1. On the Reports — Operations screen, click **Report > Fleet > Work Schedule**.
2. From the top list, choose whether you want to report on **Assets** or **Asset Types**.
3. Select one or more assets (or asset types) to be included in the report.
4. Choose the date range for the report.
5. Click **Get Data**. The report appears in a grid on the right.

   If necessary, you can click **Cancel** to stop the report generation process. This is useful if you realize you need to refine your report parameters before the report finishes generating.

WORKING WITH MANAGEMENT REPORTS (BETA FEATURE)

Background

About the Management Reports Function (Beta Feature)

Why Use This Function?

Management reports provide information that is of particular interest to management, such as resource performance and utilization. These reports are most useful in environments where branching has been configured.

Unlike Operations reports, Management reports show consolidated data that is retained for a contracted period of time.

Note: For this release, Management reports should be considered a beta feature.

What is the Default Configuration?

A full set of Management reports is provided by default.

What Do I Need to Understand About Management Reporting?

Unlike in Operations reports, you do not choose specific assets or resources for Management reports: these reports include data for all assets and resources to which you have access. Report parameters determine the scope of data shown in the report: day, week, month, quarter, fiscal year, or year to date.

Reports can be produced on-demand or can be scheduled.

What Do I Need to Understand About Ranking?

Two management reports (Resource Type Ranking Per Branch Level and Team Driver Ranking Weighted) use the concept of "ranking", which allows you to determine the relative importance of these events:

- Speeding (Speed Limit)
- Racing
- Idle
- Braking (Harsh Braking)
- Acceleration (Rapid Acceleration)
- Cornering (Harsh Cornering)
- Open Maintenance Item

How these events are ranked when displayed in Management reports is defined in the system options.

For Example

In your organization, you are more concerned about your delivery vehicle assets speeding than you are with them idling. As a result, you want each speeding event to count twice as much as each idling event. You configure idling as "1", and speeding as "2". If an asset has 2 idling events and 2 speeding events in the reporting period, their overall score is 6: 2 points for the idling and 2 x 2 for the speeding. An asset with 4 idling events and 2 speeding events has an overall score of 8, whereas an asset with 2 idling events and 4 speeding events has an overall score of 10.

Opening the Management Reports Screen

On the ribbon toolbar or main menu, click **Reports > Management**.
The Reports — Management screen opens.
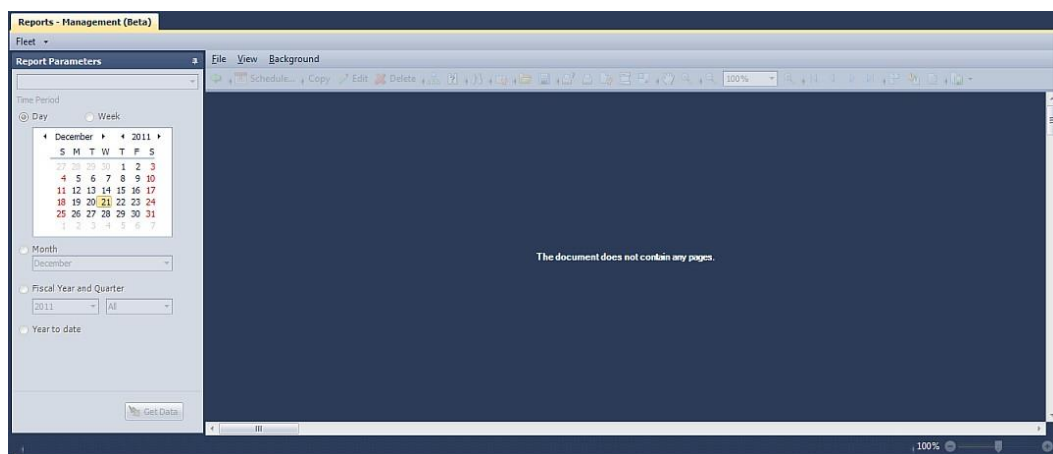
About the Management Reports Screen

The Management Reports screen is made up of the following elements:

- a **Fleet** menu from which you can choose a report
- a Report Parameters panel used to set the report parameters

Note: Once you have set the parameters for one report, Fleet Complete applies those parameters, by default, to all subsequent reports until you exit Fleet Complete.

- the output of the selected report, with a toolbar of formatting options and a button for scheduling generation of the report

*Note: To generate a report, click **Get Data**.*

About Scheduling Management Reports

Why Use This Function?

Once you have established which reports are most useful to your organization, scheduling them ensures that those reports are generated automatically and e-mailed to the appropriate contact. The same report can be scheduled in different ways for different purposes, such as for different audiences or to include different groups of information.

What is the Default Configuration?

No reports are scheduled by default.

What Do I Need to Understand About Report Scheduling?

Report schedules specify:

- how frequently the report is to be generated
- to whom the results should be sent
- in what format the report should be produced (PDF, Excel, etc.)

The data shown in a scheduled report will vary depending on what resource/asset data the recipient can access. For example, a scheduled report received by a district manager who has access to data only for their district will contain different details than that received by a regional manager who has access to data from several districts.

Scheduled report results are e-mailed as attachments to a message which includes information about the current report. The message also tells the recipient when they will receive the next report.

Available Management Reports

Use this report	To...
Asset Utilization	see how efficiently assets are being utilized and compare utilization across asset types
Driver Behaviour Incidents	see which resources or resource types are responsible for events associated with driver behaviour and compare the results to other resources or resource types in the branch/company
Monthly Team Average Summary	compare the performance of individual resource types in each of the selected supervisor's teams to the average for the team on a number of important measures, including driver behaviour events and average shift start/end time
Resource Type Ranking Per Branch Level	compare the performance of resources across the branch/company, using the rankings established, in system options, for different types of events
Resource Utilization	see resource utilization totals for individual resources as well as totals and average for their resource type and team
Team Driver Ranking Weighted	compare the performance of individual resource types and resources in all of the selected supervisor's teams, using rankings established in system options

Asset Utilization Report

Shows, in tabular format, for each asset:

- how much time they were in the field (away from their home base)
- how much time they were working/not working ("working" is defined in system options)
- the distance they travelled (and the associated odometer readings)
- what percentage of the possible time they were utilized
- the maximum number of maintenance items that were open, and the total number that were closed, during the reporting interval

For each asset type, the table shows distance and utilization totals, and averages for all asset values.

Any values that are below the target utilization percentage configured for the asset's vehicle type are highlighted (for assets without a vehicle type, expected utilization is 0%).

The report also shows total and average values for the branch/company.

You can choose to display two additional charts, showing the average utilization of the five least and five most utilized assets in the branch/company.

Driver Behaviour Incidents Report

Shows a table and bar chart representing the total number of harsh braking, harsh cornering, racing, and speeding events that occurred in the branch/company during the reporting interval, and the number attributable to each resource type. Optionally, you can show this data organized by the resource associated with the event.

For each sub-branch, shows:

- a bar chart of the number of events attributable to each resource type
- a pie chart showing the relative proportion of events of different types for the sub-branch
- a pie chart showing the relative proportion of events attributable to each resource type in the sub-branch.

Optionally, you can show this data by resource.

Also includes a table showing the number of each event attributable to each resource, and a bar chart showing the top best and top worse performing resources.

Monthly Team Average Summary Report

For each *team* supervised by the selected supervisor, shows data for each resource type that is part of the team, as well as the average for the team. Data is shown, in a bar chart, for:

- speeding, harsh braking, harsh cornering, rapid acceleration, and racing events per distance (set in system options)
- idle time
- time during which PTO was engaged (if applicable)
- actual shift start and shift end time (not work schedule)

The definition of when a resource is idle and when it has PTO engaged is set in system options.

Resource Type Ranking Per Branch Level Report

Shows data for each resource type in the branch/company, in the following forms:

- a table showing the weighted score (using the rankings set in system options) for each resource type, grouped by sub-branch, and the percentage of distance driven by all resources in the branch that is attributable to that type
- a bar chart showing, for each sub-branch, the weighted score of each resource type on a number of factors, including
  - speeding, harsh braking, harsh cornering, rapid acceleration, and racing events per distance (set in system options)
  - time between shift end and arriving back at home base
  - idle time
  - total of all the reckless driving incidents (shown in earlier bar charts)

Resource Utilization

Shows, in tabular format, for each resource:

- average start time (average time arrived at first stop after *commute* from home) and end time (average time left last stop for commute home)
- the total duration of the resource's work time, travel/stop time, and commute time
- average travel (excluding commute) and stop time
- the total and average trip distance for the resource
- the percentage of the resource's time spent in travel (ratio of travel time to total time in field)
- the total cost of the resource, and the amount attributed to ravel and on site time (on site time is any time not at home base)

Any values that are above the maximum travel duration configured for the resource are highlighted (for resources without a maximum travel duration, expected utilization is 0%).

For each resource type and crew, the table shows the total work duration and cost, as well as the average values for other data.

You can choose to show or hide a pie chart for each resource included in the report, showing a breakdown of their total time in the field (proportion of that time spent in travel, commute, etc.).

Team Driver Ranking Weighted Report

Shows, in chart and tabular format, the weighted score (using the rankings set in system options) for each resource type in the selected team, the percentage of the team's total distance driven attributable to that type, and the number of incidents (events) per configured distance for the type.

Management Reports Functions
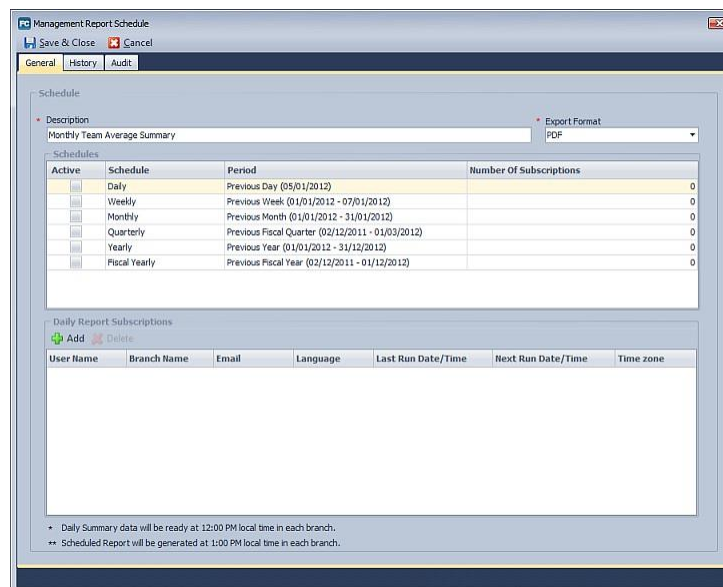
Generating Management Reports

1. On the Management Reports screen, click **Fleet > [name of report]**.
2. If applicable, choose the **Supervisor** whose service groups should be included in the report.
3. Choose the time period for the report.
   - **Day** or **Week** (click on the appropriate day or week in the calendar)
   - **Month** or **Quarters and Year** (choose from the available lists) — quarters are configured in system options
   - **Year to date** (calendar year)
4. Click **Get Data**. The report appears on the right.

Scheduling Management Reports

1. On the Management Reports screen, click **Fleet > [name of report]**.
2. If desired, change the default parameters for the report.
3. Click **Schedule**.
   The Management Report Schedule screen opens.

4. The schedule's **Description** defaults to the name of the report.
5. Choose the **Export Format** to be used for scheduled report output.
6. Choose one or more report schedules (daily, weekly, etc.). Daily scheduled reports will be produced at 12:00 PM local time. All other scheduled reports will be produced at 1:00 PM local time.
7. For each report schedule, choose who should receive the report output (by default, report output is sent to you). To add a recipient, click **Add** and choose a user from the **Add Subscriber** list.

Note: The History tab shows details about when the scheduled report was generated.

Working with Management Report Output

To...	Do this...
choose page size, margins, and orientation for printed report output	choose **File > Page Setup** or click
print the displayed report to a selected printer or to the default printer (QuickPrint)	choose **File > Print** or click (prompted for printer) or (quick print)
export the displayed report to a specific format file (e.g. PDF, text, etc.)	choose **File > Export Document > *file format*** or click
view multiple pages of the report simultaneously	click and choose from the various options or click and choose the appropriate settings
choose to show report output as separate pages or as one continuous scrolling page	choose **View > Page Layout > Facing** or **Continuous**
scroll through the current displayed page(s) of the report	use the scroll bars or click and click on the report output
zoom in or out	use the slider at the bottom right of the screen use the zoom controls 100% click and double-click on the report output (zooms to 100%)
search for text in the report	click and enter the text to be searched for (the area of the report containing the text is highlighted by a box
choose coloured background for the displayed report	choose **Background > Color >** or click and choose from the available colors
add a watermark to the report output	choose **Background > Watermark** or click and specify the characteristics of either a text or picture watermark

Customizing Management Reports

You can customize Management reports to suit your purposes. Once you have generated any report, click **Copy**. You can then modify the report's layout and content, and save it as a new report.

The custom report is listed in the **User Reports** menu (which appears once you have created a custom report).

TROUBLESHOOTING

Contacting Technical Support

To contact Fleet Complete technical support:

- call 1-800-220-0779 extension 2
- email support
- fax to 905-470-9434
- visit our web site — a link to this site is installed with the product (click **Fleet Complete online support** from your Start menu)

When communicating with technical support, please be sure to include in your message:

- your client name and client ID
- who to contact at your organization and how to contact them
- detailed description of the problem, including what you were doing when it occurred
- description of asset involved, if any
- any attempts you have made to resolve the problem

It can also be helpful to provide an exported/printed copy, or a screenshot, of the grid in use when the problem occurred.

Solving Common Problems

Connection Problems

Ensure that the bottom of your Fleet Complete screen indicates that all information is up to date. If it says "disconnected", your system may be offline, or there may be a problem with your internet connection. Try closing Fleet Complete and running it again.

Function Visibility Problems

If you change a user account to allow users to receive alerts or MDT messages, but the user does not see the appropriate window, it may be necessary to Restore Default Settings.

Warning: All customizations will be lost.

Close Fleet Complete and start it again. On the login page, click **Restore Default Settings**. This removes any customization, but leaves data intact. Specifically, it will:

- remove show/hide settings from the Tracking screen map
- remove all groupings and filters from grids (including report output layouts)
- remove labels from all mapped items
- restore the Report Dashboard to default layout

Using a Proxy

If you cannot connect to the remote server when you log in, you may need to configure your proxy server. This needs to be done only once.

1. On the login page, click **Proxy Configuration**.
   The Proxy screen opens.
2. To use your default Windows Internet settings, check **Use Default Credentials**.
   To use a custom proxy, check **Use Custom Proxy Settings** and enter the appropriate **Server** IP address (being sure to include http://) and **Port**.
3. Click **Save**.

GLOSSARY

An **activity** is a simple task (such as a service call or delivery) that a resource does at a specific location.

An **alarm** state occurs when an asset moves with its ignition off, which may indicate an attempted theft — alarms automatically trigger an alert and are shown on the Map Items panel of the Tracking screen.

An **alert** appears (as a pop-up, to any user whose account is set to receive them) whenever an event that includes an alert notification occurs.

An **asset** is an in-vehicle or handheld device that has GPS.

An **asset activity** is any change in ignition or other sensor state, or any GSP-related activity such as stopping, moving, or arriving at/departing a POI.

In Fleet, "**assign**" means "associate" — for example, assets are assigned to asset types.

Branches are an optional feature; if not implemented, all your data is stored under a single company branch.

A **commute** is the time/distance between home base and the first POI of the day, and the time between last POI of the day and home base.

A **contact** is an individual who is not defined as a Fleet Complete user or resource but who you want to keep informed of specific circumstances.

A **crew** is a group of resources.

Custom fields are used to record and display information beyond what is provided by default in Fleet Complete.

Data Conservation Mode (DCM) ensures an asset communicates with Fleet Complete only when necessary; the asset communicates when the ignition is on, during the 12 minutes after it has been turned off, and whenever a significant GPS movement (1000 metres or more) occurs.

A **driver** is another name for a resource.

DTC is Diagnostic Trouble Code.

An **ECM** box is an in-vehicle device that records specialized information (fuel consumption, vehicle health, specific driver behaviours) which is shown in ECM reports.

An **event** occurs when a rule is triggered; events appear in the Events area of the map details panel and in the Event report.

A **driver ID Fob** is a small security tag with built-in authentication, used to identify a resource who is operating an asset that has an in-vehicle device.

A resource or crew's **home base** is the POI where the asset or resource is assumed to begin and end their work day.

Idle is when an asset with an in-vehicle device is still, with the engine running.

LBS (Location Based Service) determines a hand-held asset's location based on cell tower readings.

LSD (Legal or Land Subdivision) is a type of location applicable mostly for Alberta, Canada.

The **main menu** appears when you click .

MDT refers to an external device, such as a Garmin device, that is integrated with Fleet Complete and allows for two-way communication between drivers and Fleet Complete users.

Notification is a collective term for an alert and/or e-mail message.

A **Point of Interest** (POI) is a geographical location of particular interest to your organization, which is identified with a name and, optionally, a code.

PTO (Power Take Off) is a specific input that can indicate the work activity of equipment using an alternate power source (e.g. boom arm on tow truck).

*A **resource** is an individual (not necessarily a Fleet Complete user) who is assigned to an asset for activity, MDT, or driver ID FOB purposes.*

*The **ribbon toolbar** is the toolbar that appears across the top of the interface.*

***Rules** are used to monitor the behaviour of assets and/or the readings of their sensors; when triggered, rules cause an event.*

*A **sensor** is an optional addition to a vehicle's data collection that can identify specific actions related to the vehicle, such as whether a light beacon is on, a security door is open, or a tow arm is up or down.*

*A **service group** is a logical grouping of resources and crews.*

*A **snapshot** is the data collected for an asset, at intervals determined by the asset's device data settings.*

*An asset is "**stopped**" when an asset has a speed of 0 and, for a in-vehicle device, the ignition is off.*

*A **team** refers to all resources/crews who belong to a service group with the same supervisor.*

*A **trip** is the travel of an asset from ignition on to ignition off or, for ECM, from engine on to engine off.*

*An asset's **vehicle type** is used to specify the running costs for the vehicle and its maximum weight; used for reporting.*

*A **work schedule** specifies the hours during which an asset or resource is expected to be working; used to separate personal from working hours for analysis purposes.*

***Working hours** are the hours of operation specified for a POI.*

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