



# W4 Fuel View 4.5 Training Manual



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# 1. Course Objectives

The goal of our Fuel View Software Training Course is to make all W4 Fuel View users proficient within the software so they can carry out their daily tasks efficiently and get the utmost value from Fuel View for their fleet.

- Easily navigate the software
- Learn to use the flexibility of the grid system to improve productivity
- Become proficient in managing Fuel View through the use of the status screen and information provided by the dashboard
- Specific functions required per your responsibilities
- How to use Reports and Transactions

## Teaching Philosophy

This is a hands-on course in which the students interact with the Fuel View software while receiving verbal and written instruction.

## Student Responsibility

The student is responsible to be present during all pre-established instruction periods. This may not mean all instruction periods, but simply the ones which are deemed relevant to that student. Your organization's Project Manager will notify you of which classes you should attend.

The student is also responsible to be interactive within the training class and with the instructor. Studies show that people are more likely to learn if they are actively involved with the course material during the training and instruction period.

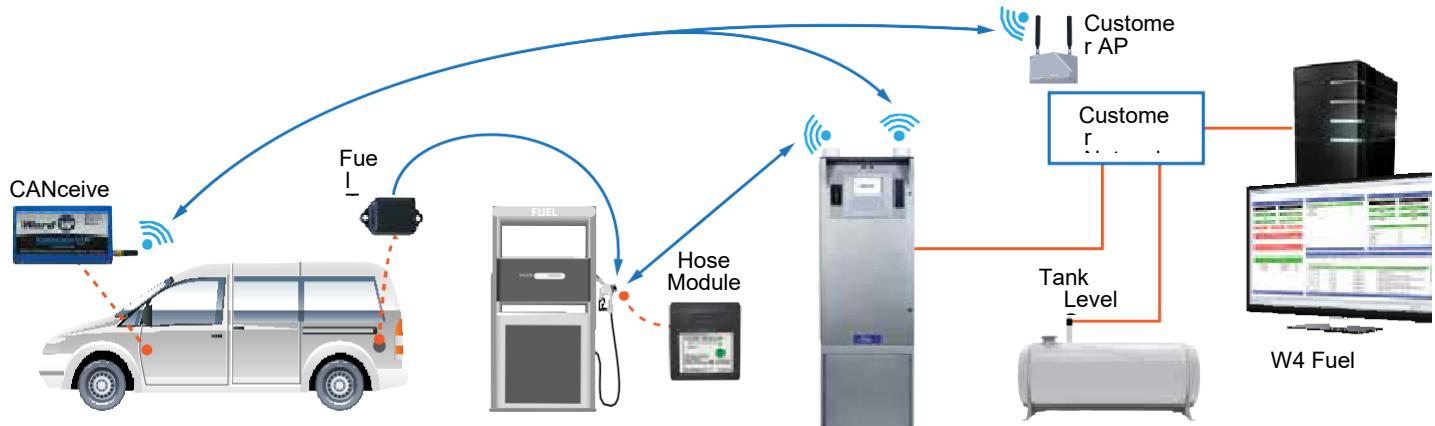
## Required Materials

- Web address (URL) to reach the Fuel View application from your system administrator
- Supported browser configured correctly
- Network access
- Login and password from the fueling system administrator
- Course documentation

 **NOTE:** Fuel View and its features or applications may vary depending on your company's installed version.

## 2. System Overview

### Fueling System Overview



Communication Flow and Data and Management Overview

A typical fueling system consists of the following components: Ward Fuel Control Terminal (FCT)

- Ward
- CANceiver™
- Ward Fuel Tag
- Ward Hose
- Module
- Fuel View™
- Software Vehicles
- Fuel Pumps
- Fuel Storage
- Tanks TLS
- Interface
- Database, Web/Communication
- Server Data Communications
- Network

### Fuel Scripts

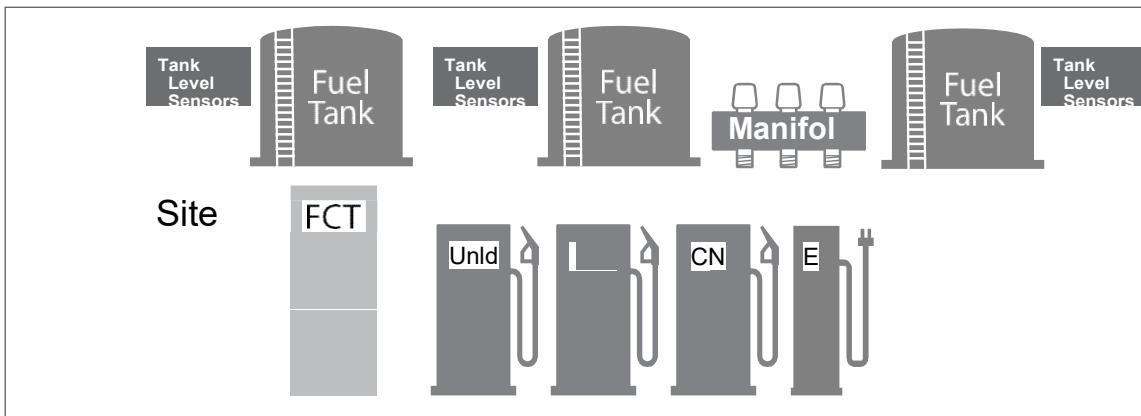
All transactions that are initiated at the FCT require an associated fuel script. Fuel scripts determine the way users interact with the FCT when fueling assets. Based on the business rules and system parameters established within Fuel View, there are multiple types of interaction possible:

- Determine the order for the fueling process
- Define validations that are performed
- Control messages to the user through the display

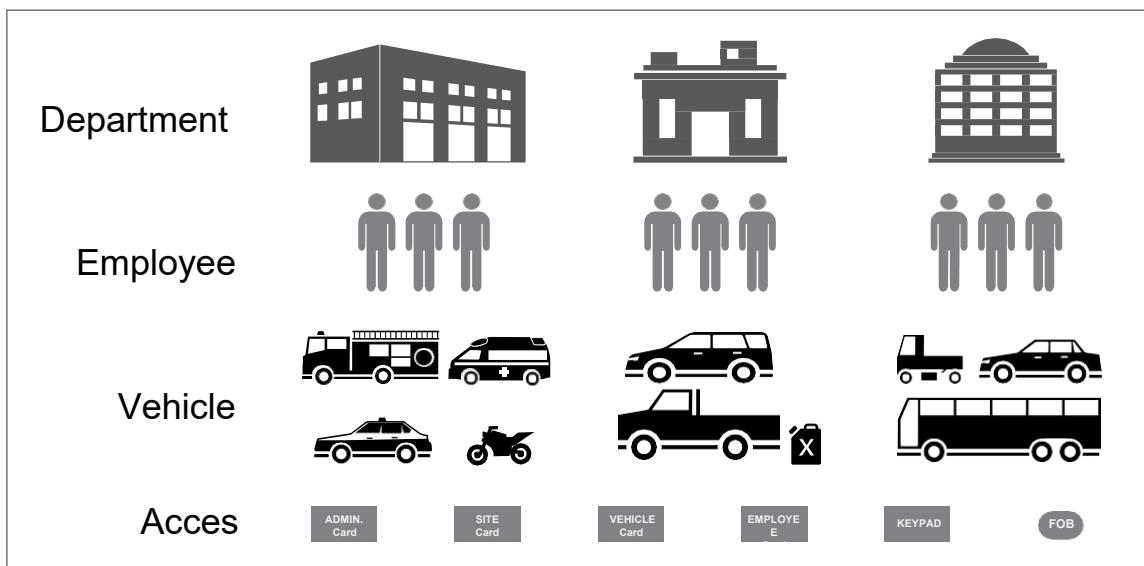
## Data Relationships

It's important to understand how the modules are related in Fuel View in order to effectively use the grids and reporting system.

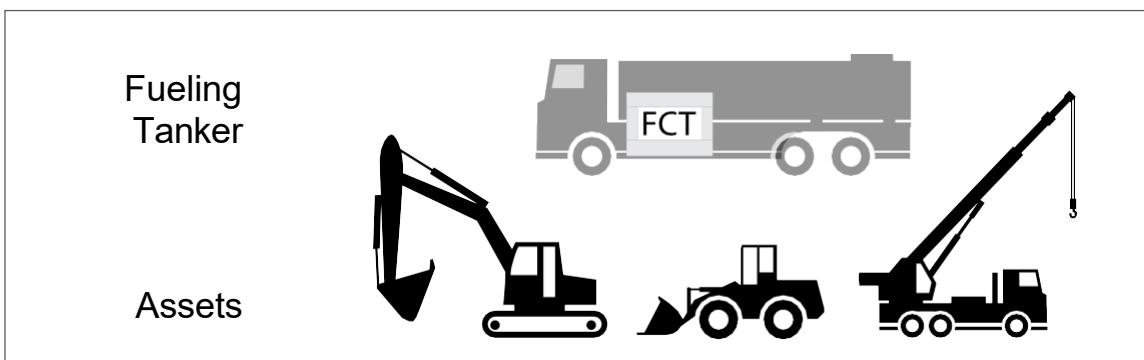
### Sites



### Assets



### Mobile Fueling



## Fuel View 4.5 Features

Fuel View's many features help simplify the management of fleet resources.

### Ease of Use

- Centralized, configurable reports covering one or more specific departments, one or more business units, or the entire customer fleet.
- Online, context appropriate help, down to the field level.
- User customizable views within the application.
- Dashboard view of Key Performance Indicators.

### Security

- Expanded capability to define users based on roles and privileges.
- Secure logins and configurable access to system.
- Enhanced audit trail and security features allow the system to track who did what and when at any time, for any transaction or record change.

### Improved Flexibility and Enhanced Reliability

- Online and backup stand-alone mode communications.
- Authorization and processing of transactions in both real-time and back-up modes.
- Supports multiple input devices: CANceivers, Vehicle Information Transmitters (VIT™), Fuel Tags, magnetic and proximity cards, keys, and FOBs.

### Fuel Tank Sensing

- Automated inventory management of liquid fuels through the interface with tank level sensing equipment or manually through manual dipstick method.
- Site Status Reporting includes fuel reorder points and potential problems through the easy to use visual status grid.

### Simplified Operation and Maintenance

- Remote diagnostic and trouble-shooting.

### 3. Getting Started

#### Lesson 1. Browser Compatibility

##### Activity 1. Disable Compatibility Mode

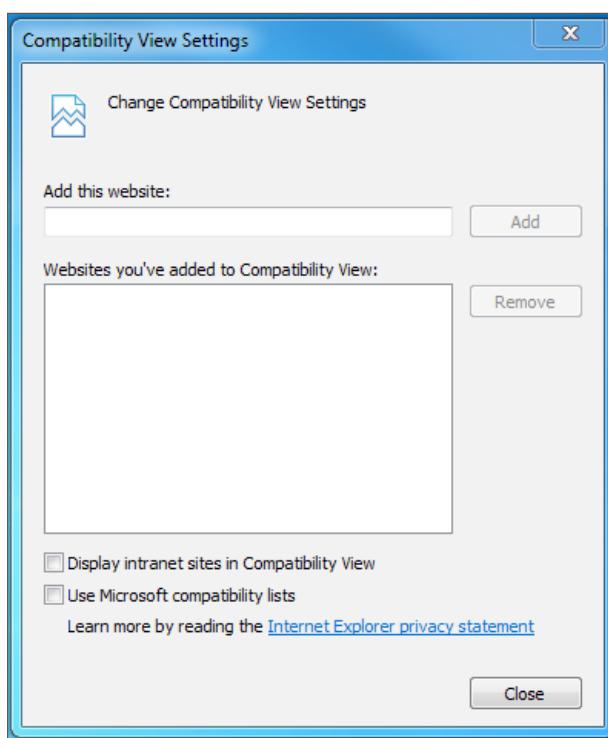
Running IE (Internet Explorer) in compatibility mode may cause user interface errors. Ensure the compatibility mode is turned OFF, and check-boxes in the Compatibility Mode window are unchecked.

To turn off compatibility mode, perform the following steps:

1. Open your browser.
2. Select Tools in menu bar.
  - In IE (version 10/11), select the **Tools** icon in upper right corner of screen.



3. Select **Compatibility View Settings**.



4. Uncheck both boxes at the bottom of the screen.

5. Click **Close**.

To undo compatibility for other applications (ie: Google Chrome, Mozilla etc.)

##### Activity 2. Remove A Website

1. Open your browser.
2. Select **Tools**.
3. Select **Compatibility View**.
4. Enter the website name in the **Add this website** field.
5. Check the **Display all websites in Compatibility View** box.
6. Click **Add**.

## Lesson 2. Launching Fuel View

### Activity 3. Create A Desktop Shortcut To Fuel View

Ward supports Internet Explorer 11. For other versions, follow IE instructions as available. To create a shortcut on the desktop in IE 11:

1. Press **Alt** to un-hide the menu bar below the URL address.



2. Click **File**.
3. Hover over **Send**.
4. Click **Shortcut To Desktop**.

Once the shortcut has been established:

5. Click the shortcut to launch the Fuel View application and bring up the Login screen.

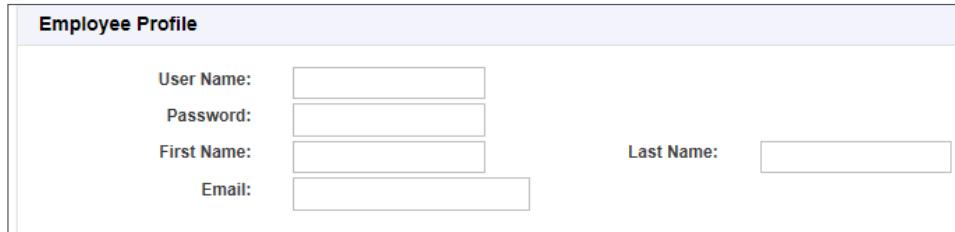


## Lesson 3. Set Up Users

 **NOTE:** If the system is configured with an Administrator email address you will see a Register button on the login screen. The main directory will be displayed with the default dashboard.

#### Activity 4. Activate A User Account

1. In the **User Name** field, enter your user name assigned by the system administrator.
2. In the **Password** field, enter the password assigned by the fueling system administrator.
3. Click the **Login** button.
4. Click **Register** to open the Employee Profile form.

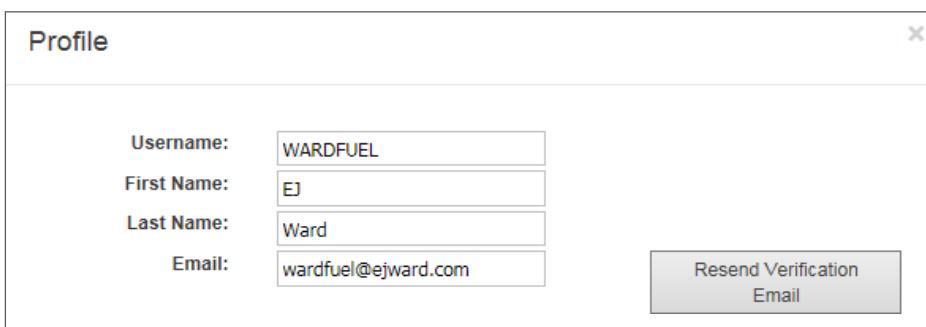


The form is titled "Employee Profile". It contains five input fields: "User Name" (text box), "Password" (text box), "First Name" (text box), "Last Name" (text box), and "Email" (text box).

5. Fill out the required fields: User Name  
Password  
First Name  
Last Name  
Email
6. Click **Save Profile** to submit a request to the System Administrator to add your account.
  - You will be emailed a confirmation to the email address specified.
7. Click your name in the title bar next to Welcome to access the “User Profile” dialog.



This allows you to change your user profile. If your email address is not verified you will see a button to resend the confirmation email.



The dialog box is titled "Profile". It contains four input fields: "Username" (text box containing "WARDFUEL"), "First Name" (text box containing "EJ"), "Last Name" (text box containing "Ward"), and "Email" (text box containing "wardfuel@ejward.com"). To the right of the "Email" field is a button labeled "Resend Verification Email".

#### Password Complexity

Fuel View has a minimum requirement for password complexity that can be controlled by your organization. If you attempt to use a password that does not meet complexity standards, you will receive a message with a Password Expiration Reminder.

Along with the complexity requirements, there is an automatic password expiration that will force you to change your password after a set number of days. If the expiration date is within 20% of the expiration period, a reminder will display allowing user to change their password (see below).

Clicking Cancel will postpone changing the password. The system retains a set number of previous passwords that cannot be reused.

## Reset Password

If a password is entered incorrectly, a Forgot Password option will appear on the login screen. If a replacement password is required, click the link and follow the instructions.

-  **NOTE:** Anytime you change your email address the system requires confirmation. **TIP:** Save the login page as a home page or favorite for quick access to Fuel View.

## Activity 5. Log Off

Fuel View may be exited from the Logout link in the upper right corner of the Title bar.

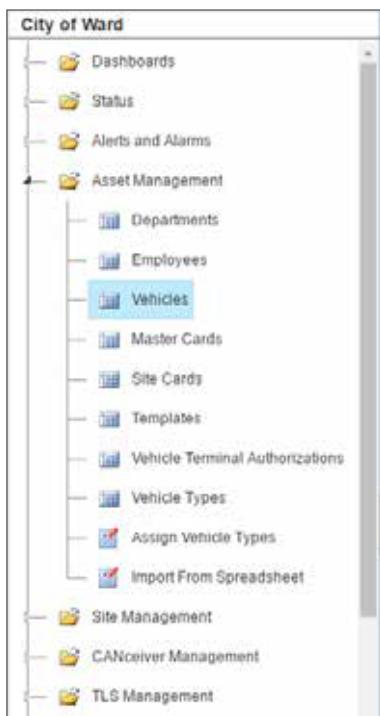
1. Click **LogOff**.
2. Close Fuel View.

## Lesson 4. Directory Navigation

The primary objective is understanding Fuel Views directories, grids, and screens and how to use them. Once you have opened Fuel View, explore these as time and your instructor dictates.

- Fuel View's directory is on the left side of the screen. Menu selections may differ based on customized customer preference and user access level.
- On the Fuel View 4.5 bar, your Login is displayed. There is an option to Logout, and if permitted by your role, an option to Change Password.

## Activity 6. Explore The Directory



1. Click a folder icon to open or close the subdirectory of grids.
2. Click a grid icon to open a data grid.

- Grids remain open until another grid is selected.
3. Adjust the directory panel size by dragging the blue border panel on the right with the mouse.



**Keyboard Shortcut:** Press F5 to refresh or clear a screen.



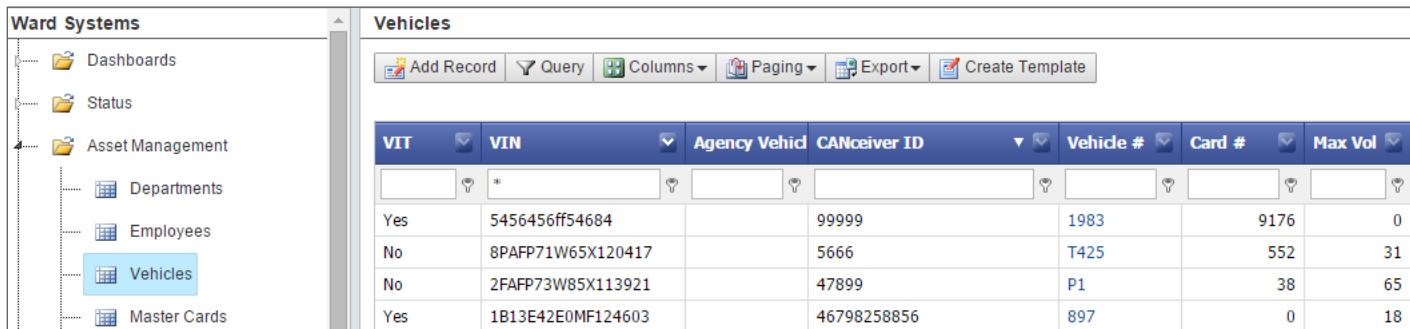
**NOTE:** Fuel View menu selections differ based on user Security Access Level.

## Common Screen Features

- All screens have a tool bar at the top of the screen.
- Screens and their contents are accessible based on user role and filters such as district or department.
- Entered and accumulated data is found in grids.
- When Add Record or Query is selected from the tool bar, a Profile screen for data entry or a detail query is displayed - query screens vary per grid.
- Required fields are marked with an asterisk (\*).
- The default state of every grid is Active Data. To view inactive data, run a query for Inactive Data.
- If you change the default state of a screen or change columns, Fuel View maintains the changes after the session is terminated.
- Profile screens are closed by clicking the X located in the top right corner.
- Filter screens have a **Clear** function to clear the fields and leave the grid data unchanged.

## 4. Grids

The Fuel View interface is an extensive grid system that presents data for in depth review and queries. Columns can be adjusted by pulling the header row borders to increase or decrease width. Fleet information can be exported in common file formats.



VIT	VIN	Agency Vehid	CANceiver ID	Vehicle #	Card #	Max Vol
Yes	5456456ff54684		99999	1983	9176	0
No	8PAFP71W65X120417		5666	T425	552	31
No	2FAFP73W85X113921		47899	P1	38	65
Yes	1B13E42E0MF124603		46798258856	897	0	18

## Lesson 5. Tool Bar

At the top of every grid, the Tool Bar enables users to customize control screen layout and automate tasks for simplified viewing, filtering, sorting, and exporting. All tabs or tools may not show on a particular screen, depending upon rights as established by your company.



Tool bar tabs will vary between grids.

### Tool Bar Functions

- Add Records** Adds new record particular to the current grid.
- Query** Opens the criteria menu.
- Columns** Drop-down list for placing and removing column categories to view in grid. Options include: Choose Columns, Show All Columns, Clear Columns, and Reset Columns.
- Refresh** Restores column default widths, and updates the grid with incoming data or other user entries.
- Paging** Drop-down list for selecting the number of grid rows visible on a screen page. Values are from 10 to 1000.
- Export** Drop-down list of file formats for saving data. Export options include pdf, csv, xls, xlsx, and rtf formats.
- Create Template** In Asset Management you can create templates for fields with repetitive information while setting up Employees and Vehicles.
- Save** Saves user customized settings as the default for exports and reports.

 **NOTE:** Hover over a field for pop-up screen action hints and field descriptions.

## Lesson 6. Sort

### Activity 7. Sort A Grid Column

1. Expand a folder and open a grid.

# Fuel View Training



- Click anywhere in the blue column heading and data will toggle in descending or ascending order.

#	Employee #	Active	Date Issued	Card #	Dept. Code	Card Last Used	Department
009087		True	9/2/2015 10:16:29 AM	10129	2009-00		Edmonton Police Service
0092034		True	9/2/2015 10:16:29 AM	10092	2009-00		Edmonton Police Service
019402		True	9/2/2015 10:16:29 AM	10620	2009-00		Edmonton Police Service
052844		True	9/2/2015 10:16:29 AM	10120	2009-00		Edmonton Police Service
0601029		True	9/2/2015 10:16:29 AM	14722	2009-00		Edmonton Police Service
0725113		True	9/2/2015 10:16:29 AM	13527	2009-00	9/16/2016 1:38:00 PM	Edmonton Police Service
0816518		True	9/2/2015 10:16:29 AM	12746	2009-00	6/16/2016 2:10:00 PM	Edmonton Police Service
0816768		True	9/2/2015 10:16:29 AM	11655	2009-00		Edmonton Police Service
0825601		True	2/22/2016 10:42:45 AM	364775	2010-00		Edmonton Public Library

- An up or down arrow appears indicating in which column and in what order the data is sorted
- Only one column may be sorted at a time

## Lesson 7. Queries

Fuel View's query is an object/information based method of compiling data. It will display filtered criteria for reporting. The default state of every grid is *Active* criteria. Queries contain fields that are unique to each grid but include three predefined Status filters:

### Status filters

Active Only  
(default) Inactive  
Only  
All

Field criteria can be customized with the following drop-down criteria selections:

### Alpha Fields

Contains  
(default) Starts  
With  
Ends With  
Equals

### Numeric Fields

Equals =  
Not Equals  
<> Greater  
Than > Less  
Than <  
Greater Than or Equal  
>= Less Than or  
Equal <=



**Note: Deactivated data can only be viewed through a query.**

## Activity 8. Perform A Basic Query

**Query: Employees**

Enter the following filter options:

Options:	Search For:
Starts With	E

Card Number

Options:	Search For:
Equals =	0

Custom User Field 1

Options:	Search For:
Contains	

User Field 2

Options:	Search For:
Contains	

User Field 3

Options:	Search For:
Contains	

Department:

<input type="checkbox"/> ELECTRIC MATRIX-MGR OFC
<input type="checkbox"/> EMER MANAGEMENT
<input type="checkbox"/> ENGINEERING
<input type="checkbox"/> ENVIROMENT
<input type="checkbox"/> FACILITIES LOCATION
<input type="checkbox"/> FAMILY SERVICES

**Select All** | **Unselect All**

1. Expand the Asset Management folder and open the Employees grid.
2. Click the **Query** tool to open the query screen.
3. In the Department section, check one of the **Department** boxes.
4. Click **Refresh** to update the grid and close the Query screen.

## Activity 9. Perform A Multi-Criteria Query

To see all active Employees with an employee number beginning with E in the Emergency Management Dept:

1. In the Employee grid click the **Query** tool.
2. In the **Employee Number** section, enter **E** in the **Search For** field.
3. Select Starts With in the **Options** drop-down list.
4. Check ADMIN from the **Department** drop-down list.
5. Click **Refresh** to update the grid and close the Query screen.



**NOTE: A Column does not have to be visible in the grid to be affected by a query.**

A criterion line appears at the bottom left corner of the screen in blue text to indicate the data combination being filtered.

# Fuel View Training

6. A checked box indicates an active filter; to view unfiltered, uncheck.



**NOTE: The X only appears when Fuel View is opened in IE browser.**

## Activity 10. Clear A Query

A query retains its criteria until cleared. Clear the query in the Employee grid:

1. Click the **Query** tool.
2. Click the **Clear** button to clear the fields.
3. Click **Refresh** to update the grid and close the Query screen.

## Lesson 8. Filters

A filter is a desired criteria you search for information. Filters may include dates and ranges of dates, number of records or entries and other field values needed for reporting. Field level filters offers the user the ability to quickly filter the data displayed on the grid in four ways:

Query  
Sort  
Predefined Filter  
Header Filter  
Button

When the drop-down arrow is clicked, it lists all of the unique values contained in the column.

### Predefined Filters

The Predefined Filter icon located next to the column name allows user to filter data in the column from a drop-down list selection. Choosing a predefined filter will bring up all data that fits the criteria. Active filters are indicated with a darker icon.

### Filter Definitions

- All Default setting  
Blanks Display blank data fields to ensure all required information is complete  
Non Blanks Display records with data fields completed

### User-Defined Filters

User defined filter fields are located below each column category and work with any combination of column criteria information. Active filters are indicated with a darker icon.

Click the pin icon next to a data entry field to display drop-down list selections for user defined criteria filters.

### Alphabetic And Date Category User-Defined Filters

Begins With  
Contains  
(default)  
Doesn't contain  
Ends with  
Equals  
Doesn't  
equal

## Numerical Category User-Defined Filters

- Equals
- (default)
- Doesn't
- equal Is less than
- Is less than or equal to
- Is greater than
- Is greater than or equal to

Select the filter criteria and type in data to include or not include in the results.

### Activity 11. Filter A Column

Find all Ford vehicles:

1. Open the Vehicles grid.
2. Type 'Ford' or 'f' in the **Make** sort field.
3. Click the Filter icon in the Make column and Select **Begins With** from the drop-down list.
  - Only Ford manufactured vehicles populate the grid.

Vehicles						
VIT	VIN	Make	CANceiver ID	Vehicle #	Card #	
Yes	5456456ff54604	Ford	99999	1983	9176	
No	2FAFP73W85X113921	FORD	47899	P1	38	
No	1FMYU02Z75KA40926	FORD	458	P135	66	
No	1FTSE3EL6CDA59176	FORD	34678	P121	54	
Yes	1FMHK7D86CGA16796	Ford	1407280080300000260	Dave6	9112	



**TIP: Filters are not case sensitive.**

### Activity 12. Filter Multiple Columns

Combinations of filters will quickly display very specific information. Find all Ford vehicles manufactured before the year 2000 in the County Counsel:

1. Type 'f' in the **Make** field.
2. Select **Begins With** in the predefined drop-down list.
3. Type '19' in the **Year** field and select **Begins With**, in the predefined drop-down list.
4. Type 'cou' in the **Department** field and select **Contains** from the predefined drop-down list.

Vehicle #	Make	Year	Department	VIN	Lic
PO417	FORD	1992	COUNTY COUNSEL		
P124	FORD	1992	COUNTY COUNSEL		
LAW05	Ford	1991	COUNTY COUNSEL		
.....	FORD	1990	COUNTY		

- Begins with
- Contains
- Doesn't contain
- Ends with
- Equals
- Doesn't equal
- Like ('%', '\_')

## Fuel View Training



All makes beginning with “F”, manufactured with year beginning with “19”, and assigned to Departments containing “cou” populate the grid.

When the drop-down arrow is clicked, it lists all of the unique values contained in the column.

**All** Default setting

**Blanks** Display blank data fields to ensure all required information is complete

**Non Blanks** Display records with data fields completed

### Activity 13. Toggle Filtered Data

1. Click the check-box next to criteria at the bottom of the screen to temporarily clear and restore filter combinations.

#	Tank Number	Terminal Number	Pump Number	Fuel	Pump Active	Status	Units	Current Price
Clear		2						
	10	2	2	Unleaded	True	False	liters	7.0000
	4	2	4	Diesel	True	True	liters	7.0000
		2	1		True	True		7.0000

[Terminal Number] Equals 2 Clear

### Activity 14. Clear Filter Criteria

Remove individual filters:

- Delete criteria filter in each

field. Remove all filters at once:

- Click the Clear tool that appears in top row of the left column.

Audit Trail									
#	Date/Time	Type	Field	Old Value	New Value	Host Name	Username	Editing User	Table
Clear									
	12/16/2015 9:30:59 AM	t	Totalizer		0	WARDDEVWEB	EjwCAdmin	wardfuel	Pumps
	12/16/2015 9:30:59 AM	t	Current_Price		6.00	WARDDEVWEB	EjwCAdmin	wardfuel	Pumps
	12/16/2015 9:30:59 AM	t	Units_Pumped		0	WARDDEVWEB	EjwCAdmin	wardfuel	Pumps

## Lesson 9. Customizing Grids

The Columns tool allows users to create a customized view of data to display on a grid. Column widths can be adjusted by hovering over header's border and dragging when the two-way arrow appears. The order of columns can be changed by dragging column's header to the desired location and releasing when white arrows appear.

### Column Tool Definitions

**Choose Columns** List of categories available for the current grid

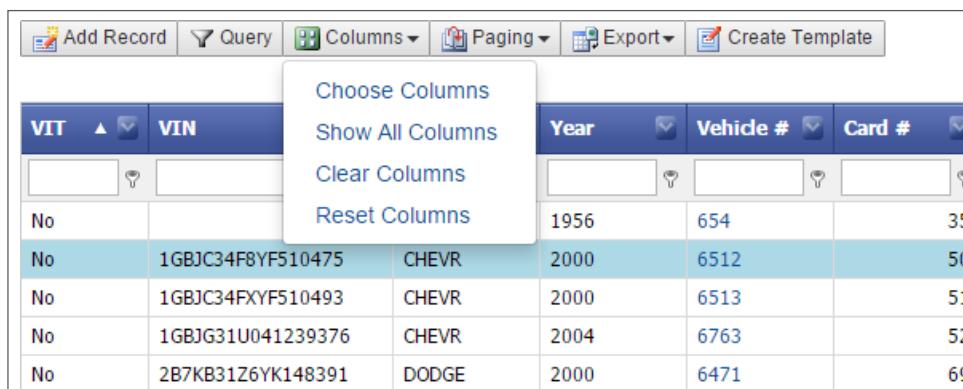
**Show All Columns** Adds all available categories to

the grid **Clear Columns** Removes all categories

from the grid **Reset Columns** Returns grid to  
default state

## Activity 15. Add A Column To The Grid

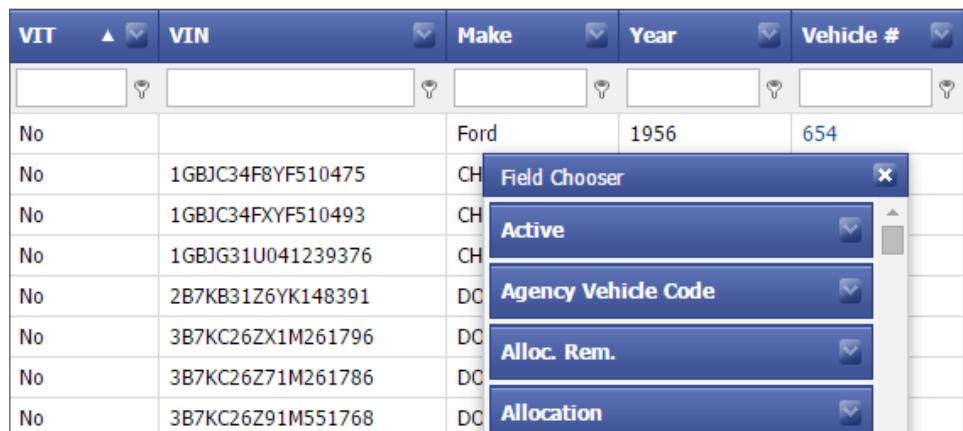
- Click the **Columns** tool to display drop-down list of options.



The screenshot shows a grid with columns labeled 'VIT', 'VIN', 'Year', 'Vehicle #', and 'Card #'. A context menu titled 'Choose Columns' is open at the top of the grid, listing options: 'Show All Columns', 'Clear Columns', and 'Reset Columns'. The 'Vehicle #' column is currently selected.

VIT	VIN	Year	Vehicle #	Card #
No	1GBC34F8YF510475	CHEVR	2000	654
No	1GBC34FXYF510493	CHEVR	2000	6513
No	1GBJG31U041239376	CHEVR	2004	6763
No	2B7KB31Z6YK148391	DODGE	2000	6471

- Click **Choose Columns** to display the list of hidden categories.



The screenshot shows a grid with columns labeled 'VIT', 'VIN', 'Make', 'Year', and 'Vehicle #'. A 'Field Chooser' dialog box is open, listing categories: 'Active', 'Agency Vehicle Code', 'Alloc. Rem.', and 'Allocation'. The 'Vehicle #' column is currently selected.

VIT	VIN	Make	Year	Vehicle #
No		Ford	1956	654
No	1GBC34F8YF510475	CH		
No	1GBC34FXYF510493	CH		
No	1GBJG31U041239376	CH		
No	2B7KB31Z6YK148391	DC		
No	3B7KC26ZX1M261796	DC		
No	3B7KC26Z71M261786	DC		
No	3B7KC26Z91M551768	DC		

- Drag a blue category to the desired location in the grid's header area.
- Drop the column when white arrows appear above and below desired location.



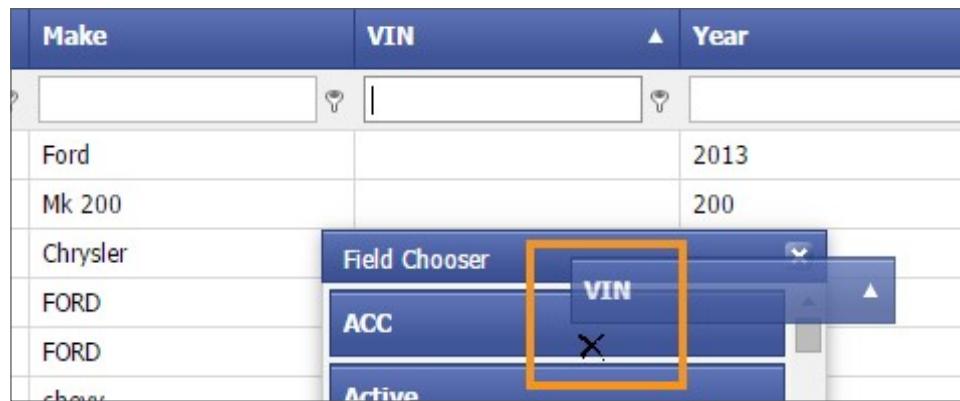
The screenshot shows a grid with columns labeled '#', 'Vehicle #', 'Make', and 'VIN'. A 'Field Chooser' dialog box is open at the bottom right. The 'Vehicle #' column is currently selected. A small orange box highlights the 'VIN' column header, which has a move icon (up and down arrows) above it.

#	Vehicle #	Make	VIN
	BobK	Ford	2013
	VNo	Mk 200	200
	T1-Test	Chrysler	Field Chooser

## Activity 16. Remove A Column From The Grid

- Click the **Columns** tool to display drop-down list of options.
- Click **Choose Columns**.
- Drag a column from the grid to cover the Choose Columns list.

- Release the column when the black X appears.

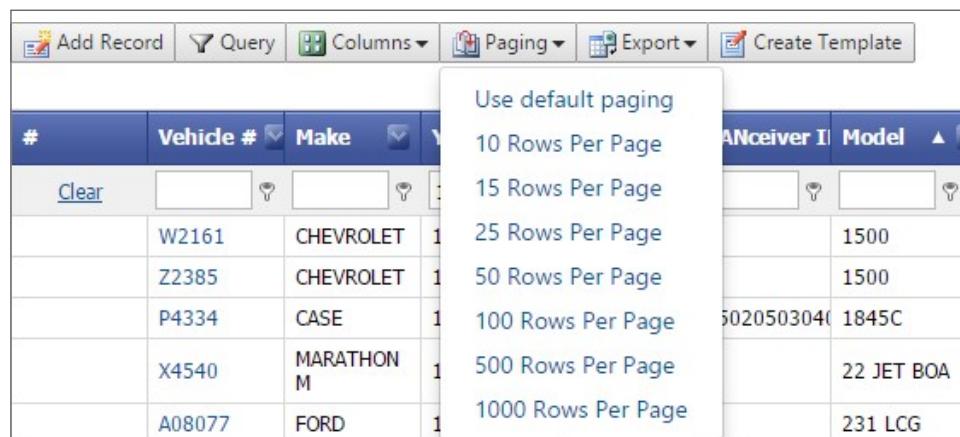


The screenshot shows a grid with columns: Make, VIN, and Year. A 'Field Chooser' dialog is open over the grid. In the 'Field Chooser' dialog, there is a list of fields: FORD, ACC, and VIN. The 'VIN' field is highlighted with a yellow box, and an 'X' button is visible next to it, indicating it can be removed from the grid.

- The column is removed from the grid.

## Activity 17. Choose Number Of Rows Per Page

- Click the **Paging** tool to open the list of Rows Per Page.
- Select a number of rows to display.



The screenshot shows a grid with columns: #, Vehicle #, Make, and Model. Above the grid, a 'Paging' dropdown menu is open, displaying the following options: Use default paging, 10 Rows Per Page, 15 Rows Per Page, 25 Rows Per Page, 50 Rows Per Page, 100 Rows Per Page, 500 Rows Per Page, and 1000 Rows Per Page.

## Lesson 10. Exporting Grids

Grid category combinations may be exported for use in other files.

### Activity 18. Export A File

- Click the **Export** tool for a drop-down list of file format options: Adobe Acrobat (pdf)  
Comma Separated File  
(csv) Microsoft Excel  
(xls) Microsoft Excel  
(xlsx)  
Rich Text Format (rtf)
- Select a **Format**.
- Open the file from your Downloads folder.
- Click **Save As** and give the file a unique name.
- Select a location to save the file.
- Click **Save**.
  - Exported data is dependent upon active data in the grid.

 **NOTE:** Saved files will export to the default download directory in your browser.

## 5. Dashboards

The Dashboard is the Home page for Fuel View and is designed for “at-a-glance” analysis of fleet data in pie chart and bar graph formats. It can be exported and viewed in underlying detail. The Dashboard is preprogrammed by Ward and continually updates data receipts for the last 30 days.

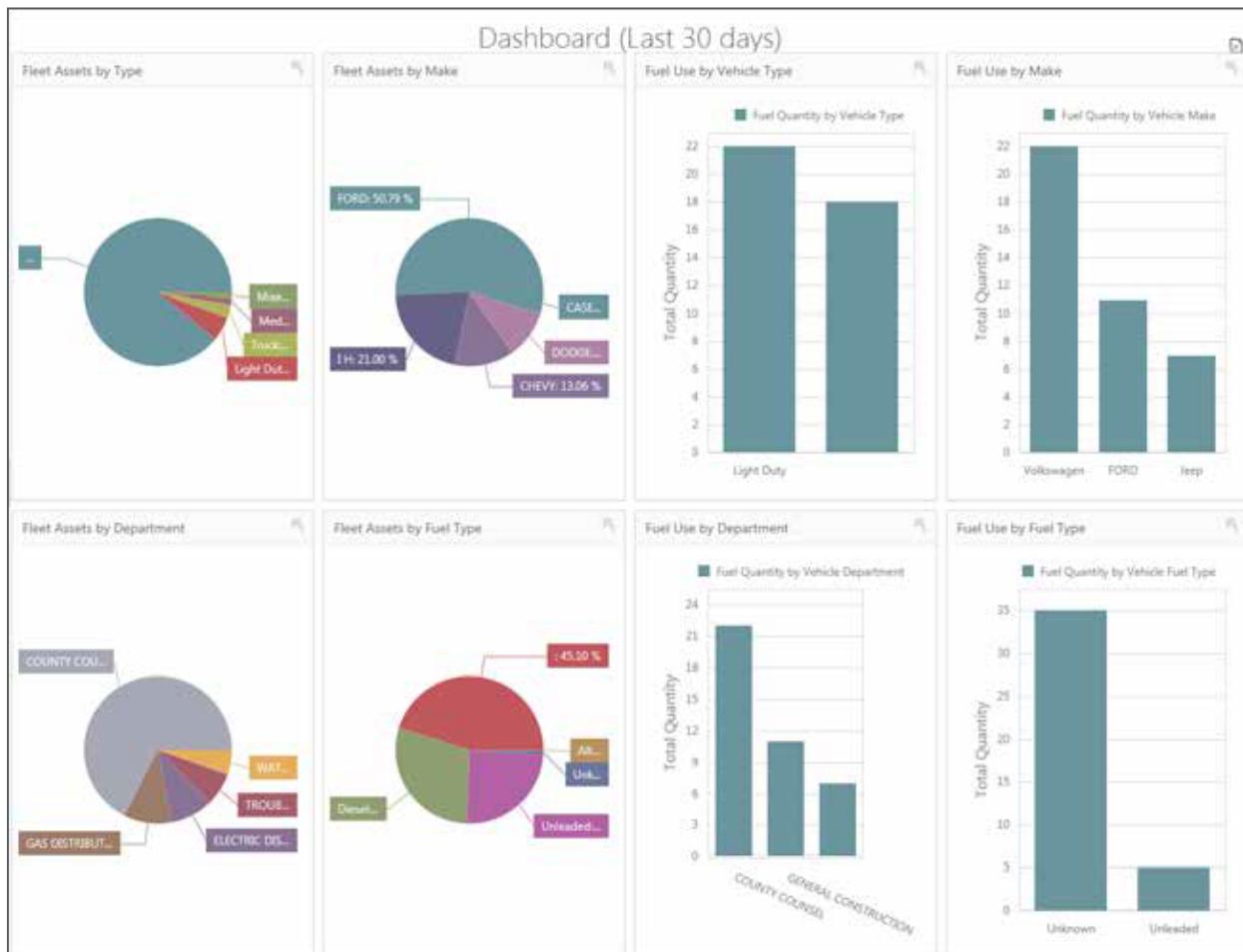
### Lesson 11. Dashboard Detail

#### Activity 19. Explore Dashboard Functionality

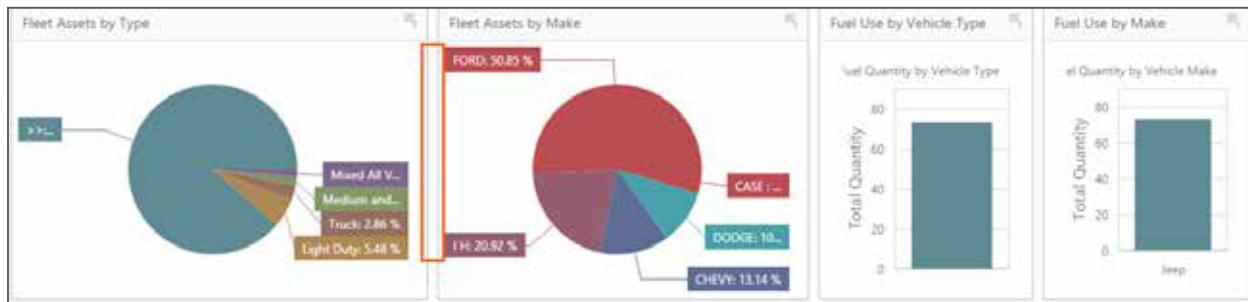
1. Expand the Dashboard folder, and open the Dashboard grid.

Name	Category	Remarks
Fleet Dashboard	Equipment	
Fleet Emissions Summary	Equipment	

2. Click the **Fleet Dashboard** link to open the main Dashboard.

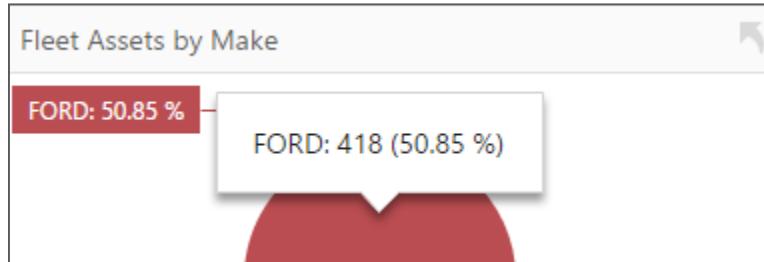


3. Resize chart sections by clicking over a frame and dragging to the desired width.



#### Activity 20. View Chart Details

1. Hover over the pie chart slices and bar graphs to view the underlying summary for that section.



2. Click to open its underlying data screen.

Underlying data	
Make	Vehicle Number
FORD	HCCC13
FORD	P1
FORD	P102

#### Lesson 12. Export The Dashboard

The Dashboard charts can be exported to PDF and image formats for reports and presentations.

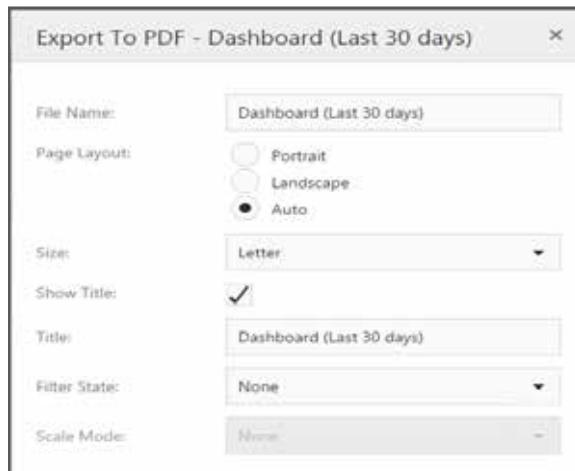
Clicking the

**Export** icon in upper right corner of dashboard screen will display drop-down choices.



## Activity 21. Export To PDF

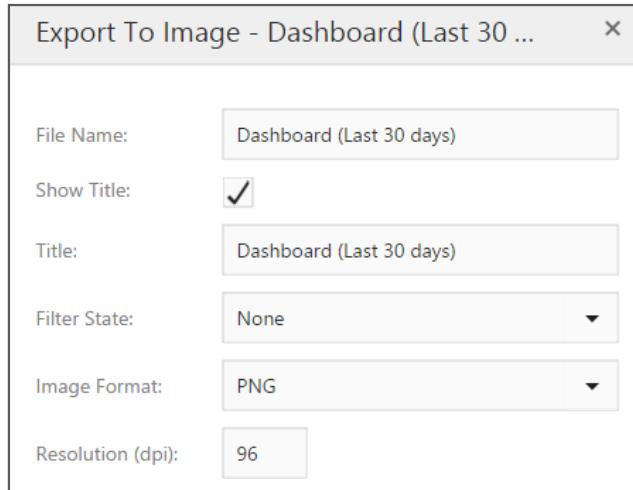
1. Click **Export**.
2. Choose **Export to PDF**.



3. Optional: In the **File Name** field, enter a new name.
  - Keeping the default file name will create numbered versions.
4. For best results, leave the Page Layout setting at Auto (landscape).
5. In the **Size** drop-down list, select a page size.
6. If no title is desired, uncheck the **Show Title** check-box.
7. Optional: In the **Title** field, enter a new title.
8. Leave the **Filter State** set at None.
9. Click **Export** to export the PDF to your Downloads folder.

## Activity 22. Export To An Image

1. Click **Export**.
2. Choose **Export to Image**.



3. Optional: In the **File Name** field, enter a new name.
  - Keeping the default file name will create numbered versions.
4. If no title is desired, uncheck the **Show Title** check-box.
5. Optional: In the **Title** field, enter a new title.

6. Leave the **Filter State** set at None.
7. Choose an **Image Format** from the drop-down list: png  
gif  
jpg
8. Leave **Resolution** set at 96, or lower to 72.
  - Any other resolution settings will produce an Error file.



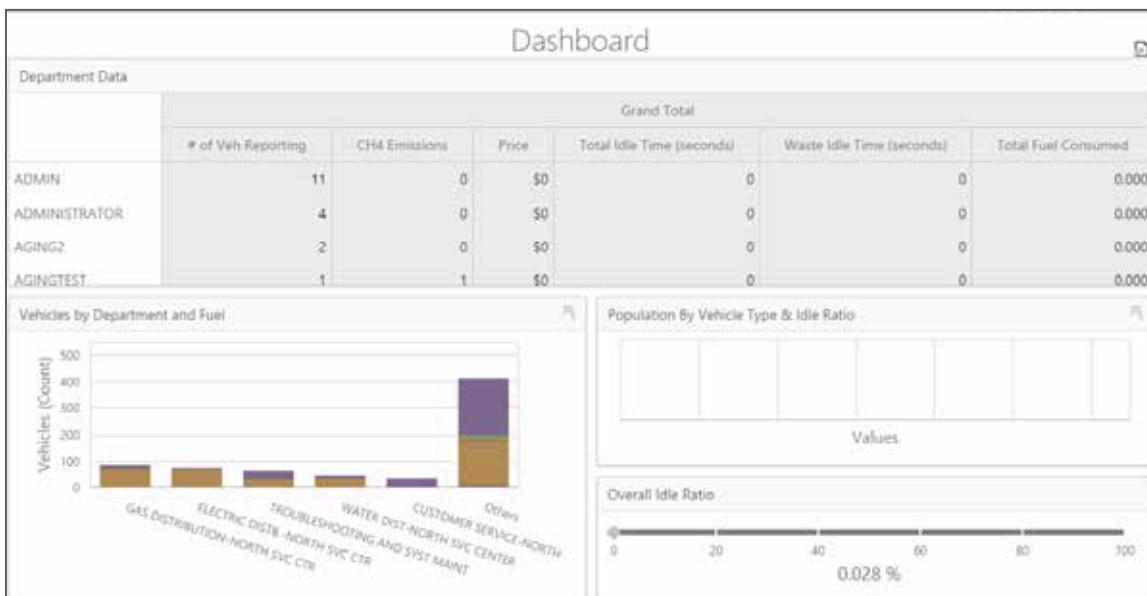
**TIP: 96 dpi is optimal for PowerPoint presentations.**

### Activity 23. View The Emissions Dashboard

1. Open the Dashboard grid.

Name	Category	Remarks
Fleet Dashboard	Equipment	
Fleet Emissions Summary	Equipment	

2. Click the blue link for **Fleet Emissions Summary**.



**Functionality of the Emissions Summary is the same as the main Dashboard.**

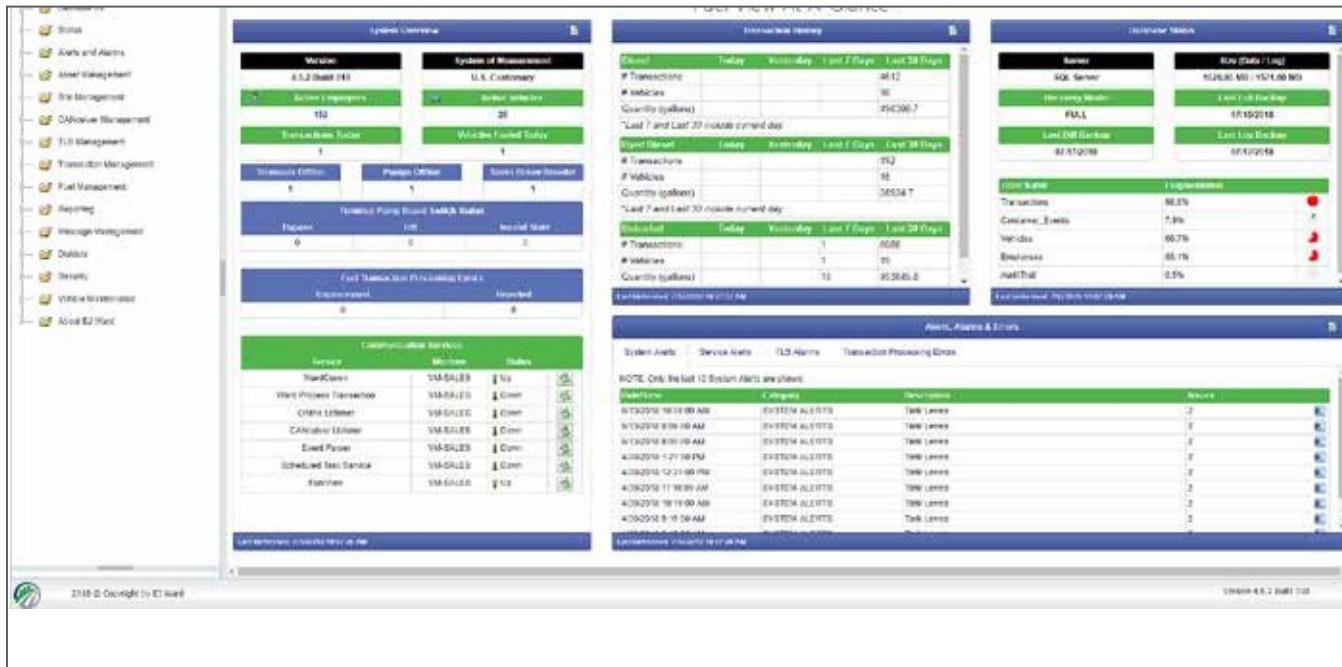
# 6. Status

## Lesson 13. At-A-Glance

Fuel View has a full site overview and status dashboard for fast access to the health of your site and your fleet.

### Activity 24. Review Fuel View At-A-Glance

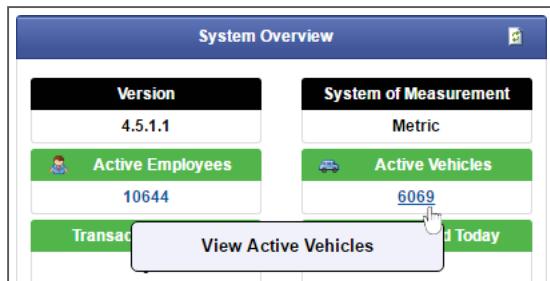
1. Expand the Status folder and click the Fuel View At-A-Glance icon.



The screenshot shows the Fuel View At-A-Glance dashboard. On the left, there is a navigation tree with various status categories like Status, Alerts and Alarms, Asset Management, etc. The main area is divided into several sections:

- System Overview:** Displays Version (4.5.2 Build 349), System of Measurement (U.S. Customary), Active Employees (102), Active Vehicles (26), Fuel Pumps Today (1), Pump Office (1), Sales Order (1), and Fuel Transactions (0).
- Transactions Today:** A table showing transactions for Today, Yesterday, Last 7 Days, and Last 30 Days. It includes columns for # Transactions, # Vehicles, and Quantity (gallons).
- Historical Metrics:** A table showing metrics for Today, Yesterday, Last 7 Days, and Last 30 Days. It includes columns for Sales, Revenue, and Last Logon.
- Performance Metrics:** A table showing metrics for Yesterday, Last 7 Days, and Last 30 Days. It includes columns for Transactions, Customer Events, Vehicles, Business, and Invoiced.
- System Alerts:** A table listing recent system alerts with columns for AlertTime, Category, Description, and Record.

2. To open a grid for Active Employees or Active Vehicles, click the blue link.



The screenshot shows the System Overview grid. It includes sections for Version (4.5.1.1), System of Measurement (Metric), Active Employees (10644), Active Vehicles (6069), and Transaction Processing Errors (0). A blue link labeled "View Active Vehicles" is highlighted with a cursor.

3. To view recent System Alerts, Service Alerts, TLS Alarms, or Transaction Processing Errors, click the appropriate tab.

## System Overview Definitions

<b>Version</b>	The version of the Fuel View web page
<b>System of Measurement</b> Customary).	The measurement units the entire system is set to (Metric or U.S.
<b>Active Employee</b>	Number of active employees in the system.
<b>Active Vehicles</b>	Number of active vehicles in the system.
<b>Transactions Today</b>	Number of transactions for the current day.
<b>Vehicles Fueled Today</b>	Number of vehicles fueled for the current
<b>day. Terminals Off-line</b>	Number of active terminals off-line in the
<b>system. Pumps Off-line</b>	Number of active pumps off-line in the
<b>system.</b>	
<b>Tanks Below Reorder Level</b>	Number of tanks where the current level is below the reorder level set on the Tanks page.
<b>Terminal Pump Switch Board Status</b>	Number of pumps in each different switch setting on the physical pump boards inside of the system.
<b>Unprocessed Transactions</b>	Number of transactions in the database that were unable to process today, yesterday, past seven days, and the current month. This could be for a various reasons and should be investigated.
<b>Communication Services</b>	Displays all services running inside the system, and whether those services are up or down.
<b>Transaction History</b>	Displays the number of transactions, vehicles that have fueled, and the total quantity of fuel dispensed today, yesterday, the past seven days, and the past 30 days.

## Database Status Definitions

<b>Server</b>	Displays the server type (SQL or Oracle).
<b>Size (Data/Log)</b>	Displays the physical size of the data and log files in the database.
<b>Recovery Model</b>	Displays the current recovery model of the database.
<b>Last Full Backup</b>	Displays when the last full backup was run on the database.
<b>Last Diff Backup</b>	Displays when the last differential backup was run on the database.
<b>Last Log Backup</b>	Displays when the last log backup was run on the database.
<b>Fragmentation</b>	Displays the fragmentation of the tables inside the database. When these numbers get too high or shows red in the pie chart it is good practice to recreate the indexes in that table.
<b>Alerts, Alarms &amp; Errors</b>	Displays errors from the alerts system, Ward Services, TLS, and any errors for processing transactions in Fuel View.

## Lesson 14. Vehicle At-A-Glance

### Activity 25. Review Vehicle Status

1. In the Status folder, click the Vehicle At-A-Glance icon.



2. Select a **Vehicle** from the drop-down list.

Vehicle:	▼	Vehicle At-A-Glance		
	Vehicle Number	Year	Make	Model
B1677	2000	FORD	CROWN VICTOR	
B1678	2000	FORD	CROWN VICTOR	
B1697	2000	FORD	CROWN VICTOR	
B1699	2000	FORD	CROWN VICTOR	
B1713	2000	CHRYSLER	CIRRUS	
B1714	2000	CHRYSLER	CIRRUS	
B1715	2000	CHRYSLER	CIRRUS	

**TIP:** The Vehicle drop-down list operates with filters. Type in a vehicle number to bring up a known vehicle. Type in a Year, Make or Model to narrow the choices, and scroll to a specific vehicle.

The Vehicle At-A-Glance screen displays the complete vehicle profile:

Vehicle: W2457; 2014; FORD; F150

Vehicle Overview			
Vehicle Number	VIN		
W2457	1FTEW1EF2FA91172		
Make	Model	Year	
FORD	F150	2014	
Vehicle Type	Fuel		
Light Duty (gasoline)	Unleaded		
Odometer	Max. Quantity		
24000	136 liters		
Has CANceiver?	CANceiver F	CPS Installed?	
Yes	1412050304000000011	No	
Distance Driven	Fuel Pumped	Kilometers/liter	
20915.0 kilometers	1776.9 liters	11.77	
Last Fueled	Quantity Pumped		
2/20/2016 9:01:00 AM	92.4 liters		
Fueling Analysis			
Avg. Fuel Per Transaction	Avg. Fuel Used Per Day	Avg. Days Operated	Avg. Days Since Fueling
74.0 liters	28.7 liters	73 days	3.0 days
Fuel Usage Projections			
Next 60 Days	Next 90 Days	Next 180 Days	Next 365 Days
1722.0 liters	2583.8 liters	5166.0 liters	10475.5 liters

Last Refreshed: 4/5/2016 11:16:13 AM

Vehicle At-A-Glance

Last Reported Location

Last Refreshed: 4/5/2016 11:16:13 AM

Vehicle Emissions				
Type	Last 7 Days	Last 30 Days	Last 90 Days	All Time
CO2	0.0 kg	0.0 kg	2770.3 kg	4121.4 kg
N2O	0.0 g	0.0 g	114.1 g	138.0 g
CH4	0.0 g	0.0 g	281.8 g	340.9 g

Last Refreshed: 4/5/2016 11:16:13 AM

Vehicle Idle Summary				
Waste Idle	Waste Events	Total Idle	Total Events	Waste Idle %
174	5182	342 hours	1325	51.11%

Last Refreshed: 4/5/2016 11:16:13 AM

Transactions History							
Transactions Count			Fuel Pumped			Distance Driven	
24			1776.9 liters			20915.0 kilometers	
Date/Time	Site	Terminal	Pump	Fuel	Volume	Distance Driven	Kilometers/liter
2/20/2016 9:01:00 AM	Main Central Yard	21	3	Unleaded	92.4 liters	1100.0 kilometers	11.9 kilometers/liter
2/17/2016 8:39:00 AM	Main Central Yard	21	3	Unleaded	99.4 liters	678.0 kilometers	6.8 kilometers/liter
2/12/2016 9:16:00 PM	Main Central Yard	21	3	Unleaded	59.6 liters	828.0 kilometers	13.9 kilometers/liter
2/11/2016 11:19:00 AM	Davies	30	3	Unleaded	109.0 liters	0.0 kilometers	0.0 kilometers/liter
2/8/2016 10:20:00 AM	Davies	32	3	Unleaded	50.3 liters	10316.0 kilometers	205.1 kilometers/liter
2/7/2016 2:52:00 PM	Davies	30	3	Unleaded	104.2 liters	0.0 kilometers	0.0 kilometers/liter
2/4/2016 8:07:00 AM	Davies	31	3	Unleaded	33.4 liters	221.0 kilometers	6.6 kilometers/liter
2/3/2016 8:21:00 AM	Main Central Yard	21	3	Unleaded	95.5 liters	682.0 kilometers	7.1 kilometers/liter
1/29/2016 8:15:00 PM	Davies	32	3	Unleaded	105.5 liters	78.0 kilometers	0.7 kilometers/liter
1/28/2016 7:48:00 PM	Main Central Yard	22	3	Unleaded	3.9 liters	550.0 kilometers	141.0 kilometers/liter
1/25/2016 8:41:00 PM	West Engineers	75	4	Unleaded	103.9 liters	529.0 kilometers	5.1 kilometers/liter
1/18/2016 9:23:00 PM	Main Central Yard	21	3	Unleaded	75.0 liters	422.0 kilometers	5.6 kilometers/liter

Last Refreshed: 4/5/2016 11:16:14 AM

**Vehicle Details** Make, model, year, number, type fuel, odometer, fuel capacity, and last recorded location.

The vehicle must be running for near real time location updates to appear on the map.

CANceiver details include:

**Transaction History** Total transactions, fuel pumped, mileage driven  
 Details: date/time, site, terminal, pump, fuel type, volume distance between and mileage per liter

**GPS Status** Last reported location

**Vehicle Emissions** CO<sub>2</sub>, N<sub>2</sub>O, and CH<sub>4</sub> emissions displayed in total volumes for previous 7, 30, 90 days and total emissions

**Vehicle Idle** Total waste hours, number of events and

percentage The Vehicle At -A-Glance provides fueling analysis for:

Average fuel volume per transaction  
 Average fuel used per day  
 Sum of days operated from first fueling  
 Average days between fueling

The Vehicle At -A-Glance also provides fueling projections for fuel usage for the next 60, 90, 180 and 365 days.

## Lesson 15. Department At-A-Glance

The Department At-A-Glance screen displays data categorized as Departments and contains all of the functionality of the Fuel View At-A-Glance screen.

 **NOTE: Department level information is not activated on all versions of Fuel View. Contact Ward Customer Support for assistance.**

### Department Overview Definitions

**Department Overview** Includes basic department information, number of vehicles, employees and sites, number of transactions and volume pumped, fueling analysis of department vehicles, breakdown of vehicles by fuel type, and departmental fuel usage projections.

**Department Details** Includes tabs for:  
 Vehicle Location Map (last reported locations of all the department's vehicles)  
 Transaction Summary  
 Idle Summary  
 Emissions Summary (data is GPS and CANceiver installation dependent)

### Activity 26. Review A Department

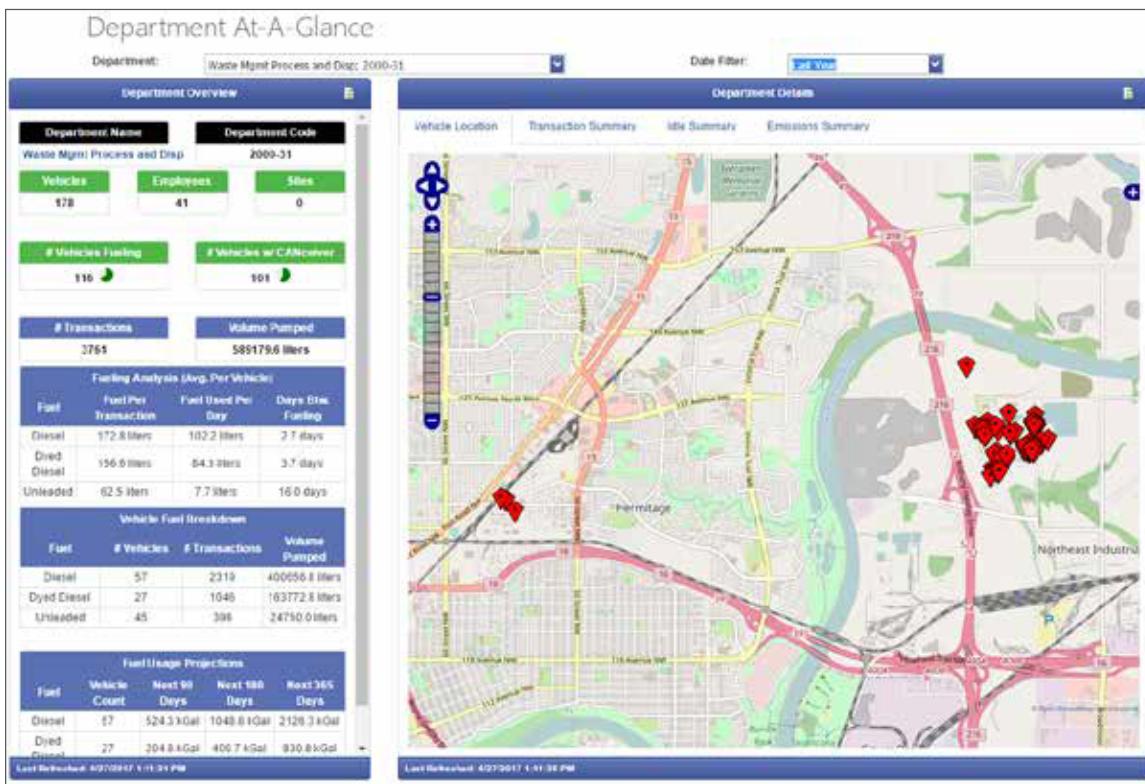
1. In the Status folder, click the Department At-A-Glance icon.

**Department At-A-Glance**

Department:	<input type="text"/>	Date Filter:
	<input type="button" value="▼"/>	<input type="button" value="Last 30 Days"/> <input type="button" value="▼"/>

2. In the **Department** drop-down list, select a department.

3. In the Date Filter drop-down list, select a date range.

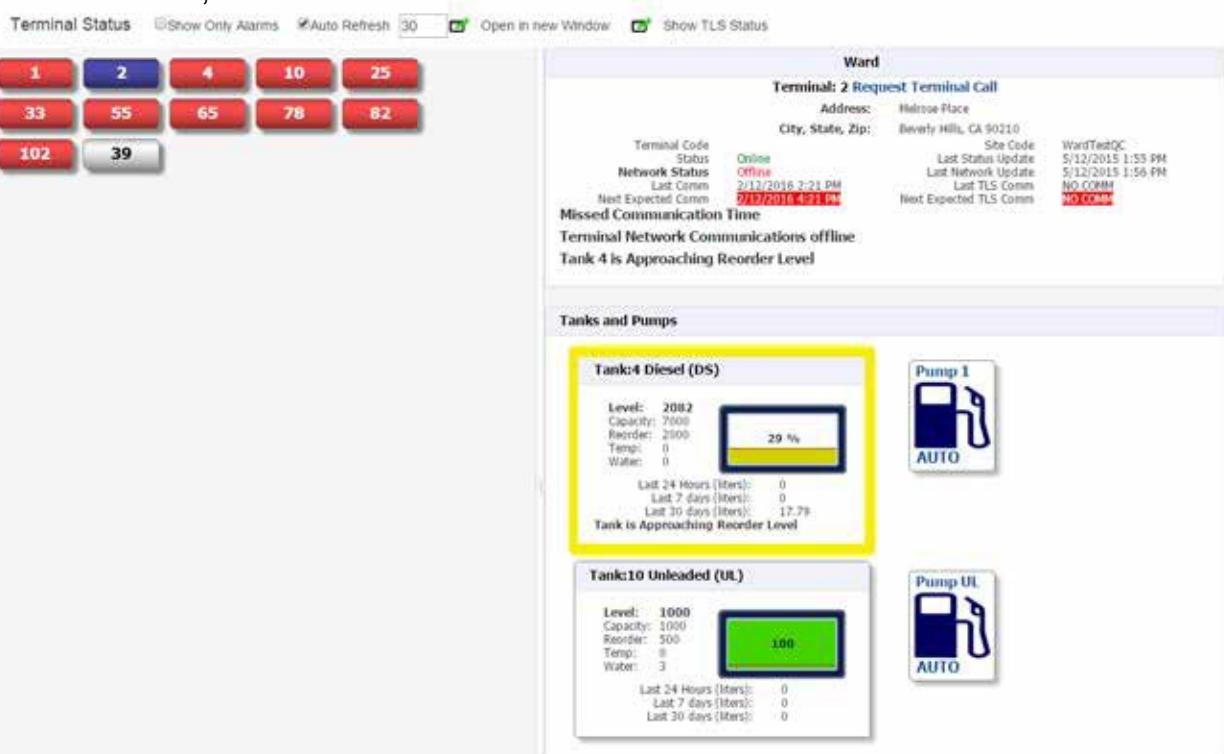


## Lesson 16. Terminal Status

The Terminal Status option in the directory displays the status and recent history of every site's FCT, tank, and pump.

### Activity 27. Examine The Terminal Status Screen

- In the Status folder, click the Terminal Status icon.



The Terminal Status screen is divided into three sections.

### Terminal Status Screen Definitions

**Terminal Icons** Each red numbered icon represents an FCT with a status alarm. The blue button indicates which FCT detail is displayed in the right side of the screen. Gray buttons indicate no alarms.

**Alert Detail** Titled by *Site* and *FCT* number, this section details the highlighted terminal's status and history, and contains a blue link to call the FCT.

**Tanks and Pumps** Tank Level Sensors (TLS), if present, detail tank usage, current level and reorder status. Pump icons link to its data entry page.

### Activity 28. Change Page Defaults

At the top of the screen are customizable settings for the page. Settings are not saved upon exit.

1. Uncheck **Show Only Alarms** to display all terminals (including those without alarms).
2. Change the **Auto Refresh** cycle time from default 30 seconds to desired refresh rate.
3. Uncheck **Auto Refresh** to keep the current screen from cycling.
4. Click the **Open in New Window** green arrow to pop out the status screen in a separate window. This allows you to monitor the site while working on other tasks; however, logging out of Fuel View will also close this screen.
5. Click **Show TLS Status** to pop out the Tank Level Status screen in a separate window.
  - The TLS screen contains the same default options as the Terminal Status Screen.

### Activity 29. Review the Fuel Terminal Status Screen

1. Click through the red FCT alert icons to review any alarms for each terminal.
2. Check the **Auto Refresh** check-box to refresh the screen and cycle through the terminals.

## Lesson 17. Tank Status

The Tank Detail screen provides communication details and color coded tank level status. The tank detail summarizes how much fuel was dispensed within the previous 24 hours, 7 days, and 30 days for each tank.



**Tank is above reorder level**   **Tank is approaching reorder level**

**Tank is below reorder level**

### Activity 30. View An Alarm

1. Hover over a red tab in Terminal Status to provide a pop-up summary of warning details without opening a separate screen.
2. Click the red alarm tab to open the detail alert screen for that terminal.

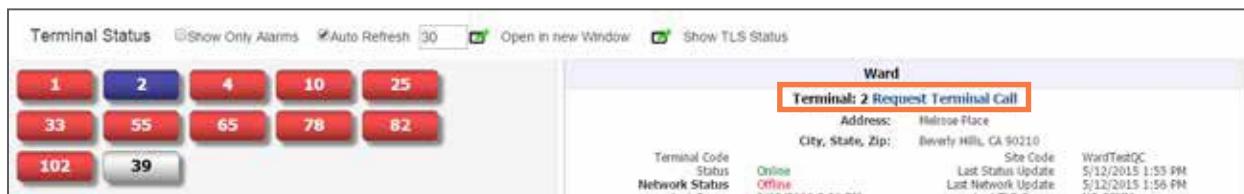
#### Activity 31. Request A Terminal Call

Request Terminal call is used predominately for W3 terminals as the only way for them to communicate is through Connect or Request a Terminal Call. Initiating a Terminal Call *sends* the configuration information to the FCT.

Reasons for requesting a Terminal Call can include:

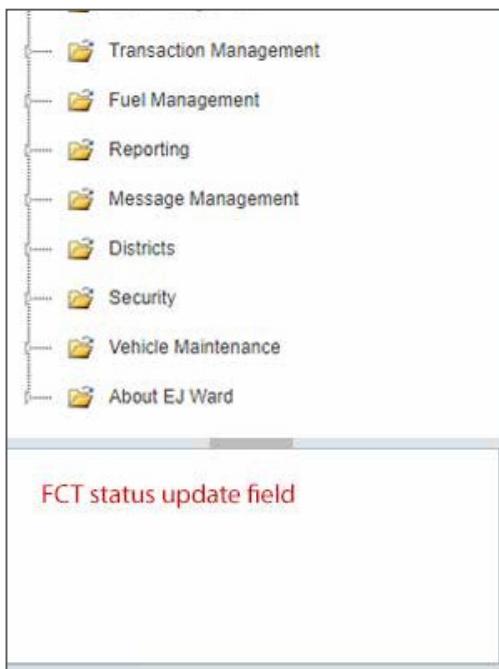
- Refresh the FCT's local database (adds newly created Vehicles, Employees, Pumps, etc.) Turn a pump on or offline
- Gather the latest transactions
- Network troubleshooting (for W3 and W4 terminals) Gather latest data from TLS for tank levels

1. Click the blue Request Terminal Call link at next to the terminal name or number.



## Lesson 18. Real Time Status Update

Upon Save after any new, edited, deactivated, or reactivated update within Sites and Assets, Fuel View will call and update that FCT. The most recent contact history information will be visible below the Directory in an expandable field.



## Activity 32. View An FCT Update Record

1. Update a record within Asset or Site Management.
2. Click **Save**.
3. Drag the window bar at the bottom of the directory up to view the most recent communication history.

## 7. Alerts and Alarms

### Lesson 19. WatchDog Service

Ward WatchDog monitors services supporting Fuel View and ensures communication is functional. When a problem is detected, WatchDog will automatically restart any service that has ceased to operate. Alerts and messages from the services are sent to WatchDog for centralized logging.

### Lesson 20. Alert Settings

Fuel View monitors the status of every FCT, tank, and pump for activity, warnings, and communication failures, and sends alerts for specific monitored conditions. When an alarm occurs, Fuel View sends notifications to a specified email list.

 **NOTE:** Alerts can be configured by users with the proper permissions.

#### Alert Definitions

**Terminal Status** Displays tank and pump details by FCT connections. **Tank Level Sensor Status** TLS displays tank and pump details within each site. **Alert Settings** Allows for configuration of system wide alerts.

**Alert History** Displays a historical listing of Fuel View alerts.

**System Alerts** Displays alerts about Ward services and system wide errors.

**TLS Alarms** Displays Alarms that have come in from the TLS (tank level sensor).

**Transaction Processing Errors** Displays transactions with errors being added to the database (W4 FCTs only).

#### Activity 33. Create An Alert Setting Configuration

The Alert Settings configure system-wide alerts. Before configuring alerts, you will need the following information: List of user's email addresses to notify

The alert to configure and specific options for each alert

Frequency to check for alerts

1. Open the Alert Settings grid.

Alert Settings						List of Alert Settings in the system.
<input type="button" value="Add Record"/> <input type="button" value="Columns"/> <input type="button" value="Paging"/>						
#	Name	Created On	Last Checked	Frequency in Minutes		

2. Click the **Add Record** tool to open the Settings Profile.

Settings Profile					
Settings Name:	<input type="text"/>				
Last Error Checked:	<input type="text"/>				
Frequency (Minutes):	<input type="text" value="15"/>	<input type="button" value="▲"/>	Created By:	<input type="text" value="WARDFUEL"/>	<input type="button" value="▼"/>

3. In the **Settings Name** field, create a name for the configuration.

4. In the **Frequency** field, enter a number of minutes between polls.

5. Click the **Active** check-box to activate the Alert.
6. Click **Save**.
7. Click **OK**.
  - The Alert Settings screen opens. In the Notifications section:

Notifications				 Add User
First Name	Last Name	Email	Options	
Additional Email(s): <input type="text"/>				

8. Click the **Add User** button to select personnel from the drop-down list to receive notifications.
9. Click **OK** and repeat as necessary for additional recipients.
10. Optional: In the **Additional Emails** field, manually enter an email address that is not in the database.
  - Add multiple emails with in a comma separated list. These emails will only appear in this field and not be added to the user database.

#### **Activity 34. Remove An Email From Notices**

1. Click the **Delete** button after an email.
2. Click **OK**.

## Alerts Configuration

### List Terminal Alerts

- Intrusion
- AC Power
- Restore Auto
- Restart
- Pump Went Offline
- Pump Switch Change
- Terminals without Transactions
- Power Loss Detected
- Issue with OS Config File Updates

### Tank Alerts

- Approaching Reorder
- Below Reorder

### Pump Alerts

- Pump In
- Bypass Pump
- Off Pump
- Offline
- Transaction Time Difference for Pump

### Communication Alerts

- Missed Comm. Time
- Terminals Offline
- Network Comm.
- Offline

### TLS Alerts

- Missed TLS Comm. Time
- TLS Units That Have Reported Alarms
- TLS units not communicated

### Transaction Alerts

- Transaction Time Difference For Vehicle
- Transaction Volumes Greater Than Tank Size
- Transaction Volumes Greater Than Quantity
- Highest Volume Transactions
- Transactions With Volumes Less Than Employees That Haven't Fueled
- Unprocessed Raw Transactions
- Transaction Processing Errors

### Vehicle Alerts

- Transaction Time Difference for Employee Odometer/Hourmeter Changes by Vehicle
- Odometer/Hourmeter Changes By Distance/Hours
- MPG/KPL Calculation Greater Than MPG/KPL Calculation Less Than Vehicles Not Fueled

### Terminal OS Alerts

- Unable to run unzip test command for corruption
- Configuration zip file corrupted
- Unable to run unzip command
- Unable to open unzip directory
- No valid configuration files found in unzip directory
- Unable to parse configuration file
- Unable to update internal database
- Unable to open configuration file
- Unable to read configuration file
- Missing configuration files
- Extra configuration files

## Activity 35. Activate Alert Options

When new configurations are created, all Alert Configuration option default settings are set to Off. In the Alert Settings grid, click the blue hyper link in the Name column to open the Settings screen.

1. To activate an alert, click its blue check-box.

**Settings Profile**

Setting Name:	<input type="text" value="San Antonio Location"/>	Active? <input checked="" type="checkbox"/>
Last Error Checked:	<input type="text" value="5/16/2018 7:51:25 PM"/>	Created By: <input type="text" value="WARDUEL"/>
Frequency (Minutes):	<input type="text" value="15"/> <input type="button" value="Up"/>	<input type="button" value="Add User"/>

**Notifications**

First Name	Last Name	Email	Phone	Email Notification	SMS Notification	Options
Additional Email(s): <input type="text"/>						

**Alerts Configuration**

**Terminal Alerts**

<input checked="" type="checkbox"/> Intrusion	<input checked="" type="checkbox"/> AC Power Restore
<input checked="" type="checkbox"/> Auto Restart	<input checked="" type="checkbox"/> Pump Went Offline
<input checked="" type="checkbox"/> Pump Switch Change	<input checked="" type="checkbox"/> Terminals without transactions <input type="text" value="12"/> Hours
<input checked="" type="checkbox"/> Power Loss Detected	<input checked="" type="checkbox"/> Issue with OS Config File Updates

**Tank Alerts**

<input checked="" type="checkbox"/> Approaching Reorder	<input checked="" type="checkbox"/> Below Reorder
---	---

**Pump Alerts**

<input checked="" type="checkbox"/> Pump In Bypass	<input checked="" type="checkbox"/> Pump Off
<input checked="" type="checkbox"/> Pump Offline	<input checked="" type="checkbox"/> Transaction Time Difference for Pump <input type="text" value="2"/> Minutes

**Communication Alerts**

<input checked="" type="checkbox"/> Missed Comm. Time	<input checked="" type="checkbox"/> Terminals Offline
<input checked="" type="checkbox"/> Network Comm. Offline	

**TLS Alerts**

<input checked="" type="checkbox"/> Missed TLS Comm. Time	<input checked="" type="checkbox"/> TLS units not communicated <input type="text" value="12"/> Hours
<input checked="" type="checkbox"/> TLS Units That Have Reported Alarms	

**Transaction Alerts**

<input checked="" type="checkbox"/> Transaction Time Difference for Vehicle <input type="text" value="2"/> Minutes	<input checked="" type="checkbox"/> Transaction volumes greater than tank size
<input checked="" type="checkbox"/> Transactions with volumes greater than <input type="text" value="50"/> Quantity	<input checked="" type="checkbox"/> Highest volume transactions <input type="text" value="50"/> Top count
<input checked="" type="checkbox"/> Employees that haven't fueled <input type="text" value="7"/> Night	<input checked="" type="checkbox"/> Transactions with volumes less than <input type="text" value="5"/> Quantity
<input checked="" type="checkbox"/> Transaction Processing Errors <input type="text" value="30"/> Days, Terminal	<input checked="" type="checkbox"/> Unprocessed Raw Transactions <input type="text" value="30"/> Days, Terminal

**Vehicle Alerts**

<input checked="" type="checkbox"/> Transaction Time Difference for Employee <input type="text" value="2"/> Minutes	<input checked="" type="checkbox"/> Odometer/Hourmeter changes by Vehicle
<input checked="" type="checkbox"/> MPG/YPL calculation greater than <input type="text" value="50"/> MPG/YPL	<input checked="" type="checkbox"/> Odometer/Hourmeter changes by distance/hours <input type="text" value="500"/> Distance
	<input checked="" type="checkbox"/> MPG/YPL calculation less than <input type="text" value="7"/> Days
	<input checked="" type="checkbox"/> Vehicles not fueled <input type="text" value="7"/> Days

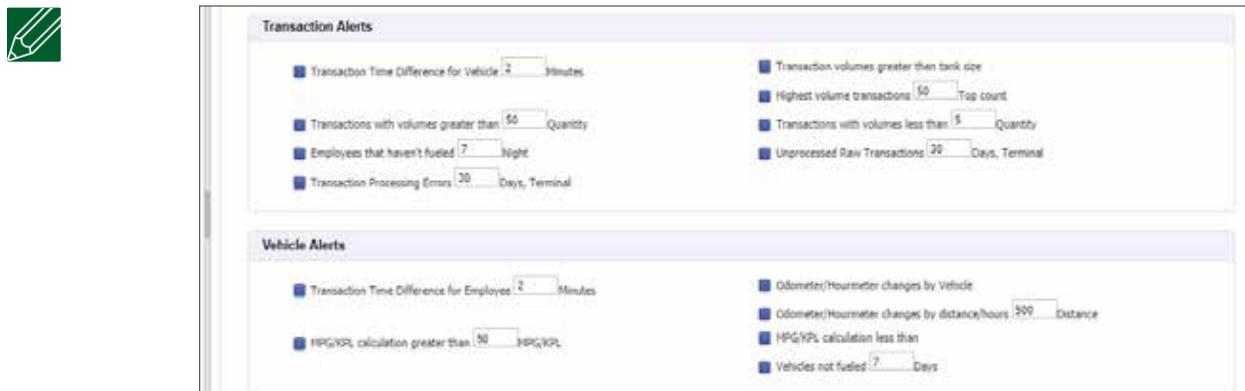
**Terminal OS Alerts**

<input checked="" type="checkbox"/> Unable to run unzip test command for corruption	<input checked="" type="checkbox"/> Configuration zip file corrupted
<input checked="" type="checkbox"/> Unable to run unzip command	<input checked="" type="checkbox"/> Unable to open unzip directory
<input checked="" type="checkbox"/> No valid configuration files found in unzip directory	<input checked="" type="checkbox"/> Unable to parse configuration file
<input checked="" type="checkbox"/> Unable to update internal database	<input checked="" type="checkbox"/> Unable to open configuration file
<input checked="" type="checkbox"/> Unable to read configuration file	<input checked="" type="checkbox"/> Missing configuration files
<input checked="" type="checkbox"/> Extra configuration files	

## Activity 36. Change A Default Value

Some alert options come with the parameters that are populated with default values. To modify or add values:

1. Click the text-box next to an option and modify the value.



**NOTE: All Alert Options are numeric.**

2. Click **Save** when all required alerts have been activated and options updated to the required value. Fuel View will begin monitoring the programmed Alert Settings configurations.

## Lesson 21. Alert History

### Activity 37. View An Alert History

1. Open the Alert History grid.

Terminal Alerts					
		Columns	Paging	Export	
#	Id	Alert Type	Site Name	Time	Terminal Number
	181	Intrusion	WardTestCarwash	4/15/2015 11:12:00 AM	1
	182	Intrusion	WardTestCarwash	4/15/2015 11:37:00 AM	1
	183	Intrusion	WardTestCarwash	4/15/2015 2:07:00 PM	1
	184	Intrusion	WardTestCarwash	4/15/2015 2:29:00 PM	1

- The grid displays all recorded alerts.

## Lesson 22. Service Alerts

Service Alerts notify designated users of loss of connection or functionality.

### Service Alerts List

WardComm  
 Ward Process  
 Transaction Online  
 Listener CANceiver  
 Listener  
 Event Parser  
 Scheduled Task  
 Service Fuel View  
 WardAPI

## Activity 38. Set Up A Service Alert Notification

To set up a Service Alert email notification:

1. In the Alerts And Alarms folder, open the Service Alerts grid.
2. Click a blue hyper-link in the Name folder to open that Service Alerts screen.
3. In the Service Alerts section, click the Add User button.

Service Alert Users				
Username: pbhandari Email Notification: False	Name: Prashant Bhandari SMS Notification: False	Email: pbhandari@ejward.com Log Level: Informational	Phone:	 

4. In the Select a User to Notify drop-down list, select a user.

Select a User X

Select a User to notify:

Send Email:
 Send Text Message:

5. Click OK.

 **NOTE:** When deleting or adding users, it is not necessary to click Save in the Service Alerts screen.

## Lesson 23. Service Alert History

### Activity 39. View A Service Alert

1. Open the Service Alert History grid.



## 8. Asset Management

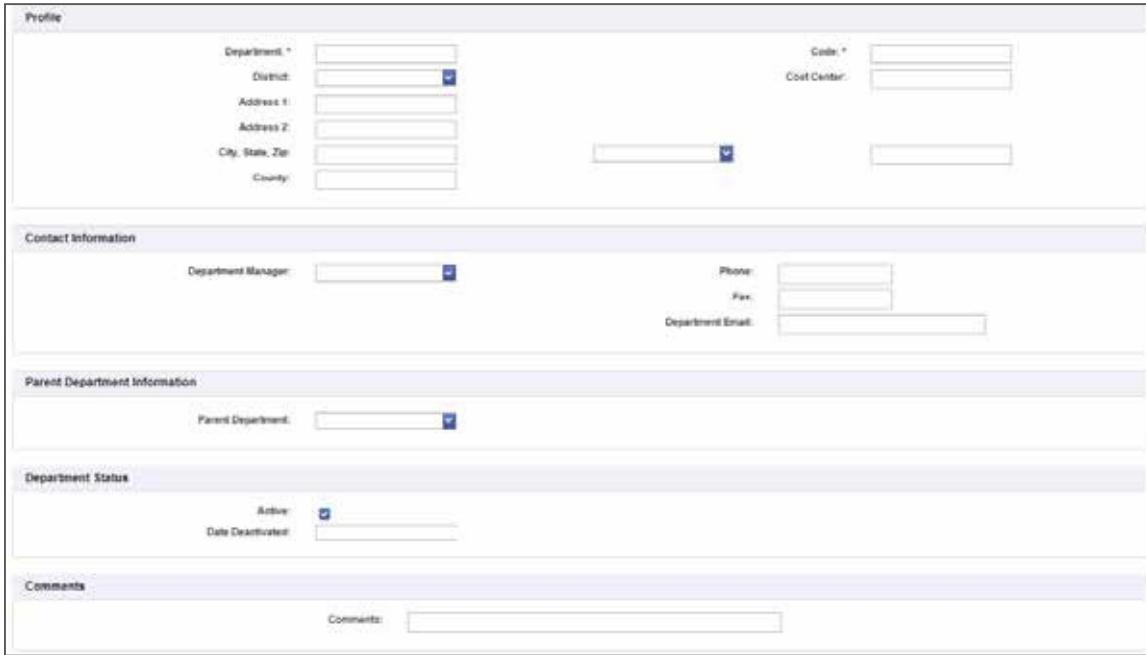
Fuel View provides the tools needed to manage assets and associated departments, employees, and site card information for fleets.

We begin Asset Management set-up with creating Departments, Employees, Vehicles, and Administrative/Site Cards.

### Lesson 24. Departments

#### Activity 40. Set Up A Department

1. Expand the Assets folder, and open the Departments grid.
2. Click the **Add Record** tool to open Department New Record Data Entry screen. Asterisks indicate



The screenshot shows a data entry form for a new department. The form is organized into several sections:

- Profile:** Contains fields for Department (\*), District, Address 1, Address 2, City, State, Zip, County, Code (\*), and Cost Center.
- Contact Information:** Contains fields for Department Manager, Phone, Fax, and Department Email.
- Parent Department Information:** Contains a field for Parent Department.
- Department Status:** Contains fields for Active (checkbox) and Date Deactivated.
- Comments:** Contains a Comments field.

required fields.

In the Profile section:

3. In the **Department** field, enter a unique name of the new department.
  - The Department field accepts up to 60 alpha-numeric characters.
4. In the **Code** field, enter a code that uniquely identifies the new department.
  - The Code field accepts up to 20 alpha-numeric characters.
5. Optional: In the **District** field, select the District designation for the Department.
6. Optional: Enter the department **Address**, **City**, **State**, **Zip Code** and **County**. In the Contact Information section:
7. Optional: Select a **Department Manager** from the drop-down list and enter the Manager's **Phone**, **Fax**, and **Department Email**.

In the Parent Department Information section:

8. Optional: In the **Parent Department** drop-down list, select a

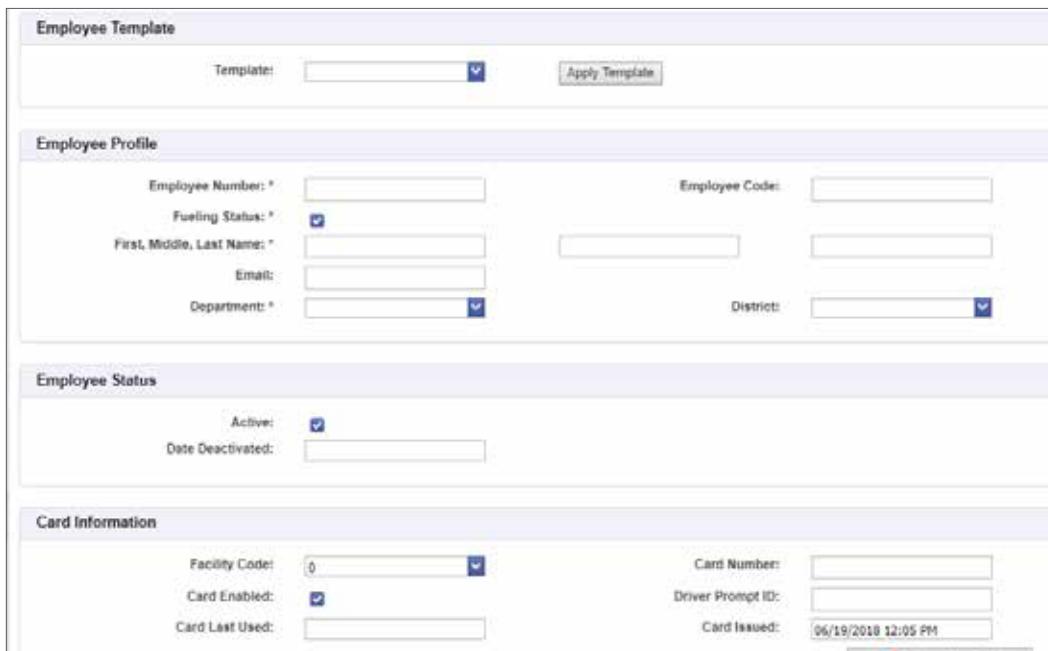
department. The Department Status check box should default to active (checked).

9. Click **Save**.

## Lesson 25. Employees

### Activity 41. Create An Employee Record

1. Click the **Add Record** tool to open the Employee New Record data entry screen.



The screenshot shows the 'Employee Template' data entry screen. It has three main sections:

- Employee Profile:** Contains fields for Employee Number (with a dropdown menu), Fueling Status (checkbox checked), First, Middle, Last Name (text boxes), Email (text box), Department (dropdown menu), Employee Code (text box), and District (dropdown menu).
- Employee Status:** Contains Active (checkbox checked) and Date Deactivated (text box).
- Card Information:** Contains Facility Code (dropdown menu), Card Enabled (checkbox checked), Card Last Used (text box), Card Number (text box), Driver Prompt ID (text box), and Card Issued (text box showing 06/19/2018 12:05 PM).

In the Employee Profile section:

2. In the **Employee Number** field, enter a unique number for the employee.
3. Optional: In the **Employee Code** field, enter an unique Employee Code.
4. If the FCT is set to prompt for an employee number while authorizing fueling transactions, check the **Fueling Status** check-box to allow Master and Site cards to use the employee number for validation.
5. In the **First and Last Name** fields, enter employee's first name and last name.
6. In the **Department** drop-down list, select employee's department.
7. Optional: In the **District** drop-down list, select the employee's district. In the Card Information section:
8. Optional: In the **Facility Code** drop-down list, select a facility location.

 **NOTE: The default Facility Code is EJ Ward. If proxy badges are being utilized for fueling transactions, a client-defined Facility Code must be selected for each employee.**

9. Optional: Click the **Assign New Card** tool to generate a new number.
  - The next available employee card number will be assigned to

the card. In the Fuel Information section:

10. Optional: In the **Fuel 1 and Fuel 2** drop-down lists, select the Fuel Type(s) the employee's card is authorized to dispense.

In the Comments section:

11. Optional: In the **Comments** field, add any additional information for the employee.
12. Click **Save**.

## Activity 42. Activate An Employee Card or Fob For Fueling

1. Open an employee's record by clicking on the blue Employee # or Employee Name in the Employees

Employees			
	Add Record		Query
	Columns		Paging
	Export		Create Template
#	Employee #	First Name	Card #
	100137	RANDY	50078
	100179	NICK	51422

grid.

In the Card Information section:

2. Check the **Card Enabled** field.
3. Click **Save**.

## Activity 43. Change An Employee Fueling Status

1. Open the Employee record by clicking on the blue employee number in Employee grid. In the Employee Profile section:

Employee Profile	
Employee Number: *	521866
Employee Code:	B9921
Fueling Status: *	<input checked="" type="checkbox"/>
First, Middle, Last Name: *	Angelo
Department: *	103; Department #103
District:	Teves

To allow Employee validation from a Vehicle, Administrative and Site Card transaction:

2. Check the **Fueling Status** box.
3. Click **Save**.

To prohibit Employee validation from a Vehicle, Administrative and Site Card transaction:

4. Uncheck the **Fueling Status** box.
5. Click **Save**.

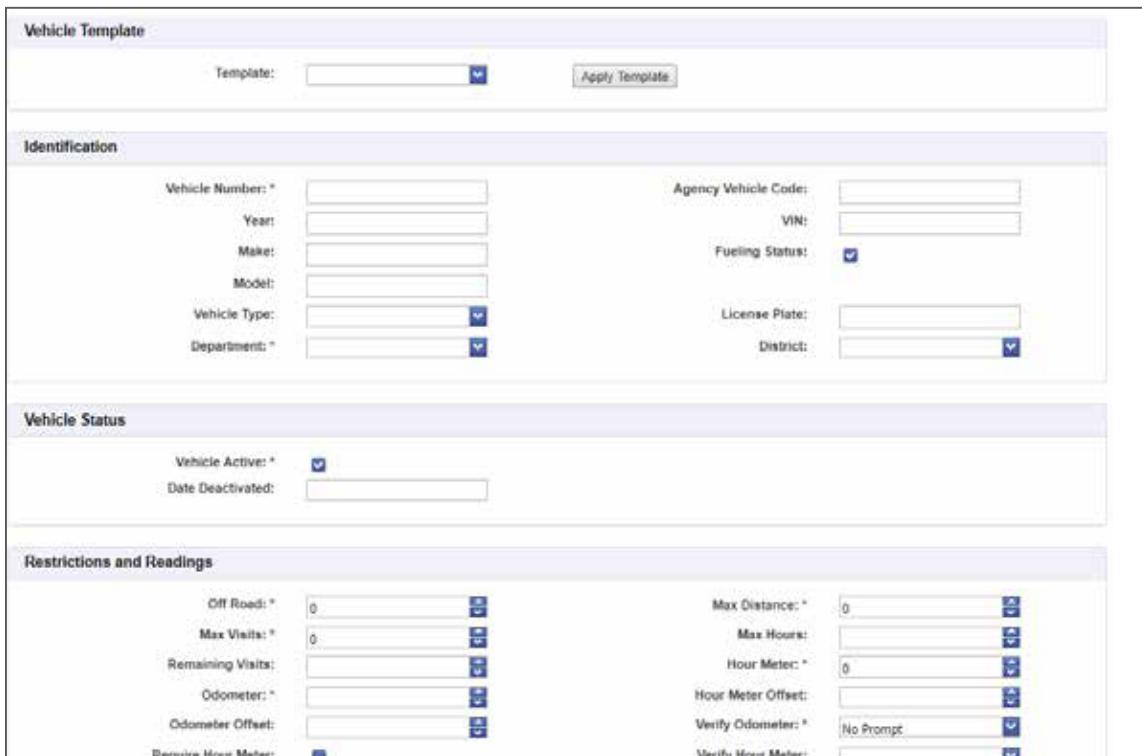
## Lesson 26. Vehicles

A vehicle in Fuel View is any asset that can be fueled, such as a car, truck, or bus, but can also include small engine assets such as lawn mowers or even gas cans. Each fueling asset in Fuel View needs to be identified through a unique Vehicle Number.

## Activity 44. Create A Vehicle Record

1. In the Vehicles grid, click the Add Record button to open Vehicles data entry screen.

In the Identification section:



**Vehicle Template**

Template:  Apply Template

**Identification**

Vehicle Number: *	<input type="text"/>	Agency Vehicle Code: <input type="text"/>
Year: <input type="text"/>	VIN: <input type="text"/>	Fueling Status: <input checked="" type="checkbox"/>
Make: <input type="text"/>		
Model: <input type="text"/>		
Vehicle Type: <input type="text"/>	Licence Plate: <input type="text"/>	District: <input type="text"/>
Department: <input type="text"/>		

**Vehicle Status**

Vehicle Active: * <input checked="" type="checkbox"/>	Date Deactivated: <input type="text"/>
---	--

**Restrictions and Readings**

Off Road: * <input type="text"/>	Max Visits: * <input type="text"/>	Remaining Visits: <input type="text"/>	Odometer: * <input type="text"/>	Odometer Offset: <input type="text"/>	Require Hour Meter: <input type="checkbox"/>	Max Distance: * <input type="text"/>	Max Hours: <input type="text"/>	Hour Meter: * <input type="text"/>	Hour Meter Offset: <input type="text"/>	Verify Odometer: * <input type="text"/>	Verify Hour Meter: <input type="text"/>
----------------------------------	------------------------------------	--	----------------------------------	---------------------------------------	--	--------------------------------------	---------------------------------	------------------------------------	---	---	---

2. In the **Vehicle Number** field, assign a unique number to vehicle.
3. Optional: Fill in the **Year**, **Make**, and **Model** fields.
4. Optional: Fill in the **Vehicle Type**, and **License Plate** fields.
5. In the **VIN** field, enter the vehicle's 17 digit VIN.

 **NOTE: VINs must be 17 characters long. In the event that there are not 17 characters – as with heavy duty equipment – fill in with leading zeros.**

6. In the **Department** drop-down list, assign vehicle to a department.
7. Optional: In the **Agency Vehicle Code** field, enter a code.
8. Optional: In the **District** drop-down list, assign vehicle to a district.

Skip the Vehicle Status section; when creating a new vehicle record, the default value is active. In the Restrictions and Readings section:

9. In the **Off Road** field, enter the percentage the vehicle will be used off-road.
10. In the **Max Visits** field, enter the authorized number of times per day the card is allowed access to fueling.
  - A zero entry will allow unlimited fueling transactions.
11. In the **Odometer** field, enter the current odometer reading of the vehicle.
  - A zero entry will start the odometer at zero.
12. Optional: In the **Odometer Offset** field, enter the value of the constant drift.
13. In the **Maximum Distance** field, enter distance a vehicle is allowed to travel before their next fueling.
  - A zero entry will allow unlimited fuel access.
14. If hours are a required for vehicle motor tracking, check the **Require Hour Meter** check-box.

15. In the **Hour Meter** field, enter the current metered hours of the vehicle or device.
  - A zero entry will start the hour at zero.
  - The Hour Meter indicator must be used in conjunction with CVR Card number options to operate properly.
16. Optional: If the ECM hour meter and the displayed hour meter do not match: In the **Hour Meter Offset** field, enter the difference.

 **NOTE:** When changing a vehicle from Odometer to Hour Meter Input or vice versa, resend the Main Configuration to the vehicle. Reference Add Main Config.

17. If hours is the usage tracking method, check the **Hour Meter** Input box.
18. Select the **Verify Odometer** behavior that the FCTs should enforce for the vehicle.

### Prompt Definitions

- No Prompt** The FCT will not prompt for a meter reading when the vehicle attempts to authorize a fueling transaction.
- Prompt** Instructs the FCT to prompt the vehicle odometer (or hour meter, depending on the primary meter setting of the vehicle; see Hour Meter), but does not validate the operator entry.
- Prompt and Validate** Instructs the FCT to prompt for vehicle odometer (or hour meter) and displays a warning message if odometer is out of range.  
 The odometer reading is considered out of range if odometer entered is greater than the last odometer reading in system for that particular vehicle by more than vehicle's Maximum Travel Distance setting, and prompts for odometer reading again. If the operator re-enters an out of range odometer, the FCT will accept the new odometer reading and authorize fueling if the values match.
- Validate Strictly** Instructs the FCT to prompt for vehicle odometer (or hour meter) and will not authorize fueling if the entered reading is out of range. This setting only applies to systems that store a vehicle database in the FCTs; otherwise programming of the vehicle cards determines the FCT odometer prompting behavior.

In the CANceiver or VIT, Class, and Repair section:

Credit Card Information	
Card Format:	<input type="text"/>
Account Number:	<input type="text"/>
Expiration Date (YYMM):	<input type="text"/>
Vehicle Credit Card Number:	<input type="text"/>

19. Check **Has CANceiver** box if vehicle is equipped with a CANceiver or Ward non OBD (previously known as a VIT).

 **NOTE:** CANceiver or VIT option is used by Fuel View for report purposes only.

20. If using a W3 CANceiver, enter an ID in the **CANceiver ID** field.
21. Optional: Fill in the **Custom User Field 1** field to include variable information.
22. Optional: Fill in **Comment 2** to include variable information of the vehicle.
23. If the vehicle has a GPS, check the **Has GPS Installed** box.

An allocation limits the amount of fuel a vehicle can pump over a period of time. The time limit for allocations is set outside of the system.

In the Allocation Section:

Date Issued:	<input type="text"/>
Fuel Information	

24. Optional: In the **Max Fueling** drop-down list, enter the maximum amount of fuel (gallons/liters) the vehicle is allowed per week.

- The read only, Fueling Remaining field will calculate a running total of the remaining amount of fuel allowed for the week or period of time the allocation is for.

In the Card Information section:

Card Information	
OGS Card Number:	<input type="text"/>
Card Number: *	<input type="text"/>
Card Status:	<input checked="" type="checkbox"/>
Card Last Used:	<input type="text"/>
Date Issued:	<input type="text"/>
<input type="button" value="Assign New Card"/>	

25. Do one of the following:

- Enter a number in **Card Number** field.
- Click **Assign New Card** button to let Fuel View generate a number.

Each card is associated with a specific vehicle, and is used to authorize fueling through the FCT.

 **NOTE:** All vehicle records must be assigned a card number. A card may be a magnetic strip card, Ward non OBD, CANceiver, HID ProxyCard, Type I Tag, FOB, or a manually entered number.

In the Fuel Information section:

Fuel Information			
Fuel 1:	<input type="text"/> Unknown; units	Max Quantity:	<input type="text"/> 0
Fuel 2:	<input type="text"/> Unknown; units	Max Quantity 2:	<input type="text"/> 0

26. Optional: Fill in Fuel 1 and Fuel 2 for Fuel Types the card is authorized to dispense.

In the **Max Quantity** fields, enter fuel tank capacity or maximum allowable fuel per transaction.

- The Maximum Volume is the amount of product a vehicle can acquire from each fueling transaction.
- A zero entry will allow unlimited fuel.

27. Click **Save**.

- Card details will populate the Card Information section upon saving.

 **NOTE:** To assign a different card number to a vehicle use the Assign Card section to retrieve the next available Vehicle card number in the system.

 **NOTE:** Assigned Immediate Configurations is read-only.

 **NOTE:** To copy an existing vehicle record in order to create another similar vehicle record, select the existing vehicle record from the Vehicles grid and click the **Copy** button

at the bottom of the Vehicle screen.

After saving the new vehicle record, or updating an existing vehicle record, a CANceiver Main Configuration and Network Configuration can be selected and sent directly from the vehicle screen by selecting them from the Configurations section. The Assigned Immediate Configurations will show all Immediate Configurations that have been sent to the vehicle (if there are any).

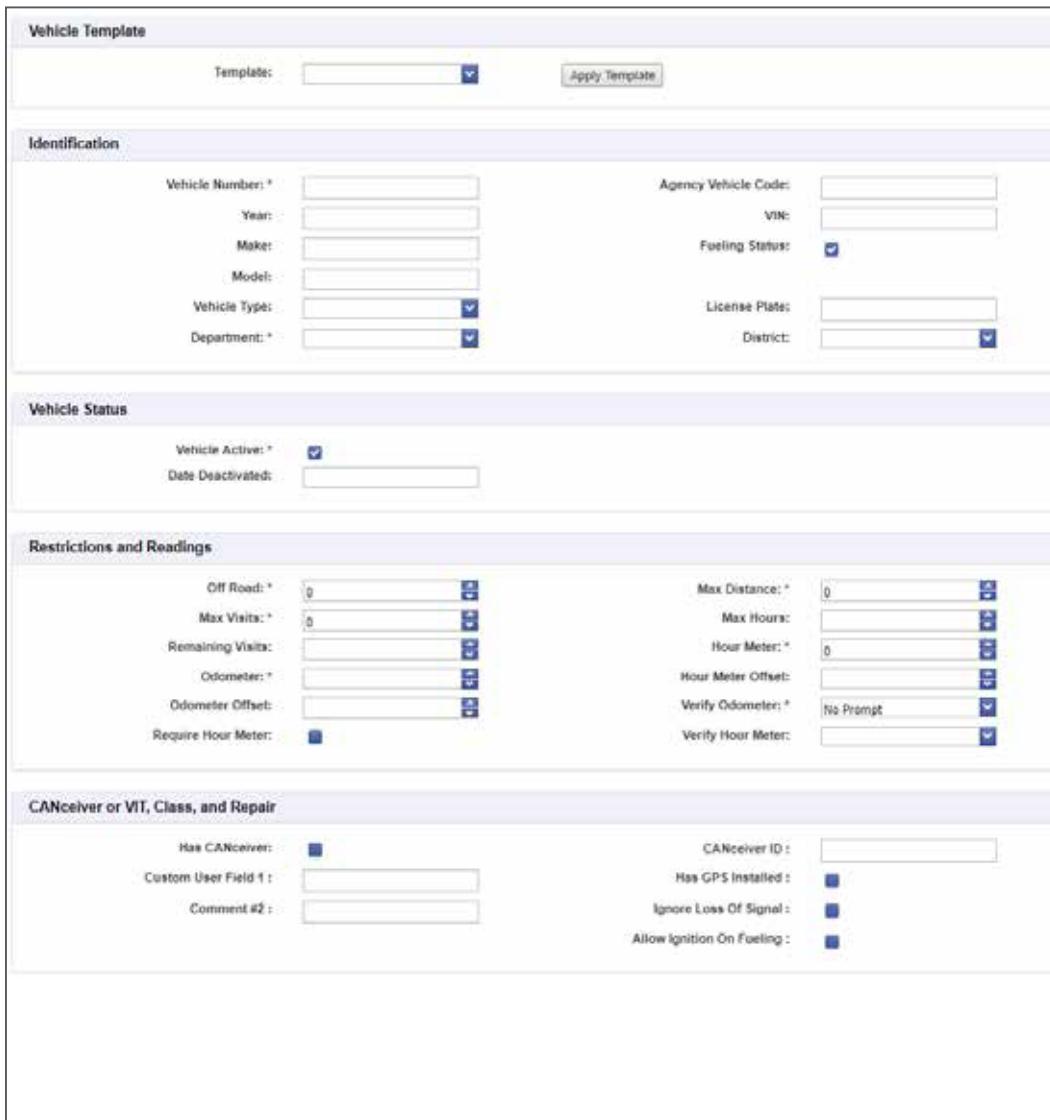
## Lesson 27. Templates

Templates save time and decrease human error by creating master files for repetitive data in Employee and Vehicle records.

For example, records for vehicles with standard attributes (i.e. same year/make/ model/fuel type) can be started from the Template drop-down list.

### Activity 45. Create A Vehicle Template

1. In the Vehicles grid, click the Create Template tool.
2. Give the Template a name in the **Template Name** field.
3. Fill in the repetitive data fields for vehicles.
4. Click **Save Template**.
5. In the Vehicle grid click Add Record.



**Vehicle Template**

Template:  Apply Template

**Identification**

Vehicle Number: *	<input type="text"/>	Agency Vehicle Code: <input type="text"/>
Year: <input type="text"/>	VIN: <input type="text"/>	
Make: <input type="text"/>	Fueling Status: <input checked="" type="checkbox"/>	
Model: <input type="text"/>	<input type="text"/>	
Vehicle Type: <input type="text"/>	License Plates: <input type="text"/>	
Department: *	District: <input type="text"/>	

**Vehicle Status**

Vehicle Active: * <input checked="" type="checkbox"/>
Date Deactivated: <input type="text"/>

**Restrictions and Readings**

Off Road: * <input type="text"/>	Max Distance: * <input type="text"/>
Max Visits: * <input type="text"/>	Max Hours: <input type="text"/>
Remaining Visits: <input type="text"/>	Hour Meter: * <input type="text"/>
Odometer: * <input type="text"/>	Hour Meter Offset: <input type="text"/>
Odometer Offset: <input type="text"/>	Verify Odometer: * <input checked="" type="checkbox"/>
Require Hour Meter: <input checked="" type="checkbox"/>	Verify Hour Meter: <input type="text"/>

**CANceiver or VIT, Class, and Repair**

Has CANceiver: <input checked="" type="checkbox"/>	CANceiver ID: <input type="text"/>
Custom User Field 1: <input type="text"/>	Has GPS Installed: <input checked="" type="checkbox"/>
Comment #2: <input type="text"/>	Ignore Loss Of Signal: <input checked="" type="checkbox"/>
	Allow Ignition On Fueling: <input checked="" type="checkbox"/>

6. Select a **Template** from the drop-down list.
7. Click the **Apply Template** button.
8. Fill out all remaining required data fields.
9. Click **Save**.

 **NOTE:** Employee templates are not covered in the training course but are created in the same manner and applied as Vehicle templates.

## Lesson 28. Administrative Cards

Fuel View is preloaded with 1,024 Administrative Cards. Each Administrative Card must be activated before it can be used.

### Activity 46. Set Up An Administrative Card

In the Asset Management folder:

1. Click the Administrative Cards icon to open the Administrative Cards grid.
2. Open an inactive card by clicking the blue Administrative Card number in the grid without an employee name.. In the Profile section:

<b>Profile</b>	
Site:	0
Card Number:	10
Card Status:	<input checked="" type="checkbox"/>
Maximum Quantity:	0
Card Last Used:	
<b>Employee</b>	
Employee:	0
<b>Fuel</b>	
Fuel 1:	All; AL; 9
Fuel 2:	Unknown; UK; 0

3. In the **Site** drop-down field, select a site where the card will be used.
4. Check the **Card Status** box to activate the card.
5. In the **Maximum Quantity** field, enter a volume limit per transaction. In the Employee section:
6. In the **Employee** drop-down field, select an employee who will be in possession of the Administrative Card.

In the Fuel section:

7. Select a Fuel Type for drop-down fields **Fuel 1** and **Fuel 2**.
  - This will control what type of fuel the card will be allowed to access.
8. Click **Save**.

In the Fuel Transfer section

9. Optional: For FCT IoT's only. This is the default tank(s) the system will use when an Administrative Card is used to trigger a fuel transfer. Each Administrative Card will have its own default tank(s).

## Lesson 29. Site Cards

Fuel View is preloaded with 1024 Site Cards. Each Site Card must be individually activated before it can be used.

### Activity 47. Set Up A Site Card

1. In the Asset Management folder, click the Site Card icon to open the grid.
2. Open an inactive card by clicking on the blue Card Number link.

Site Cards		
	Card Number	Site Name
	1	Site 500
	2	Site 500
	3	Site 500

In the Profile section:

Profile	
Site:	0
Card Number:	6
Card Status:	<input checked="" type="checkbox"/>
Maximum Quantity:	0
Card Last Used:	

3. In the **Site** drop-down list, select the Site where card will be used.
  4. Check the **Card Status** box to activate the card.
  5. To create a fuel limit per transaction, enter a volume in the **Maximum Quantity** field. In the Employee section:
  6. In the **Employee** drop-down list select the employee who will be in possession of the Site Card.
- In the Fuel section:
7. Select a Fuel Type in drop-down lists **Fuel 1** and **Fuel 2**.
    - This will control what type of fuel the card will be allowed to access.

8. Click Save.

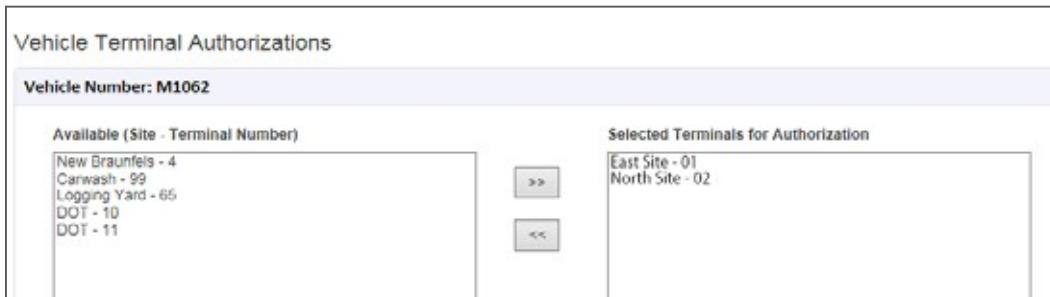
 **NOTE:** Site cards allow managers the ability to override the Fuel View fueling script and should only be used in an emergency.

## Lesson 30. Vehicle Terminal Authorization

This feature restricts vehicles to fueling only at specified FCTs. If one or more FCTs are selected for an individual vehicle, the vehicle can only fuel from these FCTs. If one vehicle is configured to use this feature, all vehicles must be configured.

### Activity 48. Authorize A Vehicle

1. Select a **Vehicle Number** for authorization.
2. Using the >> button, select the Terminals for Authorization from the **Available (Site – Terminal**



Number) list.

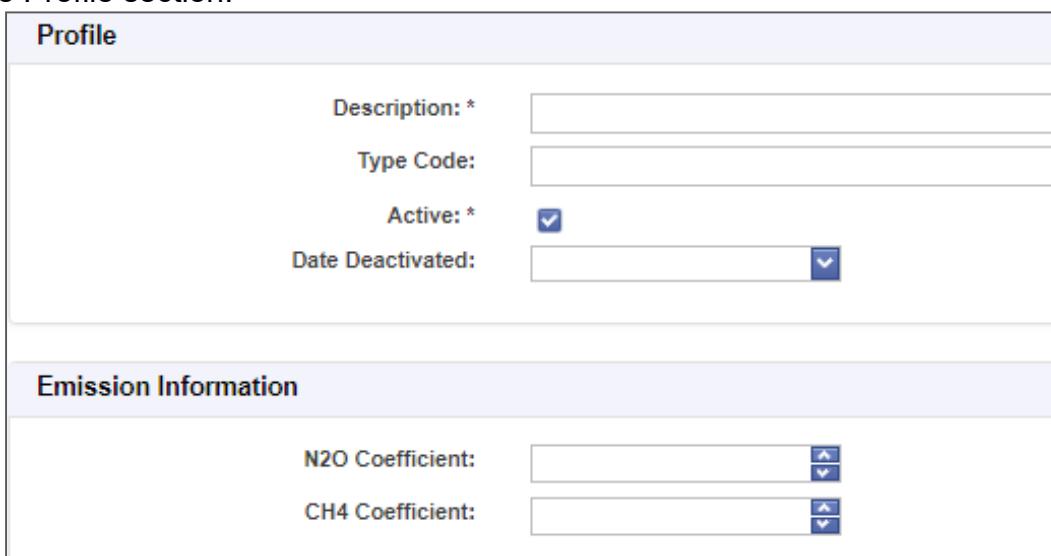
 **NOTE:** Depending on user preference, the label can become **Vehicle Terminal Restriction** or **Select Terminals for Restriction**. Contact Ward.

### Activity 49. Set Up A Vehicle Type

Fuel View is programmed with pre-loaded vehicle types; however the user is able to add extra vehicle types that can be used to classify a vehicle or motorized equipment.

 **NOTE:** Vehicle Type is also used to enter the Emission footprint in Emissions Report and Dashboard.

1. Open the Vehicle Type grid.
2. Click the **Add Record** tool to open New Record data entry screen. In the Profile section:



3. In the **Description** field enter the Vehicle Type.
4. In the **Type Code** field enter a vehicle code. In the Emissions Information section:
5. Optional: Enter the **N2O Coefficient**.
6. Optional: Enter the **CH4 Coefficient**.

 **NOTE: Check with the vehicle's manufacturer for emissions information.**

7. Click **Save**.

### Activity 50. Assign Vehicle Type

Open the Assign Vehicle Types screen in the Asset Management directory.

1. Check the **Update Method** which will bring up list of departments or vehicles.

Assign Vehicle Type	
Select an Update Method:	
<input type="radio"/> By Department? <input type="radio"/> By Vehicle?	

#### By Department

2. Select a **Department** from the drop-down list.

Assign Vehicle Type		Assign a Vehicle Type to one or more Vehicles
Select an Update Method:		
<input checked="" type="radio"/> By Department? <input type="radio"/> By Vehicle?		
Select Department(s): *		
<input type="text"/>		
Select a Vehicle Type: *		
<input type="text"/>		

3. Select a **Vehicle Type** from the drop-down list.

4. Click **Update**.

#### By Vehicle

5. Select a **Vehicle** from the drop-down list.

Assign Vehicle Type		Assign a Vehicle Type to one or more Vehicles
Select an Update Method:		
<input type="radio"/> By Department? <input checked="" type="radio"/> By Vehicle?		
Select Vehicle(s): *		
<input type="text"/>		
Select a Vehicle Type: *		
<input type="text"/>		

6. Select a **Vehicle Type** from the drop-down list.

7. Click **Update**.

## Lesson 31. Import from Spreadsheet

### Activity 51. Importing a Spreadsheet

1. In the Asset Management folder, click the Import From Spreadsheet icon.
2. In the **Select the Import Type** drop-down list, select a destination for the upload. Vehicles  
Employees  
Department  
s Sites  
Terminals  
Tanks  
Pumps  
TLS
3. Click the **Browse** button to select a spreadsheet.



4. Click **Upload**.
5. Click the **Load File** button, when the *File Uploaded Successfully* notice appears.
6. In the **Table Column** drop-down list map (match) the column headers to the table columns by selecting the corresponding header in Fuel View.

SpreadSheet Columns		
Column Name	First Row Data	Table Column
make	ford	<input type="button" value="▼"/>
model	escort	<input type="button" value="▼"/>
year	2015	<input type="button" value="▼"/>
color	red	<input type="button" value="▼"/>
vin	1234567ds78945200	<input type="button" value="▼"/>
Odometer	4575	<input type="button" value="▼"/>
Id	1	<input type="button" value="▼"/>
Department	public works	<input type="button" value="▼"/>

7. Click **Save**.

Fuel View will process the data and create a report which at the bottom will state *Import Competeted*.

## 9. Site Management

A site is where fuel is stored and vehicles refuel. In Fuel View, a Site consists of several grids requiring set up. Asterisks indicate required fields; however, there are many data fields in each grid that if completed, help provide detailed and customized reporting.

Ward strongly recommends Site grids be set up in the following order:

1. Sites
2. FCTs
3. Tanks
4. Pumps
5. Pump Chaining (as required)
6. Manifolds (as

required) **Lesson 32.**

### Sites Activity 52.

#### Set Up A Site

1. Expand the Site Management folder and open the Site grid.
2. Click the **Add Record** tool to open the Site New Record data entry screen.

Profile	
Site: * <input type="text"/> Address 1: <input type="text"/> Address 2: <input type="text"/> City, State, Zip: <input type="text"/> <input style="width: 40px; height: 20px; vertical-align: middle;" type="button" value="..."/> County: <input type="text"/>  Time Zone: <input style="width: 150px; height: 20px; vertical-align: middle;" type="button" value="-5; Eastern Standard Time"/> <span style="margin-left: 20px;">Daylight Savings: <input style="width: 20px; height: 20px; vertical-align: middle;" type="button" value="1"/></span> Department: <input style="width: 150px; height: 20px; vertical-align: middle;" type="button"/> <span style="margin-left: 20px;">District: <input style="width: 20px; height: 20px; vertical-align: middle;" type="button"/></span> Active: * <input checked="" type="checkbox"/> Date Deactivated: <input type="text"/>	
Contact Information	
Manager: <input style="width: 150px; height: 20px; vertical-align: middle;" type="button"/> Phone: <input type="text"/> Fax: <input type="text"/>	

In the Profile section:

3. In the **Site** field, enter a site name.
  - The Site field accepts up to 32 alpha-numeric characters.
4. In the **Site Code** field, enter a Site Code.
5. Optional: Enter data as needed in the **Address**, **City**, **State**, **Zip**, and **County** fields.
6. In the **Time Zone** drop-down list, select a Time Zone.

 **NOTE: The Time Zone will affect time displayed on all FCTs assigned to this site.**

7. Optional: In the **Daylight Savings** field, enter 1 if daylight savings time is required.
8. Optional: In the **Department** drop-down list, select a department.

9. Optional: In the **District** drop-down list, select a district.
  - Some companies incorporate Districts for organizing their locations. Districts are setup exactly as Sites. In the Contact Information section:
10. Optional: In the **Manager** field, enter a Manager.
11. Optional: Fill in the **Phone**, and **Fax** fields.
12. Click **Save**.

### Activity 53. Deactivate A Site

Deactivating a Site will also deactivate its tanks, FCTs, and pumps.

1. Open the Sites grid.
2. Select a site to be deactivated. The Data Entry screen will open.
3. In the Data Entry screen, uncheck the **Active** check-box.
4. Click **Save**.
5. Wait for the confirmation message.
6. Click **Close**.

## Lesson 33. Terminals

Fuel Control Terminals (FCT) control the access to fuel pumps, EV charging stations, maintenance bay products, access gates and vehicle washes and have various communication and access methods. Creating a Terminal sets up a FCT and its communication parameters.

### FCT Types List

- W4 IoT Internet connectivity, and real time data access. W4 FCT
- W3 FCT Text communication

 **CAUTION: Communications set-up will be affected by the type of FCT selected. Ensure the correct FCT type is selected.**

### Activity 54. Add An FCT IoT

1. Open the Terminal grid.
2. Click the **Add Record** tool to open Terminal New Record data entry screen. In the Profile section:

Profile			
Terminal Number: *	<input type="text"/>	Terminal Code:	<input type="text"/>
Site: *	<input type="text"/> 96	PIN: *	<input type="text"/>
Online:	<input checked="" type="checkbox"/>	Last Communication:	<input type="text"/>
Terminal Type: *	<input type="text"/> W4 IoT: 9600	Active: *	<input checked="" type="checkbox"/>
		Date Deactivated:	<input type="text"/>

3. In the **Terminal Number** field, enter unique terminal number.

 **NOTE:** Enter a unique Terminal Number for this terminal. The terminal number must be between 1 and 255. If the site requires terminal numbers higher than 255 the number may be four digits, but the last three digits must be between 001 and 255.

#### Four digit anatomy:

1 through 9	0	through h 254
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4. In the **Terminal Code** field, enter a code for the FCT.
  - This may also be used as a password for Tank Level Sensors.
5. Select a **Site** from the drop-down list.
6. Ensure the **Active** box is checked to authorize dispensing products.
7. In the **Terminal Type** drop-down list, select *an IoT FCT type*.

In the Communications section:



The screenshot shows a software window with two main sections: 'Communications' and 'Administrative Functionality'. In the 'Communications' section, there are fields for 'Host Name (IP Address)' (containing '0.0.0.0') and 'MAC Address' (containing a blank line). In the 'Administrative Functionality' section, there are four checkboxes: 'Allow Tank Level Reading' (unchecked), 'Allow Totalizer Reading' (unchecked), 'Allow Tank Fuel Delivery Reading' (unchecked), and 'Allow Fuel Transfer' (unchecked).

8. In the **Host Name** field, enter the IP Address.
  - For TCP/IP communication, the FCT must have a static IP address which is accessible from the subnet on which the communication server resides. The network connection can be checked by pinging the IP address.
9. In the **MAC Address** field, enter the Network MAC address for the FCT.
  - The MAC Address field accepts only numbers and uppercase letters (A-F) without separation and must be 12 characters long.

In the Administrative Functionality section:

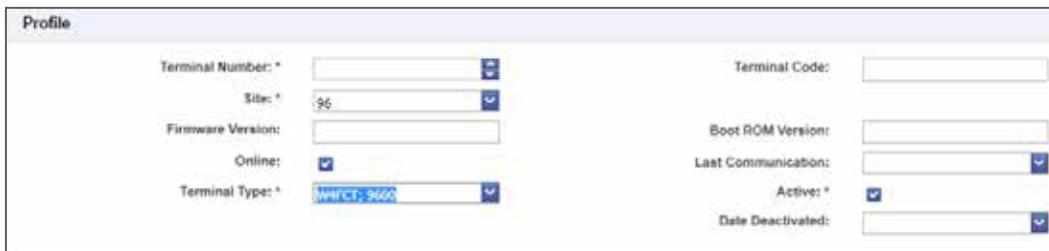
10. Optional: Check the **Tank Level Reading** check-box to allow tank level readings.
11. Optional: Check the **Totalizer Reading** check-box to allow totalizer readings.
12. Optional: Check the **Tank Fuel Delivery Reading** check-box to allow tank fuel delivery readings.
13. Optional: Check the **Fuel Transfer** check-box to allow fuel transfers.

 **NOTE:** Administrative Functionality works with Administrative Cards or fobs.

14. Click **Save**.

## Activity 55. Add A W4 FCT

1. Open the Terminal grid.
2. Click the **Add Record** tool to open Terminal New Record data entry screen. In the Profile section:



The screenshot shows the 'Profile' section of a terminal configuration interface. It includes fields for Terminal Number (set to 96), Site (set to 96), Firmware Version, Online status (checked), Terminal Type (set to 'W4FCT'), Terminal Code, Boot ROM Version, Last Communication, Active status (checked), and Date Deactivated.

3. In the **Terminal Number** field, enter unique terminal number.

 **NOTE:** Enter a unique Terminal Number for this terminal. The terminal number must be between 1 and 255. If the site requires terminal numbers higher than 255 the number may be four digits, but the last three digits must be between 001 and 255.

**Four digit anatomy:**

1 through 9            0  
 through  
 h 254

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4. In the **Terminal Code** field, enter a code for the FCT.
- This may also be used as a password for Tank Level Sensors.
5. Select a **Site** from the drop-down list.
6. Ensure the **Active** box is checked to authorize dispensing products.
7. In the **Terminal Type** drop-down list, select

**W4FCT.** In the Communications section:



The screenshot shows the 'Communications' section of a terminal configuration interface. It includes fields for Host Name (IP Address) (set to 0.0.0.0), Use TCP/IP Socket (checked), Call During Polling (checked), Controller (set to 0), and Poll Attempts.

8. In the **Host Name** field, enter the IP Address.
9. Check the **Use TCP/IP Socket** check-box if the host computer communicates with the FCT over a network (TCP/IP) connection.
10. Optional: Check the **Call During Polling** check-box to enable the FCT to be polled during automatic communications.
11. Optional: In the **Controller** field, enter the controller number.
12. Optional: In the **Poll Attempts** field, enter a number of unsuccessful poll attempts to make to the FCT.

In the Timings section:



Setting	Value
Call In Interval	120
Call Time Limit	0
Poll Interval	1440
Poll Time	

13. In the **Call In Interval** field, enter the number of minutes between communication cycles when the terminal is in dial-out mode.
14. Optional: In the **Call Time Limit** field enter the maximum number of minutes that communication sessions are allowed to last.
15. Optional: In the **Call In Limit** field enter the total number of transactions that the FCT will store in its memory at one time before calling to unload stored transactions.
16. Optional: In the **Poll Interval** field, enter the minutes between polling. In the Limits, Timeouts, and Prompts section:



Setting	Value
Enable Timeout	60
Interpulse Timeout	60
Decay Timeout	5
CANceiver EE Prompt	<input checked="" type="checkbox"/>
Strict Odometer	<input type="checkbox"/>
Intelligent Backup	0
Shutdown Limit	950
Gallon Limit	0
KeyPad Entry Type	0
Survive CANceiver Signal Loss	<input type="checkbox"/>
Allow Outside Fueling	<input type="checkbox"/>
Auxiliary Authorization	<input type="checkbox"/>

17. In the **Enable Timeout** field, enter number of seconds the operator has to start fueling after a pump has been enabled.
18. In the **Interpulse Timeout** field, enter the number of seconds that the operator is allowed to pause fueling before FCT closes the transaction.
  - The default setting is 60 seconds.
19. In the **Decay Timeout** field, enter number of seconds after pump has been turned off that terminal allows for fuel in hose to flow through.
  - The default setting is five seconds.
20. Optional: Check the **CANceiver EE Prompt** check-box if your system includes a backup communication server.
21. Optional: Check the **Strict Odometer** check-box if your system includes a backup communication server.
  - If checked, users will not be able to fuel unless they enter a valid odometer during the authorization process. This setting only applies to systems that utilize data keys for access.
22. In the **Intelligent Backup** field, enter the FCTs intelligent backup property.
23. Optional: In the **Warning Lights and Sounds** field, enter the GPIO pin 2 value.
24. Optional: In the **Warning - The Fourth One** field, enter the GPIO pin 4 value.
25. Optional: In the **Shutdown Limit** field, enter the total number of

transactions the FCT will store in its on-board memory before taking itself off-line.

- This limit keeps the FCT from overwriting existing transactions in its memory.
26. Optional: In the **Gallon Limit** field, enter a global limit for fuel quantity allowed from the FCT.
27. Optional: In the **Keypad Entry Type** field, the number provided by your Ward technician.

 **CAUTION: The Keypad Entry Type should only be entered as instructed by Ward.**

28. Optional: Check the **Survive CANceiver Signal Loss** check-box to keep transactions authorized by CANceiver or VIT alive when there is a temporary loss of the VIT signal.
29. Optional: Check the **Allow Outside Fueling** check-box to allow other Ward systems. This is where multiple Ward customers share an FCT.
30. Optional: Check the **Auxillary Authorization** check-box to enable Auxillary Authorizations.
31. Optional: In the **Warning Buzz** field, enter the GPIO pin 3 value.
  - This notifies a keypad user that a message must be acknowledged.

 **NOTE: The Keypad Entry Type affects what data the FCT will prompt for when Keypad Fueling is allowed.**

In the TLS Information section:



The screenshot shows a 'TLS Information' form with the following fields:

- TLS Type:** A dropdown menu showing '1; Unknown'.
- TLS Unit Number:** An input field.
- TLS Poll Time:** An input field.
- TLS Phone:** An input field containing '555-5555'.
- Dial TLS:** A checked checkbox.

If tank level sensors are installed:

32. In the **TLS Type** drop-down list, select the tank level sensor unit which Fuel View will interface

#### Tank Level Sensors List

TLS 250  
 TLS 350  
 TLS 350 R  
 Incon TS-1001  
 Caldwell  
 OMNTEC  
 Proteus

33. Optional: In the **TLS Unit Number** field, enter a unique identification tank level sensor number.
34. Optional: In the **TLS Poll Time** field enter the number of minutes between polls for tank level sensors.
35. Optional: In the **TLS Phone** field, enter the TLS phone number.
36. Optional: Check the **Dial TLS** check-box to enable the FCT to call the TLS.
37. Click **Save**.

#### Activity 56. Add A W3 FCT

1. Open the Terminal grid.
2. Click the **Add Record** tool to open Terminal New Record data entry screen. In the Profile section:



The screenshot shows a 'Profile' form with the following fields:

Terminal Number:	<input type="text"/>	Terminal Code:	<input type="text"/>
Site:	<input type="text"/> 56	Boot ROM Version:	<input type="text"/>
Firmware Version:	<input type="text"/>	Last Communications:	<input type="text"/>
Online:	<input checked="" type="checkbox"/>	Active:	<input checked="" type="checkbox"/>
Terminal Type:	<input type="text"/> Test Terminals Only; 9600	Date Deactivated:	<input type="text"/>

3. In the **Terminal Number** field, enter unique terminal number.

 **NOTE:** Enter a unique Terminal Number for this terminal. The terminal number must be between 1 and 255. If the site requires terminal numbers higher than 255 the number may be four digits, but the last three digits must be between 001 and 255.

#### Four digit anatomy:

1 through 9            0  
                         throug  
                         h 254

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4. In the **Terminal Code** field, enter a code for the FCT.
  - This may also be used as a password for Tank Level Sensors.
5. Select a **Site** from the drop-down list.
6. Ensure the **Active** box is checked to authorize dispensing products.
7. In the **Terminal Type** drop-down list, select *Text*

*Terminals Only.* In the Communications section:



The screenshot shows a 'Communications' section with two input fields. The first field is labeled 'Host Name (IP Address):' with the value '0.0.0.0'. The second field is labeled 'MAC Address:' with a blank input box.

8. In the **Host Name** field, enter the IP Address.
9. Check the **Use TCP/IP Socket** check-box if the host computer communicates with the FCT over a network (TCP/IP) connection.
10. Check the **Call During Polling** check-box to enable the FCT to be polled during automatic communications
11. Optional: Fill in the **Terminal**, **Primary**, and **Backup Phone** fields.
12. Optional: In the **Poll Attempts** field, enter a number of unsuccessful poll attempts to make to the FCT.
13. In the **Call Baud Rate** drop-down list, select the Communication Speed.

In the Timings section:



The screenshot shows a 'Timings' section with four input fields. The first row contains 'Call In Interval:' with value '120', 'Call Time Limit:' with value '0', 'Poll Interval:' with value '1440', and 'Poll Time:' with a blank input box. The second row contains 'Call In Limit:' with value '0' and an empty input box.

14. In the **Call In Interval** field, enter the number of minutes between communication cycles when the terminal is in dial-out mode.
15. Optional: In the **Call Time Limit** field enter the maximum number of minutes that communication sessions are allowed to last.
16. Optional: In the **Call In Limit** field enter the total number of transactions that the FCT will store in its memory at one time before calling to unload stored transactions.
17. Optional: In the **Poll Interval** field, enter the minutes between polling.

In the Limits, Timeouts, and Prompts section:

Limits, Timeouts, and Prompts			
Enable Timeout:	60	Shutdown Limit:	950
Interpulse Timeout:	60	Gallon Limit:	0
Decay Timeout:	5	Keypad Entry Type:	0
CANceiver EE Prompt:	<input checked="" type="checkbox"/>	Survive CANceiver Signal Loss:	<input type="checkbox"/>
Strict Odometer:	<input type="checkbox"/>	Allow Outside Fueling:	<input type="checkbox"/>
Intelligent Backup:	0	Auxiliary Authorization:	<input type="checkbox"/>

18. In the **Enable Timeout** field, enter number of seconds the operator has to start fueling after a pump has been enabled.
19. In the **Interpulse Timeout** field, enter the number of seconds that the operator is allowed to pause fueling before FCT closes the transaction.
  - The default setting is 60 seconds.
20. In the **Decay Timeout** field, enter number of seconds after pump has been turned off that terminal allows for fuel in hose to flow through.
  - The default setting is five seconds.
21. Optional: Check the **CANceiver EE Prompt** check-box if your system includes a backup communication server.
22. Optional: In the **Warning Lights and Sounds** field, enter the GPIO pin 2 value
23. Optional: In the **Warning - The Fourth One** field, enter the GPIO pin 4 value.
24. Optional: In the **Warning Buzz** field, enter the GPIO pin 3 value.
  - This notifies a keypad user that a message must be acknowledged.
25. Optional: In the **Gallon Limit** field, enter a global limit for fuel quantity allowed from the FCT.
26. Optional: In the **Keypad Entry Type** field, enter the value provided by Ward.

 **NOTE: The Keypad Entry Type affects what data the FCT will prompt for when Keypad Fueling is allowed.**

27. Optional: Check the **Survive CANceiver Signal Loss** check-box to keep transactions authorized by a VIT alive when there is a temporary loss of VIT signal.
28. Optional: Check the **Allow Outside Fueling** check-box to allow other Ward systems. This is where multiple Ward customers share an FCT.
29. Optional: Check the **Auxillary Authorization** check-box to enable Auxillary Authorizations. In the TLS Information section:

Call in Interval:	120	Call in Limit:	0
Call Time Limit:	0	Poll Time:	<input type="text"/>
Poll Interval:	1440		
<b>Limits, Timeouts, and Prompts</b>			
Enable Timeout:	60	Shutdown Limit:	950
Interpulse Timeout:	60	Gallon Limit:	0
Decay Timeout:	5	KeyPad Entry Type:	0

If tank level sensors are installed:

30. In the **TLS Type** drop-down list, select the tank level sensor unit which Fuel View will interface

#### Tank Level Sensors List

TLS 250  
TLS 350  
TLS 350 R  
Incon TS-1001  
Caldwell  
OMNTEC  
Proteus

31. Optional: In the **TLS Unit Number** field, enter a unique identification tank level sensor number.
32. Optional: In the **TLS Poll Time** field enter the number of minutes between polls for tank level sensors.
33. Optional: In the **TLS Phone** field, enter the TLS phone number.
34. Optional: Check the **Dial TLS** check-box to enable the FCT to call the TLS.

35. Click **Save**.

In the Terminal Software section:

36. Optional: In the **Terminal Software** drop-down list, select the FCT operating system.
37. Optional: Check the **Update** check-box to update the Operating System during active communications.

38. Click **Save**.

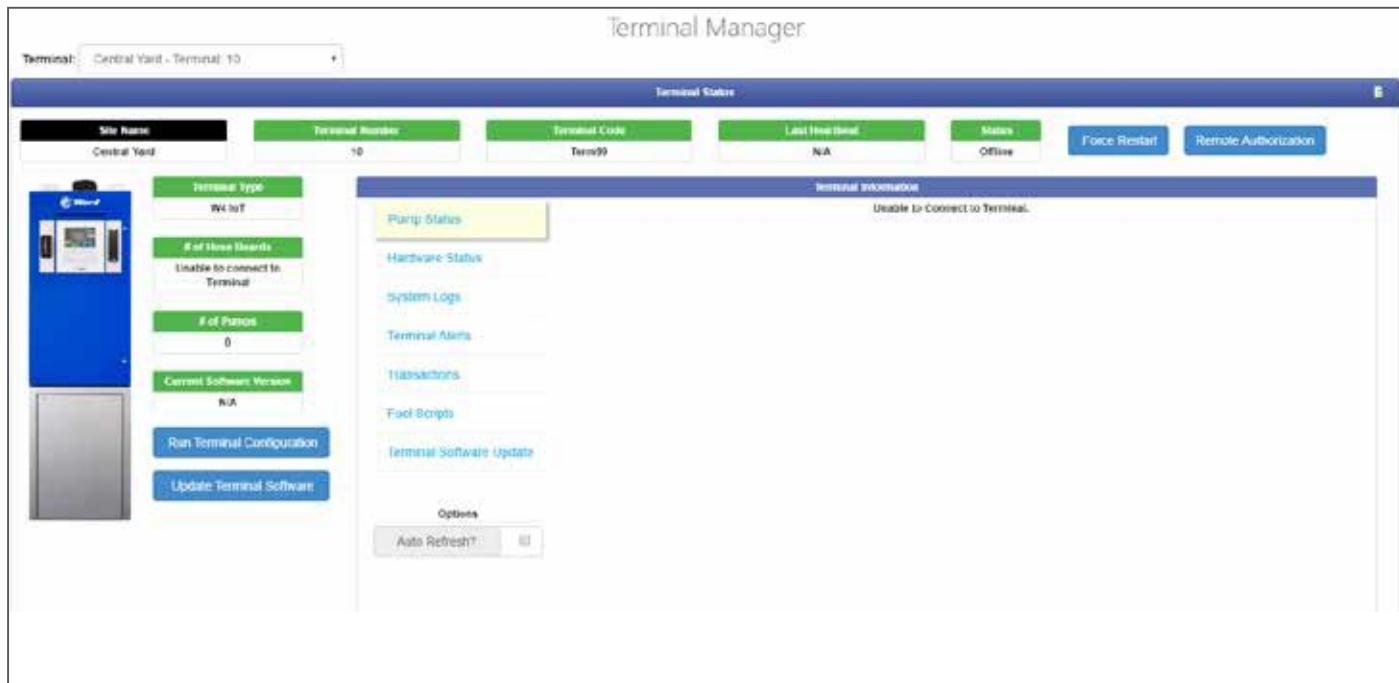
#### Activity 57. Deactivate An FCT

Deactivating an FCT will also deactivate its tanks and pumps.

1. Open the Terminals grid.
2. Select a Terminal to be deactivated. The Data Entry screen will open.
3. On the Data Entry screen, uncheck the **Active** check-box.
4. Click **Save**.
5. Wait for the confirmation message.
6. Click **Close**.

## Lesson 34. IOT Terminal Manager

The Ward FCT IoT operates in a Windows platform with REST based API for real-time communication, pump status, FCT status, and advanced security.



### FCT IoT Information Definitions

<b>Pump Status</b>	Real-time status of a pumps state of activity
<b>Hardware Status</b>	View the FCT's hardware settings
<b>System Logs</b>	View the last 7 days of system logs for the FCT
<b>Terminal Alerts</b>	Log of the last 20 alerts for the FCT
<b>Transactions</b>	Log of the last 50 transactions the FCT has enabled
<b>Fuel Scripts</b>	View rules that must be met before fueling can begin
<b>Terminal Software Update</b>	User permission to update the FCT's software.
<b>Auto Refresh</b>	Refreshes the pump status and FCT hardware settings views every 10 seconds

## Lesson 35. Force Restart

### Activity 58. Restart the FCT remotely.

In the IoT Terminal Manager screen:

1. Click the **Force Restart** tool.
2. In the confirmation screen, click **OK**.

warddevweb:3010 says

WARNING: Do you want to restart selected terminal ? Press 'OK' to confirm

## Lesson 36. Remote Authorization

**Enter Remote Authorization Details**

Pump Number: <sup>*</sup>	1 (Unleaded)
Vehicle: <sup>*</sup>	Enter Vehicle Number
Employee: <sup>*</sup>	Enter Employee Number
Odometer: <sup>*</sup>	Enter current odometer/Hour Meter of Vehicle
Authorized By: <sup>*</sup>	Ward Fuel
Maximum Quantity: <sup>*</sup>	Enter a maximum quantity to be allowed to fuel

### Activity 59. Perform A Remote Authorization

1. Click the **Remote Authorization** tool in the Terminal Manager screen.
2. In the **Pump Number** drop-down list, select a pump.
3. In the **Vehicle** field, enter a vehicle number.
4. In the **Employee** field, enter an employee number.
5. In the **Odometer** field, enter the odometer or hour meter reading.
6. In the **Maximum Quantity** field, enter the maximum quantity of fuel this transaction allows.
7. Click **Authorize**.

## 8. Tanks

### Activity 60. Add A Tank

1. Open the Tanks grid.
2. Click the **Add Record** tool to open the Tank New Record data entry screen.

**Profile**

Site: *	<input type="text"/>
Active: *	<input checked="" type="checkbox"/>
Date Deactivated:	<input type="text"/>

In the Profile section:

3. In the **Site** drop-down list, select a site.

 **CAUTION: Do not uncheck the default setting in the Active check-box.**

In the Fuel section:

Fuel	
Tank Number: *	<input type="text"/>
Tank Code:	<input type="text"/>
Fuel: *	<input type="button" value="▼"/>
Fuel Code:	<input type="text"/>
Continuous Feed:	<input checked="" type="checkbox"/>
Capacity: *	<input type="button" value="▲"/> <input type="button" value="▼"/>
Reorder Level: *	<input type="button" value="▲"/> <input type="button" value="▼"/>
Current Level:	<input type="button" value="▲"/> <input type="button" value="▼"/>

4. In the **Tank Number** field, enter unique tank/terminal number.
5. Optional: Fill in the **Tank Code** field.
6. In the **Fuel** drop-down list, select the tank's fuel type.
  - Fuel also contains non-fuel/lubricant products as well as two functions: Gate Opener  
Car Wash
7. Optional: In the **Fuel Code** field, enter a fuel code.
  - The Fuel Code is used for exports.
8. In the **Capacity** field, enter the tank's maximum capacity.
9. In the **Reorder Level** field, enter the minimum capacity the tank is allowed to reach to activate a reorder alarm.
10. Optional: In the **Current Level** field, enter the current volume of fuel in the tank. In the TLS Information section:

TLS Information	
TLS Probe Number:	<input type="button" value="▲"/> <input type="button" value="▼"/>
Terminal:	<input type="button" value="▼"/>

11. Optional: In the **TLS Probe Number** field, enter a probe number.
12. Select a **TLS Terminal number** from the drop-down list.
  - The TLS terminal is the tank to which the FCT is connected.
13. Click **Save**.

### Activity 61. Deactivate A Tank

Deactivating a Tank will also deactivate its pumps.

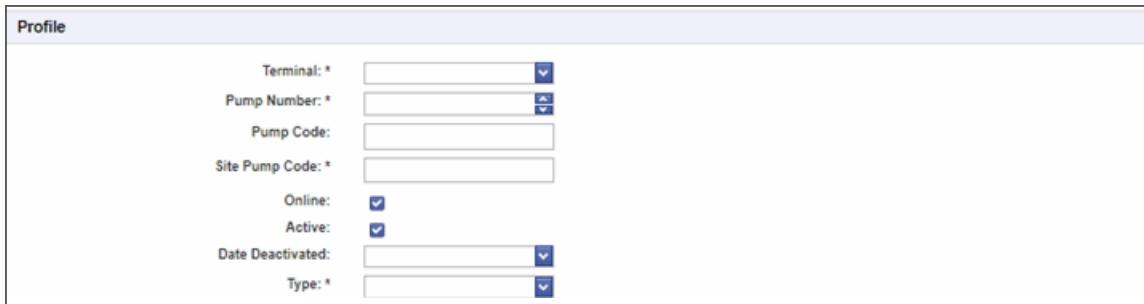
1. Open the Tanks grid.
2. Select a tank to be deactivated. The Data Entry screen will open.
3. In the Data Entry screen, uncheck the **Active** check-box.
4. Click **Save**.
5. Wait for the confirmation message.

6. Click **Close**.

## Lesson 37. Pumps

### Activity 62. Add A Pump

1. Open the Pumps grid.
2. Click the **Add Record** tool to open the Pump New Record data entry screen.



Profile	
Terminal:	<input type="text"/>
Pump Number:	<input type="text"/>
Pump Code:	<input type="text"/>
Site Pump Code:	<input type="text"/>
Online:	<input checked="" type="checkbox"/>
Active:	<input checked="" type="checkbox"/>
Date Deactivated:	<input type="text"/>
Type:	<input type="text"/>

In the Profile section:

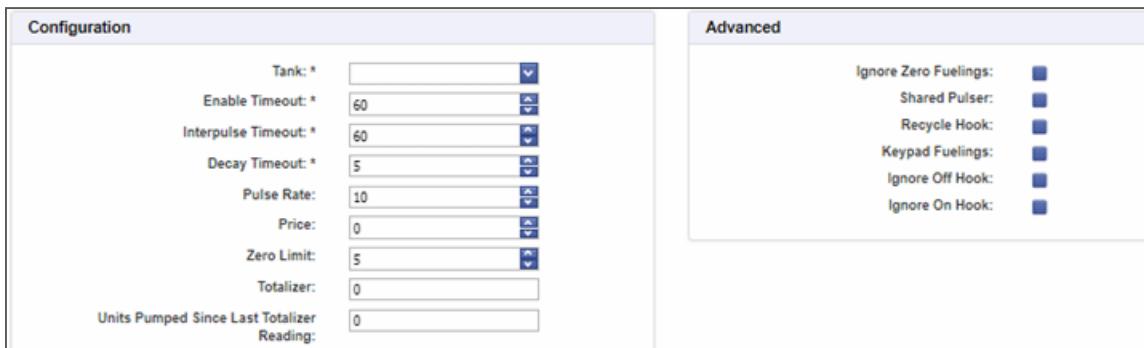
3. In the **Terminal** drop-down list, select an FCT where the pump is located.
4. In the **Pump Number** field, assign a number to the pump.
5. In the **Pump Code** field, enter a unique alphanumeric code.

*Example: Pump #1 for FCT #33 can have a pump code of T33P1.*

6. Optional: In the **Site Pump Code** field, enter a unique number to identify the pump.
7. Check the **On-line** box to allow the FCT to authorize dispensing of product through the pump.
8. In the **Type** drop-down list, select the type of fuel the pump will be associated with.
  - If Fuel is not selected, Fuel View will automatically search for an applicable tank in the same site and associate it with this pump. If a non-fuel tank doesn't exist, Fuel View will automatically create one.

 **CAUTION: Do not uncheck default setting in the Active check-box.**

In the Configuration section:



Configuration		Advanced	
Tank:	<input type="text"/>	Ignore Zero Fuelings:	<input type="checkbox"/>
Enable Timeout:	<input type="text"/>	Shared Pulser:	<input type="checkbox"/>
Interpulse Timeout:	<input type="text"/>	Recycle Hook:	<input type="checkbox"/>
Decay Timeout:	<input type="text"/>	Keypad Fuelings:	<input type="checkbox"/>
Pulse Rate:	<input type="text"/>	Ignore Off Hook:	<input type="checkbox"/>
Price:	<input type="text"/>	Ignore On Hook:	<input type="checkbox"/>
Zero Limit:	<input type="text"/>		
Totalizer:	<input type="text"/>		
Units Pumped Since Last Totalizer Reading:	<input type="text"/>		

9. In the **Tank** drop-down list, select the tank for the pump.
10. In the **Enable Timeout** field, enter the number of seconds in which the operator must begin fueling.
11. In the **Interpulse Timeout** field, enter the number of seconds the operator has for pausing during fueling.
12. In the **Decay Timeout** field, enter the number of seconds the pump will continue to count after the transaction has ended.

13. In the **Pulse Rate** field, enter the pulse rate for which the pump is set.
14. In the **Price** field, enter the fuel price per unit.
15. In the **Zero Limit** field, enter the number of allowable consecutive zero quantity fuelings before the pump is taken off-line.
16. In the **Totalizer** field, enter the pump's current totalizer reading.
17. In the **Units Pumped Since Last Totalizer Reading** field, enter the units pumped since last totalizer reading. In the Advanced section:
17. Check the **Ignore Zero Fuelings** check-box to flag the system to not track zero quantity fuelings for the pump

 **CAUTION: This is not recommended because tracking zero quantity fuelings is how Fuel View detects faulty or failed pulsers.**

18. Check the **Shared Pulser** check-box if the pump is part of a hardware configuration that utilizes two or more pumps to simultaneously push high volumes of fuel through a common pulser.
19. Check the **Recycle Hook** check-box if the pump is wired hot.
20. Check the **Keypad Fuelings** check-box to activate the FCT by pressing the *Enter* key If the pump allows keypad fueling.
21. Check the **Ignore Off Hook** check-box if the pump does not utilize a hook switch.
22. Check the **Ignore On Hook** check-box if the pump does not utilize a hook switch.
23. Click **Save**.

### Activity 63. Chain A Set Of Pumps

Pump Chaining is a Fuel View function that connects up to four pumps within the same FCT. It allows a secondary pump to be activated without initiating a second transaction, following a card swipe and the primary pump has been activated.

---

*Example: An Unleaded pump may be chained to an Oil pump. Once the Unleaded pump is enabled, the system automatically enables the Oil pump – eliminating the need to return to the FCT to enable the Oil pump.*

---

In the Pump Chaining section of the Pumps screen:

1. Check the **Pump Numbers** to be activated with primary pump.
  - Fuel View allows up to four pumps to be chained per FCT.
2. Click **Save**.

### Activity 64. Deactivate A Pump

1. Open the Pumps grid.
2. Select a pump to be deactivated. The Data Entry screen will open.
3. On the Data Entry screen, uncheck the **Active** check-box.
4. Click **Save**.
5. Wait for confirmation message.

6. Click Close.

## Lesson 38. Manifolds

A manifold connects multiple tanks to allow fuel in each tank to be used evenly. If the site contains manifolded tanks, Fuel View has the ability to monitor fuel levels in each tank.

### Activity 65. Set Up A Manifold

1. In the Manifold grid, click Add Record to open the Manifold New Record data entry screen.
2. When setting up a manifold, the following rules apply:
  - A manifold must contain two or more tanks.
  - The tanks must be at the same site.
  - The tanks must contain the same fuel type.
  - The same tank cannot be used in more than one manifold.

*Example: If a site has eight tanks named 1 through 8, manifolded in two sets, and tanks 1-4 are manifolded, tank 4 cannot be manifolded in the second set; the second set can only manifold tanks 5-8.*

In the Profile section:

Profile	
Site: *	<input type="text"/>
Description: *	<input type="text"/>
Date Activated: *	<input type="text"/>
Active:	<input checked="" type="checkbox"/>
Date Deactivated:	<input type="text"/>

Tanks	
Tank 1: *	<input type="text"/> 1; CODE 1ISH; Unleaded; 2 <input type="button" value="Clear"/>
Tank 2:	<input type="text"/> <input type="button" value="Clear"/>
Tank 3:	<input type="text"/> <input type="button" value="Clear"/>
Tank 4:	<input type="text"/> <input type="button" value="Clear"/>
Tank 5:	<input type="text"/> 1; 4A; Unleaded; 4; Broadw <input type="button" value="Clear"/>
Tank 6:	<input type="text"/> <input type="button" value="Clear"/>
Tank 7:	<input type="text"/> <input type="button" value="Clear"/>
Tank 8:	<input type="text"/> <input type="button" value="Clear"/>

3. From the **Site** drop-down list, select the site where the manifold tanks are located.
4. In the **Description** field, enter a description to identify the manifold.
5. In the **Date Activated** field, select the date and time the manifold becomes active. In the Tanks section:
  6. From the **Tanks** drop-down list, select the connected tanks.
    - Fuel View allows up to eight tanks to be connected with one manifold.
  7. Click **Save**.

### Activity 66. Remove a Tank from a Manifold

1. Click the clear button next to any tank to remove it.

## Lesson 39. Terminal Alerts

Terminal alerts are hardware issues that an FCT recognizes and sends to Fuel View. Alert details are stored in the Terminal Alerts grid.

### Terminal Alerts List

- Intrusion
- AC Power
- Restore Auto
- Restart
- Pump Went Off-line
- Pump Switch
- Change

### Activity 67. View The Terminal Alerts Grid

1. Open the Terminal Alerts grid.

Terminal Alerts										
	ID	Time	Site Name	Site Pump Code	Terminal Num	Pump Number	Alert Code	Alert Type	Alert Information	
	25	3/3/2015 10:32:00 AM	Gladola	6	2	2	98	Pump Switch Change	Switched to bypass mode	
	26	3/3/2015 10:32:00 AM	Gladola	7	2	3	98	Pump Switch Change	Switched to bypass mode	
	27	3/3/2015 10:32:00 AM	Gladola	8	2	4	98	Pump Switch Change	Switched to bypass mode	
	11	3/3/2015 11:15:00 AM	Gladola		1		95	Auto Restart	Power restart	
	15	3/3/2015 11:15:00 AM	Gladola	5	1	9	98	Pump Switch Change	Switched to bypass mode	

The grid contains all the alert details that have occurred for your site.

# 10. CANceiver Management

## Lesson 40. Set Up A CANceiver

Setting up the CANceiver creates the commands to monitor vehicle status, vehicle health, and driver behavior for reporting within Fuel View.

### CANceiver Definitions

**Event Map** The settings for a particular CANceiver configuration.

**PID** Process Identifier - The events that take place in the vehicle for measurement, monitoring and reporting.

**Polling Frequency** How often a PID is updated from the On-board Diagnostics (OBD). Some PID codes do not require a Polling Frequency (such as Hard Braking).

**Measurement Type** Defines how a CANceiver Event is recorded.

**CANceiver Events** CANceiver Event records are all of the activity data that was collected from the CANceiver.

Events may be exported for printing and reporting.

CANceiver Events												List of CANceiver Events in the system		
	Vehicle Number	Vehicle Description	Time Recd.	Department	CANevents ID	Event Description	Value	Unit	DTOS	Event Type	GPS Lat	GPS Long	GPS Track	GPS Set
BROW	2018 Hyundai Sonata 3.5L V6 FWD	8/29/2018 12:57:06 PM	COUNTY COUNSEL	12033680202900 Engine Time Total	24.79	hours				Snapshot	29.312905	-90.150496		
BROW	2018 Hyundai Sonata 3.5L V6 FWD	8/29/2018 12:57:06 PM	COUNTY COUNSEL	12033680202900 Vehicle Speed	34.00	mph				Interval Max	29.518308	-90.154695	3	
BROW	2018 Hyundai Sonata 3.5L V6 FWD	8/29/2018 12:57:06 PM	COUNTY COUNSEL	12033680202900 Vehicle Speed	24.22	mph				Interval Max				
BROW	2018 Hyundai Sonata 3.5L V6 FWD	8/29/2018 12:57:19 PM	COUNTY COUNSEL	12033680202900 Vehicle Idle Time	0.03	hours				Threshold Max	29.512905	-90.453290	3	
BROW	2018 Hyundai Sonata 3.5L V6 FWD	8/29/2018 12:57:42 PM	COUNTY COUNSEL	12033680202900 Vehicle Speed	0.00	mph				Interval Max				
BROW	2018 Hyundai Sonata 3.5L V6 FWD	8/29/2018 12:57:42 PM	COUNTY COUNSEL	12033680202900 Engine RPM	2645.00	rpm				Interval Max				
BROW	2018 Hyundai Sonata 3.5L V6 FWD	8/29/2018 12:57:42 PM	COUNTY COUNSEL	12033680202900 Vehicle Speed	0.00	mph				Interval Max				
BROW	2018 Hyundai Sonata 3.5L V6 FWD	8/29/2018 12:57:42 PM	COUNTY COUNSEL	12033680202900 Vehicle Speed	0.00	mph				Interval Max				

 For Listing of CANceiver Events, see Appendix B.

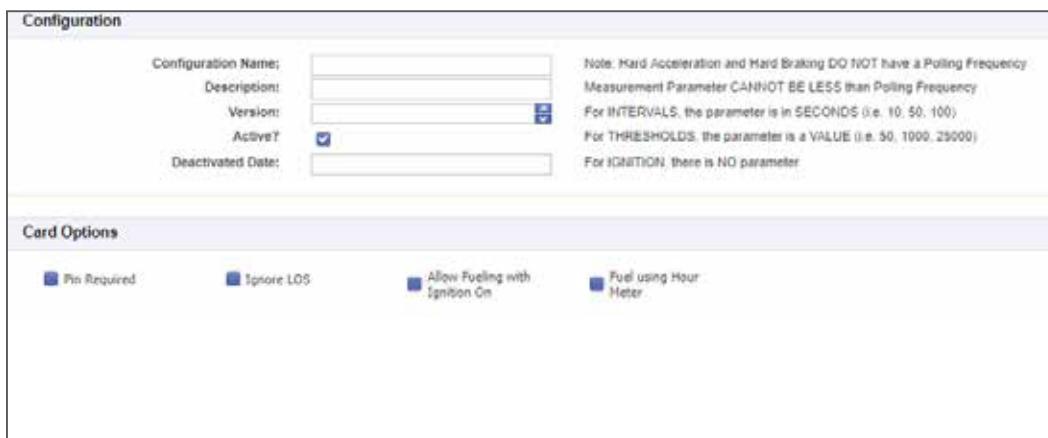
### Activity 68. Create A CANceiver Config

1. Expand the CANceiver Management directory, and open the CANceiver Configs grid.

CANceiver Config				List of CANceiver Configurations in the system	
	Add Record	Columns	Paging	Show Inactive	
#	Event Config Code	Description	Version		
	jlkjkl,	o;hjjbjkm	1		
	Analytics Config	Config to use for Analytics	1		
	Basic Main Config	Basic Main Config	1		
	fghighfghfgh	wwwww	4		
	New Configuration	New Configuration	0		
	Police Config	Police Config	0		

The CANceiver Config grid tool bar Show Inactive button toggles to Hide Inactive.

2. Click **Add Record** to open the Create CANceiver Config screen.



The screenshot shows the 'Configuration' screen. In the 'Configuration' section, there are fields for 'Configuration Name' (empty), 'Description' (empty), 'Version' (empty), 'Active?' (checked), and 'Deactivated Date' (empty). A note at the bottom right specifies: 'Note: Hard Acceleration and Hard Braking DO NOT have a Polling Frequency. Measurement Parameter CANNOT BE LESS than Polling Frequency. For INTERVALS, the parameter is in SECONDS (i.e. 10, 50, 100). For THRESHOLDS, the parameter is a VALUE (i.e. 50, 1000, 25000). For IGNITION, there is NO parameter.' In the 'Card Options' section, four checkboxes are present: 'Pin Required' (unchecked), 'Ignore LOS' (unchecked), 'Allow Fueling with Ignition On' (unchecked), and 'Fuel using Hour Meter' (unchecked).

In the Configuration section:

3. In the **Configuration Name** field, enter a unique name to store all the events the CANceiver will record.
4. Optional: In the **Description** field, enter a description.

*Examples: Configuration Name: Sanitation*

*Description: Maintenance and Safety*

*Configuration Name: Department of Transportation*

*Description: Utilization and Driver*

#### Behavior

5. Optional: In the **Version** field, enter a number increment to assign version numbers to edits of the configuration. Card Options are permissions or pre-set conditions that must be met to authorize a transaction.

In the Card Options section:

6. Select the required Options.

#### CANceiver Card Option Definitions

**PIN Required** Requires the user to enter a PIN into the FCT when prompted.

**Ignore Loss of Signal** This setting will not stop the transaction if the connection from the Hose Module and Fuel Tag are lost. The transaction will rely on the Inter-pulse and Enable timeouts from the FCT screen.

**Allow Fueling With Ignition On** Allows the vehicle to be fueled with its engine running.

**Fuel Using an Hour Meter** Authorize fueling with hour meter input instead of an odometer.

**Use Metric Mode** Display metric values.

7. Click **Save**.
8. Click **OK**.

- The Event Configuration section will open below the Card Options section.

Event Configuration	Add Event Map
---------------------	---------------

## Activity 69. Create An Event Map

An Event Map is the data record collected for a specific vehicle or asset.

- Click the blue **Add Event Map** hyper-link on the right side of the Event Configuration section's title bar.
- An Event Map section will open.

Card Options	
<input checked="" type="checkbox"/> Pin Required	<input type="checkbox"/> Ignore LOS
<input type="checkbox"/> Allow Fueling with Ignition On	<input checked="" type="checkbox"/> Fuel using Hour Meter
<a href="#" style="color: blue;">Add Event Map</a>	
Event Configuration	
Event Map	
PID Type: Polling Frequency (in Seconds): Measurement Parameter: Measurement Type: <input checked="" type="checkbox"/> Include GPS? <input type="checkbox"/> Include GPS Extended? <input type="checkbox"/> Drive Cycle?	<a href="#" style="color: blue;">Delete</a>

 **NOTE:** As Event Maps are added to Configurations, they will accumulate within the Event Configuration section.

 **For Event Map examples see Appendix A – Event Map Examples.**

In the Event Map section:

- In the **PID Type** drop-down list, select an event for the CANceiver to record.

 **For a full list of PID's see Appendix B– PID CANceiver Events List.**

The Polling Frequency field will populate with recommended default frequencies that are dependent upon the PID Type.

- Optional: In the **Polling Frequency** drop-down list, change the frequency.

 **CAUTION: Do not set a Polling Frequency below two seconds.**

Depending upon PID Type selected, the Measurement Parameter field will disappear, or change to *Logging Interval*, or *Measurement Parameter*.

- Optional: In the **Logging Interval** field, change the default value.
  - The parameter value is seconds.
  - The Logging Interval cannot be less than the Polling Frequency.
- Optional: In the **Measurement Parameter** field, select a measurement type.
- Optional: In the **Measurement Type** drop-down list, select the proper Measurement Parameter.
  - For some PID Types, this field will auto populate.

 **For Measurement Types definitions see Appendix C – Measurement Types.**

 **NOTE:** If the Event Map screen is idle for 20 minutes or longer, a System Message relating to Event Map selected combinations will appear upon attempt to select a drop-down. Close the screen and refresh Fuel View.



7. Optional: Check the **Include GPS** check-box.
8. Optional: Check the **Include GPS Extended** check-box.
9. Check the **Drive Cycle** check-box.

 **NOTE: For PIDs:**

For Ignition, there is no parameter.

For Thresholds, the parameter is a value (i.e. 50, 1000, 25000).

Hard Acceleration and Hard Braking do not have a Polling Frequency.

### CANceiver Option Definitions

**Include GPS**      Records GPS coordinates.

**Include GPS Extended**      Records GPS coordinates, elevation, and signal data from the GPS satellites.

**Drive Cycle**      Time frame between Ignition On and Off.

 **NOTE: The vehicle must have a GPS installed to record GPS coordinates.**

10. Click **Save**.

 For the full list of CANceiver events, see Appendix D – CANceiver Events List.

### Activity 70. Edit An Event Configuration

1. In the CANceiver Configs grid, click a blue hyper-link in the Event Config Code column.
2. Edit fields as required.
3. Click **Save**.

### Activity 71. Deactivate An Event Configuration

An Event Configuration is a permanent record that can be deactivated, but not deleted. To deactivate an Event Configuration:

1. In the CANceiver Configs grid, click a blue **Configuration** hyper-link in the Event Config Code column.
2. In the Profile section, uncheck the **Active** check-box.
3. Click **Save**.

### Activity 72. Reactivate An Event Configuration

1. Open the Events Configuration screen.
2. Click the **Show Inactive** button.
3. Click the blue Event Config Code name hyper-link to open the data entry screen.
4. Check the **Active** check-box.
5. Click **Save**.

### Activity 73. Delete An Event Map

1. In the Event Configuration page:
2. Click **Delete** in the bar of the Event Map to be deleted.

 **CAUTION: Clicking Delete is an immediate deletion of the Event Map. The Delete cannot be reversed and is not preceded by a confirmation screen. If an accidental delete occurs, the Event Map must be recreated.**

## Lesson 41. CANceiver Logs

CANceiver Logs are communication records between the CANceiver and Fuel View. Included in the communication record is the date and time, firmware version of the CANceiver operating system, and the Site Card/Employee Card number.

CANceiver Logs										System CANceiver Logs	
	CANceiver ID	Last Connection	VIN Override	Firmware Version	Main Config	OBD VI	Card No	OBD VI	Needs Main		
Clear	1203160020020001804	2/6/2013 11:42:23 AM	1D8GU58K17W614444	1.1	1D8GU5	52	1.1				
	1306190030020016424	6/17/2014 1:54:33 PM	1FACP42E0MF124603	1.27	1FACP42	9056	1.03				
	1203160020020001793	4/19/2013 3:16:29 PM	1JAFAA9523F376368	1.15	1JAFAA9	9033	1.2				
	1207310020020009430	12/9/2014 1:31:13 PM	1D7KS28C663234715	1.34	1D7KS2	9105	1.03				
	1203160020020001657	7/3/2013 3:10:29 PM	202W9522941318277	1.18	202W95	0	1.2				

## Lesson 42. General Purpose Input/Output

General Purpose Input/Output (GPIO) is used on utility equipment such as snow plows. The GPIO grid provides options for additional input other than the ECM/PCM (vehicle computer).

### Activity 74. Create A GPIO

1. Open the GPIO Definitions grid.
2. Click **Add Record** to open the GPIO Definitions screen.

**GPIO Definition**

GPIO Definition:	
GPIO Active:	
GPIO Inactive:	
Active:	<input checked="" type="checkbox"/>
Date Deactivated:	

3. Enter a meaningful name in the **GPIO Definition** field.
4. In the **GPIO Active Status** field, enter a description for the vehicle while it is in an active state.

---

*Example: If the vehicle is a snow plow, the snow plow is active when the plow is down; so the Active Status description could be Plow Down.*

---

5. In the **GPIO InActive Status** field, enter a description to display when the definition is in an inactive state.

---

*Example: For the snow plow, it is inactive when the plow is up.*

---

6. Click **Save**.

#### Activity 75. Deactivate A GPIO Definition

1. To deactivate a GPIO, uncheck the **Active** box.
2. Click **Save**.

#### Activity 76. Add A GPIO Configuration

1. Open the GPIO Configurations grid.
2. Click **Add Record** to open the GPIO Configurations screen.



The screenshot shows the 'Configuration Profile' screen with the following fields:

- Configuration Name:** Snow Plow
- Active:**
- Date Deactivated:** [empty input field]

**Input Pins:**

- Pin 1: Plow; Down; Up
- Pin 2: [dropdown menu]
- Pin 3: [dropdown menu]
- Pin 4: [dropdown menu]
- Pin 5: [dropdown menu]
- Pin 6: [dropdown menu]

**Output Pins:**

- Setting 1 Input: 1
- Setting 2 Input: [dropdown menu]
- Connected to Output: 2
- Connected to Output: [dropdown menu]

3. In the **Configuration Name** field, enter a meaningful name. In the Input Pins section:
  4. In the **GPIO Definitions Pin #** drop-down list, select a definition to assign to each Pin.
- In the Output Pins section:
5. Select which **Setting # Input** activates which **Connected to Output** Pin.

---

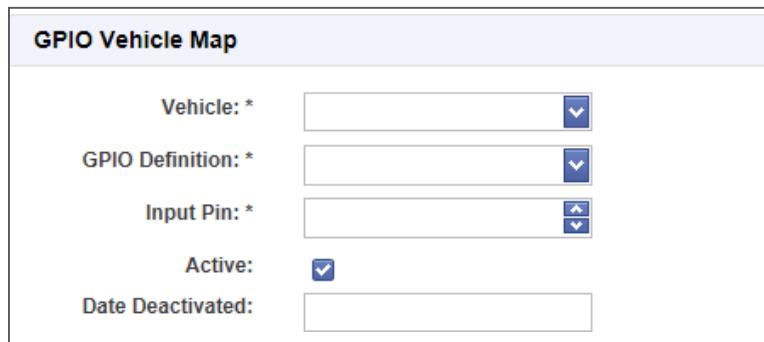
*Example: For “Setting 1 Input” set to Pin 1. For “Connected to Output” set to output 1. Therefore when Pin 1 is in an active state, Output 1 will produce an output.*

---

6. Click **Save**.

### Activity 77. Add GPIO Vehicle Maps

1. Open the GPIO Vehicle Maps grid.
2. Click **Add Record**.



**GPIO Vehicle Map**

Vehicle: \*

GPIO Definition: \*

Input Pin: \*

Active:

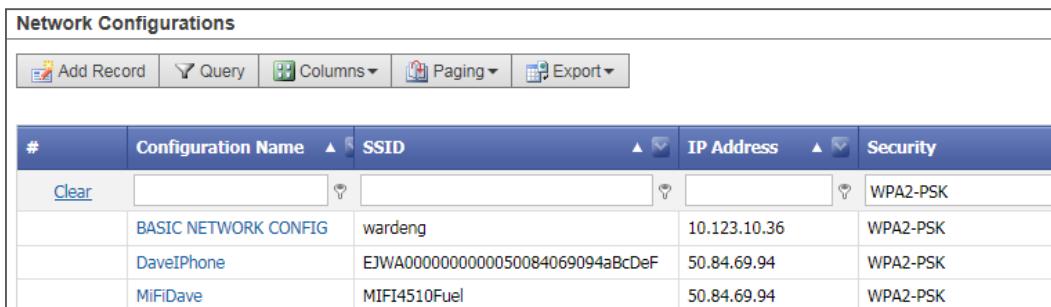
Date Deactivated:

3. Select a **Vehicle** from the drop-down list.
4. Select a **GPIO Definition** from the drop-down list.
5. Enter the I/O cable Number that the input is connected to on the CANceiver harness.
6. Click **Save**.

### Activity 78. Set Up A Network Configuration

Setting up the Network Configuration creates the communication hyper-link between the CANceiver and host computer for collecting data with Fuel View.

1. Open the Network Configuration grid.

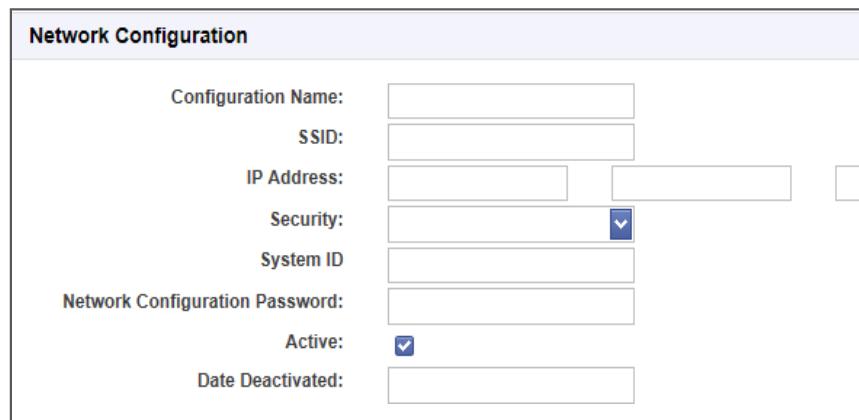


**Network Configurations**

Add Record | Query | Columns | Paging | Export

#	Configuration Name	SSID	IP Address	Security
Clear				WPA2-PSK
	BASIC NETWORK CONFIG	wardeng	10.123.10.36	WPA2-PSK
	DaveiPhone	EJWA00000000000050084069094aBcDeF	50.84.69.94	WPA2-PSK
	MiFiDave	MIFI4510Fuel	50.84.69.94	WPA2-PSK

2. Click **Add Record**.



**Network Configuration**

Configuration Name:

SSID:

IP Address:

Security:

System ID:

Network Configuration Password:

Active:

Date Deactivated:

3. In the **Configuration Name** field, enter a unique network configuration name.

4. In the **SSID** field, enter the Wi-Fi identification name assigned by your IT department.
-  **NOTE: An SSID is the name of a wireless local area network (WLAN).**
5. In the **IP Address** field, enter IP address of host computer. Each box contains an octet of the address.

---

*Example: If the communications server IP address is 192.168.72.1 then 192 is entered in the first box, 168 is entered in the second box, 72 the third box, and 1 the fourth box.*

---

6. In the **Security** drop-down list, select a Security Source.
  - This is assigned by your IT Department; WPA2 Personal is the most commonly used.
7. In the **System ID** field, enter your System ID assigned by Ward.
8. In the **Network Configuration Password** field, enter the password assigned by your IT Department.
  - The Network Configuration Password tells the CANceiver what access point to connect to and to which communication server to off-load its data.
9. Click **Save**.

## Lesson 43. Assign Configurations

Configurations is where the CANceiver set-up in the previous steps is assigned to a vehicle. This includes when a vehicle is going through initial setup and for updating Main, Network, or Immediate Config files.

 **NOTE: Access to the Configuration directory and the ability to perform updates is limited by User's Security Access Level.**

### Activity 79. Assign A Main Config

1. In the CANceiver Management folder open Assign Main Config screen.



The screenshot shows a software interface titled "Assign Main Config". At the top, there is a dropdown menu labeled "Select Main Configuration" containing several items. Below this is a section titled "Select an Update Method:" with two radio buttons: "By Department?" and "By Vehicle?".

2. In the **Select Main Configuration** drop-down list, select required Main Configuration.
3. Click the **By Department** or **By Vehicle** radio button.

### Update Method Definitions

**By Department** Included every vehicle set up under that department.

**By Vehicle** Allows vehicles from any department to be connected.

## For Departments

**Assign Main Config**

Select Main Configuration

Select an Update Method:

By Department?

By Vehicle?

Select a Department:

Update All Departments?

4. Choose a Department from the drop-down list to collect CANceiver events.
5. Click **Save**.
6. If required, check the **Update All Departments** check-box.

## For Vehicles

7. Choose a Vehicle(s) from the drop-down list from which to collect CANceiver events.
8. Click **Save**.

### Activity 80. Assign A Network Config

Assign Network Config is where the Network Configuration(s) from the previous steps are assigned to the vehicles.

1. Open the Assign Network Config screen.

**Assign Network Config**

Select Network Configuration

Select an Update Method:

By Department?

By Vehicle?

2. In the **Select Network Configuration** drop-down list, select the proper Network Configuration.
3. Click the radio button for By Department or By Vehicle.

## For Departments

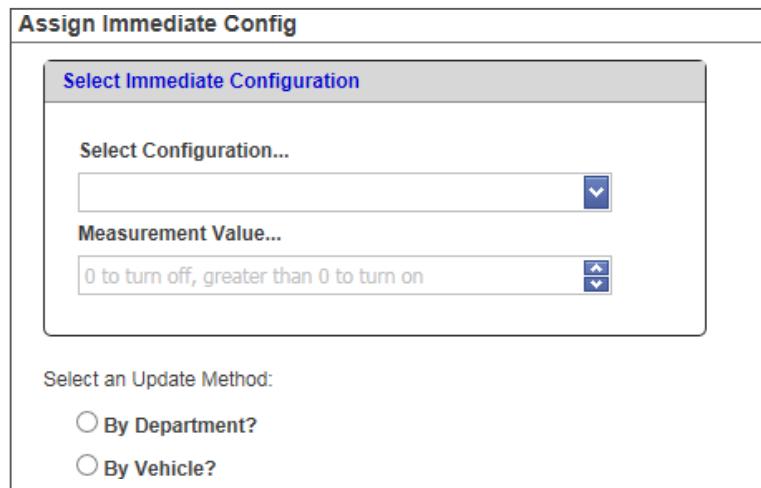
4. Choose the Department(s) from the drop-down list from which to send the Network Config.
5. Click **Save**.

## For Vehicles

6. Choose the Vehicle(s) from the drop-down list from which to send the Network Config.
7. Click **Save**.

### Activity 81. Assign An Immediate Config

1. Open the Assign Immediate Config screen.



**Select Configuration...**

**Measurement Value...**

**Select an Update Method:**

By Department?

By Vehicle?

In the Select Immediate Configuration field:

2. In the **Select Configuration** drop-down list, select the appropriate Configuration mode:

#### Assign Immediate Config Definitions

**VIT** Used when a vehicle is not equipped with an Engine Control Module (ECM) and cannot broadcast data. VIT mode allows limited functionality.

**Wet Hose** A unique parameter for the fueling process of large volumes of vehicles by a mobile fueling truck. The vehicles are not started after fueling so will not transmit validation data. The Wet Hose feature instructs the CANceiver to wake up periodically, transmit validation data, and return to sleep mode.

**Real Time Wi-Fi** Defines vehicles that have a constant Wi-Fi access point connection. The measurement value assigned controls the frequency that the CANceiver will use to connect to the access point.

#### For VIT

3. Select **VIT Mode**.
4. Set the **Measurement Value** to 1.
  - A measurement value of zero disables VIT mode.

#### For Wet Hose

5. Select **Wet Hose**.
6. Set **Measurement Value** to 1.
  - A measurement value of zero disables Wet Hose.

#### For Real Time Wi-Fi

Real Time Wi-Fi Mode is for customers who have vehicles with cellular access

points and wish to have real-time data (generally with a GPS antenna) sent to Fuel View.

 **NOTE:** Most customers do not have blanketed Wi-Fi coverage. Therefore, the Real Time Wi-Fi feature is not typically used.

7. Select **Real-time Wi-Fi**.
8. In the **Measurement Value** field, enter a value:
  - A measurement value of zero disables Real-time Wi-Fi mode.
  - The measurement value controls the frequency that the CANceiver will connect to the Wi-Fi access point. Every measurement value equals 10 seconds.

---

*Example: With a measurement value of 2, the CANceiver will attempt to connect to the Wi-Fi access point every 20 seconds. A measurement value of 6 equals one minute.*

---

9. In the **Select an Update Method** field, click the radio button for By Department or By Vehicle.

#### **By Department**

10. Select the **Department(s)** from the drop-down list to send the Immediate Config.
11. Click **Save**.

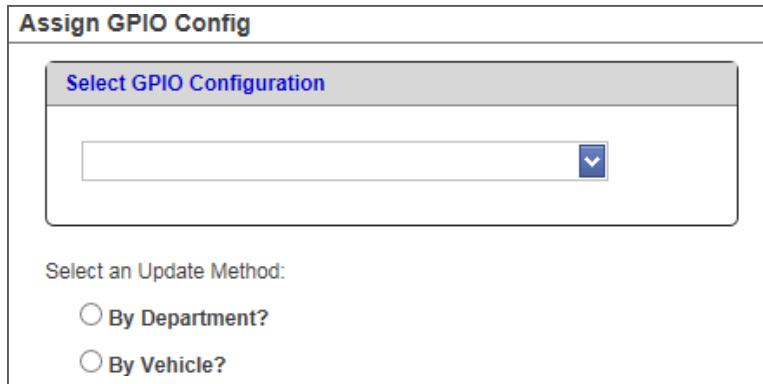
#### **By Vehicle**

12. Select the **Vehicle(s)** from the drop-down list to send the Immediate Config.
13. Click **Save**.

#### **14. Assign A GPIO Config**

General Purpose Input/Output (GPIO) is used on utility vehicles such as snow plows. The GPIO grid provides options for additional input other than the ECM/PCM (Vehicle Computer).

15. Open the Assign GPIO Config screen.



The screenshot shows a window titled "Assign GPIO Config". Inside, there is a dropdown menu labeled "Select GPIO Configuration" with several options listed. Below the dropdown is a section titled "Select an Update Method:" containing two radio buttons: "By Department?" and "By Vehicle?".

16. In the **Select GPIO Config** drop-down list, select the required GPIO Configuration.
17. Click the radio button for By Department or By Vehicle.

#### **By Department**

18. Select the **Department(s)** from the drop-down list to collect CANceiver events.
19. Click **Save**.

## By Vehicle

 **NOTE:** A GPIO Config must be resent to the vehicle to reflect changes made in Event Configurations to the PID Types.

20. Select the **Choose Vehicle(s)** from the drop-down list to collect CANceiver events.
21. Click **Save**.

# 11. TLS Management

Tank level sensors (TLS) are third party hardware that monitor the levels of fuel and any alerts that would come from a fuel tank. Ward works with TLS manufacturers Omntec and Veeder Root, but Fuel View can gather data from other TLS manufacturers.

There are two levels of support for TLS Systems within Fuel View

## **TLS Connect**

TLS Connect is a default TLS communication system and uses the functionality built into the Connect application to communicate and retrieve information from TLS systems. The Connect application has the ability to communicate with a TLS unit and retrieve certain information about the unit. Retrievable information includes current level, recent deliveries, and active alarms.

TLS Connect calls the TLS based on a schedule defined by a Windows Task Scheduler entry and usually coincides with a call to the Ward FCTs.

## **Ward TLS Service**

Ward TLS Service is an optional, more advanced TLS monitoring system that communicates, monitors, and retrieves data from the TLS system. Ward TLS Service can be configured to run several different schedules and retrieve different information at different times. For instance, the service can be configured to retrieve the current level every hour and deliver the data once a day.

### **Ward TLS Service Information and Commands List**

Inventory	Sensor Status
Bulk Inventory Report (history or daily)	General Sensors
Deliveries	Liquid Sensors
Leak Test	Vapor Sensors
Perform and Stop Leak Tests on Demand	Groundwater
Status and Alarms	Sensors Type A 2-wire Sensors
Sensor Categories	Type B 3-wire Sensors
	Universal Sensors

## **Lesson 44. TLS Set-up**

### **Activity 82. Set Up A TLS**

1. Expand the TLS Management folder and open the TLS grid.

TLS						
Add Record	Query	Columns	Pages	Export	List of TLS records in the system	
#	TLS Number	TLS Type	Poll Time	Last Connection	Site Name	Terminal Number
10	UnKnown		9/18/2015 10:29:12 AM	9/18/2015 10:29:12 AM	WardTestOrwell	66
11	Caldwell				Iscon	4
456455	TLS 300 R				NicolaSite	99
654954	Incon TS-300				NicolaSite	10
132459	UnKnown				NicolaSite	11

2. Click the **Add Record** tool to open TLS data entry screen.



The Site section contains the following fields:

- Site: \* (dropdown menu)
- Terminal: \* (dropdown menu)
- Active: \* (checkbox checked)
- Date Deactivated: (dropdown menu)

In the Site section:

3. Select a **Site** from the drop-down list.
4. In the **Terminal** drop-down list, select the terminal that is associated with the TLS for the site selected in Step 3.

 **NOTE: This association is connected in the Terminal screen while defining the TLS for the site.**

In the Configuration section:



The Configuration section contains the following fields:

TLS Unit Number: *	TLS Code: *
TLS Type: *	Baud Rate: *
On Radio Modem?: <input checked="" type="checkbox"/>	Cell TLS?: <input checked="" type="checkbox"/>
Host Name: 0.0.0.0	Port: *
MAC Address:	TLS Phone: *
TLS Poll Time: *	Password: *
Last Connection:	
Last Message:	

**Paging**

Pager Phone:
Pager Message:

5. In the **TLS Unit Number** field, enter the same terminal that was selected in Step 4.
6. Select the **TLS Type** from the drop-down list.
  - Check the Terminal Screen's TLS information section for the TLS Type.
7. Check the **On Radio Modem** check-box if the TLS is using a SkyComm to communicate.
8. In the **Host Name** field, enter the network IP address of the TLS.
9. In the **MAC Address** field, enter the MAC address.
10. In the **TLS Poll Time** field, enter a start time.
11. In the **TLS Code** field, enter a code for the TLS.
12. In the **Baud Rate** field, enter the modem's baud rate.
13. Check the **Call TLS** check-box.
14. In the **TLS Phone** field, enter the phone number or network IP address assigned to the TLS.
15. In the **Password** field, enter a password to allow the communication. In the Paging section:
16. In the **Pager Phone** field, enter a pager number if the communication method will be paging.
17. In the **Pager Message** field, enter a message for the pager.
18. Click **Save**.

## Lesson 45. TLS Probes

### Activity 83. Set UP A TLS Probe

1. Open the TLS Probes grid.
2. Click the **Add Record** tool.



The screenshot shows a 'TLS Probe' add record form. It has four fields: 'Probe Name:' with a required asterisk, 'Probe Number:' with a required asterisk, 'TLS:' with a dropdown menu showing '0', and 'Tank:' with a dropdown menu showing '0'.

3. In the **Probe Name** field, enter a unique name for the TLS probe.
4. In the **Probe Number** field, enter a unique number for the TLS probe.
5. In the **TLS** drop-down list, select a TLS for the probe.
6. In the **Tank** drop-down list, select a Tank.

 **CAUTION: TLS Probe and Tank locations must match.**

7. Click **Save**.

## Lesson 46. TLS Alarms

### Activity 84. View A TLS Alarm Record

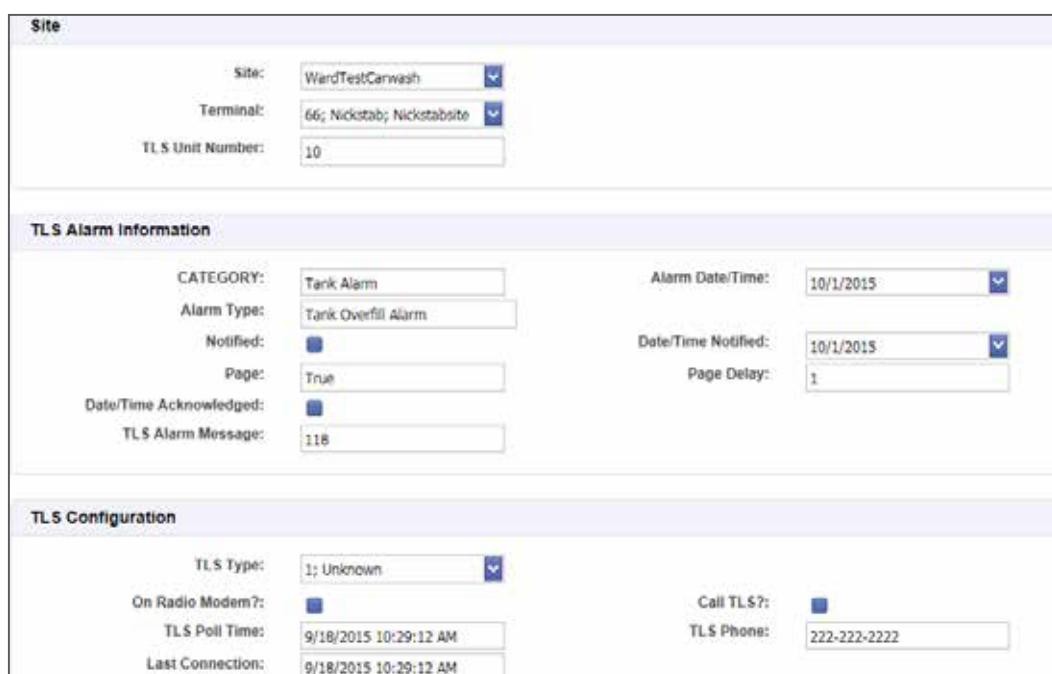
1. Open the TLS Alarms grid.



The screenshot shows a 'TLS Alarms' grid with columns: Alarm History ID, Category, Category ID, Alarm Type, Type Delay, Page, Page Delay, Alarm Message, Time, Probe Name, Notified, Date Acknowledged, Date Paged, and TLS Number. One row is visible with the following data:

Alarm History ID	Category	Category ID	Alarm Type	Type Delay	Page	Page Delay	Alarm Message	Time	Probe Name	Notified	Date Acknowledged	Date Paged	TLS Number
1	2 : Tank Alarm	4	Tank Overfill Alarm	True	1 : 118	10/1/2015 1:14:00 PM			1 : False	10/1/2015 1:14:00 PM	10/1/2015 1:14:00 PM	1	

2. Click an **Alarm History ID** to open its detail page.



The screenshot shows a 'TLS Alarm' detail form with three sections: Site, TLS Alarm Information, and TLS Configuration.

- Site:** Site: WardTestCarwash, Terminal: 66; Nickstab; Nickstabsite, TLS Unit Number: 10
- TLS Alarm Information:**
  - CATEGORY: Tank Alarm, Alarm Type: Tank Overfill Alarm, Alarm Date/Time: 10/1/2015, Date/Time Notified: 10/1/2015
  - Notified:
  - Page: True, Page Delay: 1, Date/TIME Acknowledged:
  - TLS Alarm Message: 118
- TLS Configuration:**
  - TLS Type: 1: Unknown, On Radio Modem?:
  - TLS Poll Time: 9/18/2015 10:29:12 AM, Last Connection: 9/18/2015 10:29:12 AM
  - Call TLS?:
  - TLS Phone: 222-222-2222

The TLS Alarm page shows Site, TLS Alarm information, TLS Configuration and Paging for alarms. These details are read-only.

### Activity 85. Create A TLS Schedule (Ward TLS Service only)

TLS Schedules are a list of tank level events to monitor on a set schedule. To set up a TLS schedule:

1. Open the TLS Schedules grid.
2. Click the **Add Record** tool.



**Schedule Details**

Schedule Name:  Active:  Next Run Date:  Max Failed Attempts:   
 Date Deactivated:

In the Schedule Details section:

3. In the **Schedule Name** field, enter a unique, descriptive name.
  4. Check the **Active** check-box to activate the schedule.
  5. In the **Next Run Date** field, enter a start date.
  6. In the **Max Failed Attempts** field, enter the number of allowable failed attempts for the report to run.
- In the TLS section:



**TLS**

TL5 32 - Fix 1 - TL5 360 R  
 TL5 66 - Southwest Engineers - TL5 360 R  
 TL5 22 - TL5 Corner - OMNTEC Proteus  
 TL5 24 - TL5 Corner - TL5 360 R  
 TL5 76 - West Engineers - TL5 360 R

TL5 66 - Parks and Rec - TL5 360 R  
 TL5 82 - Southwest Engineers - TL5 360 R  
 TL5 23 - TL5 Corner - TL5 360 R  
 TL5 102 - West Emergency - TL5 360 R

\* Must select at least 1 TLS.

7. Check the **Tanks** to be monitored in the schedule.
  - The tanks list is generated from Site Management.

In the Commands section:



**Commands**

Inventory	Delivery
Leak Test History	Status
BIR	SensorCategory
Sensor Status	LiquidSensor
LiquidSensorAlarm	BIRDaily
StartPressureLeakTest	StopPressureLeakTest

8. Check the event alarms to Fuel View to monitor.

## TLS Commands for Alarms Report List

BIR	LiquidSensor	TypeA2WireCLSensorAlarmHi
BIRDaily	LiquidSensorAlarm	story
ClearDelive	PressureLineLeakT	TypeA2WireCLSensorStatus
ry	est	TypeB3WireCLSensorStatus
CSLDResul	SensorCategory	TypeB3WireCSensorAlarmHist
t Delivery	SensorStatus	ory
GroundwaterSensorAlarmHis	StartPressureLeak	UniversalSensorAlarmHistory
tory	Test	UniversalSensorStatus
GroundwaterSensorStatus	StartWPLLDLeakT	VaporSensorAlarmHistory
InTankLeakTest	est Status	VaporSensorStatus
Inventor	StopPressureLeak	
y	Test	
LeakTes	StopWPLLDLeakT	
t	est	

In the Occurrences section:



1. In the **Frequency** drop-down list select how often the report should run: Daily  
Weekly  
Monthly  
Constant

If the report runs **Daily**,

2. Check the **day's** check-box.
3. In the **Run Time** field, enter the time of day the report will be run. If the report runs **Weekly**,
4. In the **Occurs every** field enter the number of weeks between reports.
5. In the **Run Time** field, enter the time of day the report will be run. If the report runs **Monthly**,
6. In the **Day of the Month** field, enter a date.
7. In the **Run Time** field, enter the time of day the report will be run.
8. Click **Save**.

## Grids for Viewing TLS Records

### TLS Leak Test Results Grid

## TLS BIR History Grid

TLS BIR History										TLS BIR History Data	
#	Site	Tank Num	Opening Date	Closing Date	Opening Vol	Deliveries	Metered Sale	Closing Volume	Variance		
	Waste Management Center	1	8/1/2016 2:00:00 AM	8/2/2016 2:00:00 AM	412		49	363	0		
	Waste Management Center	1	8/2/2016 2:00:00 AM	8/3/2016 2:00:00 AM	363		0	363	0		
	Waste Management Center	1	8/3/2016 2:00:00 AM	8/4/2016 2:00:00 AM	363	547	16	896	2		
	Waste Management Center	1	8/4/2016 2:00:00 AM	8/5/2016 2:00:00 AM	896		33	861	-2		

## TLS Liquid Sensor Status Grid

TLS Liquid Sensor Status									
#	Status Time	TLS Number	Site	Sensor Number	Sensor Status	Sensor Name	TLS Type	Tank Num	
	10/17/2016 2:47:21 PM	2	Waste Management	4	NORMAL	Pipinp	TLS 350 R		
	10/17/2016 2:47:21 PM	2	Waste Management	3	NORMAL	Pipinp	TLS 350 R		
	10/17/2016 2:47:21 PM	2	Waste Management	2	NORMAL	Pipinp	TLS 350 R		
	10/17/2016 2:47:21 PM	2	Waste Management	1	NORMAL	Pipinp	TLS 350 R		

TLS Liquid Sensor Alarms										List of TLS Liquid Sensor Alarms records in the system.	
#	Alarm Time	Alarm Type	TLS Number	Site	Sensor Num	Sensor Name	Tank Number	Site Code	TLS Type	Record Created	
	10/16/2017 11:21:33 PM	0001	22	Central Yard	1		0020	TLS 350 R	10/16/2017 11:21:33 PM		
	10/17/2017 12:21:36 AM	0001	22	Central Yard	1		0020	TLS 350 R	10/17/2017 12:21:36 AM		
	10/17/2017 1:21:37 AM	0001	22	Central Yard	1		0020	TLS 350 R	10/17/2017 1:21:37 AM		

TL

## 12. Transaction Management

Fuel View is *National Type Evaluation Program Certified*, therefore, transactions cannot be deleted once entered in the system. Fueling transactions are associated to vehicles in the Fuel View system, but may also include other fuel consuming equipment, such as generators, lawn mowers, boats, airplanes, and even gas cans.

 **NOTE:** Transactions cannot be deleted once entered in the system; however, if error is found in a transaction, the record can be edited and corrected.

### Lesson 47. Manual Transactions

#### Activity 86. Add A Manual Transaction

1. Expand the Transaction Management folder and open the Transactions grid.
2. Click the **Add Record** tool to open the Data Entry screen. Asterisks indicate required fields.

<b>Transaction Detail</b>			
Transaction Number:	<input type="text" value="0"/>	Transaction Code: *	<input type="text"/>
Date: *	<input type="text"/>	Quantity: *	<input type="text"/>
Site:	<input type="text"/>		
Terminal:	<input type="text"/>		
Pump: *	<input type="text"/>		
Tank: *	<input type="text"/>		
Fuel: *	<input type="text"/>		
<b>Equipment</b>			
Vehicle Card: *	<input type="text"/>	Current Odometer:	<input type="text"/>
Department: *	<input type="text"/>	Current Hour Meter	<input type="text"/>
Employee Card:	<input type="text"/>		
<b>Authorizations</b>			

In the Transaction Detail section:

3. ISelect a **Transaction Code** from the drop-down list.
  - This is a transaction description
4. In the Date drop-down picker select a date.
5. In the **Site** drop-down list select a site.
6. In the **Terminal** drop-down list select an FCT.
7. In the **Pump** drop-down list select a pump.
8. In the **Tank** drop-down list select a tank.
9. In the **Fuel** drop-down list select a fuel type.
10. In the **Quantity** field, enter the volume dispensed.

In the Equipment section:

11. In the **Vehicle Card** drop-down list select a Vehicle Card .
12. Optional: In the **Current Odometer** field, enter the vehicle's odometer at the time of the transaction.
13. Optional: In the **Current Hour Meter** field, enter the vehicle's hour meter at the time of the transaction.
14. Optional: In the **Employee Card** field, enter or select the employee that fueled, or drove the vehicle.
  - Employee Card entry is company dependent.

 **NOTE: Transactions are recorded In the Authorizations section when a Site Card or Administrative Card has been used.**

15. Click **Save**.

16. Optional: Click **Save and New** if you are entering multiple transactions from the same terminal and pump.
  - The screen will retain the previous transaction's site, terminal, pump, tank, and transaction code.

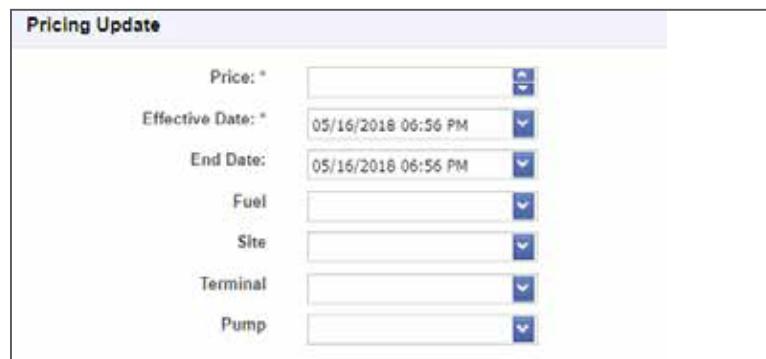
#### Activity 87. Edit A Transaction

1. Open the Transactions grid.
2. Open a Transaction Detail by clicking a blue hyper-link, in the **Transaction** column.
3. Edit data in the Transaction Detail screen as required.
4. Alternatively, click **Save**.
  - If there is an error, follow the instructions and click **Save**.
5. Wait for confirmation.
6. Click **Close**.

#### 7. Update A Fuel Price

Use the Pricing Update screen to update fuel pump and transaction price updates for current, future and past transactions. Prices can be entered for via overall or individual sites, FCTs and pumps.

8. Open the Pricing Updates grid and click Add Record.



The screenshot shows a 'Pricing Update' dialog box with the following fields:

- Price: \* (dropdown menu)
- Effective Date: \* (dropdown menu, showing 05/16/2018 06:56 PM)
- End Date: (dropdown menu, showing 05/16/2018 06:56 PM)
- Fuel: (dropdown menu)
- Site: (dropdown menu)
- Terminal: (dropdown menu)
- Pump: (dropdown menu)

9. In the **Price** field, enter a price.
10. In the **Effective Date** field, choose a date.
11. Optional: In the **End Date** drop-down list, select a date.
12. Optional: Select a **Fuel** from the drop-down list.
13. Optional: Select a **Site** from the drop-down list.
14. Optional: Select a **Terminal** from the drop-down list.

15. Optional: Select a **Pump** from the drop-down list. 16. Click **Save**.

17. Click **OK**.

## Lesson 48. Car Wash

An FCT can control the operation of a car wash.

### Activity 88. Add A Car Wash:

1. If necessary, create the FCT in Fuel View (see *Site Management,, Terminals, Add Record*).
2. Create a pump (see *Site Management, Pumps, Add Record*). In the Pump section:
  3. In the **Terminal** field, enter the FCT the car wash is connected to.
  4. In the **Pump Number** field, enter a unique identifier for the car wash.
  5. In the **Site Pump Code** field, enter a unique identifier for the car wash for this site.
  6. In the **Type** drop-down list, select Car Wash.
  7. Click **Save**.

### Activity 89. View Remote Car Wash Details

1. Open the Remote Car Washes grid. Click the blue **Date/Time** link to view details.

 **NOTE:** Car Wash records are read only and cannot be edited.

## Lesson 49. Remote Gate Openings

An FCT can control the opening and closing of gates.

### Activity 90. Add A Gate Control

1. If necessary, create the FCT in Fuel View (see *Site Management, Terminals, Add Record*).
2. Create a pump (see *Site Management, Pumps, Add Record*). In the Pump section:
  3. In the **Terminal** field, enter the FCT the gate is connected to.
  4. In the **Pump Number** field, enter a unique identifier for the gate.
  5. In the **Site Pump Code** field, enter a unique identifier for the gate for this site.
  6. In the **Type** drop-down list, select Gate Opener.
  7. Click **Save**.

### Activity 91. View Remote Gate Opening Details

1. Open the Remote Gate Openings grid.
2. Click the blue **Date/Time** link to open the detail screen.

 **NOTE:** Remote Gate Opening records are read only and cannot be edited.

## Lesson 50. Ext Retail Trans Errors

### Activity 92. Correct a Retail Transaction Error

External Retail Transaction Errors								
#	Edit	Processor	Error	Record Create Date	Import File Name	Connected	Date Fixed	Fixed Trans #
Delete	EDIT	WEX	Line length (851) exceeds the 850 character limit; Please Contact EJ Ward/Wex to investigate	1/15/2018 9:42:10 AM	Name: PascoDaily.WEX.20171016 SQL_4526 TEST Batch ID: 3	No		
Delete	EDIT	WEX	Line length (851) exceeds the 850 character limit; Please Contact EJ Ward/Wex to investigate	1/15/2018 9:42:10 AM	Name: PascoDaily.WEX.20171016 SQL_4526 TEST Batch ID: 3	No		
Delete	EDIT	WEX	Line length (851) exceeds the 850 character limit; Please Contact EJ Ward/Wex to investigate	1/15/2018 9:42:10 AM	Name: PascoDaily.WEX.20171016 SQL_4526 TEST Batch ID: 3	No		

1. Contact Ward Customer Service for assistance.

# 13. Fuel Management

The Fuels grid is a predefined list of fuels, oils, and other liquid products that are managed by Fuel View. Site cards, vehicle cards, and employee cards are connected to the Fuel grid for product access control.

## Lesson 51. Fuels

### Activity 93. View Available Fuel Products

Expand the Fuel Management folder in directory, and open the Fuels grid.

#	Fuel	Fuel Number	Unit	Category
	Fast-fill CNG	4	gge	fuel
	Ethanol	1	liter	fuel
	Propane	6	gge	fuel
	Unleaded	2	liter	lubricant
	Premium	3	liter	fuel
	Bio-Diesel	7	liter	fuel
	Diesel	5	liter	fuel

 NOTE: Only Ward Customer Support Representatives may add, change, or delete fuel types.

## Lesson 52. Transfers

### Activity 94. Transfer Fuel Between Tanks

1. Open the Transfers grid.
2. Click the **Add Record** tool to open the New Record data entry screen. Asterisks indicate required

**Profile**

Date/Time: *	<input type="text"/>
Source Tank: *	<input type="text"/>
Destination Tank: *	<input type="text"/>
Quantity: *	<input type="text"/>

fields.

3. Enter the **Date and Time** of the fuel transfer.
4. Select the **Source Tank** from the drop-down list.
5. Select the **Destination Tank** from the drop-down list.
6. Enter the **Quantity** of transfer fuel in only *whole* positive or negative amounts.

Fuel View validates the fuel quantity being transferred between tanks and will not accept transfer quantities greater than the capacity of the destination tank.

 **Saved Fuel Transfers cannot be removed; however, negative quantities may be used to**  
Fuel

November

correct or reverse fuel transfers.

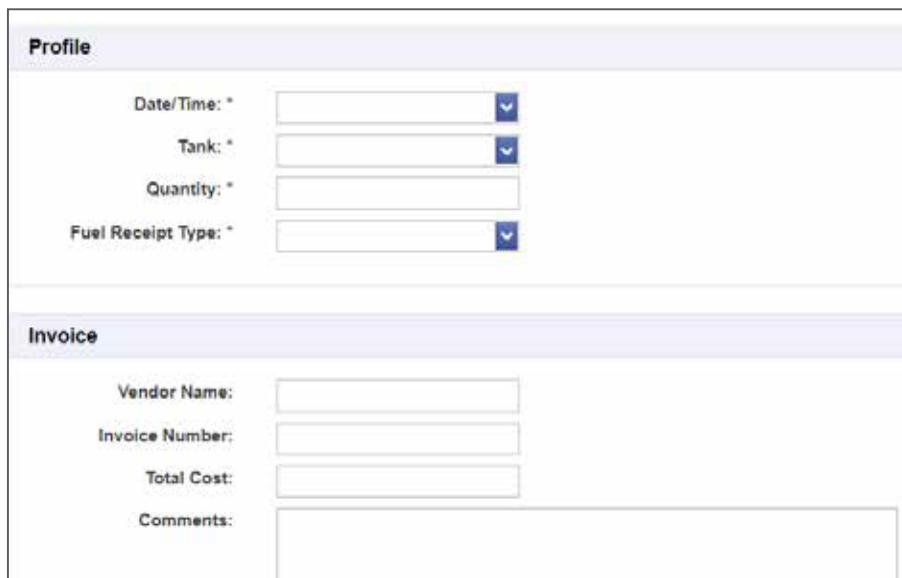
7. Click Save.

8. Wait for the confirmation message.
9. Click **Close**.

## Lesson 53. Receipts

### Activity 95. Add A Fuel Delivery

1. Open Receipts grid.
2. Click the **Add Record** tool to open New Record data entry screen. Asterisks indicate required fields.



**Profile**

Date/Time: *	<input type="text"/>
Tank: *	<input type="text"/>
Quantity:	<input type="text"/>
Fuel Receipt Type: *	<input type="text"/>

**Invoice**

Vendor Name:	<input type="text"/>
Invoice Number:	<input type="text"/>
Total Cost:	<input type="text"/>
Comments:	<input type="text"/>

In the Profile section:

3. In the **Delivery Date/Time** field, enter the delivery date and time.
4. Select the **Tank** from the drop-down list which will receive the fuel.
5. In the **Quantity** field, enter the fuel volume received.
6. Select the **Fuel Receipt Type** from the drop-

down list. In the Invoice section:

7. Optional: In the **Vendor Name** field, enter the vendor name.
8. Optional: In the **Invoice Number** field, enter the invoice number.
9. Optional: In the **Total Cost** field, enter the total cost.
10. Optional: In the **Comments** field, enter extra information about the delivery.
11. Click **Save**.

### Activity 96. Modify A Delivery Receipt

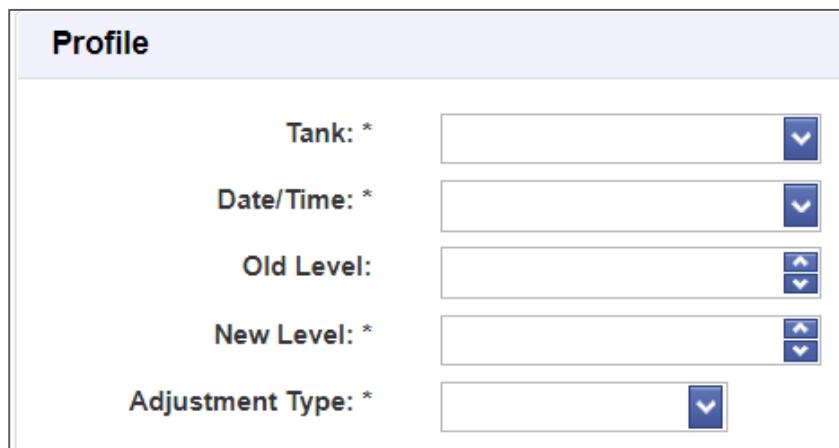
1. In the Fuel Receipts grid, click a **Time** hyper-link in the Time column to open the Profile screen.
2. Make changes in the appropriate fields.
3. Click **Save**.
4. Wait for the confirmation message.
  - If an error occurs, correct the error.
5. Click **Save**.
6. Click **Close**.

## Lesson 54. Adjustments

### Activity 97. Change A Tank Volume

To reflect the same tank level reported by the client's records, Fuel View allows for manual updates of tank level to adjust the inventory for each tank. This includes tank contaminations, transfer, and receipt errors. The Adjustments grid displays all manual adjustments that have been made for each fuel tank.

1. Open the Adjustments grid.
2. Click the **Add Record** tool to open the Fuel Adjustments data entry screen.



The form is titled "Profile". It contains five input fields with dropdown arrows for selecting values:

- Tank: \* (dropdown)
- Date/Time: \* (dropdown)
- Old Level: (dropdown)
- New Level: \* (dropdown)
- Adjustment Type: \* (dropdown)

3. In the **Tank** drop-down list, select a tank to adjust.
4. In the **Date/Time** field, select or enter the date and time of the adjustment.
5. Optional: In the **Old Level** field, enter the current level of the tank.
6. In the **New Level** field, enter the new tank level.
7. In the **Adjustment Type** drop-down list, select an adjustment type:
  - Fuel Transfer
  - Manual Entry Error
  - Manual Entry User
  - Entry Other
  - Corrections
8. Click **Save**.
9. Click **Close**.

## Lesson 55. Pump Totalizers

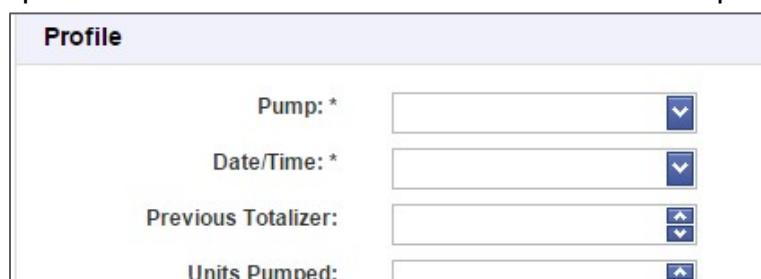
The Pump Totalizer is a reconciliation tool that compares the actual volume dispensed from a pump with Fuel View records.

### Activity 98. Activate The Pump Totalizer

1. Take a manual reading from the fuel pump's Totalizer dial.
2. Record the date and time.

In the Fuel Management directory:

3. Open the Pump Totalizers grid.
4. Click Add Record to open the New Record screen. Asterisks indicate required fields.



The form is titled "Profile". It contains four input fields with dropdown arrows for selecting values:

- Pump: \* (dropdown)
- Date/Time: \* (dropdown)
- Previous Totalizer: (dropdown)
- Units Pumped: (dropdown)

5. In the **Pump** drop-down list, select the pump that the reading was taken from.
6. In the **Date/Time** field, select or enter the date and time for which the pump's Totalizer was recorded.
  - The units since Last Totalizer field will populate the field. If there has been a Previous Pump Totalizer function update, the Previous Totalizer field will populate with the previous volume.
7. Optional: In the **Units Pumped** field, enter the quantity of units pumped.
8. In the **New Totalizer** field, enter the recorded Totalizer volume.
9. Click **Save**.

## Lesson 56. Inventory

### Activity 99. View Tank Inventory

The Inventory grid shows automatic TLS readings and manual dipstick readings.

1. Open the Inventory Grid.

Inventory											List of TLS Inventory Readings in the tank		
*	ID	Site Name	Tank Number	Fuel Type	Time	Fuel Level	Temperature	Water Level	Status	Reading Type		Query	
	EDIT	Waste Management Cntr	8	Unleaded	5/11/2018 4:01:00 AM	683.00	77.39	0.00	Normal	TLS Inventory			
	EDIT	TLS Corner	2	Diesel	5/11/2018 3:51:00 AM	6943.43	75.04	872.59	Normal	TLS Inventory			
	EDIT	TLS Corner	1	Unleaded	5/11/2018 3:51:00 AM	6144.44	74.94	557.67	Normal	TLS Inventory			
	EDIT	Waste Management Cntr	8	Unleaded	5/11/2018 3:01:00 AM	683.00	77.51	0.00	Normal	TLS Inventory			
	EDIT	TLS Corner	2	Diesel	5/11/2018 2:51:00 AM	6943.43	75.16	872.56	Normal	TLS Inventory			

2. Click the EDIT link in the ID column next to the Site Name to open TLS or dipstick reading details.

**Profile**

**Site:** \*

**Active:** \*

**Date Deactivated:**

**Fuel**

**Tank Number:** \*

**Tank Code:**

**Fuel:** \*

**Fuel Code:**

**Continuous Feed:**

In the Fuel section, the Current level displays the tank's volume.

### Create A Manual TLS Reading Or Dipstick Reading

3. Click the **Add Record** tool to open the Inventory data entry screen. Asterisks indicate required fields.

**Profile**

**Date/Time:** \*

**Tank:**

**Fuel Level:** \*

4. In the **Date and Time** field, enter the date and time.
5. In the **Tank** drop-down list, select a Tank.
6. In the **Fuel Level** field, enter the fuel level.
7. Optional: Enter the **Water Level**.
8. Optional: Enter the **Temperature**.
9. Enter the **Status of the tank at the time of the reading:**  
Both  
Delivery  
Normal  
Pumping
10. In the **Reading Type** drop-down list, select a Reading Type.

### **Reading Type Definitions**

**Manual Reading** Used for dipstick readings.

**TLS Reading** Used for a printout or screen reading from the TLS.

Automatic TLS Readings polled from the system will automatically be entered here.

11. Click **Save**.

12. Click **Close**.

# 14. Reporting

Fuel View reporting capability is preprogrammed to create reports for:

CANceiver Events	TLS Tank Level
Car Washes	Inventory
Credit Card	Transactions
Transactions	Transactions - Off Road Vehicle
Employees	Summary Transactions - Extended
Fuel	Transactions - PTO Vehicle Summary
Adjustments	Vehicle Daily Analysis
Fuel Receipts	Vehicle
Fuel Transfers	Transactions
Tanks	Vehicles Not Fueled
TLS Alarm History	

## Lesson 57. Queries For Reports

[Activity 100. Create a Data View for a report or grid](#)

- Expand the Reporting folder and open the Create grid.
1. Click a blue hyper-link in the Name column to open the Query grid.
    - A blank query form with default columns will display.



The screenshot shows a query grid titled "Fuel Adjustments". At the top, there is a message: "For best results, please limit column selection to ten columns or less." Below this are standard grid navigation buttons: Query, Export, Paging, Select Columns, and Save. A header row contains columns for City, Address1, Site Name, Tank Number, Product, and Adjustment Type. The main body of the grid is empty, displaying the message "No data to display".

- If the Query Form opens first, click **Close**.

Each Query Form is unique, containing data pertinent to that category.

2. Use the Select Columns tool and add or remove data for the report or grid.

### Activity 101. Create A Group

1. Add report data using the Select Columns tool.
2. To group data results, click and drag a column(s) to the Group field at the top of the grid until the white arrows appear.



The screenshot shows the same "Fuel Adjustments" query grid. In this version, the "City" column has been moved to the "Group" header, indicated by a red box and white arrows. The "Address1", "Site Name", "Tank Number", "Product", and "Adjustment Type" columns remain in their original positions below the header.

3. Remove a group by dragging the tab off the group level and back to the columns header.

4. Close Choose Columns.



**TIP:** Data may be grouped and ungrouped directly from the grid.



**TIP:** To control the result volume, enter a date or date range if there is a date filter.

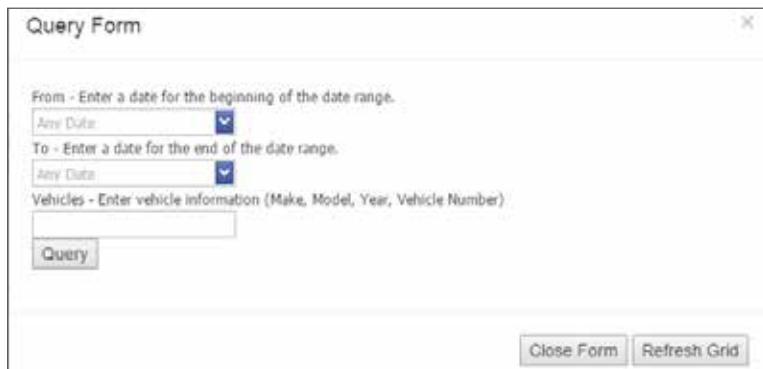
5. Click Save.



The Save dialog box contains the following fields:

- Name: Fuel Adjustments
- Save As: Grid
- Comments: (empty)
- Summary Options: (empty)
- Report Options: (empty)
- Save Query? (checkbox): checked
- Save for Scheduling? (checkbox): unchecked
- Permissions: Private

6. In the **Name** field, create a unique name for the query.
7. In the **Save As** drop-down list, select a report type.
8. In the **summary Options** field
  - The Query Form opens. Data fields are query dependent.



The Query Form dialog box contains the following fields:

- From - Enter a date for the beginning of the date range.  
Any Date dropdown menu
- To - Enter a date for the end of the date range.  
Any Date dropdown menu
- Vehicles - Enter vehicle information (Make, Model, Year, Vehicle Number)  
Input field
- Query button
- Close Form button
- Refresh Grid button

Sample Query Form 1

**Query Form**

Quick Date Settings

Start Date - Select Start Date

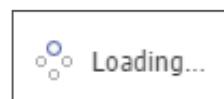
End Date - Select End Date

Terminal - Select Terminal to see in the Report

<input type="checkbox"/> 1
<input type="checkbox"/> 2
<input type="checkbox"/> 4
<input type="checkbox"/> 10
<input type="checkbox"/> 25
<input type="checkbox"/> 33

Sample Query Form 2

9. Enter dates, field information, and check fields as required.
10. Click **Query**.
11. The Loading message displays until the query has completed.



12. Click **Refresh**.

 You can change your query selections as often as you want before clicking Refresh Grid.

13. To view results, click the blue + tabs on the left of each row to expand the section.

Fuel Adjustments									
For best results, please limit column selection to ten columns or less.									
<input type="button" value="Query"/> <input type="button" value="Export"/> <input type="button" value="Paging"/> <input type="button" value="Select Columns"/> <input type="button" value="Save"/>									
Product ▲ ▾									
Adjustment Type	▲	▼	New Level	▼	Address2	▼	Old Level	▼	Time
<input type="text"/>	<input type="button" value=""/>	<input type="button" value=""/>	<input type="text"/>	<input type="button" value=""/>	<input type="text"/>	<input type="button" value=""/>	<input type="text"/>	<input type="button" value=""/>	<input type="button" value=""/>
+ Product: Diesel									
+ Product: Ethanol									
+ Product: Fast-fill CNG									
+ Product: Unleaded									

Query results with closed sections.

**Fuel Adjustments**

For best results, please limit column selection to ten columns or less.

Query Export Paging Select Columns Save

Product

Adjustment Type	New Level	Address2
+ Product: Unleaded		
+ Product: Fast-fill CNG		
3	69999	
Manual Inventory-User Entry	69999	
+ Product: Ethanol		
+ Product: Diesel		

Query Results with an Open Section.

If no data populates the report there is no data based on the filtering criteria you entered and you will see the

*No data to display* message. Go back to the Query form by clicking the Query button and change filters.

## Lesson 58. Saving Reports or Grids

### Activity 102. Save As A Grid

Save

Name: Fuel Adjustments

Save As: Grid

Comments:

Summary Options

Report Options

Save Query?

Save for Scheduling?

Permissions: Private

1. In the **Name** field, enter a meaningful name.
  - This could be the name from blue hyper-link in the grid you will use to run the report.
2. In the **Comments** field, enter any helpful notes.
3. In the Report Options check **Save Query** to retain the specific query for this grid.
4. Optional: In the **Permissions** drop-down list, select a viewing option:
  - Private** Allows only the creator access to the report.
  - Public** Allows everyone in the system access to the report.
5. Click **Save**.

## Activity 103. Save As A Report

**Save**

Name	Fuel Adjustments	
Save As	Report	▼
Comments		
Summary Options		
Field Name	Summarize?	Summary Type
Adjustment Type	<input checked="" type="checkbox"/>	<input type="button" value="▼"/> Count Count Distinct Sum Average
New Level	<input type="checkbox"/>	
Address2	<input type="checkbox"/>	
Old Level	<input type="checkbox"/>	
Time	<input type="checkbox"/>	
Report Options		
<input type="checkbox"/> Save Query?	Page Layout	Permissions
<input type="checkbox"/> Save for Scheduling?	Landscape	Private

1. In the **Name** field, enter a meaningful name.
2. In the **Comments** field, enter any helpful notes.
3. In the Summary Options section, check the Summarize box as needed
4. In the **Summary Type** drop-down list for each checked Field Name, select a Summary type.

If new report contains a field column used as a Group Header, you have the option of choosing to summarize columns in four different ways, allowing for a field column total.

### Summary Type Definitions

**Count** Total Records in the report

**Count Distinct** Total number of unique

records **Sum** Adds numerical columns

**Average** Averages numerical

columns Under Report Options:

5. Check **Save Query** to retain the specific query for this report.
6. Check **Save for Scheduling** to have report run automatically.
  - Covered in Report Scheduling section.
7. In the **Page Layout** drop-down list, select a format.
8. In the **Permissions** drop-down list, select a viewing option.
9. Click **Save**.

## Activity 104. Save As A Pivot Grid

A pivot grid is a summarization tool to automatically sort, count the total or give the average of a set of data points. A pivot grid is also useful for quickly creating unweighted cross tabulations. The user sets up and changes the summary's structure by dragging and dropping the columns and determining



how to group information.

1. Optional: In the **Comments** field, enter a descriptive reference.
2. In the **Comments** field, enter any helpful notes.
3. Click **Save Query** to retain the specific query for this report.
4. Optional: In the **Permissions** drop-down list, select a viewing option.
5. Click **Save**.

 **Pivot grids display data the same as Excel pivot charts.**

## Lesson 59. Reports

### Activity 105. Run A Report

1. Open the Reports grid.
2. Click a category in the Name column to open the Query Form.

Query Form fields vary depending upon the Name topic that has been selected. Behind each Query Form you will see a blank report in shadow with the title of the selected report.



3. Fill out and select appropriate fields.

#### 4. Click Refresh Report.

Ward Systems				
Automatic Fuel Control Terminal Restart All Dates				
Site Name:	Terminal #	Time	Alert Type	Alert Code
WardTestCarwash	1	2/13/2015 2:45:00 PM	Auto Restart	95
	1	2/13/2015 3:01:00 PM	Auto Restart	95
	1	2/20/2015 1:38:00 PM	Auto Restart	95
	1	2/20/2015 1:38:00 PM	Auto Restart	95
	1	2/24/2015 4:31:00 PM	Auto Restart	95
	1	2/24/2015 4:31:00 PM	Auto Restart	95
	1	4/24/2015 12:23:00 PM	Auto Restart	95
	1	5/1/2015 8:10:00 PM	Auto Restart	95
WardTestQC	2	5/8/2015 9:57:00 AM	Auto Restart	95

- Fuel View will populate a formatted, print ready report.

#### Activity 106. View Reports

1. Open a grid for Reports, Grids, or Pivot Grids.
2. Click a blue hyper-link in the **Name** column.

#### Activity 107. Change A Grid

A Grid Report is the only report that can be altered after it has been saved.

1. To alter a grid, reorder, add, and remove columns with the Choose Columns tool.
2. Click **Save**.

A pivot grid is a summarization tool to automatically sort, count the total, or give the average of a set of data points. A pivot grid is also useful for quickly creating unweighted cross tabulations.

#### Activity 108. Create A Pivot Grid

1. Select report type by clicking on the blue link in the Name column to open the Query Form.
2. In the Query form, enter a Date Range.
3. Click **Refresh Grid**.
4. Drag and drop columns to designate them as Column or Row Labels.
5. Optional: Add or remove columns with the Select Columns tool.

 **NOTE: The top section is a list of all available columns. Column labels are light tabs and row labels are shaded.**

### Lesson 60. Scheduled Reports

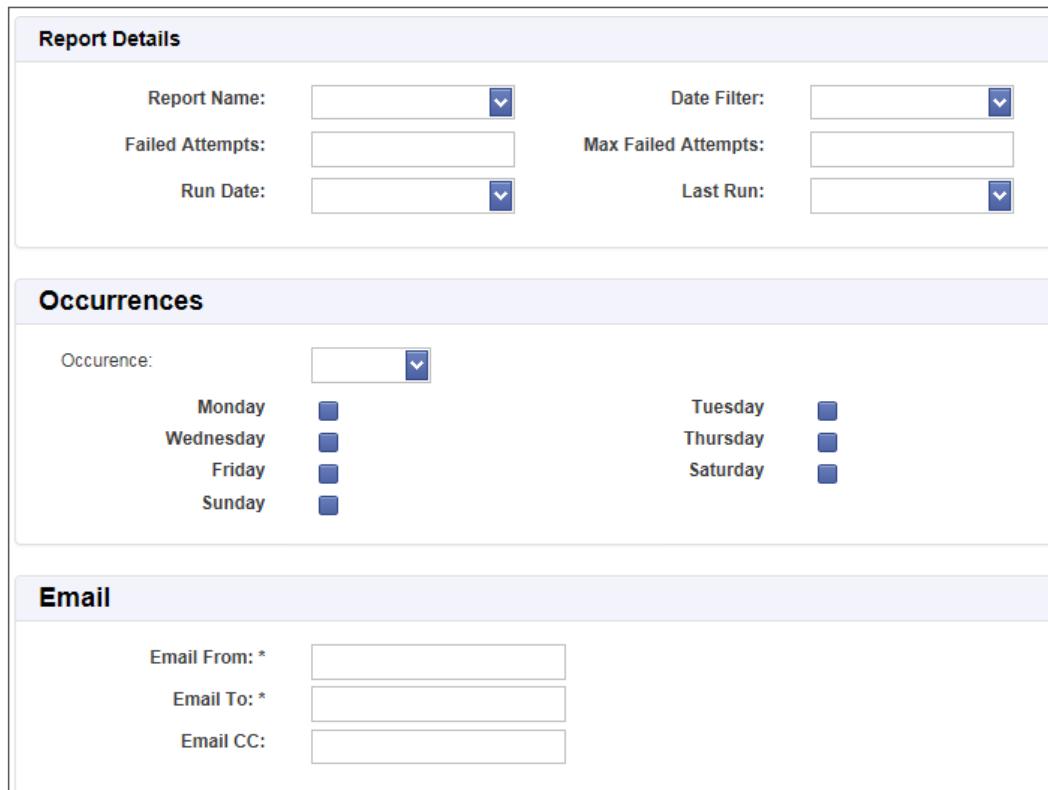
If the Fuel View server is setup with access to an SMTP (e-mail) server, it can schedule reports to automatically run and be e-mailed to single or multiple addresses.

 **TIP: The Scheduled Reports grid contains the reports set-up to auto run and e-mail.**

## Activity 109. Schedule An Auto-Run Report

If your Fuel View server is setup with access to an SMTP (e-mail) server, it can schedule reports to automatically run and be e-mailed to single or multiple addresses.

1. Open the Scheduled Reports grid and click Add Record.



Report Details			
Report Name:	<input type="text"/>	Date Filter:	<input type="text"/>
Failed Attempts:	<input type="text"/>	Max Failed Attempts:	<input type="text"/>
Run Date:	<input type="text"/>	Last Run:	<input type="text"/>

Occurrences						
Occurrence:	<input type="button" value="▼"/>					
	Monday	<input type="checkbox"/>	Tuesday	<input type="checkbox"/>		
	Wednesday	<input type="checkbox"/>	Thursday	<input type="checkbox"/>		
	Friday	<input type="checkbox"/>	Saturday	<input type="checkbox"/>		
	Sunday	<input type="checkbox"/>				

Email		
Email From: *	<input type="text"/>	
Email To: *	<input type="text"/>	
Email CC:	<input type="text"/>	

In the Report Details section:

2. In the **Report Name** field, enter the name of the report.
3. In the **Failed Attempts** field, enter the number of times for report try to run if it fails.

 **NOTE: The Report Name drop-down list is populated only by reports that can be automatically scheduled.**

4. In the **Run Date** field enter the start date and time for the initial report. In the Occurrences section:
5. In the **Occurrence** drop-down list, select the frequency for the report to run:

**Daily**

- Check the day(s) of the week.

**Monthly**

- Enter the day of the month.

**Weekly**

- Enter the number of weeks between reports.
- Check the days of the week to run the report.

6. Select the interval between weeks and the day(s) of the week. In the E-mail section:

7. In the **E-mail From** field, enter the source e-mail.

8. In the **E-mail To** field, enter the target e-mails.
  - Separate multiple e-mail entries with a semi-colon.
9. Optional: Add extra e-mails as CCs.
10. Click **Save**.

#### Activity 110. Edit A Schedule

1. In the Scheduled Reports grid, click a blue hyper-link to open the Report.
2. Change information fields as required.
3. Click **Save**.

# 15. Message Management

Fuel View Message Management allows up to 50 messages to be created. Messages can be automated for delivery to the entire fleet; groups of vehicles, or a single vehicle. Triggers can be based on the odometer, transactions, or time. Messages are displayed on the LCD of the FCT at time of fueling.

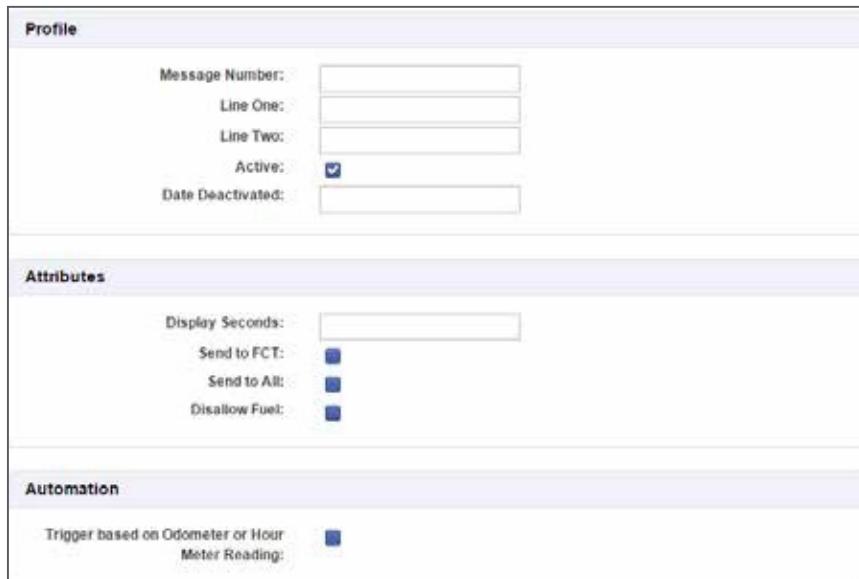
## Lesson 61. Messages

### Activity 111. Create An Automated Message

1. Expand the Message Management folder and open the Messages grid.

Messages			List of Messages in the system
*	Message Number	Line One	Line Two
Delete	2	PM DUE	NEXT MONTH
Delete	3	Preventative Maint.	
Delete	4	Vehicle Maintenance	Oil Change
Delete	5	Please	Wait
Delete	6	PM Due	Report Immediately
Delete	7	Drive	Carefully
Delete	11	Merry	Christmas

2. Click Add Record.



The screenshot shows the 'Profile' tab of a software interface. It includes the following fields:

- Profile:**
  - Message Number: [Input field]
  - Line One: [Input field]
  - Line Two: [Input field]
  - Active:
  - Date Deactivated: [Input field]
- Attributes:**
  - Display Seconds: [Input field]
  - Send to FCT:
  - Send to All:
  - Disallow Fuel:
- Automation:**
  - Trigger based on Odometer or Hour:
  - Meter Reading: [Input field]

In the Profile section:

3. In the **Message Number** field assign a number to the message.
  - Numbers can only be used once, must be between 1-50, and do not have to be in sequential order.
4. In the **Line One** field, type in a message.
  - This will appear as the top line of the FCT screen.
  - Message fields are limited to 20 characters
5. Optional: In the **Line Two** field add more detail to the message.
6. Check the **Active** check-box to enable the

message. In the Attributes section:

7. In the **Display Seconds** field, enter the time interval for the message to display.
8. Check the **Send to FCT** check-box for the terminals to receive the message.
  - This must be checked.
9. Check the **Send to All** check-box to broadcast as a global message to all vehicles.
10. Check the **Disallow Fuel** check-box to require the driver to contact Fleet Management. In the Automation section:
11. Optional: Check the **Trigger on Odometer or Hour Meter** check-box to activate the auto message when a vehicle or asset reaches a determined odometer or hours milestone.
  - After saving proceed to Set Hour Or Odometer Trigger Activity.
  - 12. Click **Save**.

## Lesson 62. Messages By Vehicle

### Activity 112. Create A Message By Vehicle Record

1. Open the Messages by Vehicle grid.
2. Click Add Record to open the Vehicle Message screen.
3. In the **Select a Vehicle** drop-down list, select a vehicle.

Select a Vehicle:			
Vehicle Number	Year	Make	Model
T33	2001	GMC	TC7 DUMP
P1	2005	FORD	CROWN VIC
P116	2001	CHEVY	MALIBU
P121	2012	FORD	E350 VAN

4. Click **Add Message**.
5. Select a **Message** from the drop-down list.

Select The Message to Add					
Vehic	Message Number	Line One	Line Two	Disallow Fuel	Meter
	1	Hello	Moto	True	True
	2	PM DUE	NEXT MONTH	False	False
	3	Preventative Maint.		False	False
	4	Vehicle Maintenance	Oil Change	False	False
	5	Please	Wait	False	False
	6	PM Due	Report Immediately	False	True
	7	Drive	Carefully	False	False
	11	Merry	Christmas	False	False
	20	Caution	Severe Weather	True	True

6. Click **OK**.
    - The message will load and will be displayed in the Message # box
  7. Check the **Active** check-box for the vehicle to receive the message once the requirements are met.
- If the Trigger is based on an odometer or hour meter reading, the Meter Reading Trigger field will be present to edit.
8. In the **Meter Reading Trigger** field, enter the odometer or hour meter value.

### Activity 113. Copy Messages To Other Vehicles

To copy a full set of messages from one vehicle to others:

1. Click the **Copy Messages** tool at the top of a Vehicle Messages detail screen.

P10 - 2004 JEEP/WRANGLER SE 4X4

--	--	--

2. Select a **Vehicle** from the drop-down list.

3. Click **Save All Messages**.

#### Activity 114. Set Hour Or Odometer Trigger

Vehicle Messages:		
<b>Message #5</b>		
<input type="checkbox"/> Disallow Fuel? <b>Line One:</b> <input type="text" value="Validation"/>		

1. In the Message By Vehicle grid, select the vehicle with the trigger requirement.
2. In the **Meter Reading Trigger** field, setting enter the odometer or hours requirement.
3. Click **Save All Messages**.

**NOTE:** To edit a message, click on the blue **Message Number** in the **Messages** grid.

#### Lesson 63. Remove Messages

##### Activity 115. Remove A Message From A Vehicle

1. In the Vehicles Messages grid, click the blue hyper-link in the Vehicle Number column.

T27 - 1992 GMC DUMP

Vehicle Messages:		
<b>Message #4</b>		
<input type="checkbox"/> Disallow Fuel? <b>Line One:</b> <input type="text" value="Vehicle Maintenance"/> <b>Line Two:</b> <input type="text" value="Oil Change"/> <input checked="" type="checkbox"/> Active?		
<input type="button" value="Remove Message"/>		

2. Click the **Remove Message** button for the message number.

**CAUTION: Clicking Remove Message is irreversible and will remove the message without prompting to Save. If there is only one message, the vehicle will be removed from the Messages By Vehicle grid as well.**

#### Activity 116. Discontinue A Message To A Vehicle

1. Click a blue hyper-link in the Vehicle Number column.
2. Uncheck the **Active** check-box.
3. Click **Save All Messages**.
  - The vehicle will remain in the grid as long as the Message has not been removed.

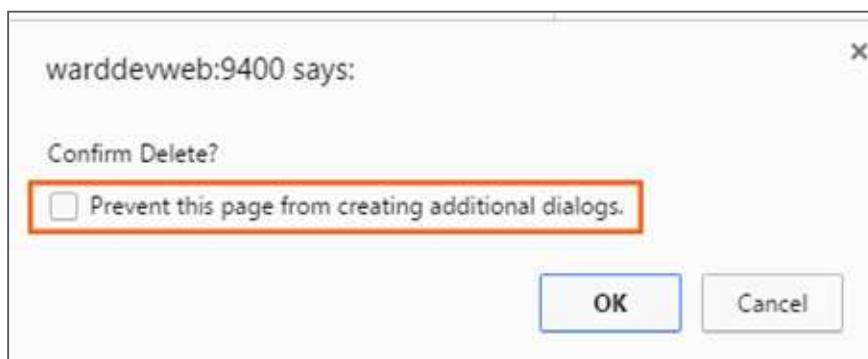
#### Activity 117. Deactivate A Message Globally

1. Open a message from the message grid.
2. Uncheck the **Active** check-box.
  - The Date Deactivated field will populate with the current date.
3. Click **Save**.

#### Activity 118. Delete A Message

1. In the Messages grid, click the blue **Delete** on the message line.
2. Click **OK**.

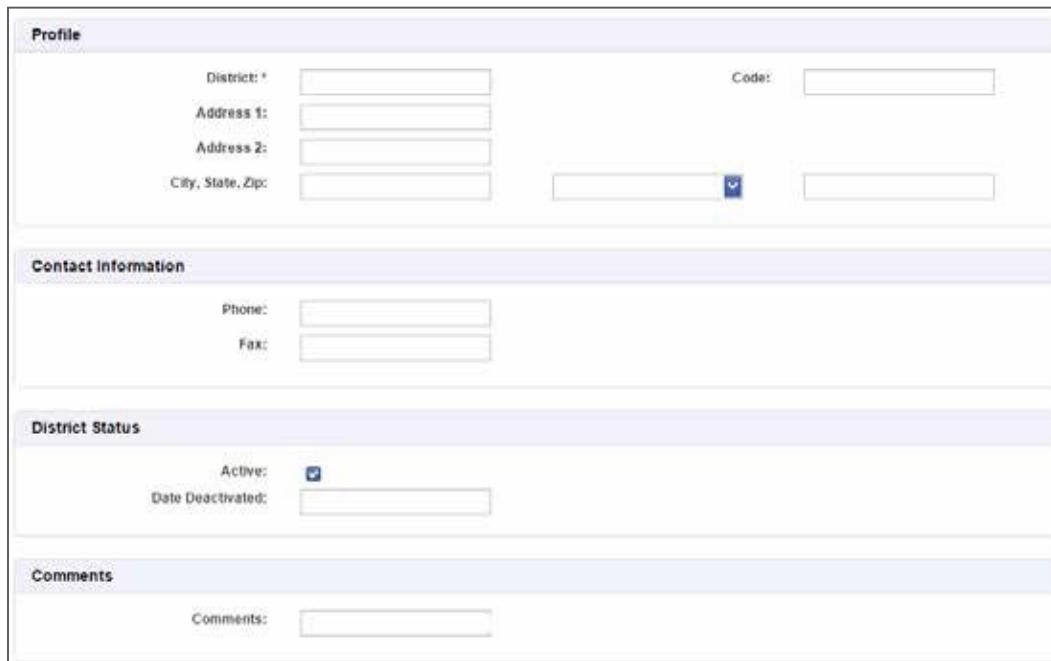
 **CAUTION: Alert to Chrome Users -- When deleting a message you may see the option in the Confirmation box to Prevent this page from creating additional dialog. DO NOT check the box. This will prevent all pop-up screens in Fuel View.**



# 16. Districts

## Activity 119. Set Up A District

1. Expand the District folder and open the Districts grid.
2. Click the **Add Record** tool.



**Profile**

District:  Code:

Address 1:   
Address 2:   
City, State, Zip:

**Contact Information**

Phone:   
Fax:

**District Status**

Active:  Date Deactivated:

**Comments**

Comments:

3. In the **District** field, enter a unique name.
4. Enter fields as required by your company.
5. Click **Save**.
6. Click **OK**.

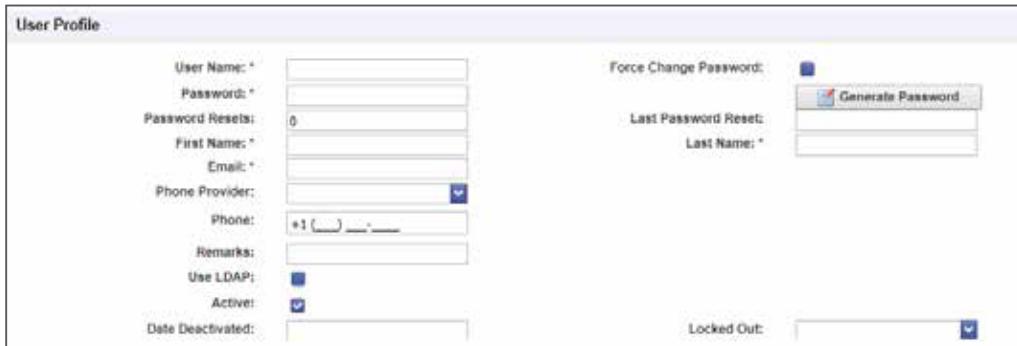
# 17. Security

The Security section of Fuel View is restricted to the System Administrator. There can be more than one System Administrator per your company's requirements, however, there can be only one System Administrator email.

## Lesson 64. Users

### Activity 120. Add A User

1. Expand the Security directory and open the Users grid.
2. Click Add Record to open the User screen. In the User Profile section:



The screenshot shows the 'User Profile' form. It contains fields for User Name, Password, Password Resets, First Name, Email, Phone Provider, Phone, Remarks, Use LDAP, Active, Date Deactivated, Force Change Password, Last Password Reset, and Last Name. There is also a 'Generate Password' button and a 'Locked Out' dropdown.

3. In the **User Name** field, enter a unique login name to identify the account.
4. Check the **Force Change Password** check-box to require the user to create a new password upon first login.
5. Click the **Generate Password** tool to create a password that will be emailed to the user.
6. In the **First Name** field and enter the user's first name.
7. In the **Last Name** field and enter the user's last name.
8. In the **Email** field, enter valid email address.
9. Optional: In the **Remarks** field, enter a detail relating to the user.
10. Check the **Use LDAP** check-box if the password will be managed by *Active Directory*. Password Resets and Last Password Reset are read-only fields.

In the Role Membership section:



The screenshot shows the 'Role Membership' form with a 'Role' dropdown and a 'Reset' button.

11. In the **Role Membership** drop-down select a role for the user.

 **A Role may be changed at any time, however, permissions must be updated to the corresponding role.**

12. Click **Save**.
13. Click **OK**.

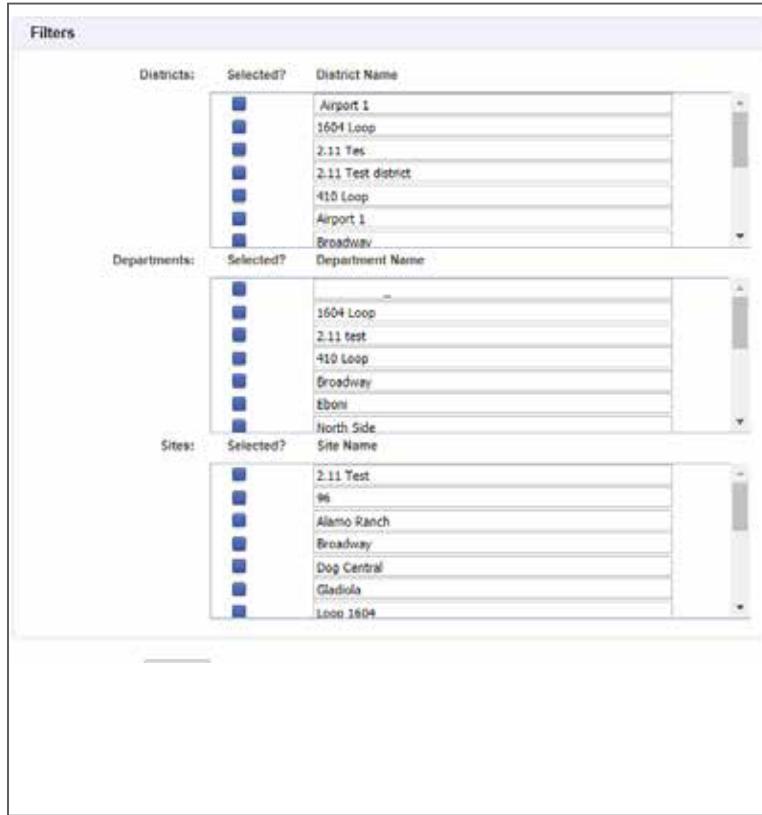
An email will be sent to the new user with a login link and temporary password.

 **NOTE: By default, a password must be between 6 and 20 characters and contain at least one upper case letter and at least one number. Your system administrator can change password requirements based on your company security policy.**

The Custom Role Permissions screen will appear below the Role Membership section.

### Activity 121. Set-up User Data Filtering

In the Filters section:



The screenshot shows the 'Filters' section with three dropdown menus:

- Districts:** Contains a list of districts with checkboxes next to them. Selected items include: Airport 1, 1604 Loop, 2.11 Test, 2.11 Test district, 410 Loop, Airport 1, and Broadway.
- Departments:** Contains a list of departments with checkboxes next to them. Selected items include: 1604 Loop, 2.11 test, 410 Loop, Broadway, Ebomi, North Side, and Site Name.
- Sites:** Contains a list of sites with checkboxes next to them. Selected items include: 2.11 Test, 96, Alamo Ranch, Broadway, Dog Central, Gladiola, and Loop 1604.

1. Check the **Districts** check-boxes for access.
2. Check the **Departments** check-boxes for access.
3. Check the **Sites** check-boxes for access.
4. Click **Save**.
5. Wait for a confirmation.
6. Click **Save**.
7. Click **Close**.

### Activity 122. Modify A User

1. In the Users grid, click the blue Login Name of a user to modify.
2. Enter changes.
3. Click **Save**.
  - The Filter section will appear under Employee Profile and Role Membership. In the Filters section:

4. Make required changes.
5. Click **Save**.
6. Wait for confirmation.
7. Click **Save**.
8. Click **Close**.

### Activity 123. Deactivate A User

In the User grid, click the name of a user to deactivate.

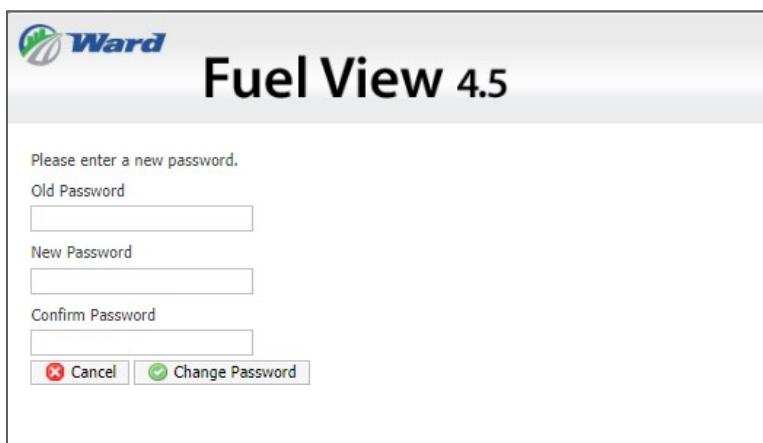
1. Uncheck the **Active** check-box.
  - The Deactivated Date will populate with the current date and time
2. Click **Save**.

### Activity 124. Reactivate A User

1. Click the **Query** tool.
2. In the **Status** drop-down box, select Inactive.
3. Click **Refresh**.
4. In the Login Name column, click name of the user to reactivate.
  - The Data Entry screen will display.
5. Check the **Active** check-box.
6. Click **Save**.
7. Wait for confirmation.
8. Click **Save**.

### Activity 125. Change A Password

1. Click **Change Password** in upper right corner of screen.
  - The login screen will open.



The screenshot shows a 'Fuel View 4.5' dialog box. At the top, it says 'Please enter a new password.' Below that are three input fields: 'Old Password', 'New Password', and 'Confirm Password'. At the bottom are two buttons: 'Cancel' (with a red X icon) and 'Change Password' (with a green checkmark icon).

2. In the **Old Password** field, enter the current password.
3. In the **New Password** field, enter a new password.
4. In the **Confirm Password** field, re-enter the new password.
5. Click **Change Password**.
6. Click **Save**.

 **NOTE:** By default, a password must be between 6 and 20 characters and contain at least one upper case letter and at least one number. The System Administrator can change password requirements.

## Lesson 65. Roles

Fuel View operates with designated roles for access and function permissions.

### Role Permissions List

Role	View Screen Data	View Reports	Add/Modify Screen Data	Add/Modify Reports	Create/Modify Users
Read Only	Y	Y	N	Y	N
Operator	Y	Y	Y	Y	N
Operator Admin	Y	Y	Y	Y	N
System Admin	Y	Y	Y	Y	Y
Reporter	Y*	Y	N	N	N
Fuel Management	Y	Y	Y	Y*	N
Vehicle Tracker	N	N	Y*	Y*	N
Central Office	Y	Y	Y	Y*	N
District Coordinator	Y	Y	Y	Y*	N
District Equipment	Y*	Y	Y*	Y*	N
Shop Manager	Y*	Y	Y*	Y*	N

\* Limited Permissions

### Activity 126. Set Up A Role

Roles settings can be customized per company requirement by the System Administrator in Role set-up. Open the Roles grid.

1. Click Add Record.

In the Role Profile section:

The screenshot shows a 'Role Profile' dialog box with the following fields:

- Name: [Text Input Field]
- Remarks: [Text Input Field]
- Active: [Check Box] (checked)
- Date Deactivated: [Text Input Field]

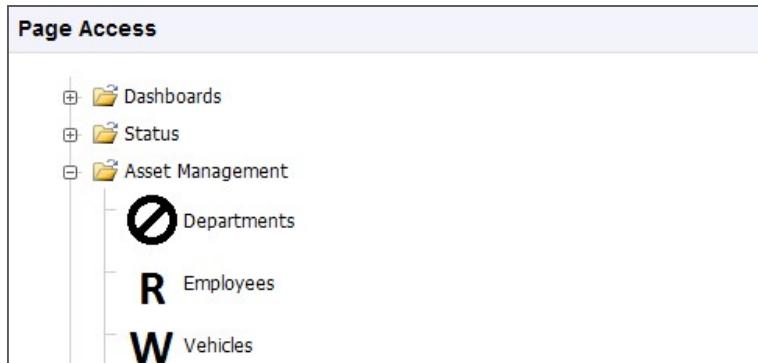
2. In the **Name** field, enter a unique Role name.
3. In the **Remarks** field enter a simple description.
4. Click **Save**.
  - Permissions sections will appear to define the role.

In the Page Access section:

The folders duplicate the Fuel View directory.

5. Configure a role's access by opening a folder and clicking a grid icon.

- The access level changes each time you click the icon to one of three different permissions.



### Page Access Definitions

	<b>No access</b>	Users with this role will not see this menu item.
	<b>Read-only access</b>	Users with this role will see menu item, but will not have the ability to save updates.
	<b>Full access</b>	Users with this role will have full access to this menu item and will be able to save updates.

In the Report Access Section:

Report Access			
#	Name	File Type	Allowed
<a href="#">Edit</a>	Administrator Vehicles	Report	<input checked="" type="checkbox"/>
<a href="#">Edit</a>	Automatic Fuel Control Terminal Restart	Report	<input checked="" type="checkbox"/>
<a href="#">Edit</a>	Bulk Inventory	Report	<input checked="" type="checkbox"/>
<a href="#">Edit</a>	Bypass Transactions	Report	<input checked="" type="checkbox"/>

6. Click an **Edit** link to define Report permissions for the Role.

7. Ignore the Read Only check-box.

8. Check the **Allowed** check-box to provide access to the report.

 **For large volume grids, use the query function to assist in finding reports to edit.**

9. Click **Save**.

10. Click **OK**.

### Lesson 66. Password Policy

Password Policy allows changing the complexity requirements of passwords for Fuel View.

 **NOTE: Password Policy is a System Administrator role.**

## Activity 127. Review Password Requirements

1. Open the Password Policy grid.

Password Policy		List of Password Policy Settings in the system.		
#	Setting	Boolean Value	Numeric Value	String Value
	Admin_Email	False	0	MyAdmin@fuelview4.com
	PW_Expiration	False	0	
	PW_MaxFailedLogins	False	10	
	PW_MinCaps	False	0	
	PW_MinLength	False	8	
	PW_MinNum	False	1	

### Password Policy Definitions

**Admin\_Email** Fuel View System Administrator's email. All emails regarding adding users and creating automatically generated passwords will go to this email.

**PW\_Expiration** Number of days until a password expires - 90 days are recommended.

**PW\_MinCaps** Minimum number of capital letters - one cap is recommended. **PW\_MinLength** Minimum password length of - eight characters are recommended. **PW\_MinNum** Minimum amount of numbers - one number is recommended.

**PW\_NumSaved** Number of previous passwords saved before you can reuse the first - five passwords are recommended.

 **NOTE:** Passwords may only be used once.

## Activity 128. Edit Password Requirements

1. In the Settings column, click **Admin\_Email**.
2. In the **String Value** field, enter the System Administrator's company email.

um Password Length:	0
imum Caps Required:	2
m Numbers Required:	1
Days Until Expiration:	9999

3. Click **Save**.

Continue through the list to customize the password complexity:

4. In the **Numeric Value** field for each setting, enter the value required.

changed.

*PW\_MinLength - a value of 12 requires at least 12 characters.*

---

5. Click Save.

## Lesson 67. Audit Trails

Audit Trails are recorded user *actions* and *transactions* and can be exported as required. Audit Trails are reached by clicking a record within a grid.

 **NOTE:** Audit Trail records are permanent and cannot be deleted.

### Activity 129. Open An Audit Trail

1. Expand the Site Management folder and open the Terminals grid.
2. Click a Terminal Number.
3. In the Terminals directory on the left, click the Audit Trail icon.

Terminals		Audit Trail							
		Columns		Paging		Export			
#	Table	Field	Date/Time	Type	New Value	Username	Editing User		
<a href="#">Clear</a>		lockedout							
	Terminals	Call_Baud_Rate	2/5/2016 2:05:28 PM	I	9600	EjwDBAdmin	wardfuel		
	Terminals	Shutdown_Limit	2/5/2016 2:05:28 PM	I	950	EjwDBAdmin	wardfuel		
	Terminals	Terminal_Number	2/5/2016 2:05:28 PM	I	78	EjwDBAdmin	wardfuel		
	Terminals	Interpulse_Timeout	2/5/2016 2:05:28 PM	I	60	EjwDBAdmin	wardfuel		
	Terminals	Enable_Timeout	2/5/2016 2:05:28 PM	I	60	EjwDBAdmin	wardfuel		

The Type column records the user action that was recorded.

### Audit Action Definitions

- U** Update a record
- V** Insert or add a record
- D** Deactivate or delete a record

## Lesson 68. Reset A Locked Out User

If a company has a limited amount of Login failures set, when the limit has been reached, the user will be locked out of the system until the Administrator unlocks the account.

### Activity 130. Reactivate A User Password

1. Click the Users icon to open the User grid.

User						
<a href="#">Add Record</a>		<a href="#">Query</a>	<a href="#">Columns</a>	<a href="#">Paging</a>	<a href="#">Export</a>	
#	Login Name	Last Name	First Name	Failed Attempts	Lockedout	
	janpou	Poudrier	Janet	0		
	jenkon	Kong	Jennifer	0		
	jjones	Jones	Jason	0		
	jorr	Orr	Jill	10	7/1/2016 5:15:46 PM	
	julius	Cicero	Julius	0		

2. If the Locked out column is hidden, place it on the grid with Choose Columns.

3. Click on the user's name with the locked account to open their profile screen.

Employee Profile	
User Name:	<input type="text" value="jorr"/>
Password:	<input type="password"/>
Force Change Password:	<input checked="" type="checkbox"/>
Password Resets:	<input type="text" value="0"/>
Last Password Reset:	<input type="button" value="Generate Password"/>
First Name:	<input type="text" value="Jill"/>
Last Name:	<input type="text" value="Orr"/>
Email:	<input type="text" value="jorr@ejward.com"/>
Remarks:	<input type="text"/>
Resend Verification Email:	<input type="button" value="Resend Verification Email"/>
Use LDAP:	<input type="checkbox"/>
Active:	<input checked="" type="checkbox"/>
Date Deactivated:	<input type="text"/>
Locked Out:	07/01/2016 05:15 PM <input type="button" value="X"/> <input type="button" value="▼"/>

- In the Locked out field , there will be a time and date for the event.
4. Hover the mouse over the Locked Out field to display the gray delete button.

Locked Out:	07/01/2016 05:15 PM <input type="button" value="X"/> <input type="button" value="▼"/>
-------------	---

5. Click the delete button to unlock the user.
- The Lockedout event will be cleared from the grid, and the user can now login in to his account. If the user has forgotten his password, it must be reset after unlocking.

# 18. Vehicle Maintenance

## Lesson 69. Preventative Maintenance Messages

Fuel View provides Preventative Maintenance Messages (PMM) at FCTs for vehicles that meet customer specified criteria triggered by odometer, hour-meter or date.

### Rules Definitions

- |                   |   |
|-------------------|---|
| <b>Odometer</b>   | Actions to be taken when a vehicle's odometer reading is near to, equals, or exceeds the mileage specified for a vehicle. |
| <b>Hour meter</b> | Actions to be taken when a vehicle's engine hours meet or exceed the hours specified.                                     |
| <b>Date</b>       | Actions to be taken when the specified date is approaching, is current, or has passed.                                    |
- The rules defining when a message will be activated can be entered through Fuel View data entry screens or through a standard import file. A PMM is activated on the FCT display screen when specified conditions are met and remains on the screen until it is acknowledged by the user or times out.

### Rules Actions List

- |   |  |
|---|--|
| <b>Notify Contact on Message Timeout</b>              | Send an email to the contact person when a driver does not acknowledge a message at the FCT. |
| <b>Notify Contact on Message Acknowledgment</b>       | Send an email to the contact person when a driver acknowledges a message at the FCT.         |
| <b>Disallow Fueling When Message Not Acknowledged</b> | Prohibits the driver from fueling if a message is not acknowledged.                          |

### Activity 131. Create A Message

To create a Message:

1. Open the Message Management folder in the navigation panel and click the Messages icon to open the Messages grid..
  2. Click the **Add Record** button.
- Skip the Message Number field (this field is read only).
3. In the **Line One** field, enter your message (20 characters max). If you need more content, use Line two. In the Attributes section:
  4. In the **Display Seconds** field, enter the number of seconds the user has to acknowledge the message on the FCT screen.
  5. Check the **Send to FCT** check-box to have the message display on the FCT screen.
  6. Check the **Send to All** check-box to send to everyone one associated with a specific vehicle.
  7. Check the **Disallow Fuel** check-box to deny fueling if the message is not acknowledged in the specified time frame.

In the Automation section:

8. Check the **Trigger based on Odometer or Meter Reading** check-box.
9. Click **Save**.

## Lesson 70. Maintenance Plans

Maintenance Plans specify vehicle conditions in which to send a PMM to a driver at an FCT. Each Maintenance Plan is user defined and directs the driver or other recipient to ensure an action is performed for vehicle health such as an annual maintenance check, changing the oil, or rotating the tires etc.

 **NOTE:** For efficiency, maintenance due records are created through an import file from the Fleet Maintenance Package.

Through Fuel View, Maintenance Plans and PPMs can be deactivated and reactivated by the user for use on any vehicle. Multiple-non driving personal can be set up to receive PMM notifications as well (ie, the manager for the department the vehicle belongs to).

---

*Example: An odometer based trigger specifies maintenance due when a vehicle's odometer is approaching, has reached or passed a specified number of miles.*

---

A Maintenance Plan can consist of rules for one, two or all three of the trigger options.

---

*Example: 50 miles before the maintenance for a vehicle is due, "Oil change within 50 miles" message is programmed. A second rule programmed with the message "Oil Change Now" when the vehicle reaches 25 miles over the specified odometer reading.*

---

Maintenance Plan		
Plan Name: <sup>*</sup>	Oil Change	
Code: <sup>*</sup>	OC	<input type="checkbox"/> Deactivate Plan
Email Notification:	<input checked="" type="checkbox"/> Use Department Email	
<b>Odometer Based Rules</b> <a href="#">+ Add Rule</a>		
Within 50 Miles When the odometer is 50 miles Below maintenance due display message Oil change within ; 50 miles + and permit 100 % of allowed fuel <input type="checkbox"/> Notify Contact on Message Timeout <input type="checkbox"/> Notify Contact on Message Acknowledgement <input type="checkbox"/> Disallow Fueling When Message Not Acknowledged		
Past due miles When the odometer is 25 miles Above maintenance due display message Oil change NOW; + and permit 25 % of allowed fuel <input checked="" type="checkbox"/> Notify Contact on Message Timeout <input type="checkbox"/> Notify Contact on Message Acknowledgement <input type="checkbox"/> Disallow Fueling When Message Not Acknowledged		

Consequences may also be programmed for a driver not following through with the scheduled maintenance, such as limiting the amount of fuel dispensed.

---

*Example: Maintenance has not been performed by the scheduled date, so the driver may be restricted to 25% of his regular allowable fueling.*

---

Other options can be programmed to notify an administrator, and or suspend fueling unless the message is acknowledged at the FCT. Many combinations of rules and criteria are possible providing flexibility for unique requirements.

After the Maintenance Plan with PMM has been created, it is necessary to associate the plan with a vehicle and to identify trigger criteria for that vehicle.

Although there are screens provided to allow this to be entered manually, it is more convenient and accurate to use the import process to pull in a file associating the odometer, hour meter or dates for all of the vehicles on a periodic basis. This also allows the rules to be turned off automatically.

The import file is tied to the Maintenance Plan through the Maintenance Plan Code field.

### Activity 132. Create A Maintenance Plan

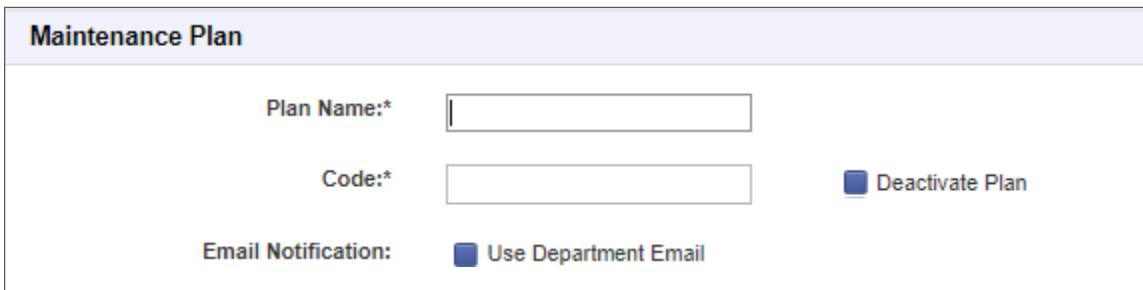
A Vehicle Maintenance contains two

items: Maintenance Plan

Maintenance Due

To create a Maintenance Plan:

1. In the Vehicle Maintenance folder in the navigation panel click the Maintenance Plan icon to open the Maintenance Plan grid.
2. Click Add Record.
3. In the **Plan Name** field, enter a unique descriptive Maintenance name.



Maintenance Plan	
Plan Name:*	<input type="text"/>
Code:*	<input type="text"/> <input checked="" type="checkbox"/> Deactivate Plan
Email Notification:	<input checked="" type="checkbox"/> Use Department Email

4. In the **Code** field, enter a unique plan code.
  - The Code is to identify the plan and is used to associate import vehicle records to the appropriate plan and can be abbreviated text or a number.

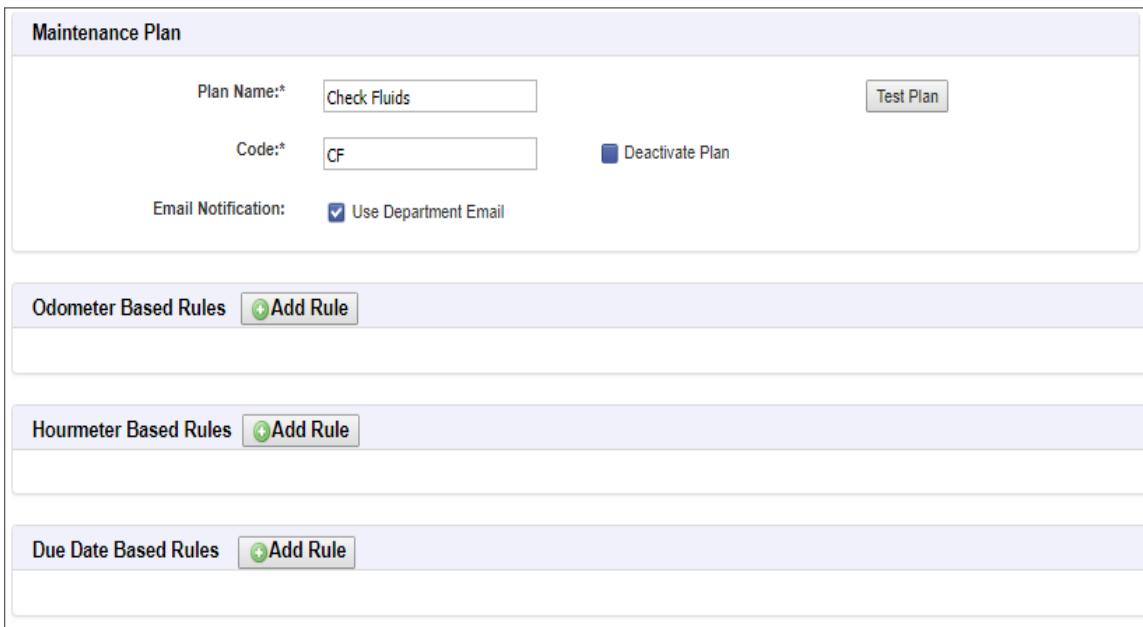
---

*Example: OC for oil change, TR for tire rotation, or AM for annual maintenance.*

---

5. Check the **Use Department Email** check-box to distribute notifications to predefined personnel within the department.
6. Click **Save**.
  - The default setting is active for new Maintenance Plans.

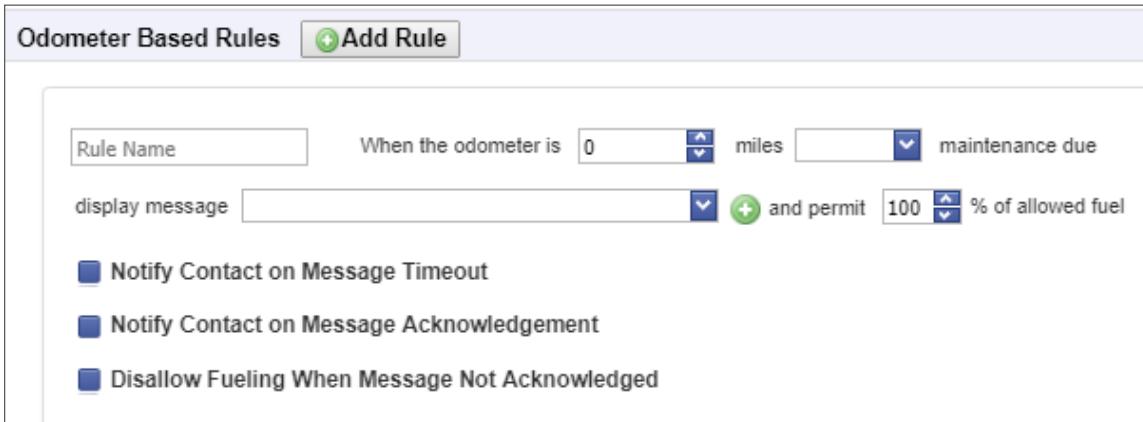
Once a Maintenance Plan has been saved, fields for the three rule categories will appear below the Maintenance Plan field.



The screenshot shows the 'Maintenance Plan' configuration screen. At the top, there are fields for 'Plan Name:' (Check Fluids), 'Code:' (CF), and a checkbox for 'Email Notification' with the option 'Use Department Email'. Below these are three sections: 'Odometer Based Rules' (with an 'Add Rule' button), 'Hourmeter Based Rules' (with an 'Add Rule' button), and 'Due Date Based Rules' (with an 'Add Rule' button).

7. Click the **Add Rule** button in the section header to create a rule for of that section.
  - The category will impact which fields are needed to fully define the rule.

### Activity 133. Odometer Based Rules



The screenshot shows the 'Odometer Based Rules' configuration screen. It includes fields for 'Rule Name', 'When the odometer is' (set to 0 miles), 'maintenance due' (dropdown menu), 'display message' (dropdown menu), and 'and permit' (dropdown menu). Below these are three checkboxes: 'Notify Contact on Message Timeout', 'Notify Contact on Message Acknowledgement', and 'Disallow Fueling When Message Not Acknowledged'.

The odometer based rule is based on the number of miles related to each vehicle's odometer. To create an Odometer based rule:

1. In the **Rule Name** field, enter a unique name.
2. In the **Odometer** field enter a relational number of miles to measure against the actual odometer.

In the Maintenance Due dropdown list, select a value:  
 Above  
 Below  
 Equal to

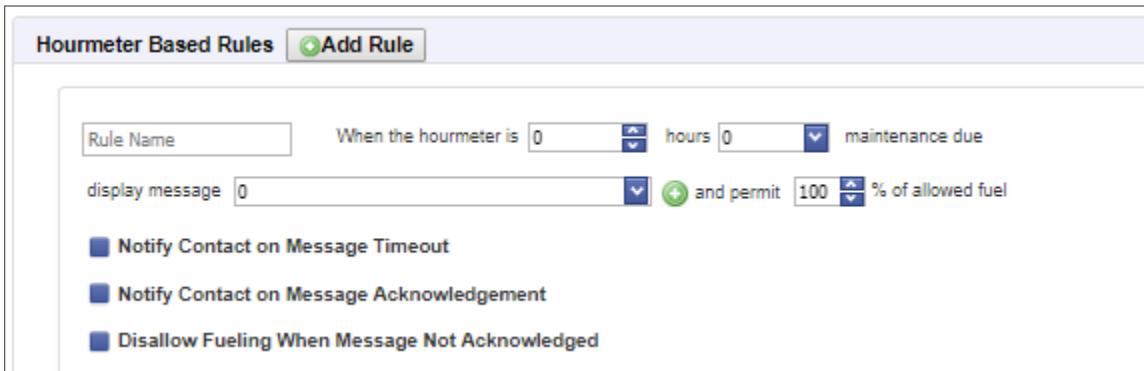
3. In the **Display Message** drop-down select a message or create a new message by clicking the green icon next to Display Message (see *Create A Message above*).

4. In the **permit %** field, enter the percentage of fuel the driver is allowed to access if he fails to follow through with maintenance, and or the plan is not reset.
  - Default is 100%

Check any of the optional rules required:

5. Check the **Notify Contact on Message Timeout** check-box.
6. Check the **Notify Contact on Message Acknowledgment** check-box.
7. Check the **Disallow Fueling When Message Not Acknowledged** check-box.
8. Click **Save**.

#### Activity 134. Hour Meter Based Rules



The screenshot shows a configuration interface for 'Hourmeter Based Rules'. At the top, there's a 'Rule Name' input field, a dropdown for 'When the hourmeter is' set to '0 hours', and a dropdown for 'maintenance due'. Below these are fields for 'display message' (set to '0') and 'permit' (set to '100 % of allowed fuel'). A green '+' icon is next to the permit field. At the bottom, there are three checkboxes for optional rules: 'Notify Contact on Message Timeout', 'Notify Contact on Message Acknowledgement', and 'Disallow Fueling When Message Not Acknowledged'.

The Hour meter based rule is based on the number of miles related to each vehicle's hour meter. To create an hour meter based rule:

1. In the **Rule Name** field, enter a unique name.
2. In the **Hour meter** field enter a relational number of hour to measure against the actual hour meter.

In the Maintenance Due dropdown list, select a

value: Above

Below

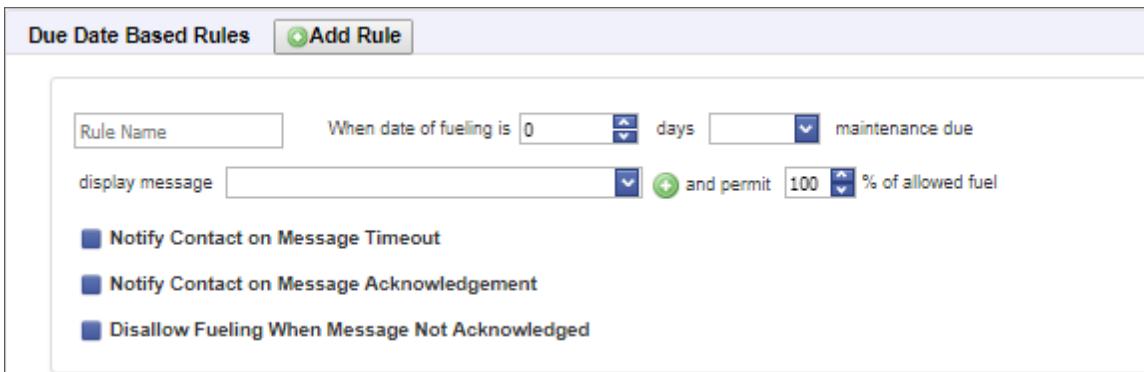
Equal to

3. In the **Display Message** drop-down select a message or create a new message by clicking the green icon next to Display Message (see Create A Message above).
4. In the **permit %** field, enter the percentage of fuel the driver is allowed to access if he fails to follow through with maintenance, and or the plan is not reset.
  - Default is 100%

Check any of the optional rules if required:

5. Check the **Notify Contact on Message Timeout** check-box.
6. Check the **Notify Contact on Message Acknowledgment** check-box.
7. Check the **Disallow Fueling When Message Not Acknowledged** check-box.
8. Click **Save**.

## Activity 135. Due Date Based Rules



The screenshot shows the 'Due Date Based Rules' configuration screen. At the top, there's a 'Rule Name' field, a dropdown for 'When date of fueling is' with '0 days' selected, and a dropdown for 'maintenance due'. Below that is a 'display message' dropdown and a 'permit' field set to '100 % of allowed fuel'. At the bottom, there are three optional checkboxes: 'Notify Contact on Message Timeout', 'Notify Contact on Message Acknowledgement', and 'Disallow Fueling When Message Not Acknowledged'.

The Date based rule is based on a calendar date for the maintenance to be performed by. To create an date based rule:

1. In the **Rule Name** field, enter a unique name.
2. In the **Date of fueling Hour meter** field enter a relational number of days to measure against the actual required date.

In the Maintenance Due dropdown list, select a value:

- Above
- Below
- Equal to

In the Display Message dropdown select or create a message.

3. In the **Display Message** drop-down select a message or create a new message by clicking the green icon next to Display Message (see Create A Message above).
4. In the **permit %** field, enter the percentage of fuel the driver is allowed to access if he fails to follow through with maintenance, and or the plan is not reset.
  - Default is 100%

Check any of the optional rules required:

5. Check the **Notify Contact on Message Timeout** check-box.
6. Check the **Notify Contact on Message Acknowledgment** check-box.
7. Check the **Disallow Fueling When Message Not Acknowledged** check-box.
8. Click **Save**.

After the maintenance plan is completely defined, the maintenance due information for the vehicles must be entered or imported.

## Activity 136. Deactivate A Maintenance Plan

In the maintenance Plan Screen:

Open a Maintenance Plan from the Maintenance Grid grid

1. Check the **Deactivate Plan** check-box
2. Click **Save**, or Test the Plan.

3. Test A Maintenance Plan
4. After creating a Maintenance Plan, click the Test Plan button. In the Test Message Plan screen:

**Test Message Plan**

Choose Vehicle	<input type="button" value="▼"/>
Enter Odometer	<input type="text" value=""/>
<input type="button" value="Test"/>	

5. In the **Choose Vehicle** drop-down list, select a vehicle.
6. In the **Enter Odometer** field, enter a mileage value.
7. Click the **Test** button to have Fuel View review the test results.

**Test Message Plan**

Choose Vehicle	001336; CHEVROU <input type="button" value="▼"/>
Enter Odometer	<input type="text" value="800"/>
<input type="button" value="Test"/>	
Fuel Restricted to 20 units	
Message Numbers:	

The percentage of normal fueling the driver is now restricted to will appear.

## Lesson 71. Maintenance Due

The maintenance due information is specified for each vehicle and provides the information against which the vehicle's data is compared to in the maintenance plan rules. If the vehicle's data matches, the message is displayed at the FCT when the driver activates a fueling.

### Activity 137. Assign A Maintenance Plan To A Vehicle

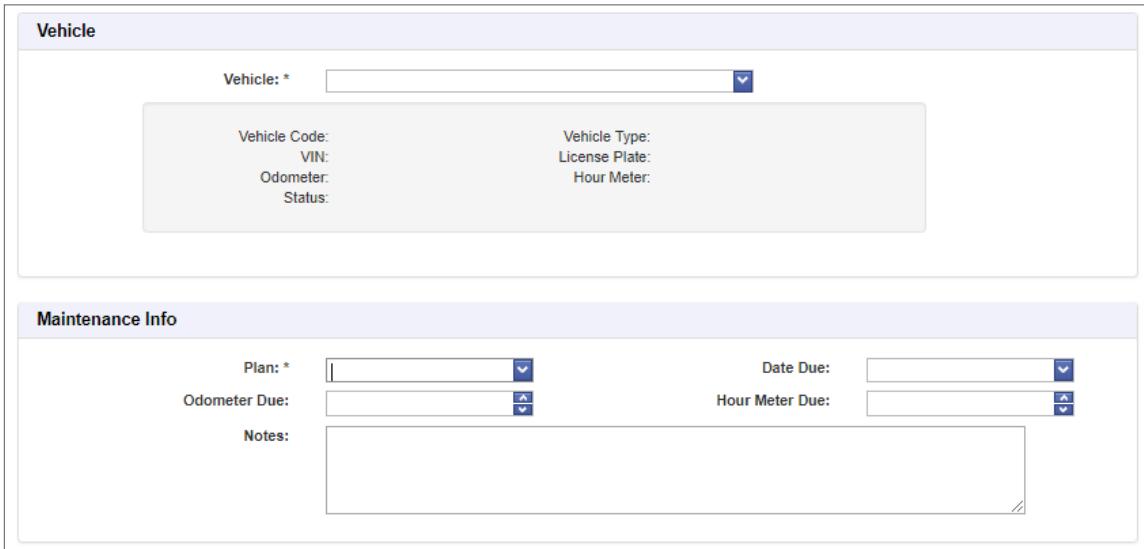
To add a Maintenance Plan to a vehicle:

1. In the vehicle Maintenance folder, open the Maintenance Due grid by clicking the icon.

The Maintenance Due grid displays the Vehicle Number, department, assigned maintenance plan, and odometer value, hour meter or date the vehicle is due for the maintenance plan for each vehicle. Typically a vehicle has only one of the three rules assigned to it. To edit an existing maintenance due record, click the vehicle number.

To add a new Maintenance Due record:

2. Click the **Add Record** button.
3. In the Vehicle section:



The screenshot shows a software interface for managing vehicle maintenance. At the top, there's a 'Vehicle' section with a dropdown menu labeled 'Vehicle: \*'. Below it is a shaded box containing vehicle details: 'Vehicle Code:', 'VIN:', 'Odometer:', and 'Status:' on the left; and 'Vehicle Type:', 'License Plate:', and 'Hour Meter:' on the right. The main body of the screen is titled 'Maintenance Info'. It includes fields for 'Plan: \*' (a dropdown menu), 'Date Due:' (a date picker), 'Odometer Due:' (a dropdown menu with up/down arrows), 'Hour Meter Due:' (a dropdown menu with up/down arrows), and a large 'Notes:' text area with a scroll bar.

4. In the **Vehicle** drop-down list select a vehicle.
  - Details for that vehicle are displayed in the shaded box below the field.
- In the Maintenance Info section:
  5. In the **Plan** drop-down list, select a Maintenance plan.
  6. In the **Odometer Due** field, select a rule to apply to the vehicle: Odometer, Hour, or Date based.
    - The user can select one or more of these options.
  7. Optional: In the **Notes** field, enter any info relative to maintenance for the vehicle.
  8. Click **Save**.

 **NOTE:** The Maintenance Due grid allows the user to select a vehicle to apply or view or edit a Maintenance Plan.

#### Activity 138. Record A Vehicle's Maintenance as Complete

In the Maintenance Due grid:

Click a Vehicle Number to open the Maintenance Due screen. This screen contains a Maintenance Complete checkbox in the Maintenance Info section.

1. Check the **Maintenance Complete** check-box to record a completed maintenance.
2. As maintenance are completed, the next scheduled maintenance should be entered with updated **odometer**, **hour meter**, or **date** criteria.
3. Click **Save**.

## Appendix A – CANceiver Event Map Examples

---

*Example:* *PID Type: Location*  
*Measurement Type:*  
*Polling Frequency: 60*  
*Include GPS: Yes*  
*Include GPS Extended: Yes*  
*Drive Cycle Provides location of vehicle at defined intervals.*

---

*Example:* *PID Type: Coolant Temperature*  
*Measurement Type: Threshold*  
*High Polling Frequency: n/a*  
*Measurement Parameter (C): 104° (degrees Celsius)*  
*Include GPS: n/a*  
*Include GPS Extended: n/a*  
*Drive Cycle: n/a*  
*Triggers alert when coolant exceeds recommended temperature*

---

*Example:* *PID Type: Idle Time Total*  
*Measurement Type: Ignition Off*  
*Polling Frequency: n/a*  
*Include GPS: n/a*  
*Include GPS Extended: n/a*  
*Drive Cycle: Yes*  
*Tracks Idle Time for each trip in a vehicle*

---

*Example:* *PID Type: Hard Braking (Acceleration) Measurement Type: Threshold High Measurement Parameter: 0.2736 (G's) Polling Frequency: n/a*  
*Logging Interval:*  
*Include GPS: Yes*  
*Include GPS Extended:*  
*Yes Drive Cycle: Yes*  
*Tracks hard breaking events. Provides starting speed, ending speed, and G force. With GPS enabled, the location of the event will also be recorded.*

---

# Appendix B – PID CANceiver Events List

Available CANceiver events are vehicle make and model dependent.

		Time	Total	Ignition
		Count		
Absolute Evap System Vapor	Engine Load			
Pressure Absolute Throttle	Engine Oil Level			
Position B	Engine Oil			
Absolute Throttle Position	Pressure			
C Absolute Throttle	Engine Oil Temperature			
Position D Absolute	Engine RPM			
Throttle Position E	Engine Time			
Absolute Throttle Position	Total			
F Air Filter Differential	Equivalence			
Pressure Air Inlet	Ratio			
Temperature Alcohol Fuel	Evap System Vapor			
Percentage Ambient Air	Pressure Exhaust Back			
Temperature Average	Pressure Exhaust Gas			
Fuel Economy Barometric	Temperature Fuel			
Pressure	Consumed Total			
Battery Voltage	Fuel Economy			
Brake Status	Fuel Filter Differential			
Commanded Throttle Actuator	Pressure Fuel Gauge			
Control Coolant Filter Differential	Level			
Pressure Coolant Level	Fuel Gauge			
Coolant Pressure	Level 2 Fuel			
Coolant	Pressure			
Temperature	Fuel Rail			
Crankcase	Pressure Fuel			
Pressure Cruise	Rate			
Control Distance	Fuel Type			
With MIL On Driver	GPIO			
Seat Belt	GS			
DTC	FRONTBACK			
DTC Odometer	GS			
DTC Summary	LEFTRIGHT			
Emission	GS UPDOWN			
Monitors	Hard			
Emission Monitors This Drive Cycle	Acceleration			
	Hard Braking			
	Idle      Fuel			
	Used      Idle			

Ignition On  
Intake Manifold Absolute Pressure  
Location  
Mass Air Flow  
Odometer  
Output Torque  
Parking Brake  
PTO Fuel Consumed  
Total PTO Status  
PTO Time Total  
Relative Throttle  
Position Seat Belt  
Status  
Throttle Position  
Time Since DTCs  
Cleared Time Since  
Engine Start Time  
With MIL On  
TPM  
Transmission Filter  
Differential Transmission Oil  
Level Transmission Oil Temp  
Turbo Boost  
Pressure Turbo Oil  
Pressure Turbo  
Speed  
Vehicle Speed  
Warm Up Since DTCs  
Cleared Warning Lamp  
Status  
Waste Idle Time  
Water in Fuel Indicator

# Appendix C – Measurement Types

A Measurement Type defines how a CANceiver Event is recorded.

## Measurement Type Definitions

**Ignition On** The Parameter ID (PID) will be recorded when the ignition turns on.

**Ignition Off** The PID event will be recorded when the ignition is turned off. In order to keep vehicle's battery from draining, the CANceiver will go to sleep 15 minutes after ignition is turned off. When vehicle is turned on, the CANceiver will wakeup.

*Example: Fuel Gauge Level. The Fuel Gauge Level will be recorded as an event every time the ignition is turned on or off.*

**Interval Current** A Measurement Parameter is required for all Interval Measurement events.

Interval Current will record the last value during that interval setting.

*Example: For an Event setting with PID Speed, Interval Current and Measurement Parameter set to 60 seconds. The speed value every 60 seconds is recorded in the Speed Event.*

**Interval Max** Interval Max will record the highest value within the interval range and is recorded in the Speed Event.

*Example: If vehicles speed range is 50 to 65 mph during the 60 second interval, 65 mph is recorded in the Speed event.*

**Interval Min** The minimum Event value will be recorded within the interval period.

*Example: If vehicles speed range is 45 to 65 mph during the 60 second interval, 45 mph is recorded in the Speed event.*

**Interval Avg** The average value over course of the interval is the recorded event.

*Example: If vehicles speed range is 45 to 65 mph during the 60 second interval, 55 mph is recorded in the Speed event.*

**Threshold High** Threshold High requires a Threshold setting and records two events.

The CANceiver will continue to monitor the speed until the vehicle goes below threshold value. This will create a second event of Threshold High Normal. The second event includes the time the vehicle returned to or below the threshold setting and the highest speed reached during the interval.

*Example: PID Parameter Speed Threshold High setting is 70 mph, when the vehicle reaches 71 mph, the 70 mph Threshold value and time are recorded.*

*Example: If vehicle exceeded the 70 mph Threshold High and reached speeds fluctuating between 71 mph and 95 mph, before returning to 70 mph, the second event will record the 95 mph maximum speed.*

**Threshold Low** The Threshold Low setting records the lowest value in the Parameter range. The CANceiver will continue monitoring until the vehicle returns to the threshold value. This will create a second event of Threshold Low Normal. The second event includes the time the vehicle returned to, or above the threshold setting and the lowest value reached during the interval.

---

*Example: If vehicle's battery is a standard 12V, set threshold Low to*

---

*10V\*. Example: If normal oil pressure is 60 psi, set the Threshold*

---

*Low to 30psi\*.*

---

*Example: To ensure gas tanks are always acceptable to the next driver, set the Threshold Low to 25%.*

**Threshold Low Normal** The threshold Low Normal is the event recorded after a Threshold Low event has been reached and the measurement returns above the Threshold Low level setting.

\* Make and model dependent.

# Appendix D – Accelerating, Breaking, and Idle Time

## Hard Acceleration and Braking

Hard acceleration or braking is a driver event when more force than normal is applied to the vehicle's accelerator or brake and are measured in gravitational (G) force and requires the Threshold High Measurement Type.<sup>1</sup> An Event is recorded when the threshold is passed.

---

*Example: Entering a value of 20 is equal to .2G.*

---

 **NOTE:** Since there can be different profile settings based upon vehicle type, it's important to know the threshold settings for each vehicle.

### Hard Acceleration

Individual customer requirements determine the appropriate value for Hard Acceleration.

 **NOTE:** A relatively quick, RWD mid-engine car may experience about 0.75G at launch, but is limited by the traction of the tires. It is unlikely that a value of 1G will ever be reached. High performance racing vehicles may reach 1G.

### Hard Braking

Hard Braking is an event out of the normal braking conditions. The intended purpose of monitoring Hard Braking is to identify driver behavior patterns.

 **IMPORTANT:** It should not be presumed that hard braking or acceleration is an indicator of unsafe driving. Hard Braking and Acceleration events can also indicate crash avoidance, or that a driver has been involved in an accident. If a driver has consistent Hard Braking events, it may indicate non-desirable driving patterns.

---

<sup>1</sup> The National Highway Traffic Safety Administration (NHTSA) currently does not define Hard Braking. The International Association of Oil and Gas Producers (OGP) recommend 6 mph or 0.2736G. The In Vehicle Monitor Systems (IVMS) use 0.2736G.

## Waste Idle Time

Waste Idle Time is calculated based on non-movement with vehicle, with the ignition on after a set threshold time has passed. Waste Idle time measurement is in seconds. Since there are many definitions and allowances for vehicle Idle Time, Fuel View provides customizable, Waste Idle Time parameters.

### Waste Idle Time Parameter Definitions

**Measurement Type** Threshold High, which is used to delay the start of counting Waste Idle Time.

**Measurement Parameter** Threshold provides an allowance for vehicles stopped at a traffic light or similar situation.

---

*Example: If the Measurement Parameter is set to 120 seconds, Waste Idle Time will not be calculated until the vehicle idles 121 seconds. Once the threshold time is reached, idle time begins recording, and includes the 120 seconds. If the vehicle moves before the threshold expires, no time is recorded for this event.*

---

When the Waste Idle Time threshold is reached, two Events are recorded:

### Waste Idle Time Threshold Definitions

**Threshold Max** Registers date and time.

**Threshold Value** When ignition is turned off or the vehicle moves, the entire Waste Idle Time period, including the threshold time is recorded.

# Appendix E – Reports List

Administrative Cards by

Department Administrator

Vehicles

Administrator Vehicles - Deleted

Automatic Fuel Control Terminal

Restart Bulk Inventory

Bypass Transactions

CANceiver Exception

District Mileage

Employee OPS

Employees by Department

Fleet Data by Department &

Vehicle Fleet Data by Vehicle

Fuel Adjustment

Fuel Dispensed Summary by

Site Fuel Inventories by Fuel

Type

Fuel Receipt by Date/Time and Product

Fuel Receipts by Date/Time and Site - With

Parameters Fuel Receipts by Site

Fuel Tank Summary from TLS Readings

Today Fuel Transfers by Product

Fuel Transfers by Site

Fuel Usage by Department

Fuel Usage for Fleet

Summary GPIO Usage

GPIO

Usage Idle

Time

Idle Time for W3

CANceivers Idle Time for

W4 CANceivers NON

FLEET Vehicle Transactions

Offroad Vehicle Summary

Polling Failure

Product Summary by Dept

Product Summary by Dept - No

Detail Product Summary by Dept,

Vehicle Product Summary by Site

Product Summary by Site - No

Detail Product Summary by

Term

Product Summary by Term - No

Detail PTO Vehicle Summary

Pump Summary by Site and

Terminal Pump Totalizers by Site

and Terminal Remote Car

Washes

Remote Gate

Openings Security

Log

Site and Tank Summary by

Site Site and Terminal

Summary Site Card

Exception

Site Cards by Card

Number Site Level

Transactions State Fuel

Balance

Tank Deviation

Tank Level Reconciliation

Tank Level Reconciliation Summary

Tank Level Summary

Tank Water Level

Tanks Below Reorder Level Terminal

Alerts

Terminal Exceptions

Terminals by Terminal  
 Number TLS Alarm  
 TLS BIR Report  
 TLS Tank Release Passed Report  
 TOP 20 PVC Transactions by Operator and Department Total Usage  
 Total Usage Not Including Harbor & PVC Transaction  
 Exception Transactions  
 Transactions - Electric  
 Transactions - Employee  
 Transactions by Administrative Card Transactions by Date and Time  
 Transactions by Date/Time and Departments With Product Detail Transactions by Date/Time and Departments With Product Totals Transactions by Date/Time and Departments with Totals Transactions by Date/Time, Department  
 Transactions by Date/Time, Department, and Vehicle Transactions by Date/Time, Department, and Vehicle w MPG Transactions by Date/Time, Department, Vehicle and Product Transactions by Department (Manteca)  
 Transactions by Department and Employee Transactions by Department with MPG and HPG Transactions by Department with MPG with Employee  
 Transactions by Employee  
 Transactions by MPG and HPG  
 Transactions by Operator and Department Transactions by Site  
 Transactions by Site and Product Transactions by Site and Product - SAWS  
 Transactions by Site and Product SAWS Transactions by Site and Transaction Type  
 Transactions by Site Card  
 Transactions by Site District with All Vehicles Transactions by Site Summary  
 All Departments Transactions by Site Summary Harbor Only Transactions by Site Summary PVC Only Transactions by Site Summary without Harbor & PVC  
 Transactions by Terminal  
 Transactions by Vehicle  
 Transactions by Vehicle District with All Sites Transactions by Vehicle This Year  
 Transactions by Vehicles w/ MPG and Employee Transactions with MPG by Vehicle  
 User Report  
 Vehicle Cards by Department Vehicle  
 DTC

Vehicle Exceptions  
 Vehicle Terminal Authorizations  
 Vehicle Terminal Authorizations by Site by Terminal Vehicle Transactions  
 Vehicle Transactions w MPG  
 Vehicle Transactions w MPG - Summary Only  
 Vehicles by Department  
 Vehicles by Department With Report  
 Total Vehicles by Repair Location  
 Vehicles Main  
 Configurations Zero  
 Fueling Report

# Appendix F – Grids List

Administrative Cards by	Terminal Tanks
Department CANceiver Events	Transactions by Administrative
Employees by Department	Card Transactions by Date and
Fleet Data by Department and	Time Transactions by
Vehicle Fleet Data by Vehicle	Department Transactions by
Fleet Utilization	Employee Transactions by MPG
Details Fuel	Transactions by Site
Adjustments	Transactions by Site and
Fuel Receipts by Date/Time and	Product
Product Fuel Receipts by Date/Time	Transactions by Site and Transaction Type
and Site Fuel Usage by Department	Transactions by Site Card
GPIO Events	Transactions by Terminal
GreenHouse Details	Transactions by Vehicle
Greenhouse Report	Transactions Extended By
Home CANceiver	Dept
Config	Transactions Extended By Dept with
Product Summary by Dept	Mileage Vehicle Cards by Department
Product Summary by Site	Vehicle Diagnostic Trouble Codes (W3 CANceivers)
Product Summary by	Vehicles by Department
Terminal Product Summary	Vehicles by Repair Location
by Vehicle Site and Tank	Vehicles with Cards by
Summary by Site Site	Department Fleet Utilization
Pumps	Details
Site Tanks	Fuel Transaction Quantity
Tank Level	
Summary Tanks	

# Appendix G – TLS Alarms

All Functions	Alarms
Normal	Setup Data
All Functions Normal	Warning Fuel
<b>System Alarms</b>	Alarm
Printer Out Of	Out Alarm
Paper Printer	
Error	
EEPROM Configuration	
Error Battery Off	
Too Many Tanks	
System Security Warning	Tank Test Shutdown Warning
ROM Revision Warning	Protective Cover Alarm
Remote Display	BIR Shift Close Pending BIR
Communication Error	Daily Close Pending PC(H8)
Autodial Error	Revision Warning System Self Test Error
Software Module Warning	System Clock Incorrect Warning
<b>Tank Alarms</b>	System Device Poll Timeout
Setup Data Warning	Maintenance Tracker NVMem Removed
Leak Alarm	
High Water Alarm	
Overfill Alarm	
Low Product Alarm	Gross Leak Test Fail Alarm
Sudden Loss Alarm	Periodic Leak Test Fail Alarm
High Product Alarm	Annual Leak Test Fail Alarm
Invalid Fuel Level	Periodic Test Warning Annual Test
Alarm Probe Out	Warning Periodic Test Alarm
Alarm	Annual Test Alarm Leak
High Water Warning	Test Active
Delivery Needed	No CSLD Idle Time Warning Siphon Break Active Warning CLSD Rate Increase Warning AccuChart Calibration Warning
Warning Maximum	
Product Alarm	
<b>Liquid Sensor</b>	
<b>Alarms</b> Setup	High Liquid Alarm Low
Data Warning Fuel	Liquid Alarm Liquid
Alarm	Warning Alarm
Out Alarm	Liquid Alarm Vapors
Short Alarm	Detected
Water Alarm	
Water Out Alarm	
<b>Vapor Sensor</b>	
Short Alarm Water Alarm	
Water Out Alarm	

	N
	o
	R
	e
Maintenance Tracker	pl
Communication Module	y
Removed	
Database	B
Error File	u
System	s
Error	N
BIR Status Warning	o
(Version 2) VR Bus	R
Power Outage Warning	e
Software Upgrade	pl
Failure Alarm iButton	y
Fault Warning	Low
iButton Fault	Temp
Alarm Version	Alarm
Upgrade Available	High
Expansion Box Unsupported	Temp
	Alarm
HRM Reconciliation	
Warning HRM	
Reconciliation Alarm	High
Cold Temperature	Liquid
Warning	Alarm
Missing Delivery Ticket Warning	Low
/Line Gross Leak	Liquid
Alarm Delivery	Alarm
Density Warning	Liquid
Density Warning	Warni
Fuel Quality	ng
Alarm Density	
Offset Warning	
High Product	
Point Low	
Product Point	
High Level	
Warning	
Level	

## Input Alarms

Input Setup Data Warning	Input Alarm	Generator On
Input Normal	Generator	Input Out Alarm

## Volumetric Line Leak (VLLD) Alarms

Setup Data	Periodic Test Warning	Annual Pump Test Fail
Warning Self Test	Annual Test Warning	Alarm Annual Pump Selftest
Alarm Shutdown	Periodic Test Alarm	Fail Alarm Pressure Warning
Alarm Leak Test	Annual Test Alarm	Pressure Alarm
Fail Alarm	Periodic Line Test Fail Alarm	Gross Test Fault Alarm
Selftest Invalid Warning	Periodic Line Selftest Fail	Periodic Test Value
Continuous Pump Warning	Alarm Periodic Pump Test	Alarm Annual Test Fault
Gross Line Test Fail Alarm	Fail Alarm Periodic Pump Self	Alarm Fuel Out Alarm
Gross Line Selftest Fail	Test Fail Alarm Annual Line	
Alarm Gross Pump Test	Test Fail Alarm Annual Line	
Fail Alarm Gross Pump	Selftest Fail Alarm	Water Alarm
Selftest Fail Alarm		Water Out

## Groundwater Sensor Alarms

Setup Data	Out Alarm	Alarm
Warning Fuel	Short	
Alarm	Alarm	

## Groundwater Sensor Alarms

High Liquid Alarm	Low Liquid Alarm	Liquid Warning
-------------------	------------------	----------------

## Type A Sensor Alarms

Setup Data	Short Alarm	High Liquid
Warning Fuel	Water Alarm	Alarm Low
Alarm	Water Out	Liquid Alarm
Out Alarm	Alarm	Liquid Warning

## Remote Addressable Alarms

Setup Data	Short Alarm	High Liquid
Warning Fuel	Water Alarm	Alarm Low
Alarm	Water Out	Liquid Alarm
Out Alarm	Alarm	Liquid Warning

## Relay Alarms

Setup Data Warning	Relay Out Alarm
--------------------	-----------------

## Type B Sensor Alarms

Setup Data
Warning Fuel
Alarm
Out Alarm

## Universal Sensor Alarms

Universal Sensor Alarm

## Auto-Dial Fax Alarms

Autodial Setup Data Warning  
 Autodial Failed Alarm  
 Autodial Service Report Warning

Short Alarm Water	High
Alarm Water Out	Liquid
Alarm	Alarm
	Low
	Liquid
	Alarm
	Liquid
Autodial Alarm Clear Warning	Warning
Autodial Delivery Report	
Warning	

## Mechanical Dispenser Interface Alarms

DIM Setup Data	DIM Communication Failure
Warning DIM	Alarm DIM Transaction Alarm
Disabled Alarm	

DIM Firmware Alarm

## Electronic Dispenser Interface Alarms

DIM Setup Data	DIM Communication Failure
Warning DIM Disable	Alarm DIM Transaction Alarm
Alarm	

DIM Firmware Alarm

## Product Alarms

BIR Setup Data	BIR Close Shift
Warning BIR	Warning BIR Close
Threshold Alarm	Daily Warning

Sensor Short Alarm

## Pressure Line Leak (PLLD) Alarms

Setup Data	Shutdown Alarm
Warning Self Test	High Pressure Warning
Alarm Gross Test	Continuous Pump On Warning
Fail Alarm	Periodic Test Fail Alarm
Periodic Test Fail	Annual Test
Warning Periodic Test	Warning Annual
Fail Alarm Sensor	Test Alarm Low
Open Alarm	Pressure Alarm
High Pressure Alarm	

Continous Pump On

Alarm Fuel Out Alarm

Line Equipment Alarm

Gross Test Needed

Alarm

## Wireless PLLD Alarms

Setup Data Warning	High Pressure Warning
Gross Test Fail Alarm	High Pressure Alarm
Periodic Test Fail	Sensor Short Alarm
Alarm Periodic Test	Continous Pump On
Warning Periodic Test	Alarm Fuel Out Alarm
Alarm Sensor Open	Line Equipment Alarm
Alarm	

High Pressure Warning

High Pressure Alarm

Sensor Short Alarm

Continous Pump On

Alarm Fuel Out Alarm

Line Equipment Alarm

## Smart Sensor

Alarms Setup Data	Water Alarm
Warning	High Liquid
Communication	Warning High
Alarm Fault Alarm	Liquid Alarm Low
Fuel Warning	Liquid Warning Low
Fuel Alarm	Liquid Alarm
Water	Temperature
Warning	Warning

Relay Active

Install Alarm

Fault Warning

Vacuum

Warning

No Vacuum Warning

## Modbus Alarms

Improper Setup Alarm	Communication Loss Alarm
----------------------	--------------------------

## ISD Site Alarms

Stage 1 Transfer Monitoring Failure Warning	Missing Relay Setup Alarm
Containment Monitoring Gross Failure Warning	Missing Hose Setup Alarm
Containment Monitoring Gross Failure Alarm	Missing Tank Setup Alarm
Containment Monitoring Degradation Failure	Missing Vapor Flow Meter
Warning Containment Monitoring Degradation	Alarm
Failure Alarm Containment Monitoring CVLD	Missing Vapor Pressure Sensor
Failure Warning Containment Monitoring CVLD	Alarm Missing Vapor Pressure Input
Failure Alarm	Alarm Setup Fail Warning
Vapor Processor Over Pressure Failure	Setup Fail Alarm
Warning Vapor Processor Over Pressure	Sensor Out
Failure Alarm Vapor Processor Status	Warning Sensor
Test Warning	Out Alarm PC-ISD
Vapor Processor Status Test Alarm	Offline

## ISD Hose Alarms

Collection Monitoring Gross Failure Warning	Flow Performance Hose Blockage Failure
Collection Monitoring Gross Failure Alarm	Warning Flow Performance Hose Blockage
Collection Monitoring Degradation Failure	Failure Alarm Vapor Flow Meter Setup Alarm
Warning Collection Monitoring Degradation	
Failure Alarm	

## ISD Vapor Flow Meter Alarms

Locked rotor Alarm	VFM Setup Data Warning	VFM Device Out Alarm
--------------------	------------------------	----------------------

## Processor Monitoring (PMC) Alarms

Vapor Processor Run Time Fault	Duty Cycle Failure Warning
Warning Effluent Emissions Failure	Duty Cycle Failure Alarm
Warning Effluent Emissions Failure	PMC (stand alone mode only) Setup
Alarm	Warning PMC Out Alarm
Over Pressure Failure	
Warning Over Pressure	
Failure Alarm	

## Pump Relay Monitor Alarms

Setup Data Warning	Pump Relay
Alarm	

## MAG Sensor Alarms

Setup Data Warning	Water Warning	Sensor Low Liquid
Communication	Water Alarm	Alarm Temperature
Alarm Fault Alarm	High Liquid	Warning Relay Active
Fuel Warning	Warning High	MAG Sensor Install Alarm
Fuel Alarm	Liquid Alarm Low	
	Liquid Warning	

## Volumetric Leak Test Alarms

VLD .1 Failed, .2 Failed	VLD .1 Failed, .2 Passed	VLD .1 Passed, .2 Passed
--------------------------	--------------------------	--------------------------

## Line Pressure (LPR) Sensor Alarms

Setup Data Warning

Communication Alarm

## **Printer Alarms**

Printer out of Paper Printer Error	Pump Setup Data Warning Pump Out Alarm	Stuck Relay or Continuous Pump
--	--	--------------------------------

## **Line Alarms**

Line Setup Data Warning Alarm	Line Out
----------------------------------	----------

## **Communication Alarms**

Communication Setup Data Warning Communication Setup	
Data Alarm Communication Setup	
Data Warning - Omntech	Autodial No Dial Tone Alarm Contact Setup Data Warning Contact Setup Data Alarm

## **Contact Alarms**

Autodial Setup Data Warningg	Autodial No Dial Tone
Autodial Failed Alarm	Alarm Contact Setup
Autodial Service Report	Data Warning Contact
Warning Autodial Alarm Clear	Setup Data Alarm
Warning Autodial Delivery	Contact Setup Data Warning - Omntech
Report Warning	

## **Auto Event Alarms**

Auto Event Setup Data Warning	Modem - No Dial
-------------------------------	-----------------

## **Externally Detected Alarms**

Externally Detected Communication Alarm	Tone Modem -
Communications - Data Reception Timeout	Modem Error
Communications - Failed Checksum	Modem - Modem Not
Communications - Parity Error	Responding Modem - Port Not
Modem - Line	Available Polling - Could Not
Busy Modem - No	Update Queue
Answer Modem -	Polling - Invalid Data Type Requested
No Carrier	

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