AssetWORKS

Fuel Process

User Guide

Version 24.x
Last Modified 24.3 | September 2024

Technical Support

AssetWorks provides several ways to connect with the Customer Support team. Be prepared to provide detailed information to the representative. If you are reporting an issue by email, include screen shots of your problem. This will provide the Customer Support representative with the information needed to respond quickly and effectively.

Customer Support is available Monday through Friday, 7:00 a.m. to 7:00 p.m., Eastern Time.

Telephone: 1-610-225-8300

Email: M5Support@AssetWorks.com

Website: https://community.assetworks.com/hc/en-us

The support website can be used to open issues, subscribe to user groups and download documentation, as well as to access the latest AssetWorks news. For secure access to the website, contact Customer Support by calling the number above.

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Contents

Fuel Overview

The Fuel and Fluid Management system tracks virtually any product that can be metered or pulsed. Fuel and fluid data can be interfaced to most commercial fuel management and dispensing systems.

FuelFocus M5 supports internal product management:

- Product managed using a client's installed fuel dispensing equipment.
- Commercial products purchased externally.

Configuration choices for FuelFocus M5 depends on how products will be managed.

- Is there client-owned fuel dispensing equipment to be managed?
- Is an external vendor supplying consignment fuel using client owned fuel dispensing equipment?
- Is internal fuel to be to be inventoried or expensed?
- Are there external product purchases that will be interfaced?

This manual is organized in sections to make it easier to go directly to the configuration section based on your installation choices. Please start with Section A for information about the general FuelFocus configuration steps. Then refer to remaining sections based on your implementation choices.

Section A - General FuelFocus Configuration

Whether you implement internal or external fuel or both, the following items need to be configured.

Note: If using AssetWorks GPS, please see the Installation of M5 Web Services section of the *M5 Installation Procedure Install Guide* for important web config settings.

Fuel System Flags

It is extremely important to review all the M5 System Flags and set them for your organization. There is a separate document that describes the system flags related to FuelFocus.

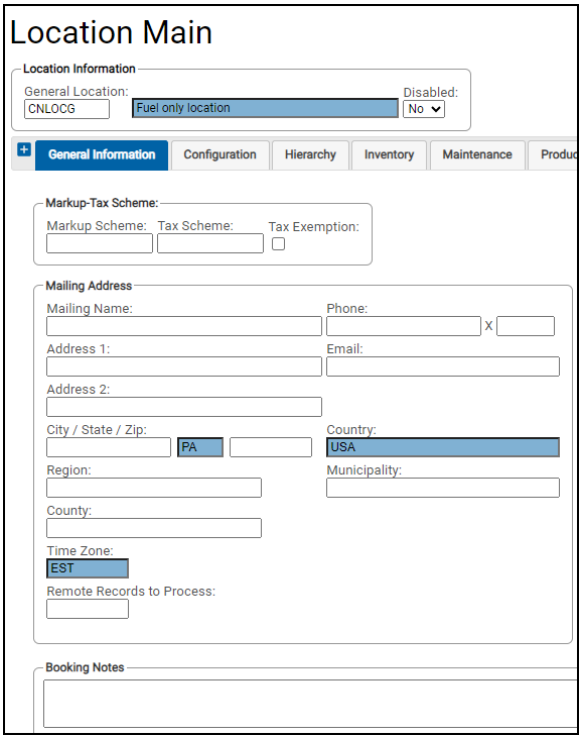
Fuel Locations

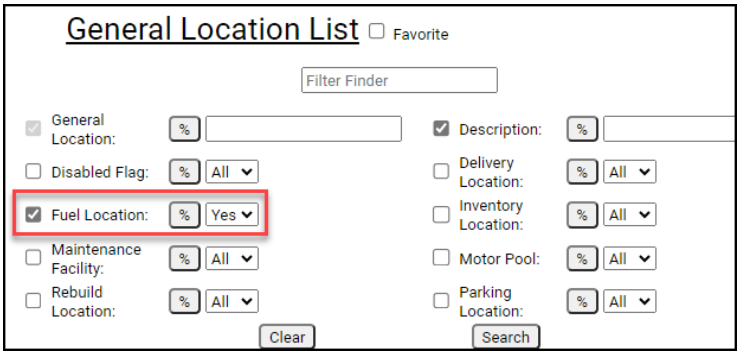
A fuel location is where vehicles obtain fuel and other consumable products. These consumable products may include gasoline, diesel fuel, oil, transmission fluid, and windshield wiper solution.

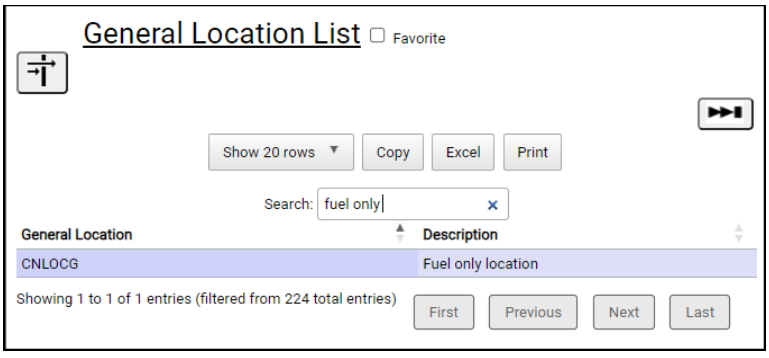
A new or previously established location must be defined as a Fueling Location using the Location Main frame.

From the *Location Main* frame you can retrieve information about an existing fuel location.

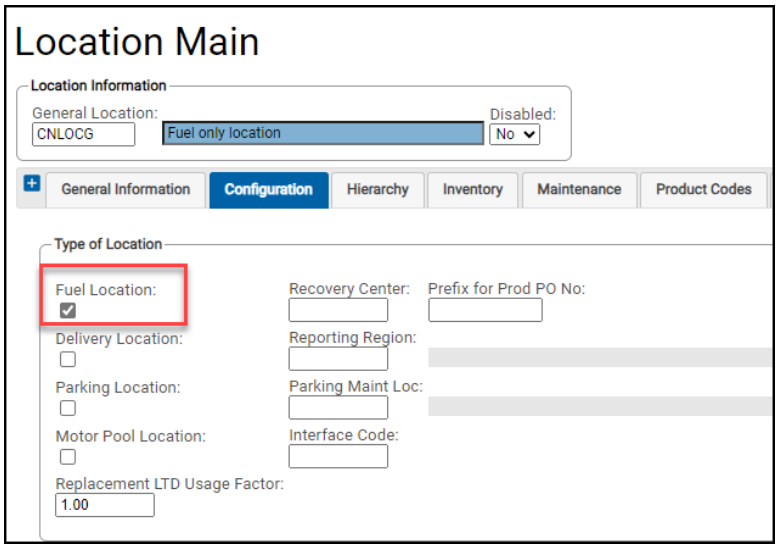
1. Within *Location Information* enter the fueling location in the **General Location** field and press Tab. The location's description and address information display.
2. To enter another fueling location, double-click in the **General Location** field. The *General Location List* displays.
3. Select the **Fuel Location** checkbox and *Yes* from the dropdown. **Note**: You can enter additional filters, as applicable.
4. Select the **Search** button. The General Location List displays.
5. Double-click on the applicable **General Location**. The location displays in the **General Location** field.


Location Main
Location Information
General Location:
CNLOCG
Fuel only location
Disabled:
No
General Information
Configuration
Hierarchy
Inventory
Maintenance
Markup-Tax Scheme:
Markup Scheme:
Tax Scheme:
Tax Exemption:
Mailing Address
Mailing Name:
Phone:
Address 1:
Email:
Address 2:
City / State / Zip:
PA
Country:
USA
Region:
Municipality:
County:
Time Zone:
EST
Remote Records to Process:
Booking Notes


General Location List
Favorite
Filter Finder
General Location:
Description:
Disabled Flag:
All
Delivery Location:
Fuel Location:
Yes
Inventory Location:
Maintenance Facility:
Motor Pool:
Rebuild Location:
Parking Location:
Clear
Search


General Location List
Favorite
Show 20 rows
Copy
Excel
Print
Search:
fuel only
General Location
Description
CNLOCG
Fuel only location
Showing 1 to 1 of 1 entries (filtered from 224 total entries)
First
Previous
Next
Last

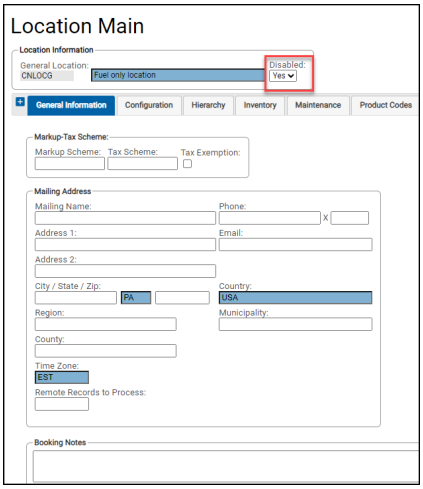
6. Select the **Configuration** tab.
7. Select the **Fuel Location** checkbox to make the location a fuel location. The **Delivery**, **Parking Location**, **Motor Pool Location** and **Parking Maint Loc** fields are optional.
8. **Note:** The **Recovery Center** field is currently not used. If this is a new location, the user can select the **General** tab and complete the address fields.
9. Select the **SAVE** icon when complete.



Disabling a Fueling Location

If a fueling location is no longer going to be receiving and issuing fuel, you can disable the fueling location from the *Location Main* frame.

1. Enter the fueling location to be disabled in the **General Location** field and press Tab.
2. From the **Disabled** dropdown select *Yes*.
3. Select **SAVE** to disable the fueling location.



Product Configuration

The *Product Main* frame is used to maintain all valid fuel and products to be tracked in the M5 system. Use this frame to establish a valid product code for issue to units, departments or accounts. Fuel Products can include fuel, oil, hard parts, device controls or miscellaneous (for example, anti-freeze, washer fluid).

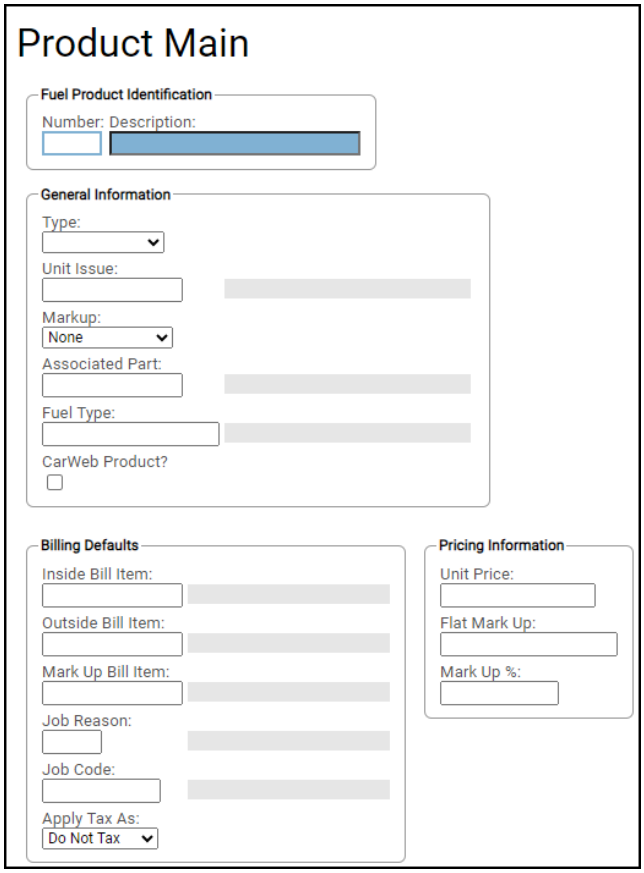
Within this frame, the user defines not only the product code with the actual product type (for example, fuel, oil, hard part, control device or miscellaneous), but also the pricing method for the product at this location. Will the product carry a flat mark up, percentage mark up or no mark up? This frame will also list the name of the billing item to later determine which accounts of the corresponding department should be billed. All products need to be defined in order to be associated with a tank, unit, or department.

The note at the bottom of the frame advises the user of the current price of the product unless overridden by a department specific price.

Creating a New Fuel Product

1. Within **Fuel Product Identification**, enter a new two-character code for the new fuel product number in the **Number** field and press Tab. The *Action Required* window displays.
2. Select the **Create** button to enter a new product.
3. Enter the new product description in the **Description** field.
4. Select the product Type from the dropdown menu. You can select **Fuel**, **Alternate Fuel**, **Electric Fuel**, **Oil**, **Hard Part**, **Device Control**, or **Miscellaneous**.
5. Enter the unit of issue in the **Unit Issue** field. To view a list of applicable issue types, double-click in the field. The *Unit of Measure Codes* display.
6. Double-click on the applicable **Unit of Measure** code.
7. Select the **Markup** type if applicable from the dropdown menu. A flat markup would indicate a certain dollar amount markup, whereas, a percentage markup would be a certain percentage markup of the total cost. Depending on what type of markup is selected, determines what is entered in the *Pricing Information* section.
8. Enter a valid part number in the **Associated Part** field or select from the Part Catalog list. This is used for a specific customer fuel interface.
9. Enter a valid **Fuel Type** or select from the Fuel Type List. This is used with Carbon Footprint Reporting.
10. Enter **Billing Default** items if applicable. By entering a billing item in the **Inside Bill Item** or **Outside Bill Item** fields indicates to M5 that this product will be billed and indicated as such on the billing reports. Use the billing item Fuel Chgs.
11. Enter the price per unit in the **Unit Price** field.

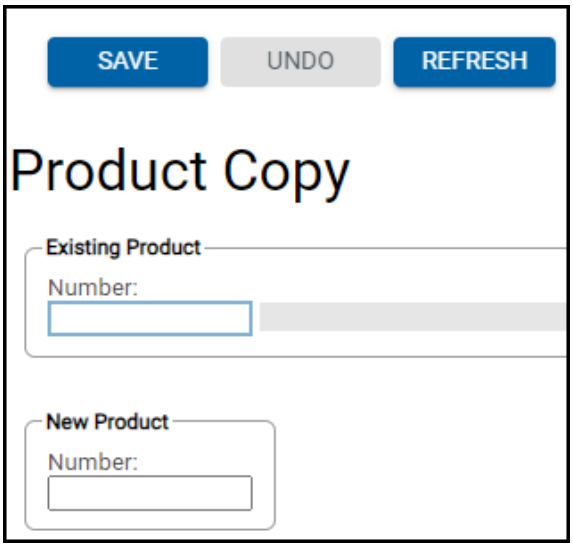
12. To markup any product by $.20, enter .20 in the **Flat Markup** field.
13. To enter a percentage markup, enter it in the percentage **Mark Up %** field. For example, if the markup percentage is 10 and the cost of the product is $5.00, then the markup would be 50 cents (5 x .10).
14. If System Flag 5140 is set to **Y**, then the **Override Std. Price** field from the *Product Setup* frame displays. You can enter a price to override the standard price.
15. Select the **SAVE** icon to save any changes.



Copying one Product to Another

The *Product Copy* frame allows the user to copy the product information from a similar product to a new product number. This saves time during the data entry process.

1. In the **Number** field enter the fuel product number that you are copying from the existing product and press Tab. The product's description displays to the right. You can double-click in the **Number** field to select from the Product Code List.
2. Within *New Product*, enter a new fuel product number that you are copying the existing product intothe **Number** field.
3. Select the **SAVE** icon to save the new product number.
4. The *Product Main* frame displays and the new product information can be entered accordingly.



Deleting a Product

Use the *Product Main* frame to delete a product if it is no longer used.

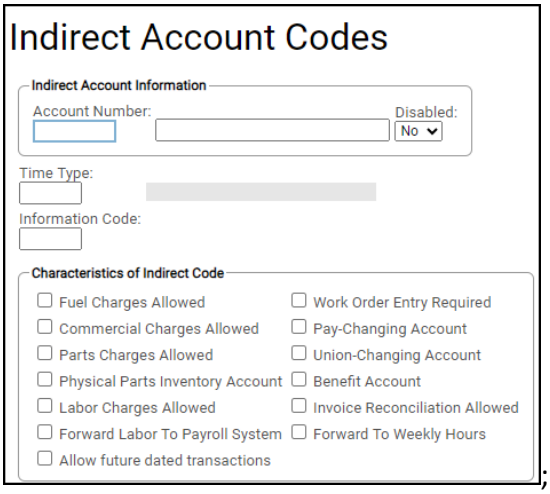
1. Enter the fuel product code to be deleted in the **Number** field and press Tab. All data for that product displays.
2. Select the **DELETE** icon. The *Action Required* window displays.
3. Select **Delete** to confirm the deletion.

Indirect Account Codes

Indirect account codes are used to charge expenses that cannot be charged directly to a unit, department, or component. These charges are typically considered overhead expenses. For example, fuel can be charged to an indirect account when consumed in devices such as starting units and lawn mowers. Lost dollars such as a negative inventory variance or fuel loss are accounted for using indirect account codes.

Creating a new Indirect Account Number

1. Enter a new Indirect **Account Number**. The *Action Required* window opens.
2. Select **Create** to create the indirect account number.
3. Enter a description for the account number.
4. Select the **Fuel Charges Allowed** checkbox.
5. Select the **SAVE** button.



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Fuel Vendors

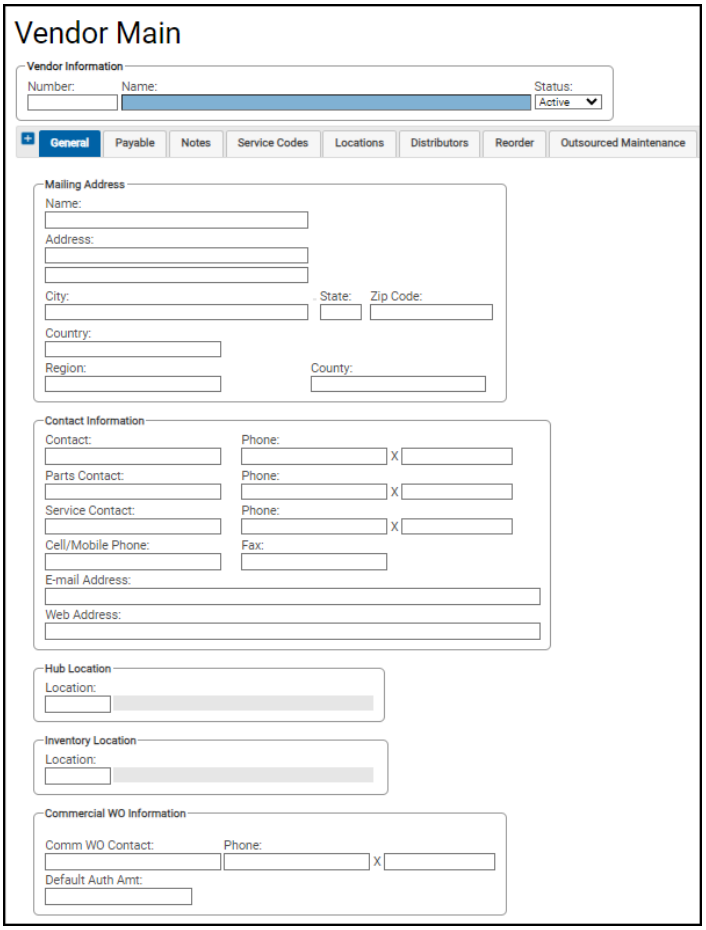
Vendors are defined for use in fuel when ordering products, receiving products, issuing Commercial Fuel.

- Vendors are identified by unique alphanumeric identification.
- Information is tracked which allows for contact with the vendor (name, address, phone number, contact name), taking advantage of any discounts the vendor allows and terms of payment.

Use the *Vendor Main* frame to add, modify, display or delete information about a vendor. This frame also includes the ability to disable and then to enable a vendor. This is particularly appropriate for vendors who lose a contract and are not used during the current contract term, but who continue to bid, and perhaps win the contract back the following year. You can copy the information from one vendor to another using the *Vendor Copy* frame.

Adding a new Vendor

1. Within **Vendor Information**, enter a vendor number in the **Number** field. This is a required field. The *Action Required* window opens.
2. Select **Create** to create a new vendor.
3. Enter a vendor name in the **Name** field. This is a required field.
4. Complete the **Mailing Address** information.
5. Complete the **Contact Information** fields, as applicable.
6. Complete **Hub Location**, **Inventory Location**, or **Commercial WO Information** fields, as applicable.
7. Complete any additional information required on the other tabs.
8. Select the **SAVE** icon.



Section B - Fuel Hardware Configuration for Internal Fuel

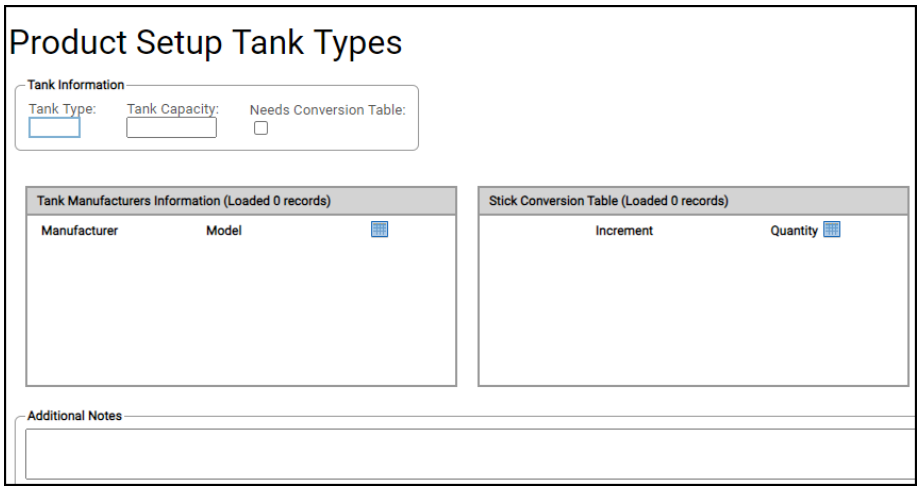
This section describes the hardware configuration that must be done in the M5 application.

Product Setup Tank Types

The *Product Setup Tank Types* frame is used to define the physical characteristics of the tank itself, such as the size, model number and the capacity. Tanks must be defined before products can be associated to the individual tanks.

Creating a Tank Type

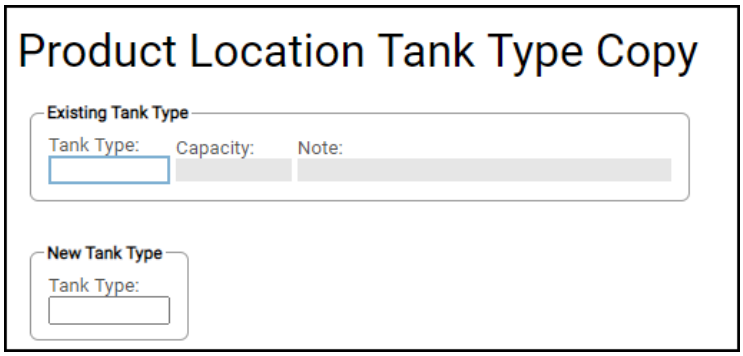
1. Within **Tank Information**, enter up to a three-character code in the **Tank Type** field. The *Action Required* window displays.
2. Select the **Create** button to create the tank type.
3. Enter the tank's maximum capacity in the **Tank Capacity** field.
4. Select the **Needs Conversion Table** checkbox, if applicable.
5. Enter the tank's manufacturer make name in the **Manufacturer** field.
6. Enter the tank's manufacturer model number in the **Model** field.
7. Within **Stick Conversion Table**, enter a stick reading number **Increment**.
8. Enter the quantity which corresponds to the stick reading number in the **Quantity** field.
9. Enter tank type notes in the **Additional Notes** free form field.
10. Select the **SAVE** icon to save the new tank information.



Copying Product Tank Types

After tank types for one location are set up, that tank type can then be copied to other fueling locations by using the *Product Location Tank Type Copy* frame. Be sure to be in the fueling location that you want the new copied tank type to be in.

1. Enter the **Tank Type** to be copied or double-click in the **Tank Type** to select from the Tank Type List.
2. Double-click on the tank type to be copied. The **Tank Type** displays in the *New Tank Type* section.
3. Select **SAVE**. The *Product Setup Tank Types* frame will display with the new tank type displayed. All information from the tank type being copied will display, allowing for any changes to be made.



Deleting a Tank Type

You can delete a tank type from the *Product Setup Tank Types* frame.

1. Enter the tank type to be removed in the **Tank Type** field or select from the Tank Type List. The tank type information displays.
2. Select the **DELETE** icon, the *Action Required* window displays.
3. Select the **Delete** button to confirm the deletion.

Product Setup Tanks

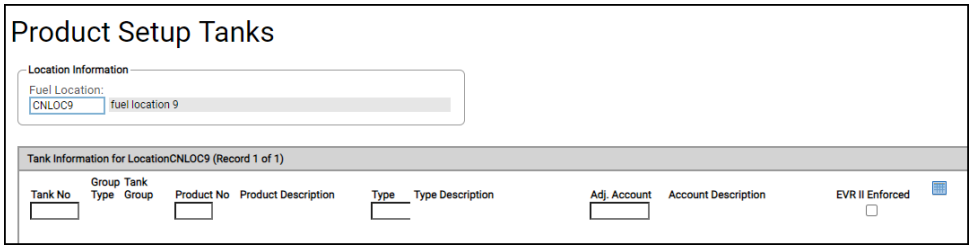
After the tank types and products have been defined, the individual tanks and products in the tanks need to be established for a fueling location by using the *Product Setup Tanks* frame.

In this frame, the user establishes the relationship between the user-defined tank numbers and the product to be stored within that tank. The tank number should be specific to that location but need not be previously defined in the system. The tank type, however, must be previously defined as must the product.

Note: In the **Tank No** field it is preferred that you enter a leading zero for tank numbers 1-9 (for example, enter 01-09).

Product Setup Tanks

1. Within **Location Information**, enter the fueling location you are adding the product to in the **Fuel Location** field or select from the Master List of Fuel Locations list of values.
2. Enter up to a two-digit tank number in the **Tank No** field.
3. Enter the product in this tank in the **Product No** field or select from the Product Code List. The **Product Description** automatically displays.
4. Enter the tank type associated with this tank in the **Type** field or select from the Tank Type List. You must first create and define these types on the *Product Setup Tank Types* frame.
5. The **Type Description** field refers to the **Additional Notes** section on the *Product Setup Tank Types* frame.
6. In the **Adj Account** field, enter a valid *Indirect Account* number or select from the Indirect Account List. The **Account Description** automatically displays. This account number is used to charge the potential quantity-on-hand discrepancy when an inventory is done for this product.
7. The **EVRII Enforced** (Enhanced Vapor Recovery) checkbox indicates if the tanks have been fitted with emissions control equipment at the dispensing facilities in California. Vapor recovery systems collect gasoline vapors that would otherwise escape into the air during bulk fuel delivery (Phase I) or fuel storage and vehicle refueling (Phase II). These vapors are a major culprit in the formation of smog. Select the checkbox if this is to be enforced on a particular tank.
8. Select the **SAVE** button when you are finished setting up the tank or tanks for the fueling location.



Product Location Tank Hose Settings

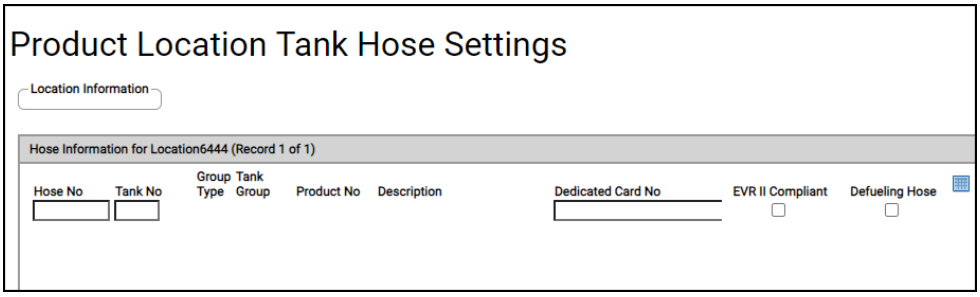
After the tanks have been established and the product assigned to that tank, the user needs to indicate to the system which hose is associated with which tank and product combination. This is done by using the *Product Location Tank Hose Settings* frame.
Note: The hose number is user-defined but needs to be associated with a valid **Tank No** and **Product No** combination.

Product Location Tank Hose Settings

1. Within **Location Information**, enter the location of the tanks in the **Fuel Location** field or select from the Master List of Fuel Locations list. Press Tab or Enter. The fueling location's description displays.

Within Hose Information for Location i-frame

2. Enter the user-defined hose number in the **Hose No** field. You can have more than one hose per tank.
3. Enter the tank number of the tank you are associating the hose to in the **Tank No** field or select from the Product Codes list. The **Product No** and product **Description** will display.
4. Enter any other hoses for the same tank or other tanks at the location.
5. Enter the **Dedicated Card No** if required.
6. **EVRII Compliant** checkbox indicates if the hoses are Enhanced Vapor Recovery Compliant (EVR) for the State of California.
7. Select the **Defueling Hose** checkbox, as applicable.
8. Select **SAVE** when complete.



Fuel Island Control Unit Setup

The Island Control Unit controls such items as:

- Connection information from pumps and hoses.
- Time parameters for start/stop fueling.
- May control intervals for Tank Level Sensing (Veeder Root) connections.

Island Control Unit (Real Time) – Setup

The Roseman ICU is a real time interface to M5. Prior to the initialization of the ICU, the settings for the pump must be set up in M5 by using the *Product Location Island Setup* frame. Upon installation of FuelFocus, AssetWorks personnel will assist in setting up this page.

ICU Section – Product Location Island Setup

Within **Location Information** enter the valid fueling location of the ICU in the **Location** field or select from the Master List of Fuel Locations. The location description displays.

Within the ICUs i-frame

1. Enter the **ICU No**.
2. The **Status** automatically defaults to *Enabled*. Select *Disabled* from the dropdown to disable the ICU.
3. **Comm Type** defaults to *IP*. Select *Phone* from the dropdown to change the type to phone.
4. If the **Comm Type** is *IP*, then enter the IP address in the **IP Address/Phone Number** field.
5. If the **Comm Type** is *Phone*, then enter the phone number the **IP Address/Phone Number** field.
6. The **Downtime** field is not used.
7. In the **VR Enabled** field, select *Yes* from the dropdown, if M5 is to automatically poll the Veeder Root system, if not leave this field set at *No*.
8. In the **VR Conn Type** field enter *COM4* for a serial connection or the *IP Address* for a TCP/IP connection.
9. In the **VR Polling Init (Mins)** field enter how often you want the ICU to take a reading from the VR in minutes.
10. **VR Baseline Time** - The ICU will use the baseline time plus the interval to determine when the polling will occur. It will not reset the baseline every time the ICU software is restarted. If there is not a baseline set, the ICU will do what it does today for VR polling. It will hold time only. The format is hours and minutes (HH:MM) allowing for even number hour factors. The minimum value is "00:00" the maximum value is "23:50". Valid minute values are (00, 25 and 50). Valid hour values are (0, 1, 2, 4, 6, 8, 12 and 24).
11. In the **Disp Time** field enter how many seconds from the time you enter the fuel card information and receive authorization at the ICU until you start the hose.

12. In the **Temp Stop** field enter how many seconds you can stop fueling and still be able to restart fueling again.
13. In the **Total Time** field, enter in seconds how long from time to start to stop fueling.
14. In the **CC Enabled** field enter: *0* = No or *1* = Yes if the ICU is credit card enabled.
15. In the **Station Type** field select *Fixed* or *Mobile* to indicate if this ICU is mounted on a pedestal or is a portable ICU.
16. In the **Display Size** field select *2x16* or *4x30* as the display size.
17. Select the **Emergency Status** checkbox as applicable.
18. Enter a free form message in the **EM Message** field.
19. Select the **SAVE** icon.
20. Highlight the **ICU No** you want to set up hoses for.

Within the Hoses i-frame

1. Enter the **Hose No** or **Pump** number that is to be entered at the ICU when wanting to authorize a product. The **Product Description** automatically displays based on the hose that was selected.
2. Select *Enabled* or *Disabled* from the **Status** dropdown.
3. Enter the **Channel** information. This is the position where the hose or pump is wired into the ICU. ICU's can be 4 hose, 8 hose, 12 hose or 16 hose.
4. In the **Hose Group** field if set at zero then the hoses are not grouped together. If you want to authorize other commodities when entering in a hose number then you would set the grouping to 1. For example, if you authorize unleaded gasoline but you also want the ability to dispense oil, ATF and antifreeze based on this authorization you would set the grouping for those hoses or pumps to 1. You could do this for multiple lanes if necessary.
5. Enter *0* = No or *1* =Yes in the **CC Enabled** field to indicate if the hose or pump credit card is enabled.
6. Enter *0* = normal handle type or *1* = setting it to handle type in the **Handle Type** field allows the ICU to think the handle is always on. This would be used for a commodity that does not have a handle.
7. The **Pulse Ratio** field indicates the pulse ratio for the pulsar. How many pulses = 1 gallon? Most configurations are 10.
8. The **MPD Channel** field indicates the retail pump. This column plus the **Channel** field together make it unique for retail purposes.
9. Select the **SAVE** icon.

Tanks i-frame

This is where you show the relationship to the M5 Tanks to the Veeder Root Monitoring System.

1. **VR Tank No** – Enter the Veeder Root Tank Number.
2. **M5 Tank No** – Enter the M5 Tank Number.
3. Select the **SAVE** icon.

ICU Event Setup i-frame

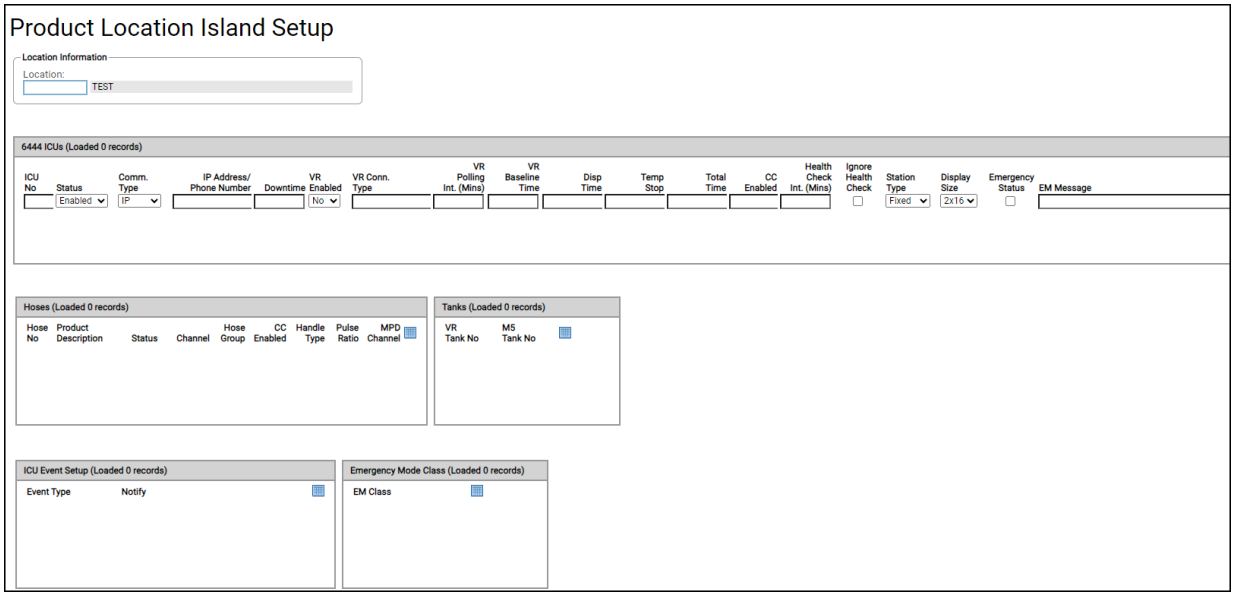
You can set up an ICU event to notify you when it occurs at the fuel island. There are four ICU events:

1. PulserFailure
2. LowBattery
3. ICUHealth
4. TankAlarm

LowBattery is only for WAF equipped ICU and TankAlarm only applies if the Tank Monitoring System is connected to the ICU.

Emergency Mode Class i-frame

You can enter the **ICU EM Class** code or select from the ICU Emergency Mode Classes list.



ICU "Health" Checks

Instead of FuelFocus sending a request to the ICU, the ICU will send, on a schedule defined for each ICU an XML message to the FuelFocus server to get the status or health of the ICU. The ICU will report when it last issued product. The FuelFocus server will then know that the ICU is ONLINE and functioning. If the ICU has not sent a message to the FuelFocus server at the most recently scheduled interval, the ICU must not be ONLINE and needs some attention.

The ICU Health check can be defined on the *Product Setup Fuel Island* frame for each ICU at a specific fueling location.

- **Health Check Int. (Mins)** – How often the ICU sends FuelFocus a message.
- **Ignore Health Check** – Disables health checks altogether.

The health check in minutes can be set to a minimum of two and a maximum of 1440 (24 hours). An entry of zero (0) effectively disables the health check.

By selecting the **Ignore Health Check** checkbox the email notifications will not go out. This is helpful in the situation where an ICU will be down for an extended period of time for repair.

In order for FuelFocus to know who to send the health checks to, the ICUHEALTH ICU event must be created in the *ICU Event Code* frame.

The ICU event code is then added to the *Fuel Island Setup* frame for each ICU at the fueling location. The user must enter the fueling location, select the ICU and enter the ICU Event code and corresponding email address in the **ICU Event** section on the *Fuel Island Setup* frame.

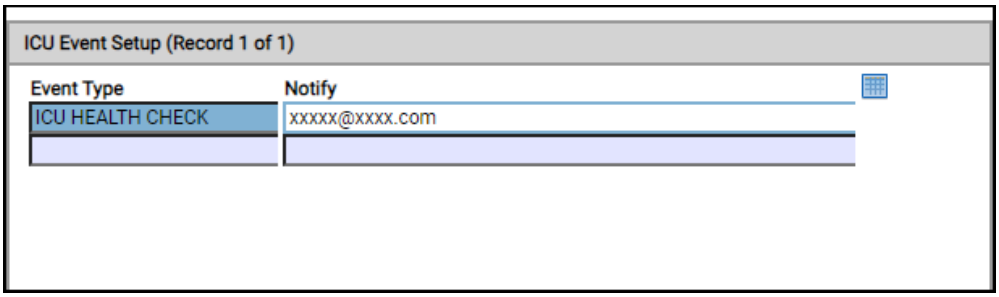
ICU Event Codes

1. Setup the *ICU Event Codes* that apply to your operation.

On the *Product Location Island Setup* frame, within the *ICU Event Setup* section:

2. Add the **Event Type**.
3. Add the **Notify** email address of the person to be notified when the event occurs.
4. Select the **SAVE** icon.

Note: Notifications must be enabled for the event to be emailed (see *Notification Manager*).



Setting up work request messages at the ICU

During the PreAuth transaction, the FuelFocus server sends a message to the ICU about pending work requests.

1. System checks System Flag 5103. If it is set to **Y**, then System Flag 5104 is checked. It says what priority work requests will generate a message.
   System Flag 5104 -This flag will determine which work requests to display on the ICU based on the work request priority. For example: If the value is *5* then only priority 5 work requests will be returned to the ICU. If the value is *5+* then any work request with a priority of 5 or greater will be returned to the ICU. If the value is *5-* then any work request with a priority of 5 or less will be returned to the ICU. This flag will not work unless System Flag 5103 is set to a value of **Y**.

2. System Flag 5105 is checked to see how current the work requests need to be. This flag will determine which work requests to display on the ICU based on the work request due date. For example, if the value is *0* then all work requests that are due today or previous to today will be returned to the ICU. If the value is *2* then all work requests that are due 2 days from now or previous will be returned to the ICU. This flag will not work unless System Flag 5103 is set to a value of **Y**.

   If there are any WR that meet the above criteria, the system sends a message as part of the Preauthorization response. If more than one WR meets the criteria, they will all be concatenated (strung together) as one message. The ICU will then display the entire message as long as the authorization is granted.
   Message Example - Job 06-PM-PMB is due on 15-May 2008.

Deny Fuel if Job Is Overdue

If a work request is overdue and not yet on a work order, to deny fuel during the preauthorize function at the ICU. The number of days overdue is set by a system flag.

- **System flag 5200** - “Days to deny fuel on ICU for overdue Work Requests”. The value of this flag and the values of System Flags 5201 and 5202 will deny fuel for overdue work requests on the ICU for real-time FuelFocus customers. A blank value will turn off the check for overdue work requests. Any numeric value that is zero or greater will denote a grace period that will allow for the authorization of fuel for overdue work requests.
- **System flag 5201** – “Date used to deny fuel on ICU for overdue Work Requests”. The value of this flag will use the work request earliest, due or latest date to deny fuel on the ICU for overdue work requests. This flag can be set to "E" (Earliest), "D" (Due) or "L" (Latest) date.

- **System flag 5202** – "Deny fuel on ICU for overdue Work Requests based on Priority". This flag will determine which work requests to deny on the ICU based on the work request priority. For example: If the value is "5" then only priority 5 work requests will be returned to the ICU. If the value is 5+ then any work request with a priority of 5 or greater will be returned to the ICU. If the value is 5- then any work request with a priority of 5 or less will be returned to the ICU. This flag will not work unless module flag 5200 is set.

Island Control Unit (Polled) – Legacy

The legacy ICU is not real time. The data is polled, sending to and receiving from the ICU by using a modem or a network connection such as a Digi Board. Upon installation of FuelFocus, AssetWorks personnel will assist in setting up this page.

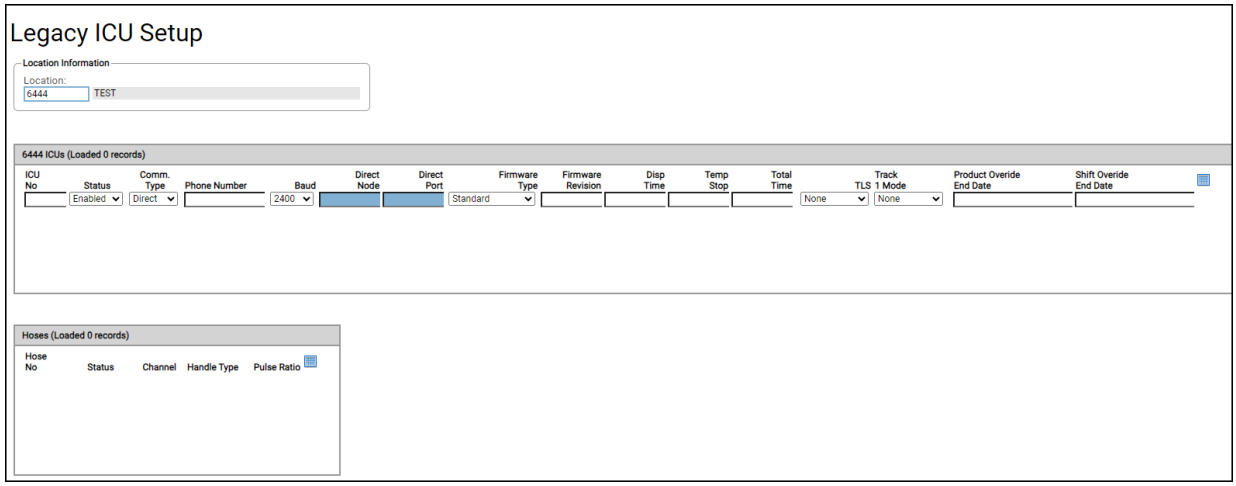
Each ICU is assigned a location, unique, user-specified number between 1 and 99. The method and parameters for establishing a communications link to each ICU is specified on this frame.

ICU Section

1. Open the *Legacy ICU Setup* frame.
2. Enter a fuel location in the **Location** field and press Tab.
3. Enter a location-unique **ICU No**.
4. Press Tab to accept the default of *Enabled* in the ICU **Status** field or use the dropdown menu to select *Disabled* in the ICU **Status** field.
5. Select the default of *Direct* (a direct RS-232 line) in the **Comm. Type** field or use the dropdown menu to select *Modem* in the **Comm. Type** field. The setting of this flag determines which of the other parameters are required or are valid. If the connect type in the **Comm. Type** field is set to *Modem*, you must enter the phone number used to call the ICU in the **Phone Number** field.
6. Select the default modem baud rate in the **Baud** field or use the dropdown menu to select the proper baud rate.
7. If the **Comm. Type** field is set to *Direct* (a direct RS-232 line), you must enter the *VMS Node* type in the **Direct Node** field and the *VMS Port* type in **Direct Port** field to which the ICU is directly connected.
8. Use the dropdown menu to select the **Firmware Type**.
9. Enter the **Firmware Revision**.
10. In the **Temp Stop** field enter how many seconds you can stop fueling and still be able to restart fueling again.
11. In the **Total Time** field enter the number of seconds from time to start to stop fueling.
12. Use the dropdown menu to select the **TLS** (Tank Leveling Sensor) you will be using.
13. Use the dropdown menu to the select **Track 1 Mode**.
14. **Product Override End Date**– Not in use.
15. **Shift Override End Date** – Not in use.
16. Select the **SAVE** icon.

Hoses i-frame

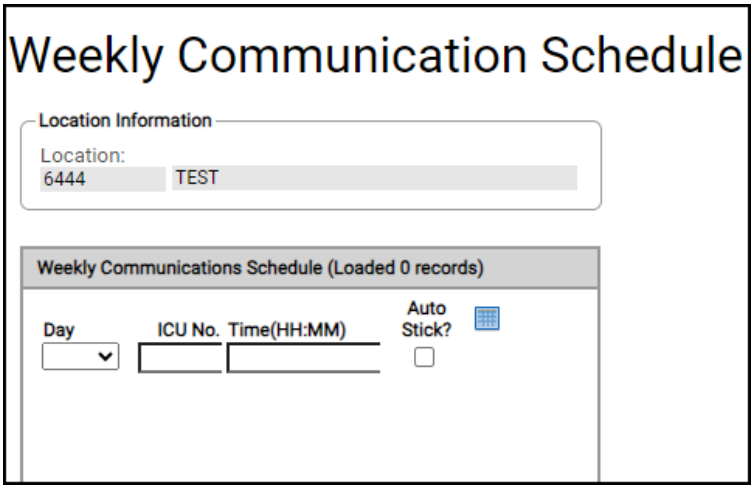
1. Highlight the **ICU No** for which you want to define a hose.
2. Enter an ICU-unique **Hose No**.
3. Use the dropdown menu and select the **Status** of the hose. The values are *Enabled* or *Disabled*.
4. Enter the DCM **Channel** number that controls the hose.
5. Enter the **Handle Type**.
6. Enter the **Pulse Ratio**.
7. Select the **SAVE** icon.



Weekly Communication Schedule

The *Weekly Communication Schedule* frame is used to set the weekly polling schedule.

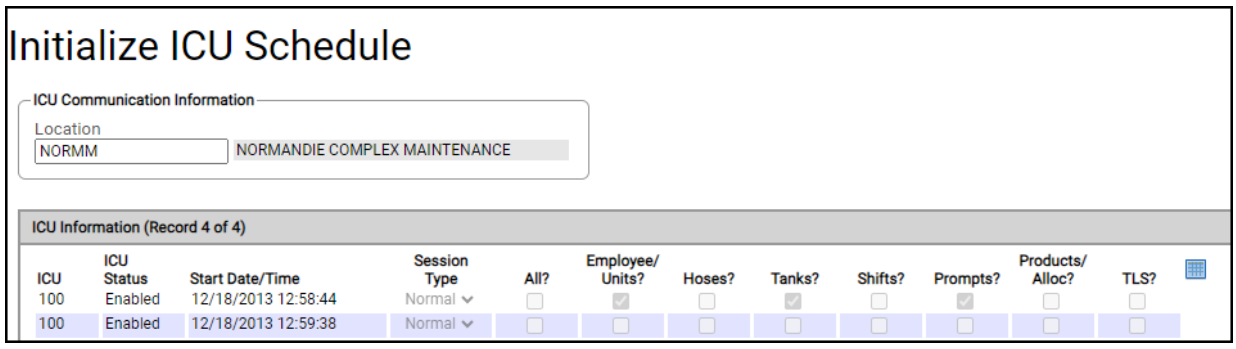
1. Enter a **Location** or select from the Master List of Fuel Locations list.
2. Use the dropdown to select the **Day** of the week.
3. Enter the **ICU No**.
4. Enter the time and hour of day that you want to schedule in the **Time(HH:MM)** field.
5. If the ICU at the location has a tank level sensor wired to it, you can request a stick reading during the schedule session by selecting the **Auto Stick?** checkbox.
6. Select the **SAVE** icon.



Initialize ICU Schedule

In order for setup to populate the ICU with validate information, the ICU must be initialized by using the *Initialize ICU Schedule* frame.

1. Enter the fuel location in the **Location** field. Press Tab or Enter.
2. Enter the **ICU** number.
3. The status of the ICU displays in the **ICU Status** field.
4. Enter a **Start Date/Time**.
5. The **Session Type** field defaults to *Normal*. Uses *Normal* for a normal session update. Use the dropdown menu to select *Init* for initialize. The ICU collects transactions that have occurred and downloads new meter updates.
6. If you want to populate the ICU with all pertinent files, select the **All?** checkbox.
7. If you only want to populate the ICU with only certain pertinent files, select the appropriate checkbox.
8. Select the **Employee/Units?** checkbox to populate the ICU with all employee, department and unit information.
9. Select the **Hoses?** checkbox to populate the ICU with hose information.
10. Select the **Tanks?** checkbox to populate the ICU with tank number information.
11. Select the **Shifts?** checkbox to populate the ICU with employee shift information.
12. Select the **Prompts?** checkbox to populate the ICU prompts.
13. Select the **Products and Alloc?** checkbox to populate the ICU with product and product allocation information.
14. Select the **TLS?** checkbox to populate the ICU with stick reading information.
15. Select the **SAVE** button.



ICU Communication Schedule

The *ICU Communication Schedule* frame allows you to view the status of communication sessions within your query selection.

1. Within **ICU Communication Information** enter your selection criteria:
   - Location
   - ICU No.
   - Date From
   - Date End
   - Session Type
   - Session Status
2. Select the **Retrieve** button.

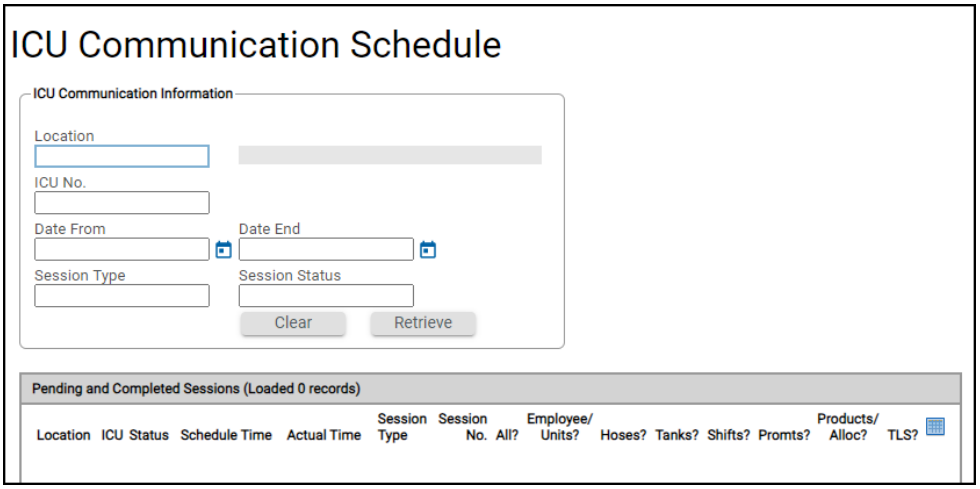
Within the *Pending and Completed Sessions* i-frame, the following details display:

- The **Location** field displays the location of the session.
- The **ICU** field displays the ICU number at the location.
- The **Status** field displays the status of the session.
- The **Schedule Time** field displays the scheduled time of the session.
- The **Actual Time** field displays the actual time that the session occurred.
- The **Session Type** field displays the type of session.
- The **Session No.** field displays the communication session number.
- The **All?**, **Employee/Units?**, **Hoses?**, **Tanks?**, **Shifts?**, **Prompts?**, **Products/Alloc?** and **TLS?** options.

Session Status

Status	Description	Long Description
HT	Halted (T)	Session halted during or after transfer packets.
HB	Halted (B)	Session halted during or after build packets.
I	Init ICU	Session is creating export entries for initializing an ICU.

H	Halted	Session halted.
HR	Halted (R)	Session halted during process packets.
FI	Failed (I)	Session aborted due to error in Init ICU.
TW	Wait (T)	Session is waiting to exchange packets with the ICU.
RS	Killed	Session halted because it was waiting and another session was due.
T	Transfer	Session is exchanging packets with the ICU.
D	Halted (D)	Session aborted because another session is in progress for this ICU.
HI	Halted (I)	Session halted during or after Init ICU.
F	Failed	Session aborted due to error.
FR	Failed (R)	Session aborted due to error in process packets.
P	Pending	Session is pending.
C	Complete	Session completed successfully.
FT	Failed (T)	Session aborted due to error in transfer packets.
R	Process	Session is processing packet received from the ICU.
B	Building	Session is building packets.
FB	Failed (B)	Session aborted due to error in build packets.
S	Server	Session has been sent to the server.

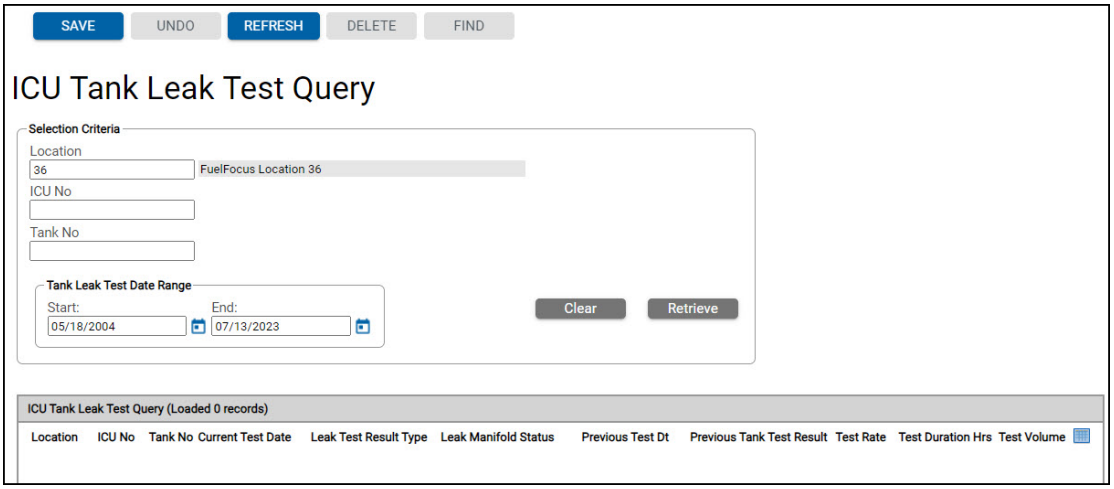


ICU Tank Leak Test Query

The *ICU Tank Leak Test Query* frame allows you to view the ICU Tank Leak Test data. You can filter criteria to generate the query results within the *ICU Tank Leak Test Query* i-frame.

Results matching your criteria display the following fields:

- Location
- ICU No
- Tank No
- Current Test Date
- Leak Test Result Type
- Leak Manifold Status
- Previous Test Dt
- Previous Tank Test Result
- Test Rate
- Test Duration Hrs
- Test Volume



ICU Events Query

The *ICU Events Query* frame allows you to view ICU Event information.

To run a query, you can enter any of the following **Selection Criteria**:

- Location
- ICU No
- Tank No
- Hose No
- Sensor No
- Event Type
- Event Date Range

Note: You can leave the selection criteria blank and select the **Retrieve** button to generate the query.

Within the *ICU Event Query* i-frame, results matching your criteria display:

- Location
- ICU No
- Tank No
- Hose No
- Sensor No
- Event Type
- Effective Date
- Event Date
- Notified

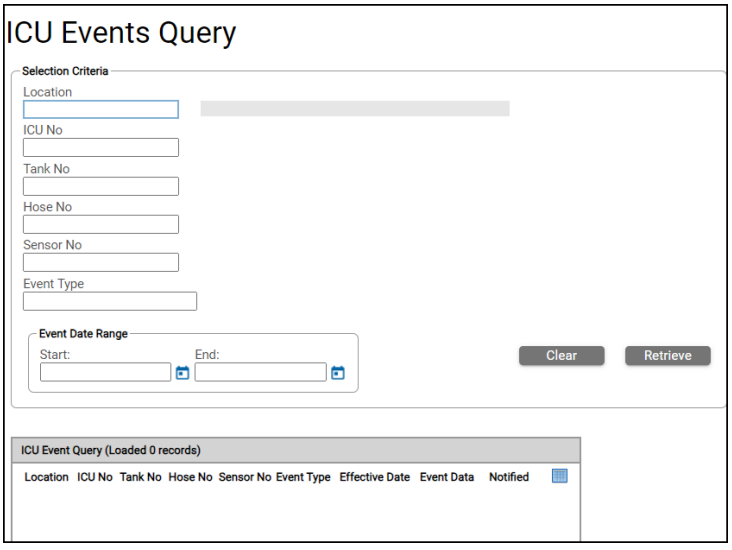
You can run a new query by selecting the **Clear** button, enter **Selection Criteria** or leave blank, and select the **Retrieve** button.

Notifications

- The **SENSOR ALARM -** If enabled sends a notification for the location receiving the sensor alarm. The email notification address must be setup within the *Product Setup Fuel Island* frame, **ICU Event Setup** section for the **Event Type** Sensor Alarm.
- The **SYSTEM ALARM** - If enabled sends a notification for the location receiving the system alarm. The email notification address must be setup within the *Product Setup Fuel Island* frame, **ICU Event Setup** section for **Event Type** System Alarm.

You will need to enable each new notification option within the *Notification Manager* frame as the default is **Disabled**.

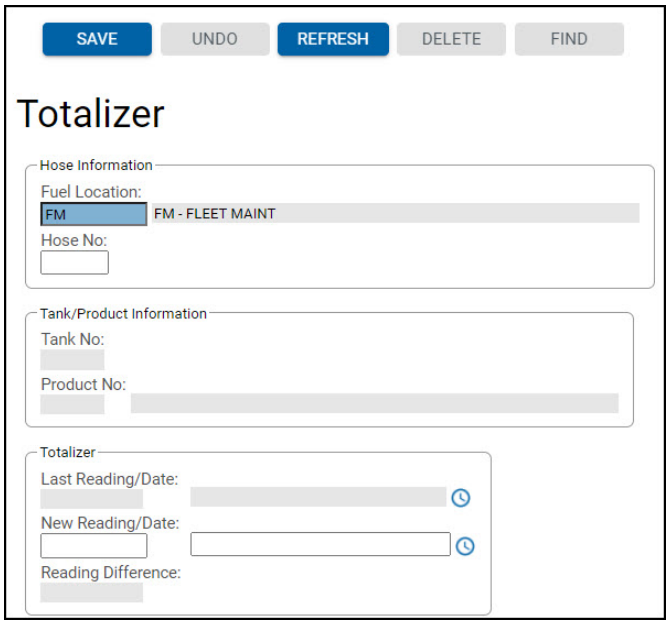
See the *Notification Manager Quick Reference Guide* for additional details.



Totalizer

The *Totalizer* frame is used to maintain the total number of gallons of fuel that has been pumped for a particular hose and tank.

1. Open the *Totalizer* frame. The sign in location displays in the **Fuel Location** field.
2. Enter the hose number of the hose to be updated in the **Hose No** field and press Tab.
3. The tank number displays in the **Tank No** field with the product number in the **Product No** field. The product's last hose totalizer reading and date of the reading displays in the **Last Reading/Date** field. The cursor is on **the New Reading/Date** field.
4. Enter the newest reading and date of the reading in the **New Reading/Date fields**. The difference between the last reading and current reading displays in the **Reading Difference** field. **Note:** The **Last Reading/Date** fields are blank the first time you enter a hose totalizer reading.
5. Select the **SAVE** icon when complete.

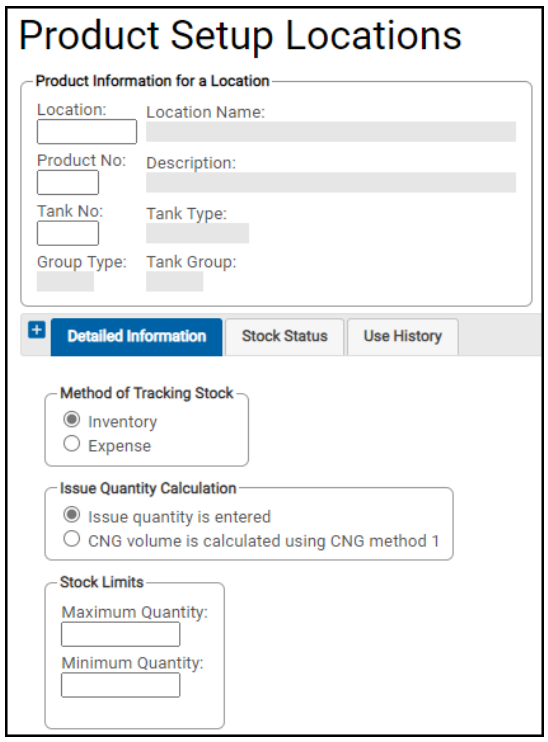


Section C - Product Configuration

Product Setup Locations

The *Product Setup Locations* frame is used as the product inventory control manager for purposes of indicating how the user will manage this product from an accounting perspective at this location including information on minimum and maximum levels as well as reordering details.

1. Within **Product Information for a Location**, enter the fueling location that the products are to be assigned to in the **Location** field and press Tab. The fueling location's description displays in the **Location Name** field. If a search is needed to view all fueling locations, double-click in the field to select from the List of Values.
2. Enter the product to be associated with this location in the **Product No** field. A search can be performed to view all available products.
3. Enter the associated tank with the entered product in the **Tank No** field. To view any tanks with the entered product at this location, double-click in the field.
4. Double-click on the desired tank. The **Tank Type** displays to the right.
5. Within the **Detailed Information** tab, if you want to track the tank's inventory, select *Inventory* in the **Method of Tracking Stock** section, or select **Expense**. If you select **Inventory** then you will enter sticking values and maintain your stock levels. If you only want to track fuel passing through the tank and not actually tracking the inventory levels, then select **Expense**.
6. Within the **Issue Quantity Calculation** section select *Issue quantity is entered*. Its purpose is to validate that there is a quantity issue on the product issue frames. At this time CNG method 1 is currently being adjusted per Focus Item 7360 and 19510.
7. If you selected **Inventory** as your method of tracking, proceed to enter the tank's maximum and minimum **Stock Limits**. The **Maximum Quantity** is taken into account when transferring, adjusting, ordering or receiving of the product. If the tank is below the **Minimum Quantity** as set here, you will not be able to transfer any fuel from that tank.
8. If this product at this location has a different cost than the product's cost on *Product Main*, proceed to enter that cost in the **Unit Cost** field within the **Stock Status** tab.
9. If you wish to charge the customer a certain rate every time they go to the tank, enter that cost in the **Per Transaction Charge** field.
10. The **Use History** tab offers information on the previous usage of the product at the location such as the cost at time of last receipt and when was this product last issued.



Product Pricing

Consumable pricing can be determined by:

- The fueling unit's using department.
- The fueling location's owning department.
- System-wide product values entered on the *Product Main* frame.
- The product's inventoried consumable price per issue unit.

FleetFocus™M5 uses a six-step process in determining consumable pricing for a given product at time of issue to a unit, indirect account or vendor. The process order is as follows:

1. The system looks for consumable pricing information for the fueling unit's using department location and the fueling locations owning department on the *Product Pricing* Frame.

    - If a unit price is entered in the **Unit Cost** field (no information in the **Flat Markup** field) in the *Using Department Level* section, then the fueling unit's using department consumable price per issue unit is charged to the unit.

- If (1) a markup value is entered in the **Flat Markup** field, (2) the **Unit Cost** field is set to $0.00 and (3) the **%Markup** field is set to 0, then the fueling unit's using department flat markup value is added to the product's inventoried consumable price per issue unit and the total is charged to the unit.

- If (1) the **Flat Markup** field is set to $0.00, (2) the **Unit Cost** field is set to $0.00 and (3) a markup percentage is entered in the **%Markup** field, then the fueling unit's using department markup percentage is added to the product's inventoried consumable price per issue unit and the total is charged to the unit.

2. If no information is found for Step 1, the system looks for consumable pricing information for the fueling location's owning department on the *Product Pricing* frame.

   - If a unit price is entered in the **Unit Cost** field (no information in the **Flat Markup** field), then the owning department consumable price per issue unit is charged to the unit.

   - If (1) a markup value is entered in the **Flat Markup** field, (2) the **Unit Cost** field is set to $0.00 and (3) the **%Markup** field is set to 0, then the fueling unit's owning department flat markup value is added to the product's inventoried consumable price per issue unit and the total is charged to the unit.

   - If (1) the **Flat Markup** field is set to $0.00, (2) the **Unit Cost** field is set to $0.00 and (3) a markup percentage is entered in the **%Markup** field, then the fueling unit's owning department markup percentage is added to the product's inventoried consumable price per issue unit and the total is charged to the unit.

3. If no information is found for Steps 1 and 2, the system looks for the system-wide unit price established for a product on the *Product Main* frame.

   - If the **Unit Cost** field is not set to $0.00 , the *Product Main* established consumable price per issue unit is charged to the unit (instead of the product's inventoried consumable price per issue unit).

4. If no information is found for Steps 1-3, the system looks for the system-wide markup value established for the product on the *Product Main* frame.

   - If (1) the **Unit Cost** field is set to $0.00 and (2) the **Flat Markup** field is a positive dollar value, then the *Product Main* established flat markup value is added to the product's inventoried consumable price per issue unit and the total is charged to the unit.

5. If no information is found for Steps 1-4, the system looks for the system-wide markup percentage established for the product on the *Product Main* frame.

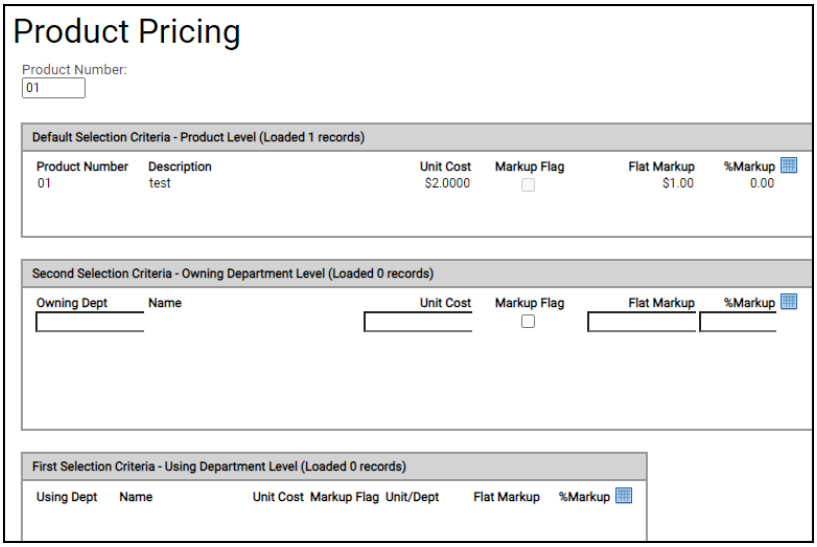
   - If (1) the **Unit Cost** field is set to $0.00 and (2) the **Flat Markup** field is set to $0.00, and (3) the **%Markup** is a positive value, the *Product Main* established markup percentage is added to the product's inventoried consumable price per issue unit and the total is charged to the unit.

6. If no information is found for Steps 1-5, the system looks for the product's inventoried consumable price per issue unit.

   - If an inventoried consumable price per issue unit is established for the product (displayed on the *Product Location Set Up* frame), then the inventoried consumable price per issue unit is charged to the unit.

How to set up Product Pricing:

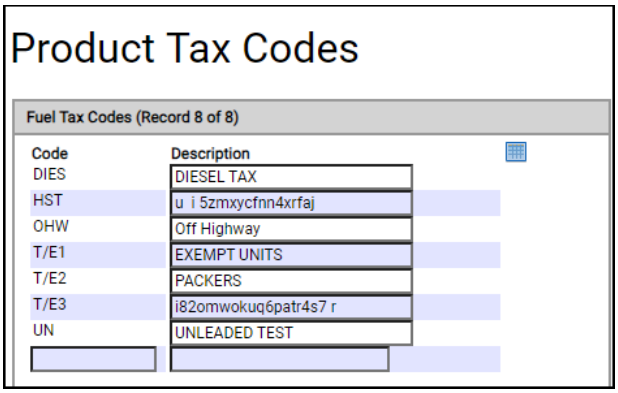
1. Open the *Product Pricing* frame.
2. Enter the product whose pricing needs to be adjusted in the **Product Number** field and press Tab. If you do not know the product code, double-click in the field to select from the List of Values (LoV). The current description, cost and associated markups from *Product Main* will display in the *Default Selection Criteria* section.
3. To change the cost or markup for a specific owning department, select the **Owning Dept** field and enter the owning department to be affected. Otherwise, select the **Using Dept** field to change the cost for a particular using department.
4. After the owning or using department code is entered, the department **Description** displays.
5. Enter the new total unit cost in the **Unit Cost** field.
6. Enter any markup, as applicable.
7. Proceed to enter as many departments as required.
8. Select the **SAVE** icon when complete.



Product Tax Codes

The *Product Tax Codes* frame is used to established tax codes that are used on the *Product Tax Rates* frame. Use this frame to add or delete fuel or product specific tax codes. System Flag 1111 must be set in order to assess taxes to fuel. From the *Product Tax Codes* frame add a new tax code:

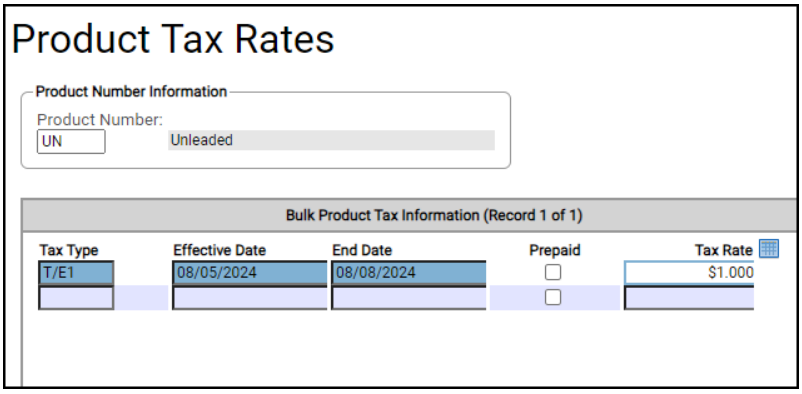
1. Select a blank row and enter the tax code in the **Code** field.
2. Enter the **Description** of the tax code. Enter as many tax codes, as applicable.
3. Select the **SAVE** icon when complete.



Product Tax Rates

The *Product Tax Rates* frame is used to enter the value of the tax, whether it is prepaid (refunded) on the bulk fuel received into a tank or on fuel issued to off road units. From the *Product Tax Rates* frame:

1. Enter the product to which the tax is to be applied in the **Product Number** field and press Tab. The product description displays to the right.
2. Enter the **Tax Type** or select from the *Tax Type* List of Values.
3. Enter the date the tax is to begin in the **Effective Date** field or double-click in the field to select from the *Calendar* pop-up.
4. Enter the date the tax will no longer be in effect in the **End Date** field or double-click in the field to select from the *Calendar* pop-up.
5. Select the **PrePaid** checkbox to indicate the tax is prepaid.
6. Enter a **Tax Rate**.
7. Select the **SAVE** icon when complete.

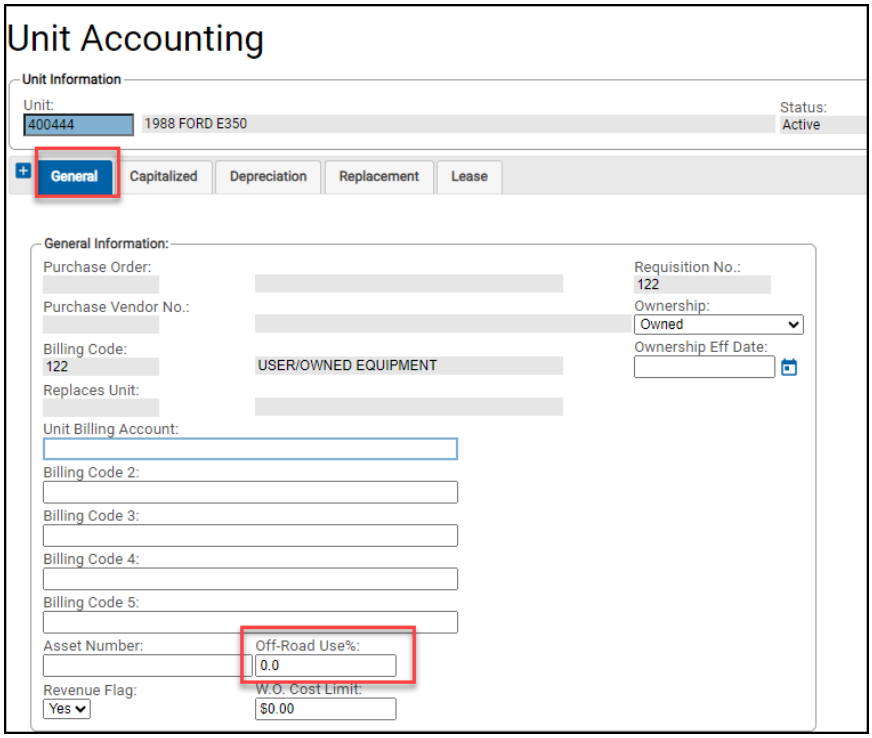


Off Road Taxes

M5 is able to calculate Off Road Taxes per unit. In order to implement this feature, System Flag 1111 must be set to **Y**. The product tax codes and rates must be set up and the **Off-Road Use %** must be established for each unit on the *Unit Accounting, General tab* frame.

From the *Unit Accounting* frame:

1. Enter a valid unit number in the **Unit** field.
2. In the **Off-Road Use %** field, enter a percentage of time the unit is used offroad to account for fuel taxability.
3. Select the **SAVE** icon.



Section D - Product Replenishment

Purchase Contract

Depending on the functionality that will be used as part of the purchase contract, there are various codes that may need to be setup in M5 such as price types, shipmentterms, and vendors.

In order to receive the best price for an item or part, a user can establish a purchasing contract with a vendor. This is sometimes referred as a blanket purchase order. A purchasing contract enables the user to establish pre-approved conditions for the purchase of stock or non-stock parts, products and services, including purchases made with specific vendors for pre-determined items or parts, quantities and prices. The user can define a range of dates for which the purchasing contract is valid and specify the balance amount at which a warning is issued for purchase orders approved against the contract. Later, when creating the purchase order, line items may be retrieved from awarded contracts originally established here.

Purchasing contracts can be established for:

- Parts (specific or not)
- Fuel/Products
- Commercial (sub-let) work

Contract lines can be for commodities, meaning that any part whose commodity code matches the contract line's commodity can be ordered off the contract. Individual part numbers can also be set up on contracts. However, this method is labor intensive. The commodity method is helpful for those customers who purchase broad categories of parts from a particular vendor and need to ensure that spending does not exceed a preset limit for the vendor. Another option is to create a blanket contract, where specific parts or commodities are not defined.

The *Purchase Contract* frame allows for more than one valid blanket contract with the same vendor with the same start and end dates. If the contract is created for specific parts then only one purchase contract is allowed per vendor with the same effective dates.

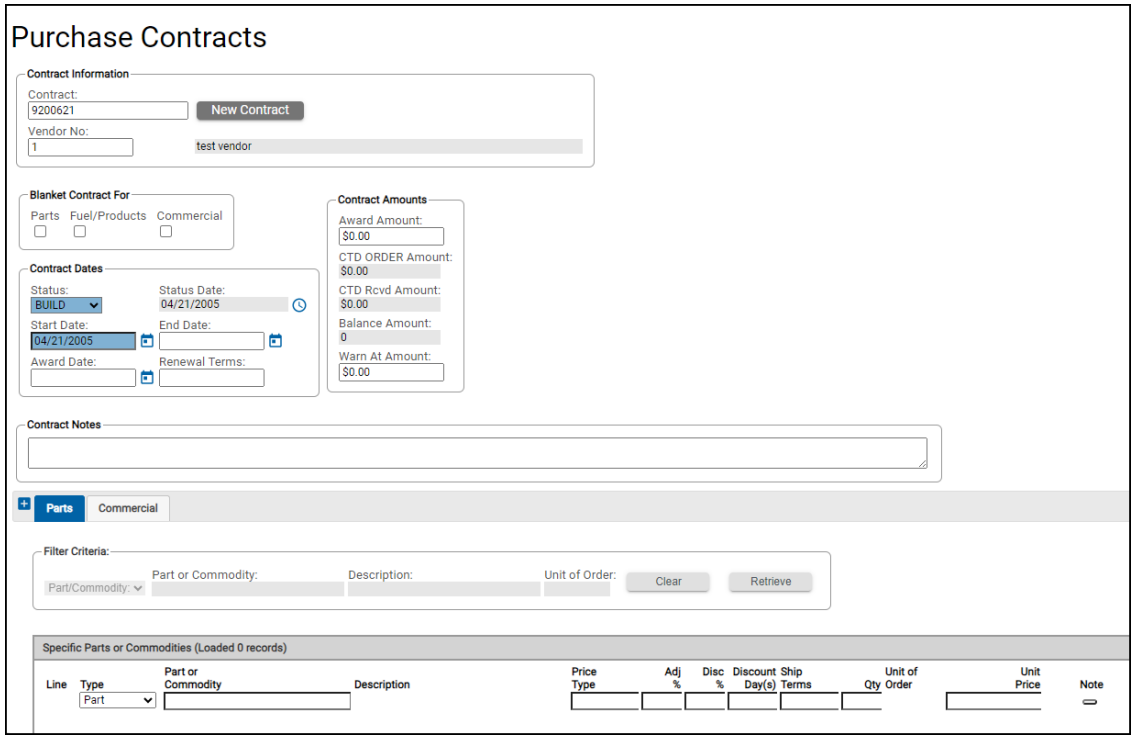
From the *Purchase Contracts* frame:

1. Enter a valid contract number in the **Contract** field or use the List of Values (LoV) to select an existing one or select the **New Contract** button to create one.
2. Enter a valid fuel vendor in the **Vendor No** field or select from the List of Values (LoV).
3. If the **Blanket Contract For** is for fuel or products, select the appropriate checkbox.
4. The **Status** displays *Build* for a new contract. The **Status Date** displays.
5. Enter the **Start Date** of the contract.
6. Enter the **End Date** of the contract.
7. Enter the **Award Date** of the contract. The contract is not valid until there is an award date.
8. Enter **Renewal Terms**, as applicable.
9. Within the **Contract Amounts** section, enter the contract **Award Amount** and the system will calculate CTD (Contract to Date) order, received and balance amounts. **Warn At Amount** can be entered to warn the user when contract reaches a specific amount. If System Flag 1158 is set to **Y**, M5 maintains the balance information.
10. Enter **Contract Notes**, as applicable.
11. Select the **SAVE** icon.

Note: The Purchasing Contract goes through a number of statuses:

- Build
- Awarded
- Closed

The purchasing contract cannot be used until the status is changed to *Awarded*. The purchasing contract can be updated during the validate period. After a purchasing contract is finished, the status is changed to *Closed*.



Product Order Frame

The *Product Order* frame is used to record bulk purchase orders for fuel or products from a single vendor. Both the vendor and any products must be previously established in M5.

From the *Product Order* frame:

Note: The **Location** defaults to your sign in location.

1. Tab past the **PO No** field to create a new purchase order.
2. Select the **New PO** button. The **PO No** field displays as *NEW*. The **Order Date** field automatically displays the current date and time.
3. Enter a valid **Vendor No** or select from the List of Values (LoV). The vendor name displays.
4. Enter the **Contract No** if you are ordering against a fuel contract for the entered vendor.

Note: A contract number is now accepted and validated to make sure that it is a blanket fuel contract for the entered vendor. The purchase order number prefix is assigned depending on whether a contract is used. (See System Flags 1125 and 1126). The user is warned if the amount of the fuel contract will exceed the contract's balance.

5. Enter the products to be purchased in the *PO Detail* i-frame.
    a. Enter a valid **Prod** to be ordered or select from the List of Values (LoV).
    b. Enter a valid **Tank** where the product will be stored or select from the List of Values (LoV).
    c. The current inventory price will display. If the price is different, enter the **Unit Cost**.
    d. Enter the **Order Qty**. You can order more fuel than the tank's capacity, however, you will not be allowed to receive more than the tank's capacity.
    e. The **Status** field displays *O (open)* automatically.
    f. Enter **PO Notes**, as applicable.
6. Select the **SAVE** icon when complete.

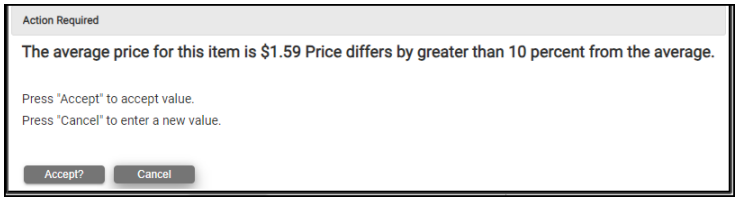
Modifying Fuel Purchase Orders

Modifications can be made to a purchase order with a **Status** of *OPEN* from the *Product Order* frame. Your sign in location automatically displays.

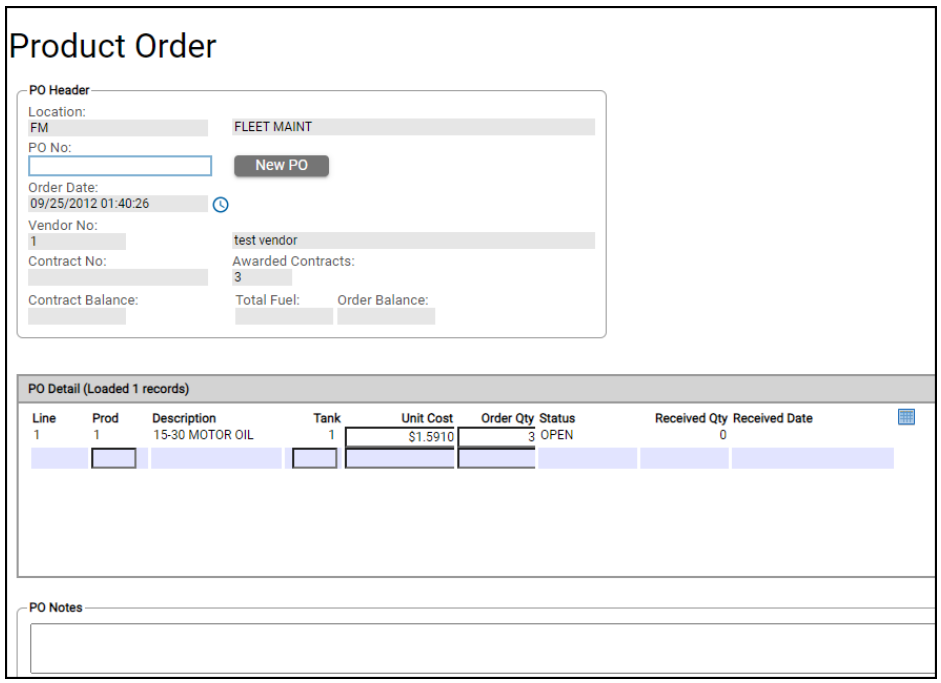
1. Enter a **PO No** or select from the Master List of Fuel PO's for location.
2. Within the *PO Detail* i-frame, select the **Line** to be modified.
3. Select the field to be modified and enter the corrected value. Any field in white can be modified.

Note: Remember that the product and its associated tank must be a valid product for that location.

4. If you modify the **Unit Cost**, the *Action Required* window displays if the price differs from the average. Select **Accept?** to accept the cost or **Cancel** to change the cost.



5. To delete the item, highlight the **Prod** field in the row to be deleted:
    a. Select the **DELETE** icon. The row displays in red.
    b. Select the **SAVE** icon to delete the PO Line item.

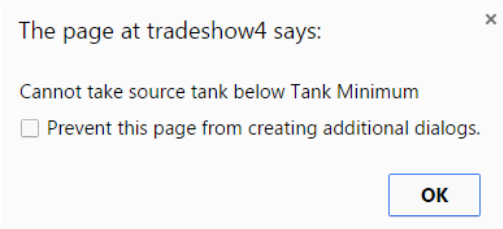


Product Location Transfer

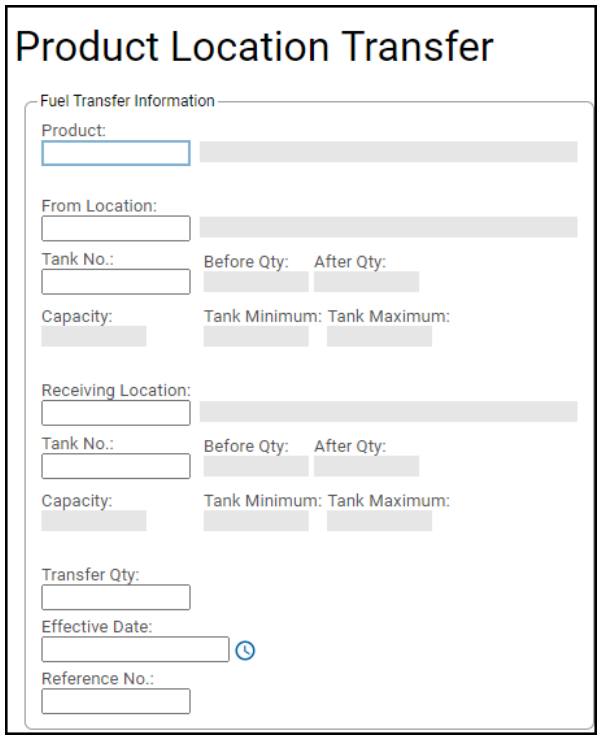
The *Product Location Transfer* frame is used to report on the movement of fuel or products at fueling locations.

From the *Product Location Transfer* frame:

1. Enter a valid product number in the **Product** field or select from the Product Code List (LoV). The product description displays.
2. Enter a valid fuel **From Location** where the product will be transferred from or select from the List of Values (LoV). The fuel location description displays.
3. Enter a tank number in the **Tank No** field or select from the List of Values (LoV). The **Before Qty**, **Tank Minimum** and **Tank Maximum** fields display.
4. Enter a valid receiving fuel location in the **Receiving Location** field or select from the List of Values (LoV). The fuel location description will display.
5. Enter the receiving tank number in the **Tank No** field or select from the List of Values (LoV). The **Before Qty**, **Tank Minimum** and **Tank Maximum** fields display.
6. Enter the quantity to be transferred in the **Transfer Qty** field. If you try to transfer more fuel than the tank's minimum, you can receive a message similar to the one below.



7. Select **OK** to return and change the quantity to be transferred.
8. Tab past the **Effective Date** to use the current date or use the **Calendar** pop-up to select the date of the transfer.
9. Optionally, enter a reference number in the **Reference No.** field.
10. The **From Location** and **Receiving Location** After Quantity (**After Qty**) is calculated and displays.
11. Select the **SAVE** icon when complete.

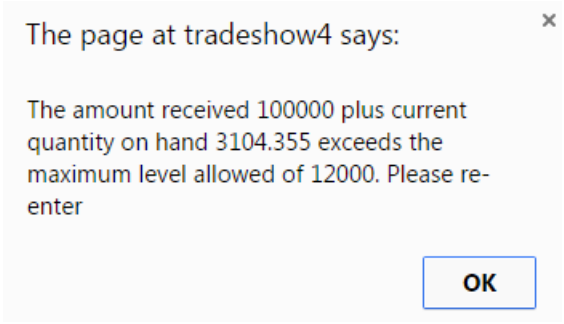


Product Location Receive

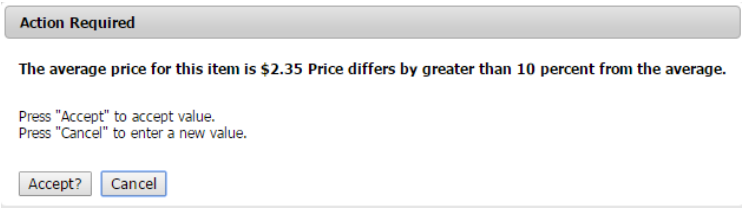
From A Purchase Order

Open the *Product Location Receive* frame. The fuel Location of the user's sign in displays.

1. Enter a valid purchase order number from which the orders are being received in the **P.O. #** field or select from the List of Values (LoV). The entire PO displays.
   Note: A **Contract No** field allows for the association of a blank fuel contract with the receipt. Receipts against the contract reduce the contract balance. If the receipt stems from an order, the contract is taken from that.
2. Enter a user-defined reference number in the **Reference No** field.
   Note: A user-defined reference number is a user issued or vendor issued tracking ID which is not validated by the system.
3. Within the *Closed Items* section select the **Display** checkbox to set it to display closed items.
4. Within the *PO Detail* i-frame enter the quantity received in the **Received Qty** field.
5. If the quantity received plus the current inventory balance exceeds the tank's maximum quantity, the following message appears. Modify the **Received Qty** field.



6. Enter the received date in the **Received Date** field. The purchase order's present status displays in the **Status** field.
   Note: On partial receipts the **Status** field displays *PARTIAL*. On full receipts, the **Status** field displays *CLOSED*.
7. Enter the **Unit Cost** of the product at receipt time.
8. If the new unit price is different from the current inventory price by more than 10 percent the *Action Required* window opens. Select the **Accept?** button to accept the price. To change the price, select the **Cancel** button.

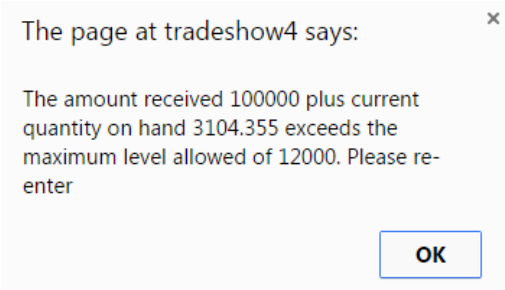


9. The **Balance Due** field displays any remaining quantity due on the purchase.
10. The order quantity displays in the **Order Qty** field.
11. Select the **SAVE** icon when completed.

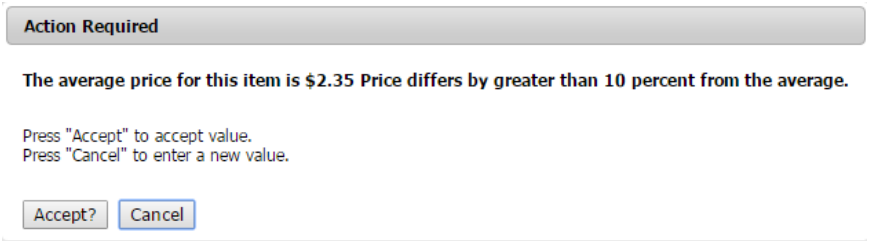
Without A Purchase Order

Open the *Product Location Receive* frame. The fuel **Location** of the user's sign in displays.

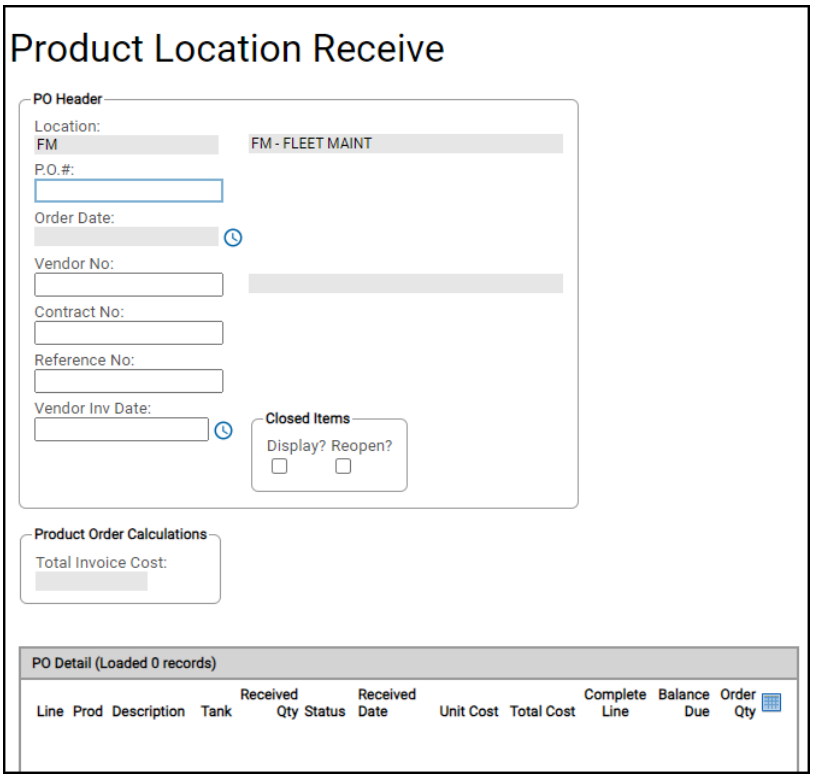
1. Press Tab to go directly to the **Vendor No.** field.
2. Enter a valid vendor number used to purchase the product in the **Vendor No.** field or select from the List of Values (LoV). The vendor name displays.
3. Enter a **Contract No** or select from the List of Values (LoV).
4. Enter a user-defined reference number in the **Reference No** field.
   Note: A user-defined reference number is a user issued or vendor issued tracking ID which is not validated by the system.
5. Enter a **Vendor Inv Date** or select from the **Clock** icon.
6. Within the *PO Detail* i-frame enter a product number in the **Prod** field or select from the List of Values (LoV). The product description displays.
7. Enter a tank number in the **Tank** field or use the List of Values (LoV) to view a list of valid tanks for the entered product at this location.
8. Enter the quantity received in the **Received Qty** field.
9. If the quantity received plus the current inventory balance exceeds the tanks maximum quantity, the following message appears. Modify the **Received Qty** field.



10. Enter the date the product was received in the **Received Date** field. Tab past this field to display the current date.
11. Enter the **Unit Cost** of the product at receipt time.
12. If the new unit price is different from the current inventory price by more than 10 percent the *Action Required* window appears. Select the **Accept?** button to accept the price. To change the price, select the **Cancel** button.



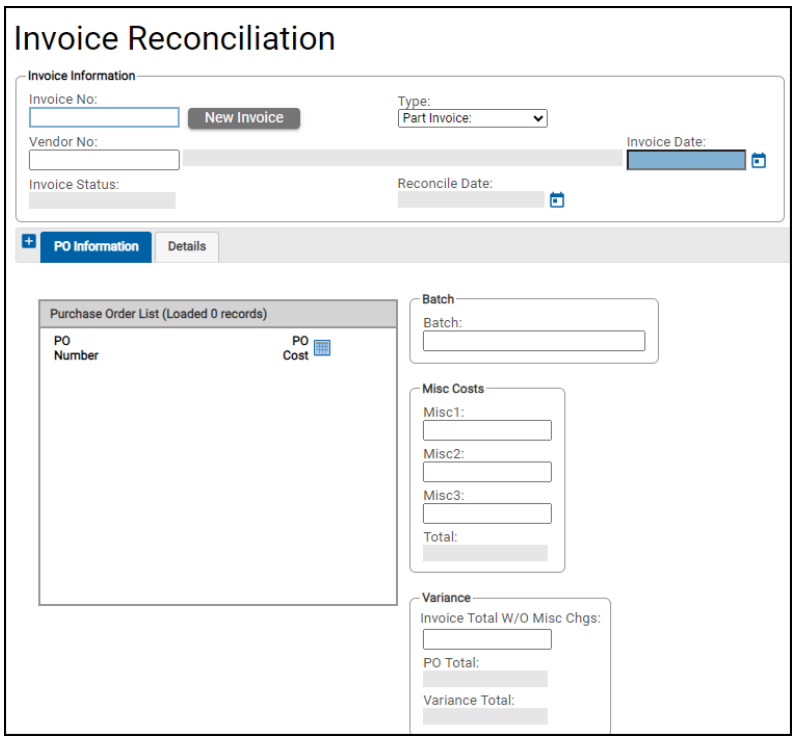
13. Select the **SAVE** icon when complete.



Fuel Invoice Reconciliation

The function of the reconciliation process is to verify that the actual invoice amount is reconciled with the price at receipt time. While it is very common for parts to be received with a bill of lading at the last price paid for the part and when the invoice is received, the price on the invoice is different with fuel purchases.

In order to use Fuel Invoice Reconciliation, see System Flag 5094 - **Is Invoice Reconciliation being used for fuel (Y/N)?** If set to *Y*, the user will have the option to reconcile either fuel or parts, if set to *N*, only parts can be reconciled. Please see the M5 Invoice Reconciliation document for a full explanation of this functionality.



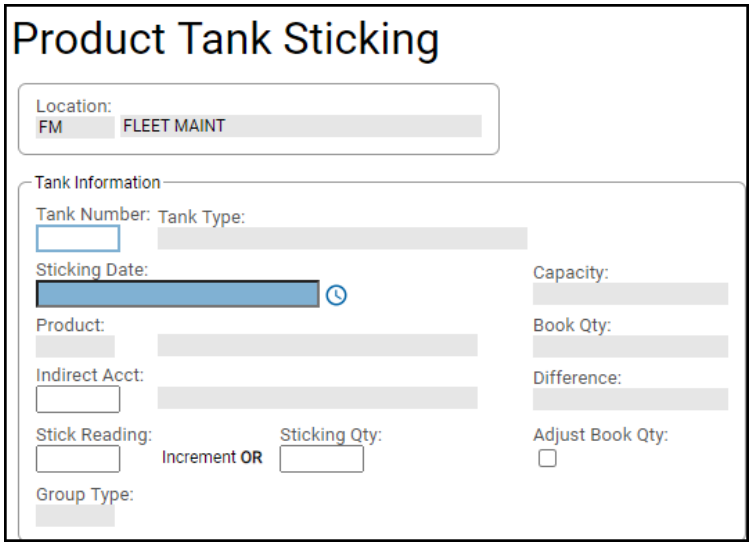
Section E - Product Control

Product Tank Sticking

Use the *Product Tank Stic*king frame to enter the tank sticking information. Be sure to sign in at the fueling location that you are entering the stickings for.

From the *Product Tank Sticking* frame:

1. Enter a valid tank number in the **Tank Number** field or select one from the List of Values (LoV) for the user's sign in at fuel location and press Tab.
    - The **Tank Type**, **Capacity**, the fuel **Location** of the user sign in, **Product** number, product description, current **Book Qty**, and **Indirect Acct** displays if one has been assigned to the displayed fueling location.
2. The current date automatically displays in the **Sticking Date** field. If this is not correct, use the **Calendar** icon to select the date of the sticking entry.
   Note: The system checks to make sure the sticking date is after the previous sticking date and equal to or prior to the current date. The field becomes read-only.
3. If you are recording a tank sticking for the first time, you must enter an indirect account number in the **Indirect Acct** field. The description for the indirect account will display.
4. Enter the stick reading increment in the **Stick Reading** field, if tank conversion data has been entered on the tank types.
5. Enter the quantity of product if not using tank conversion in the **Sticking Qty** field.
6. The book quantity displays in the **Book Qty** field. The difference between the book quantity and stick reading displays in the **Difference** field.
7. Select the **Adjust Book Qty** field to set it to *Yes* to adjust the book quantity.
8. Select the **SAVE** icon when complete.

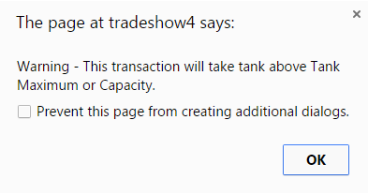


Product Location Inventory Adjustment

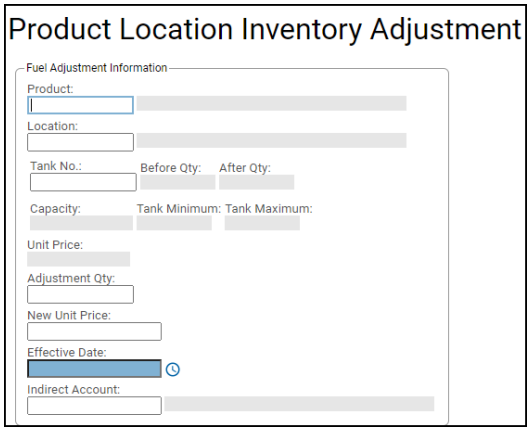
The *Product Location Inventory Adjustment* frame is used to reconcile your physical inventory with your book inventory (what's on the computer). If you are authorized to change fueling locations, you can adjust product inventory at another location.

From the *Product Location Inventory Adjustment* frame:

1. Enter a valid product number in the **Product** field or select from the List of Values (LoV). The product description displays.
2. Enter the fueling location that needs the adjustment in the **Location field**. The description of the fueling location displays. A search can be performed by either double-clicking in the field or using the **Find** button or **Binoculars** icon.
3. Enter a valid **Tank No.** for the entered fueling location. The **Before Qty**, **Capacity**, **Tank Minimum** and **Tank Maximum** fields will display.
4. Enter the negative or positive adjusted quantity in the **Adjustment Qty** field. The **After Qty** will calculate and display.
5. Enter the date of the adjustment in the **Effective Date** field.
6. Enter a valid indirect adjustment account for any variance in the **Indirect Account** field. The indirect account description will display.
7. If the adjusted inventory quantity exceeds the tank capacity, the following message displays:



8. Modify quantities, as applicable.
9. Select the **SAVE** icon when complete.



Section F - Product Validations

Tech Spec Products

A technical specification code is assigned to a group of units having the same physical characteristics. Along with requiring the same parts be used to repair and to perform maintenance, all units in a technical specification group may use the same consumable products in order to function. After consumable information is set up on a technical specification and after the technical specification is assigned to a unit in the *Unit Main*, the technical specification consumable information can be transferred to the unit.

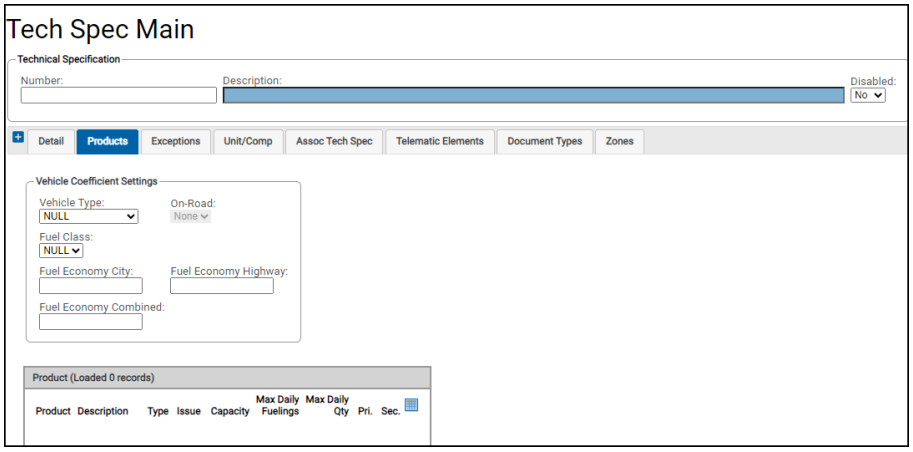
From the *Tech Spec Main* frame:

1. Enter a valid technical specification number in the **Number** field or use the **Find** button or **Binoculars** icon to perform a search. The **Description** displays.
2. Select the **Products** tab.
3. **Vehicle Type** – See the *Carbon Footprint Reporting* section for more details. The Vehicle Types are a hardcoded dropdown list (only one can be assigned to a single Tech Spec):
    - NULL
    - BUS
    - PASS_CAR
    - LIGHT_DUTY
    - HEAVY_DUTY
    - MOTORCYCLE
    - CONSTRUCTION
    - AG_EQUIP
    - OTHER_EQUIP
    - LOCOMOTIVE
    - SHIP_BOAT
    - AIRCRAFT

4. **On-Road indicator** – See the *Carbon Footprint Reporting* section for more details.

    - To determine whether a tech spec contains on-road or off-road units, a flag displays in read-only mode on the *Technical Specification* frame. This flag is set automatically based on the vehicle type chosen. The on-road flag is **Y** if the vehicle type is a passenger car, light duty, heavy duty or motorcycle. The on-road flag will be **N** for AG equipment, other equipment, locomotive, ship, boat or aircraft.
    - **Fuel Economy** class and mileage fields have also been added to the *Tech Spec Main* frame to allow comparison of actual vs. expected mileage and for estimating fuel usage where no fuel issues are available.
5. Enter **Fuel Economy City**.
6. Enter **Fuel Economy Highway**.
7. Enter **Fuel Economy Combined**.
8. Within the *Product* i-frame, select the **Product** field and enter a valid product or use the **Find** button or **Binoculars** icon to view all products. The **Description**, **Type** of fuel, and unit of **Issue** will display.
9. Enter the unit's tank capacity in the tank **Capacity** field so that the ICU can monitor the amount of fuel being dispensed and not allow this amount to be exceeded. Enter as many products as the entered unit can have.
10. Enter the **Max Daily Fuelings** the unit will be allowed.
11. Enter the **Max Daily Qty** the unit will be allowed.
    This feature can be configured as determined by System Flag 5199 - Limit the number of fueling(s)/issue quantity allowed per calendar day? (0, 1, 2).

    - If this flag is set to **0**, units and departments are not limited by the number of daily fueling(s) or daily issue quantity limits. This setting would preserve the current functionality.
    - If System Flag 5199 is set to **1**, units and departments will be limited by the number of daily fuelings allowed in one calendar day at a system wide level based on the System Flag values.
        - System Flag 5197 sets the system wide unit limit.
        - System Flag 5198 sets the department limit. No daily fuel issue quantity limits will be enforced.
        - If System Flag 5199 is set to **2** units and departments will be limited by the number of daily fuelings or daily issue quantity limits established on the product setup unit and product setup department frames. Enter as many products as the entered unit can have.
12. Select the **SAVE** icon when complete.



Product Setup Unit

The *Product Setup Unit* frame is used to associate a product with a specific unit. The product must be associated to the unit before the product can be issued to the unit.

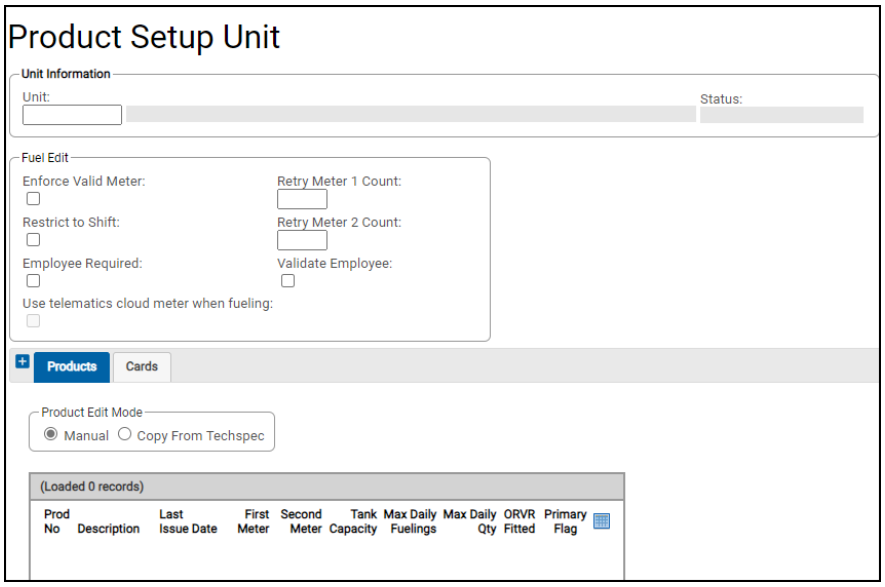
From the *Product Setup Unit* frame:

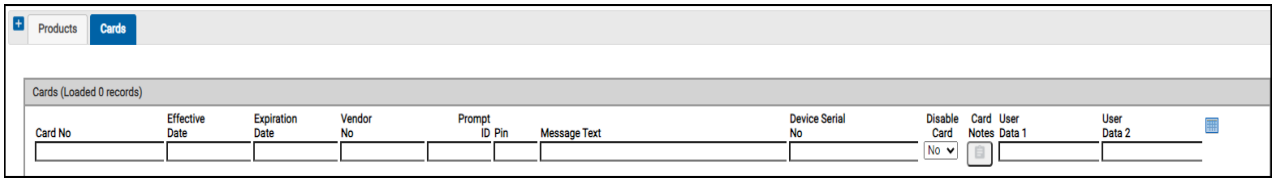
1. Enter the unit number in the **Unit** field. The unit's description and **Status** will display to the right of the unit number. A search can be performed by using the **Find** button or **Binoculars** icon.
2. In the Fuel Edit section, the user can optionally add information to require an employee ID at the time of product issue by selecting the **Employee Required** checkbox.
3. The user can restrict fueling to the unit's designated shift by selecting the **Restrict to Shift** checkbox.
4. To enforce that a meter entry follows the basic M5 meter checks, select the **Enforce Valid Meter** checkbox.
5. If you want to restrict the number of times that a meter can be entered before the tank will disallow the transaction, enter that value in the **Retry Meter Count** field.
6. If **Enforce Valid Meter** checkbox is selected the user has X amount of retries to enter a valid meter based on the number in the **Retry Meter 1 Count** field. If they do not enter a valid meter then fuel will be denied.
7. If the **Enforce Valid Meter** checkbox is clear, the user has X amount of retries to enter a valid meter based on the number in the **Retry Meter Count** field. If they do not enter a valid meter after the number of retries they will be granted authorization to fuel but the meter will not be updated.

8. The *Product Edit Mode* section indicates if this product was associated at the unit level or was copied down from the tech spec level. If this is the first time in this page for this unit and the products were entered at the tech spec level, select the **Copy from Techspec** button. By doing so, all products for the tech spec of the entered unit will copy to this area, rather than the user manually entering each and every product. If you select **Manual**, then you must enter each and every product the entered unit can have.
    a. If manually entering each product, enter the first product code in the **Prod No** field. If you do not know the products, double-click or use the **Find** button or **Binoculars** icon to view all products. Double-click on the desired product.
    b. Enter the unit's tank capacity in the **Tank Capacity** field so that the ICU can monitor the amount of fuel being dispensed and not allow this amount to be exceeded. Enter as many products as the entered unit can have.
    c. Enter the **Max Daily Fuelings** the unit will be allowed.
    d. Enter the **Max Daily Qty** the unit will be allowed.
        - This feature can be configured as determined by System Flag 5199 – Limit the number of fueling(s)/issue quantity allowed per calendar day? (0, 1, 2).
        - If this flag is set to **0**, units and departments are not limited by the number of daily fuelings or daily issue quantity limits. This setting would preserve the current functionality.
        - If System Flag 5199 is set to **1**, units and departments will be limited by the number of daily fuelings allowed in one calendar day at a system wide level based on the following module flag values.
        - System Flag 5197 sets the system wide unit limit
        - System Flag 5198 sets the department limit. No daily fuel issue quantity limits will be enforced.
        - If system flag 5199 is set to **2** units and departments will be limited by the number of daily fuelings or daily issue quantity limits established on the product setup unit and product setup department frames.
    e. **ORVR Fitted** – Indicates if the unit has an Onboard Refueling Vapor Recovery (ORVR) vehicle emission control system to capture fuel vapors from the vehicle gas tank during refueling.
    f. Select the **SAVE** icon when complete.
    g. If fuel cards are issued to the unit and you wish to track transactions against those fuel cards, select the **Cards** tab. If any of these fuel cards have already been entered in *Product Fuel Card* frame, then you do not need to enter it here.

Cards tab

1. Enter the card number in the **Card No** field.
2. Enter the date in which the card goes into effect in the **Effective Date**.
3. Enter the **Expiration Date** of the card.
4. Enter the vendor of the card in the **Vendor No** field. If you do not know the vendor number, proceed to double-click in the field or use the **Find** button or **Binoculars** icon to perform a search. If vendor is not applicable leave blank.
5. Enter the unique **Prompt ID** and **Pin** number for this card.
6. Enter **Message Text** that will display on the ICU when this card is used, as applicable.
7. Select the **Card Notes** icon if you wish to enter any pertinent notes regarding this fuel card.
8. **User Data 1** – **User Data2** fields can be entered. Each field is limited to 15 positions of data.
9. Select the **SAVE** icon to save the information.





Department Cross Validation

Department Cross Validation allows clients using FuelFocus additional validation of employees issuing fuel. This provides a cross validation of employee department assignment with unit department assignment.

The validation can include multiple levels of validation. For example:

- Unit number 1234 is assigned to department 13142.
- Employee 039775 is assigned to department 13141.
- Both department 13142 AND 13141 are under the service org code of 13103 (organization hierarchy).
- Therefore, fueling is authorized.

If no levels of hierarchy match for the employee, then fueling is denied. So that the employee`s assigned department and the unit`s using department must have the same value in any one of the four levels organizational hierarchy in M5.
This functionality is controlled by System Flag 5279 – "Deny fuel unless employee and unit hierarchies overlap?" If the flag is **Y**, then the FuelFocus dispensers deny fuel if System Flag 5077- "Employee Required Flag" is **Y** or the unit requires an employee number entry, the employee is not an ICU supervisor, and no non-blank levels of the employee's department hierarchy match any non-blank levels of the unit's using department's hierarchy.

The only exception to this functionality is fueling motor pool units. M5 will effectively ignore this logic for any unit where the billing code is a motor pool type.

Products to Departments

Product Setup Department

In order to issue fuel to a department, the department needs to have consumable information assigned to it. You can assign department consumables when the department is originally added or when department information is changed. This page is similar to the one for unit setup but does not offer meter or tech spec information. A **Tank Capacity** must be entered but all the other fields, such as Allocation, remained unused.

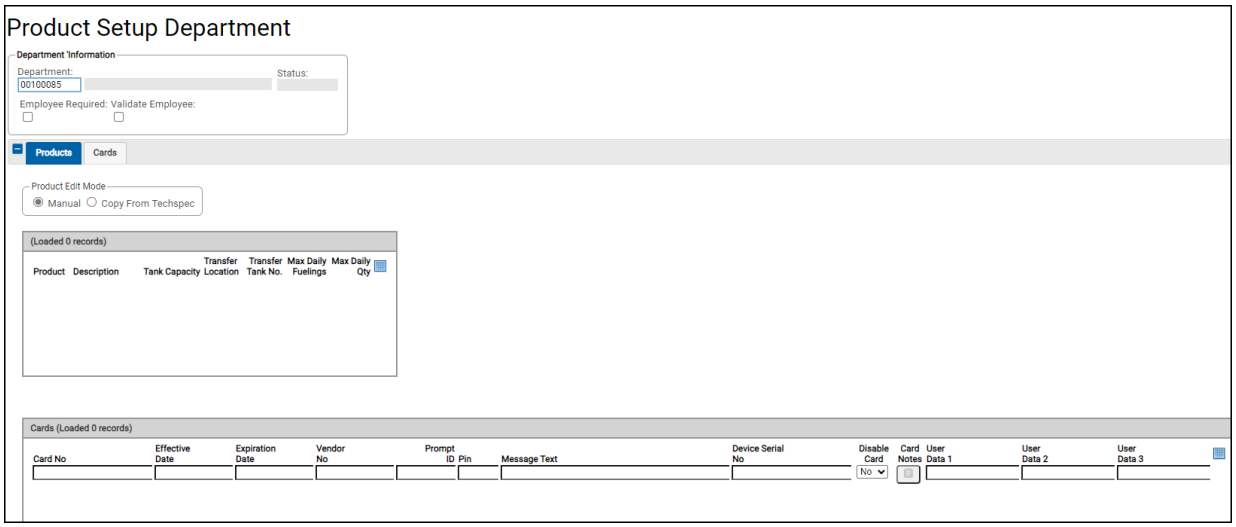
Transfer Location and **Transfer Tank No.** - When FuelFocus has an issue to this department for a product that has these two columns valued, a product transfer will be done from the issuing tank to the location and tank on the *Product Department Setup* frame. The only time this special transfer will be done is from FuelFocus ICU generated transactions.

From the *Product Setup Department* frame:

1. Enter a valid department number in the **Department** field. The description and **Status** of the department will display.
2. The **Employee Required** checkbox determines whether an employee card number is also required to obtain products.
3. Within the i-frame enter the product code this department could receive in the **Product** field. The product **Description** displays.
4. Enter the tank capacity for the entered product in the **Tank Capacity** field. This will help M5 determine how much fuel this department can receive.
5. If this department is a transfer location then enter in the **Transfer Location** the product is to be transferred to and the **Transfer Tank No.** that corresponds to the product.
6. Enter the **Max Daily Fuelings** the unit will be allowed.
7. Enter the **Max Daily Qty** the unit will be allowed. This feature can be configured determined by System Flag 5199 – "Limit the number of fueling(s)/issue quantity allowed per calendar day? (0, 1, 2)".
    - If this flag is set to 0, units and departments are not limited by the number of daily fueling(s) or daily issue quantity limits. This setting would preserve the current functionality.
    - If system flag 5199 is set to **1**, units and departments will be limited by the number of daily fueling(s) allowed in one calendar day at a system wide level based on the following module flag values. System flag 5197 sets the system wide unit limit and System Flag 5198 sets the department limit. No daily fuel issue quantity limits will be enforced.
    - If System Flag 5199 is set to **2** units and departments will be limited by the number of daily fueling(s) or daily issue quantity limits established on the product setup unit and product setup department frames.
8. Proceed to enter as many products as this department is allowed to obtain.
9. If fuel cards are issued to the department and you wish to track transactions against those fuel cards, proceed to select the **Cards** tab. If any of these fuel cards have already been entered in *Product Fuel Card* frame, then you do not need to enter it here.

Card tab

1. Enter the card number in the **Card Number** field.
2. Enter the date in which the card goes into effect in the **Effective Date**.
3. Enter the **Expiration Date** of the card.
4. Enter the vendor of the card in the **Vendor No** field. If you do not know the vendor number, proceed to double-click in the field or use the **Find** button or **Binoculars** icon to perform a search. If vendor is not applicable leave blank.
5. FuelFocus will look at the fuel card in M5 and if the **Prompt ID** contains a *1*, then the first meter is prompted for. If the **Prompt ID** contains a *2*, then the 2nd meter is prompted for. There is no validation on the actual entry at the ICU.
6. Enter a **Pin** number if you are using this feature.
7. If desired, enter a **Message Text** that will display on the ICU when this card is used.
8. Enter a **Device Serial No**.
9. Select *No* or *Yes* from the **Disable Card** dropdown.
10. Select the **Card Notes** icon if you wish to enter any pertinent notes regarding this fuel card.
11. **User Data 1**, **User Data 2**, and **User Data 3** fields can be entered. Each field is limited to 15 positions of data.
12. Select the **SAVE** icon to save the information.



Products to Employees

After the consumable products are set up, you can go back into *Product Setup Employee* and add employee product information to each employee. In order for an employee to issue consumable products to a unit, department or indirect account, the employee needs to have consumable product information set up as well as any assigned fuel card.

From the *Product Setup Employee* frame:

1. Enter an employee ID in the **Employee ID** field or select from the List of Values. The employee's **Name** and **Status** will display.
2. **Pin Management** tab. There are two sections on this tab, one for in-house fueling (**On Site Management Information**) and off-site or commercial fueling (**Commercial PIN Management Information**). If a pin is required for in-house fuel, select the **PIN Required** checkbox.
   Note: A PIN must be assigned on the **Card Information** tab before this flag can be set.
3. If the employee is an ICU supervisor, select the **ICU Supervisor** checkbox.
4. If the employee must enter a unit number to obtain fuel from an ICU, select the **Unit Number Required** checkbox.
   Note: If this is selected, then the **Unit Number** field must be entered. If this is not set, then the employee can receive fuel but the system does not post the transaction. The system tracks fuel by unit, not employee.
5. If the employee is restricted to fuel only on his shift, select the **Restricted to Shift** Checkbox.

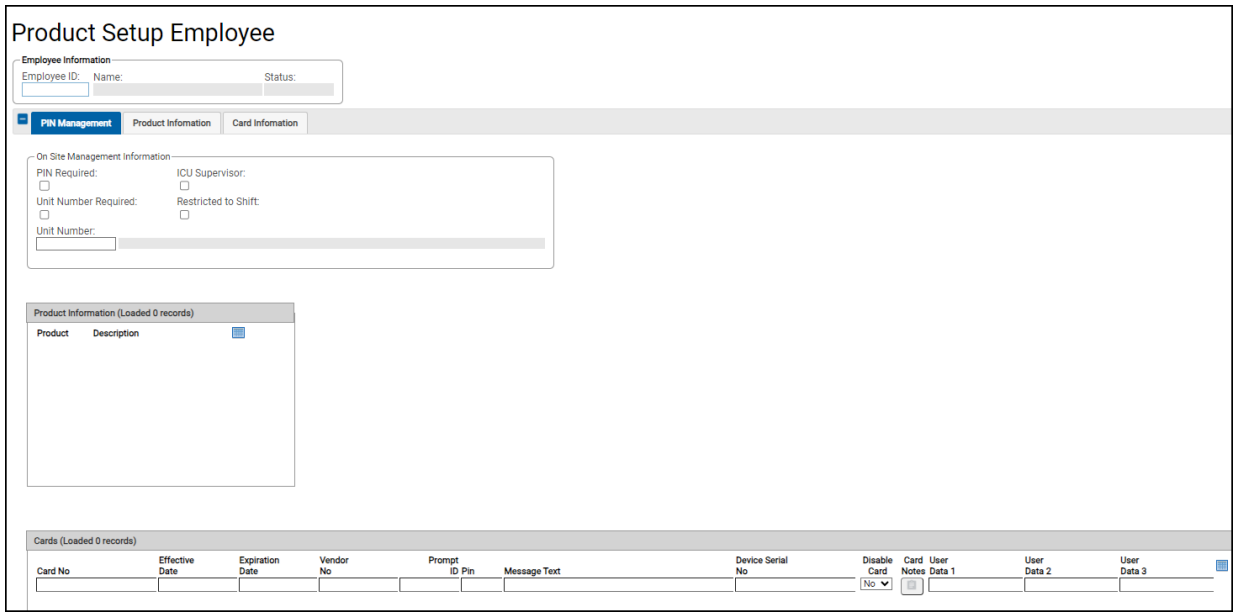
Production Information tab

1. Enter a valid product in the **Product** field or select from the List of Values (LoV). The Description displays.
2. Proceed to enter as many products as the entered employee is able to receive.
3. Select the **SAVE** button when complete.

Card Information tab

1. Enter the card number in the **Card No** field.
2. Enter the date in which the card goes into effect in the **Effective Date**.
3. Enter the **Expiration Date** of the card.
4. Enter the vendor of the card in the **Vendor No** field. If you do not know the vendor number, proceed to double-click in the field or use the **Find** button or the **Binoculars** icon to perform a search. If vendor is not applicable leave blank.
5. Enter the unique **Prompt ID** and **Pin** number for this card.
6. If desired, enter a **Message Text** that will display on the ICU when this card is used.

7. Enter the **Device Serial No**.
8. Select *No* or *Yes* from the **Disable Card** dropdown.
9. Select the **Card Notes** icon if you wish to enter any pertinent notes regarding this fuel card.
10. **User Data 1**, **User Data 2**, and **User Data 3** fields can be entered. Each field is limited to 15 positions of data.
11. Select the **SAVE** icon to save the information.

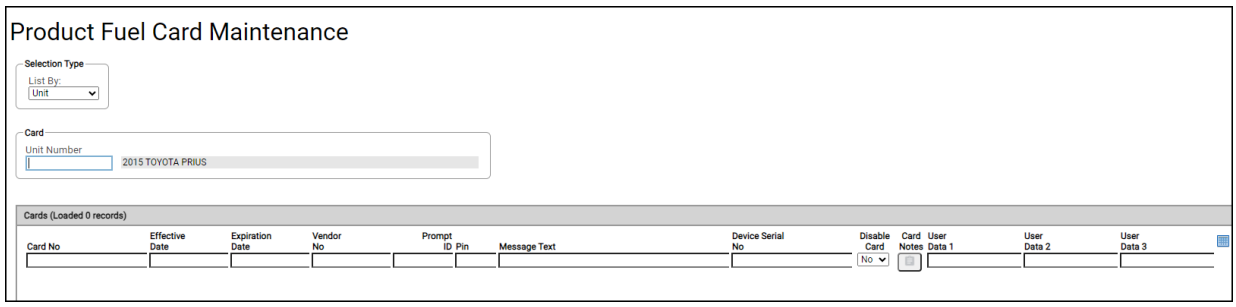


Product Fuel Cards

Fuel cards can be issued to units, departments or employees and work with the company's ICUs (Island Control Units) when fueling takes place. If fuel cards are used in any fuel interfaces and need to be valid fuel cards, then this frame is also required. Use the *Product Fuel Card Maintenance* frame to maintain information about these cards including the ability to inactivate previously issued cards. Remember fuel cards can also be created in either *Product Setup Employee*, *Product Setup Department*, or *Product Setup Unit*.

From this page, the user can assign a vendor to the card of a unit, department or employee as well as maintain the status of the card. The valid ICU parameters are also added or changed on this page as well as any additional notes pertaining to that card. Depending on the setting for System Flag 5147 determines how many fields display.

1. The *Unit* **Selection Type** is defaulted to find cards associated with a unit. Select the dropdown in the **List By** field if you wish to view cards by *Employee*, *Department* or *Card Number*. The field in the **Card** section will change accordingly.
2. Enter the **Unit Number**, **Employee Number**, **Department Number** or **Card Number** you wish to view cards for in the Unit Number field or the applicable field is displayed. Any cards associated to the entered unit, employee or department will display.
3. To disassociate or remove any card, select the **Card No** to be removed and select the **DELETE** icon. After the *SAVE* icon is selected, the card will be deleted.
4. To change the fuel vendor (if the card is only valid for one vendor), the prompt at the pump or the pin, select the appropriate field and select the **SAVE** icon.



Mass Fuel Card Update

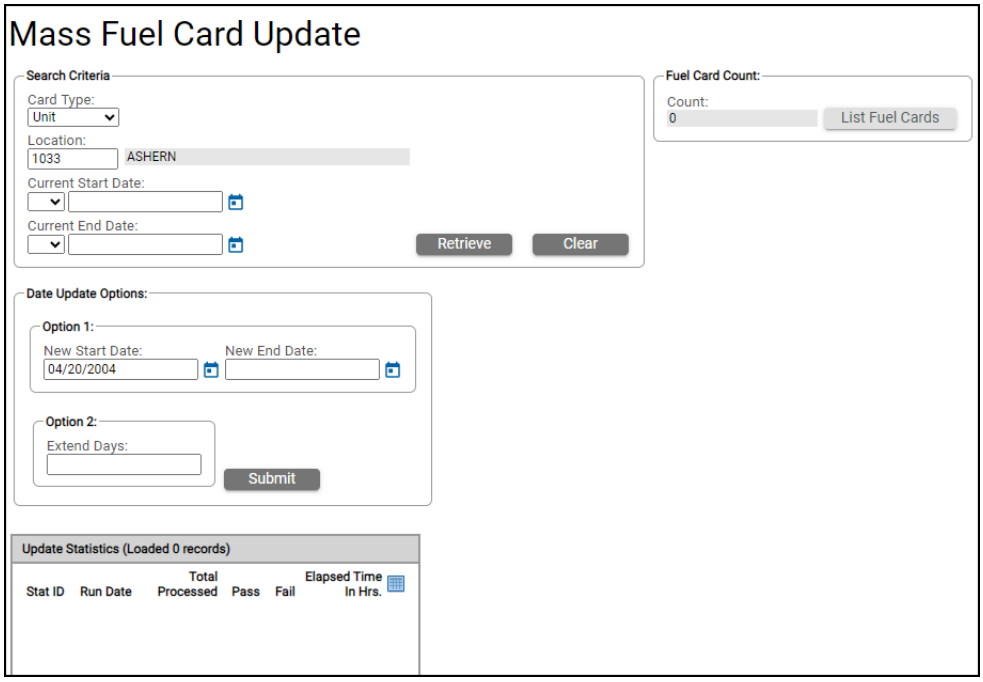
You can quickly update the expiration dates for fuel cards that will or that have expired on the *Mass Fuel Card Update* frame. The user can enter **Search Criteria** such as **Card Type** and **Location**. The user can select the **Retrieve** button, and the number of fuel cards that have been selected. The user can select the **List Fuel Cards** button to view the fuel cards that match the filter criteria entered.

There are two options for updating the fuel cards:

1. The user can enter an exact date.
2. The existing expiration date can be extended by X days in advance.

After one option is chosen and data entered then the user can select the **Submit** button which will run a batch process to update the expiration dates. When the process is running the entire frame will be read-only and cannot be modified until the batch process is complete.

The batch run will create a statistic row which will show in the *Update Statistics* i-frame. If records failed for any reason, the number will be tallied and a hyperlink will display. The hyperlink, when selected, will launch the *Mass Fuel Card Update Reject L*ist frame where the record can be corrected and resubmitted.



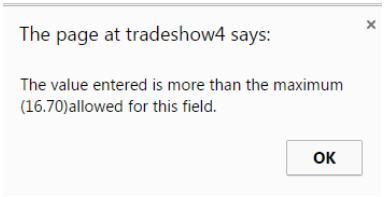
Section G - Product Issues

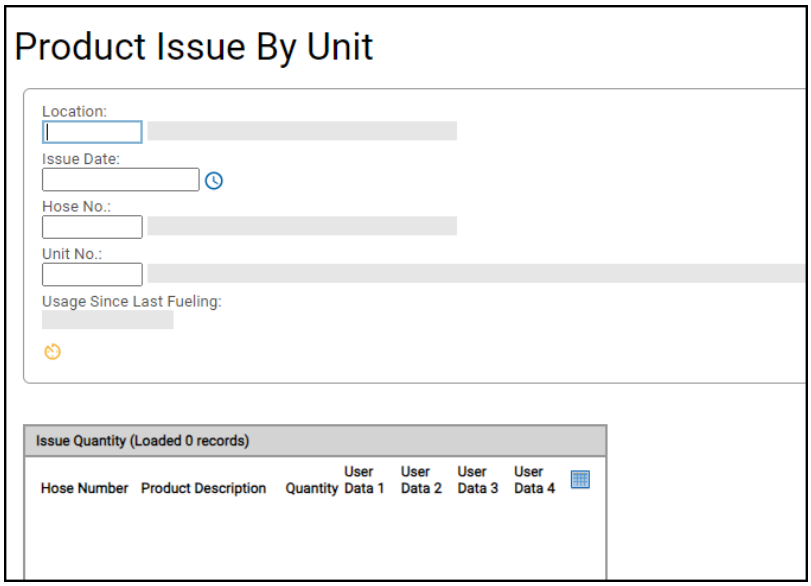
Product Issue By Unit

The *Product Issue By Unit* frame is used to issue in-house fuel to a particular unit.

From the *Product Issue By Unit* frame:

1. Enter the location in which the unit received fuel in the **Location** field.
2. Enter the date the unit received the fuel in the **Issue Date** field. The current date and time will default.
3. Enter the **Hose No.** that the unit received fuel from.
4. Enter the unit number of the unit that received the fuel in the **Unit No.** field.
5. The current odometer **Reading** will display allowing the user to update the odometer. Using the bubble help, the user can view when the last reading was taken. The usual M5 meter checks will apply and if you have the privilege to override meters, the box to override will display.
6. Any products that the unit can receive will display in the table field area.
7. Enter the quantity received in the **Quantity** field and then select the **SAVE** icon. If you try to issue more than you have on-hand, the following message displays:





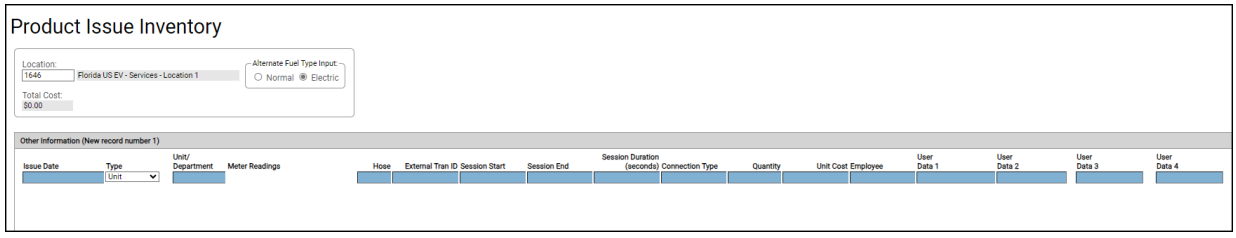
Product Issue Inventory

Charging an In-House Product to multiple Units/Departments

The *Product Issue Inventory* frame is used to enter product issues to one or more units or departments.

From the *Product Issue Inventory* frame:

1. Enter a valid fuel **Location** or use the **Find** button or **Binoculars** icon to perform a search. The description displays.
2. In the **Alternate Fuel Type** Input, select *Normal* or *Electric*.
3. Enter the date the product was issued in the **Issue Date** field.
4. M5 defaults to assuming that the fuel is dispensed to a unit, but if not, select the dropdown in the **Type** field and select *Department*.
5. Enter a valid **Unit/Department** based on the **Type**. If needed, double-click or use the **Find** button or **Binoculars** to perform the appropriate search.
6. If issuing fuel to a unit, enter the meter reading, in the **Meter Readings** field, at the time of issue.
7. Enter the hose in which the fuel was dispensed at the entered location in the **Hose** field. The current unit cost will display.
8. Enter the quantity of fuel issued in the **Quantity** field.
9. Enter the employee receiving the fuel in the **Employee** field.
10. Depending on how System Flag 2016 is set, the following information can be entered: **License**, **Driver**, **Card Number**.
11. Continue to enter as many issues as needed.
12. Select the **SAVE** icon when complete. If no fuel cost displays on the *Product Location Main* frame for the entered product, this means that the inventory location has not yet received any fuel.



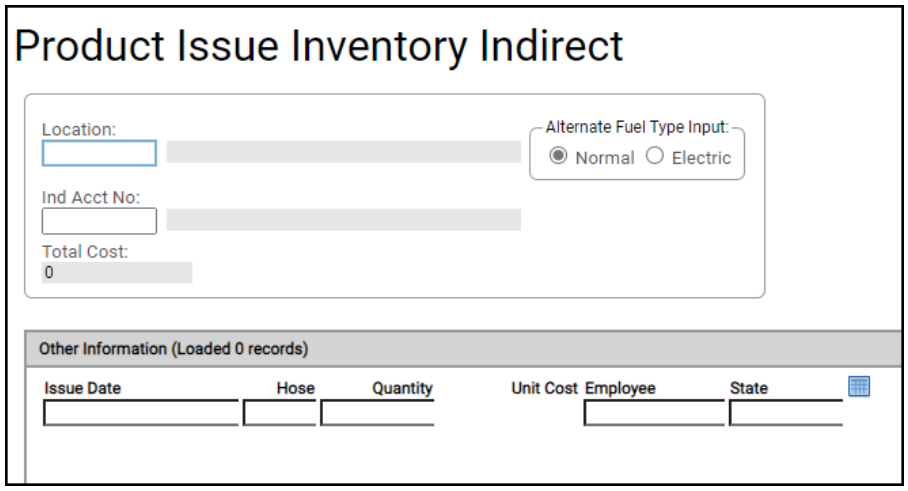
Product Issue Inventory Indirect

Charging an In-House Product to an Indirect Account

The *Product Issue Inventory Indirect* frame is used to record all issues to an Indirect Account from inventoried fuel or products. Many organizations make blanket issues to an Indirect Account without detailing the units which actually received the fuel. The Indirect Account must be previously established in M5 before record of the transactions can be made.

From the *Product Issue Inventory Indirect* frame:

1. Enter a valid fuel **Location** or use the **Find** button or **Binoculars** icon to perform a search. The description displays.
2. In the **Alternate Fuel Type** Input, select *Normal* or *Electric*.
3. Enter a valid indirect account number to charge the product to in the **Ind Acct No** field. If needed, double-click or use the **Find** button or **Binoculars** icon to perform a search. The description displays.
4. Enter the date the product was dispensed in the **Issue Date** field. The current date will display automatically.
5. Enter the hose of the product that was dispensed in the **Hose** field. A search can be performed to view the applicable hoses for any products at the entered location. The **Unit Cost** will automatically display.
6. Enter the quantity of fuel issued in the **Quantity** field. The **Total Cost** will update accordingly.
7. Enter the **Employee** who received the product, if required.
8. Select the **SAVE** icon when complete.



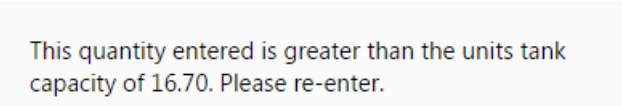
Product Issue Vendor

Charging a Commercial Product to a Unit/Department

The *Product Issue Vendor frame* is used to track commercial fuel issues that are not otherwise entered by using a fuel interface.

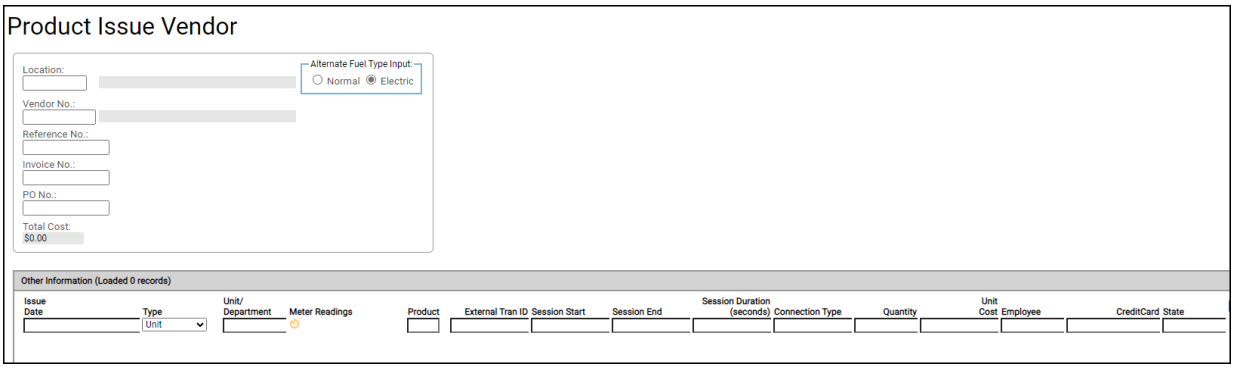
From the *Product Issue Vendor* frame:

1. Enter a valid fuel **Location** or use the **Find** button or **Binoculars** icon to perform a search. The description displays.
2. In the **Alternate Fuel Type** Input, select *Normal* or *Electric*.
3. Enter the vendor that dispensed the fuel in the **Vendor No.** field. If needed, either double-click or use the **Find** button or **Binoculars** icon to perform a search. The vendor's name displays.
4. At least one of the following fields must be entered, **PO No.**, **Reference No.** or **Invoice No.**
5. Enter the date the product was dispensed in the **Issue Date** field. The current date will display automatically.
6. Select *Unit* or *Department* from the **Type** dropdown.
7. Based on the **Type** selected, enter a valid **Unit/Department** or perform a search.
8. If a unit received fuel, then enter the **Meter Readings** at the time of issuance. The normal meter checks are performed.
9. Enter the product that was dispensed in the **Product** field. A search can be performed to view the applicable products at the entered location for the entered unit.
10. Enter the quantity of fuel issued in the **Quantity** field. If the quantity entered is more than the unit's tank capacity, a message similar to the one below will display.



11. Select **OK** to continue and reenter the **Quantity**.
12. Enter the fuel cost per unit of issue in the **Unit Cost** field. The **Total Cost** updates automatically, including any applicable tax.
13. Enter a valid **Employee** if required.
14. Depending on how System Flag 2016 is set, the following information can be entered: **License**, **Driver**, **Card Number**, or **State**.
15. Select the **SAVE** icon when complete.

When you select *Electric* as the **Alternate Fuel Type Input**, additional fields **External Tran ID**, **Session Start**, **Session End**, **Session Duration (seconds)**, and **Connection Type** display.



Product Issue Vendor Indirect

Charging a Commercial Product to an Indirect Account

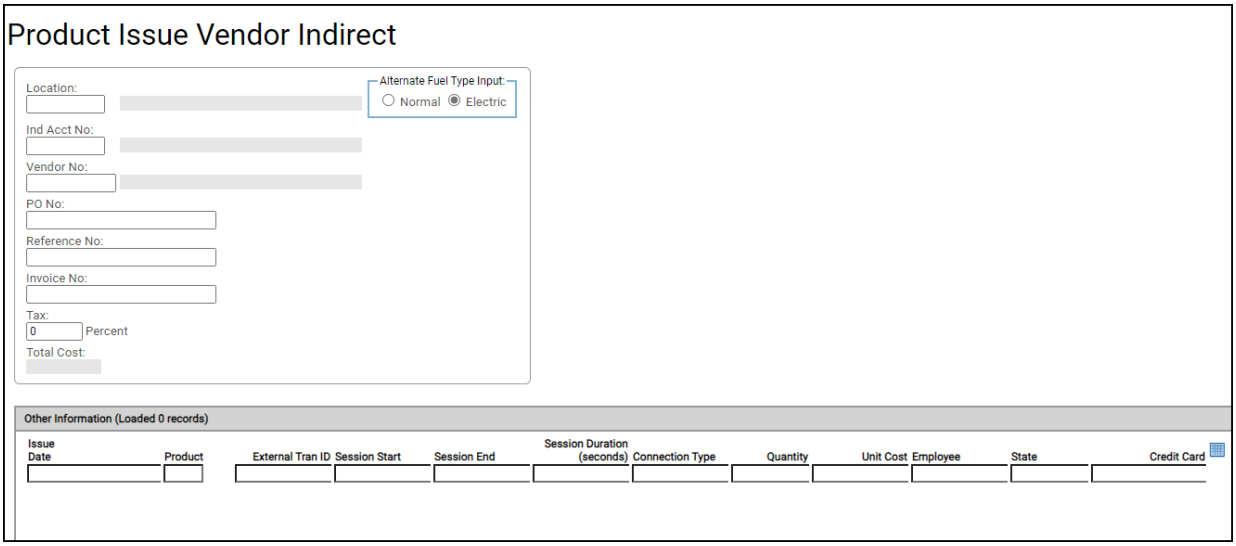
The *Product Issue Vendor Indirect* frame is used to record all fuel issues from an outside vendor to an indirect account. Often a company will receive a single invoice for all fuel transactions from a vendor to be applied to a single indirect account. The indirect account must be previously established in M5 before transactions can be reported against it.

From the *Product Issue Vendor Indirect* frame:

1. Enter a valid fuel **Location** or use the **Find** button or **Binoculars** icon to perform a search. The description displays.
2. In the **Alternate Fuel Type** Input, select *Normal* or *Electric*.
3. Enter a valid indirect account number to charge the product to in the **Ind Acct No** field. If needed, either double-click or use the **Find** button or **Binoculars** icon to perform a search. The description displays.
4. Enter the **Vendor No** of the vendor dispensing the product. A search can be performed. The vendor's name will display.
5. At least one of the following fields must be entered, **PO No**, **Reference No** or **Invoice No**.
6. If there is tax, enter the percentage of tax in the **Tax Percent** field.
7. Enter the date the product was dispensed in the **Issue Date** field. The current date will display automatically.
8. Enter the product that was dispensed in the **Product** field. A search can be performed to view the applicable products at the entered location.
9. Enter the quantity of fuel issued in the **Quantity** field.

10. Enter the fuel cost per unit of issue in the **Unit Cost** field. The **Total Cost** field updates automatically, including any applicable tax.
11. Enter the **Employee** who received the product, if required.
12. Depending on how System Flag 2016 is set, the following information can be entered: **License**, **Driver**, **Credit Card** or **State**.
13. Select the **SAVE** icon when complete.

When you select *Electric* as the **Alternate Fuel Type Input**, additional fields **External Tran ID**, **Session Start**, **Session End**, **Session Duration (seconds)**, and **Connection Type** display.

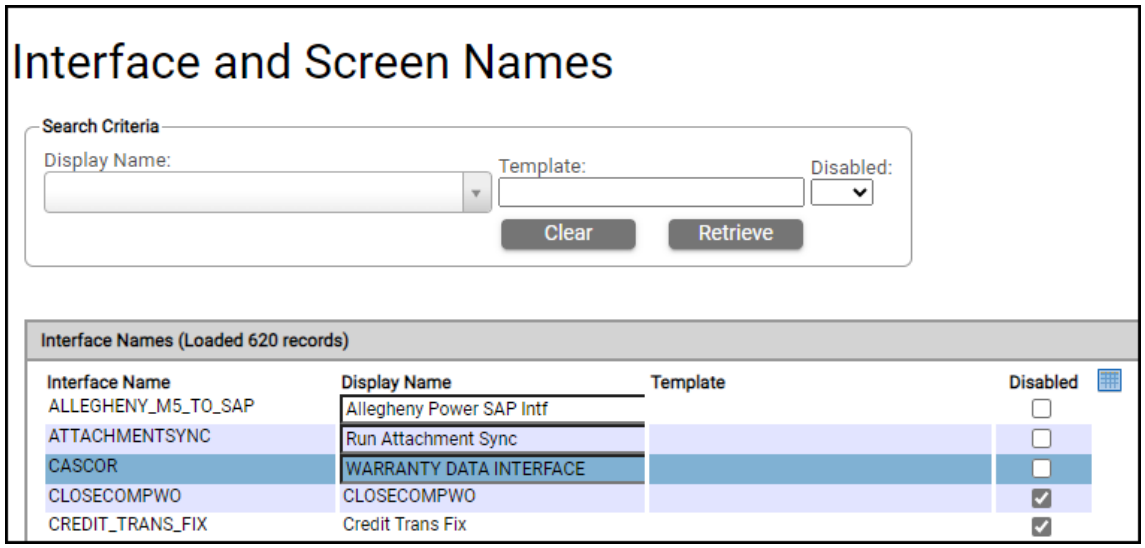


Section H - Fuel Interfaces

Setup For Fuel Interfaces

If a fuel interface has been developed for a customer, the interface name and description needs to be entered on the *Interface and Screens Names* frame.

Most likely a script has been run as part of the interface package and the interface will already be seen in this page. However, if you ever wish to disable the interface, you will need to do that here.



Executing the Fuel Interface

The *Interface Manager* frame is used to schedule the product interface to be run as well as specify the interface parameters to be used by the program. These parameters will come with the interface package.

From the **Interface** dropdown, select the fuel interface to be scheduled to be run. The interfaces displayed will be those as seen on the *Interface and Screen Names* frame.

Generally there are three primary interface parameters that setup:

1. **Input File Path** – Specifies where the program will find the product datafile to be processed.
2. **Output File Path** – Specifies where the program will write the process product data file to be processed.
3. **Email** - Indicates the person to receive the emails generated from the interface process. There are two:

    i. For each data file that is processed an email is generated.

    Sample:

    From: M5-GAS-BOY-INTFmanager@AssetWorks..com
    Sent: Wednesday, November x, 20xx 1:51 PM
    To: JCOFFIN@METROSTLOUIS.ORG
    Subject: M5-GAS-BOY-INTF Interface Status

    M5-GAS-BOY-INTF Interface Finished Successfully.
    Data Processing Complete for file rawtrans_M51021.dat. There were 585 Records, and 98 errors detected.

    ii. The second email indicates how many files were processed, total number of records, and number of errors detected.

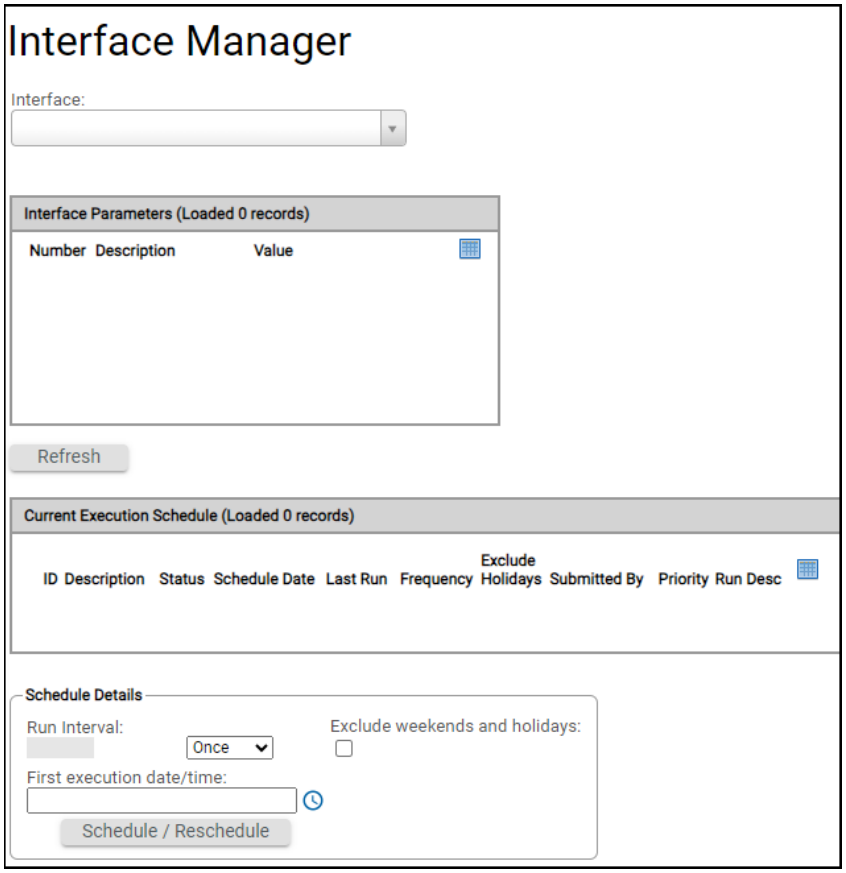
    Sample:

    From: M5-GAS-BOY-INTFmanager@AssetWorks..com
    Sent: Wednesday, November x, 20xx 1:51 PM
    To: JCOFFIN@METROSTLOUIS.ORG
    Subject: M5-GAS-BOY-INTF Interface Status
    M5-GAS-BOY-INTF Interface Finished Successfully.

Data Processing Complete. Processed 1 file(s), with 585 Total Records, and 98 errors detected. Navigate to the M5 Fuel Issue Reject screen to view invalid transactions.

After the values are entered for the required parameters, scroll down to select when to start the interface.

To run this one time, select the **First execution date/time** field and use the **Calendar** icon to select when you would like the interface to begin. Then select the **Schedule/Reschedule** button. You will then see the interface and status of the batch process in the *Current Execution Schedule* section. Select **REFRESH**, as applicable.



Product Rejected Issues

Product transactions that fail the validation process for both in-house and fuel interfaces can be deleted, corrected and resubmitted.

In-house fuel rejected transactions use the *Product Rejected Issues* frame. Entries will remain here until they are deleted or resubmitted successfully.

Custom fuel interfaces written after July 2007 generally use *the Interface Reject Manager* to process rejected transactions.

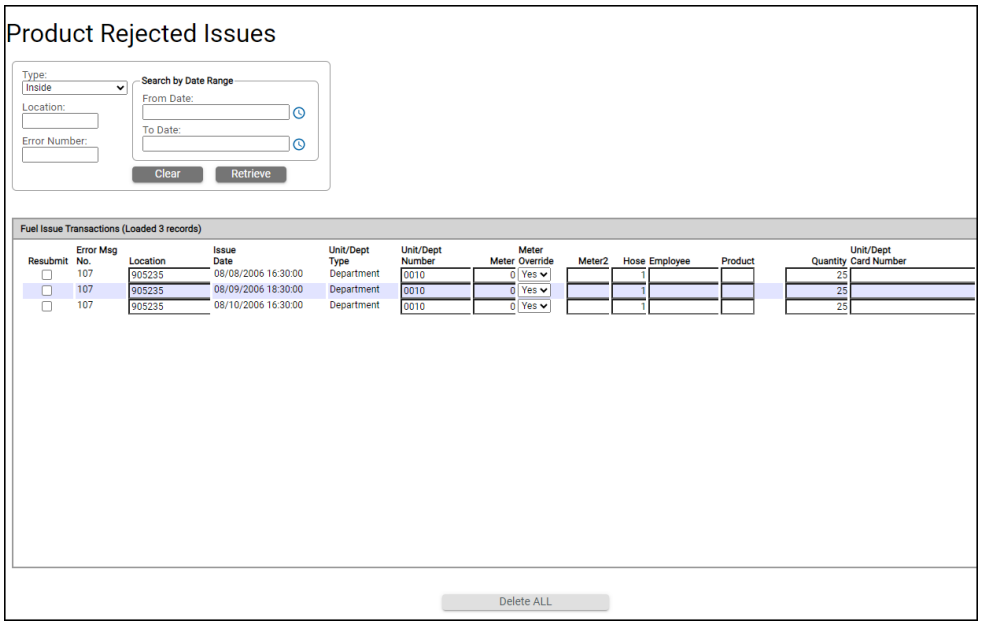
To make corrections:

1. From the **Type** dropdown select the type of fuel transaction; *Inside*, Commercial, *Fuel Focus Transfers*.
2. Enter the fueling **Location** or use the **Find** button or **Binoculars** icon to perform a search.
3. To select rejected transactions by error number, enter a valid **Error Number** or use the **Find** button or **Binoculars** icon to view the list of values (LoV).
4. Enter the starting and ending dates for the rejected transactions by using the **From Date** and **To Date** fields.
5. Select the **Retrieve** button to display the rejected fuel issue transactions.

You can hover the mouse over the fields to display additional information. Especially hover over the **Error Msg No.** to view the error.

i. To correct a single record and resubmit, highlight the row to be corrected and make the necessary changes. Any field that is white can be changed. Select the **Resubmit** checkbox when you are ready to try passing the record to M5.
ii. To delete a single record, select the row, then select the **DELETE ALL** button. The row highlights in red and then select the **SAVE** icon to continue to delete it. Select the **UNDO** icon if you do not wish to delete it.

Data can be corrected on this frame and saved. It can then be resubmitted at a later time.



Interface Reject Manager

Custom fuel interfaces written after July 2007 generally use the *Interface Reject Manager* frame to process rejected transactions. Custom fuel interfaces written using the *Product Rejected Issues* frame can be rewritten to use the *Interface Reject Manager*. Please contact your Project Manager for additional details.

To make corrections from the *Interface Reject Manager* frame:

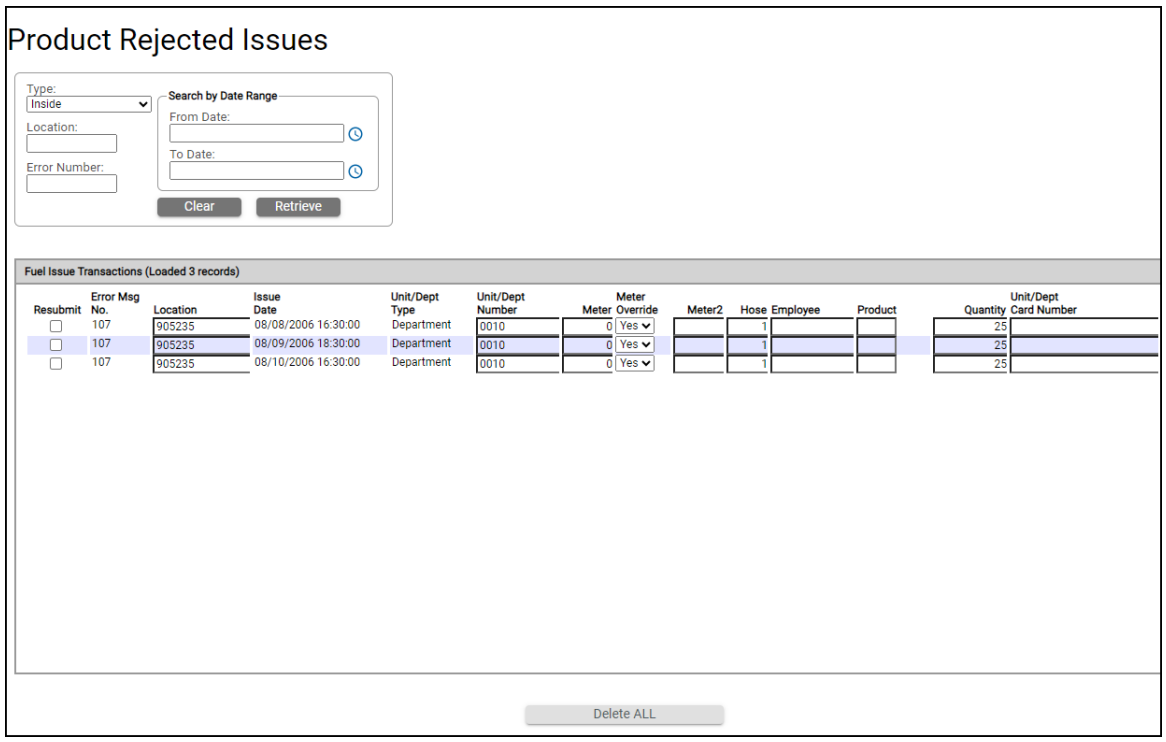
1. Use the **Interface** dropdown menu to select the fuel interface.
2. In the *Interface Statistics* section select the Interface transactions that are to be corrected by selecting the **Stat ID**. The *Filter Assistance* section appears.
3. Use the *Filter Assistance* section to select the transactions to be corrected if desired. The **Field** filters include *Location*, *Error Number*, *Invoice Number*, *Ref Number*, *Product Number*, and *Vendor Number*.
4. Select the **Search** Button.

You can hover the mouse over the fields to display additional information. Especially hover over the **Error Msg No** to view the error.

i. To correct a single record and resubmit, highlight the row to be corrected and make the necessary changes. Any field that is white can be changed. Select the **Resubmit** checkbox when you are ready to try passing the record to M5.

ii. To delete a single record, select the row, then select the **DELETE** icon. The row highlights in red and then select the **SAVE** icon to continue to delete it. Select the **UNDO** icon if you do not wish to delete it.

Data can be corrected on this frame and saved. It can then be resubmitted at a later time.
Sometimes the fuel interface is run the second time before the original transactions can be corrected. The error message for duplicate transactions is *214*. To delete all the duplicate transactions, select the **214** icon at the top of the frame.



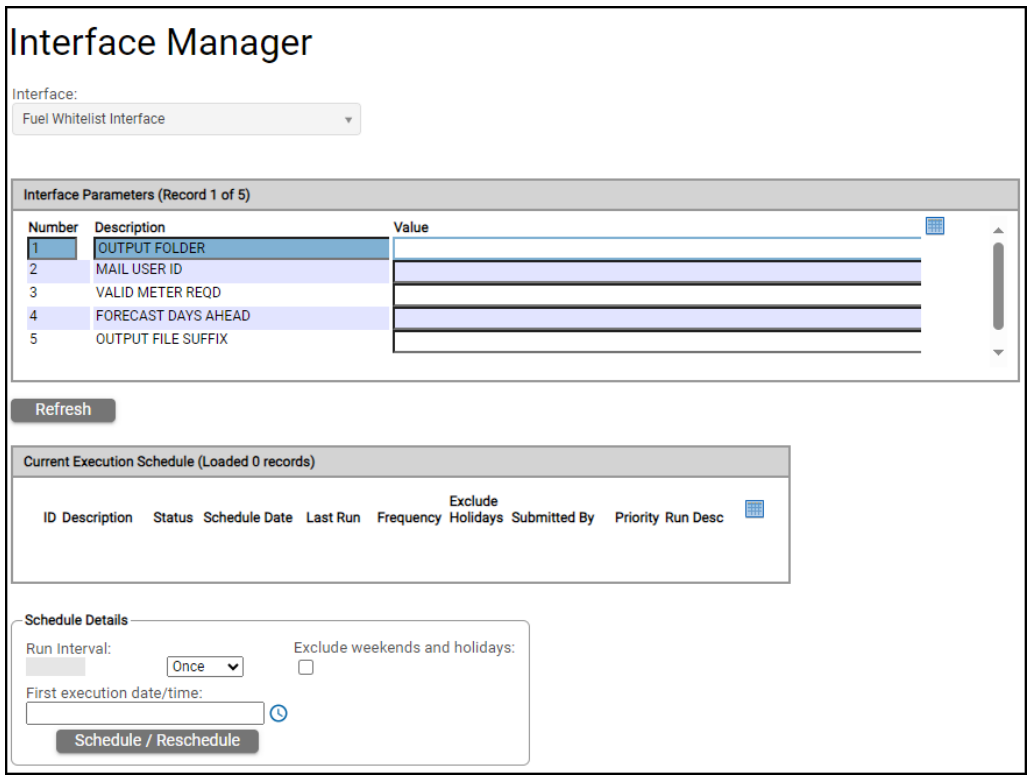
White List Batch Process

For the real time ICU processing, this batch process creates a text file used by the ICU if communication between the ICU and the server is down. The ICU will use this list to validate unit number, employee, mileage, types of products and capacities if it cannot communicate with the server.

From the *Interface Manager* frame:

1. Select the *FuelFocus White List* in the **Interface** field.
2. **OUTPUT FOLDER** - If this has a value that is used by the whitelistcreation program. If it is not, the *Environment Variable* value is used**.**
3. Enter in a valid email address in the *MAIL USER ID* **Value** field. This is the person who will receive the email about the completion of the Fuel Whitelist batch process.
4. **VALID METER REQD** – If you enforce valid meters when online you can opt to not enforce them when the whitelist functionality is being used. This would prevent the issue with stale or out of date meters being denied fueling. Leave it blank if you want to continue to enforce valid meters even when fueling from the whitelist.
5. **FORECAST DAYS AHEAD** – Normally, the whitelist process calculates the meter ranges for the Whitelist based on the date and time the process is run. The new parameter will say calculate the range based on the current date and time (of the Whitelist creation) plus the number of days in the parameter. This is handy when you know there will be a longer outage between whitelist updates to the ICU.
6. **OUTPUT FILE SUFFIX** - A parameter to allow the client to put a suffix on the name of the output file. Allow a suffix (such as SP) so the new name would be whitelistSP.txt.
7. Select the *Run Interval* by opening the dropdown box. It is recommended to run this daily. Options are *Once*, *Minutes*, *Hours*, *Days*, *Months*.
8. If you do not want this to run on weekends and holidays, select the **Exclude weekends and holidays** checkbox.
9. Enter the **First execution date/time** you want to schedule this batch process to run.
10. Select the **Schedule/Reschedule** button.

A future enhancement to FuelFocus will support a one-time fueling feature for employees that lost cards. Currently, the employee card number is either required (Y) or not (null). To prepare for this enhancement the whitelist program now has a 3rd value of P that says to prompt for it but do not validate it.



Section I - Product Billing

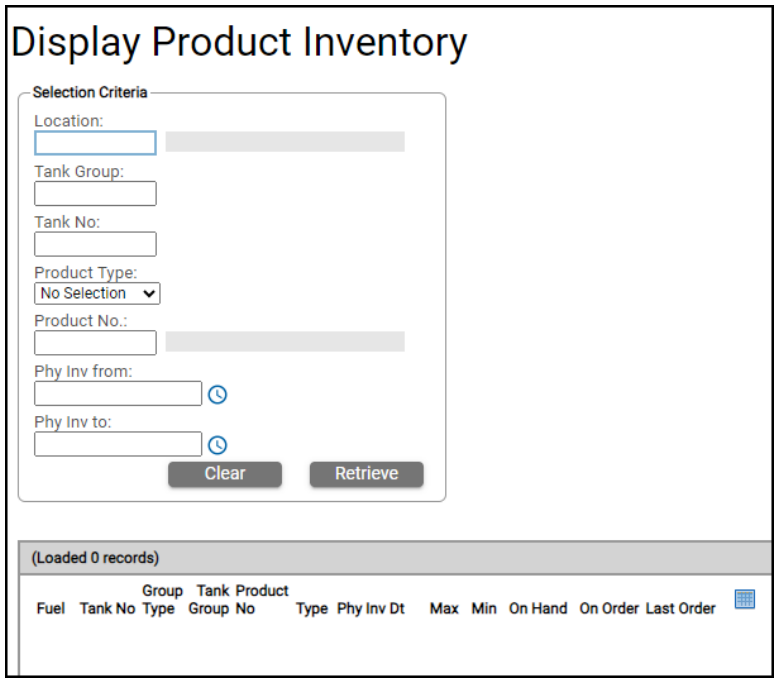
M5 Product Billing is very comprehensive. Billing is configured based on the organization's goals. A billing workshop will be conducted to help the customer identify what and who will be billed.

Section J - Product Display/Reports

Displays

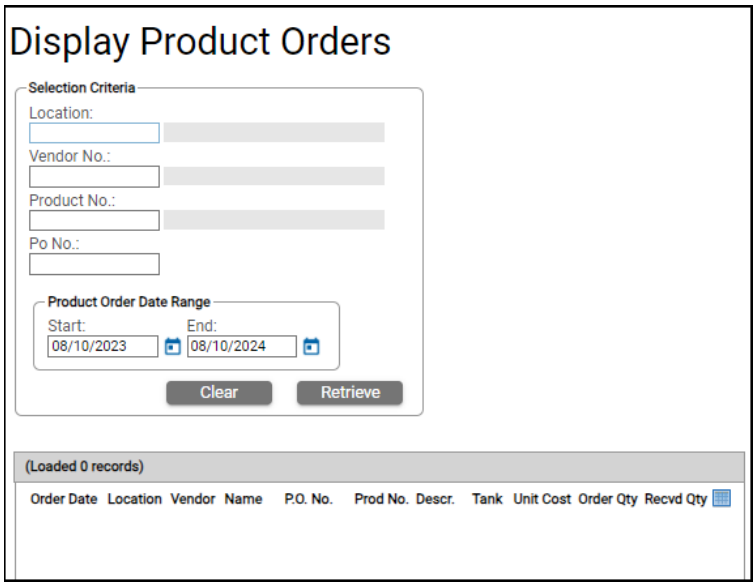
Display Product Inventory

The *Display Product Inventory* frame allows you to see all products at each location according to the **Selection Criteria** you enter. This information includes *Tank* group and number, *Product Type*, *Physical Inventory Date*, *On Hand Qty*, *On Order Qty* and *Last Order* date.



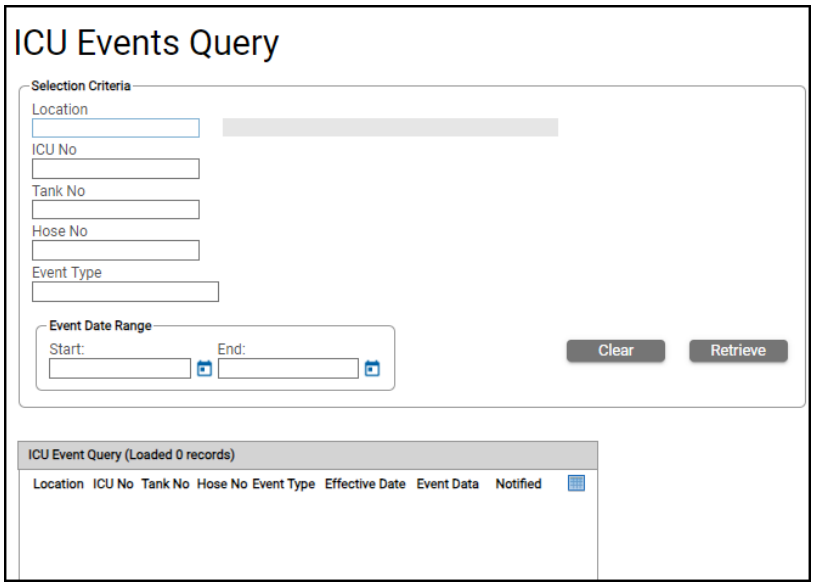
Display Product Orders

The *Display Product Orders* frame allows you to see what products have been ordered and at what location. Additionally, it includes **Vendor** number, **P.O.** number, **Tank**, **Unit Cost**, **Order Qty** and **Received Qty**.



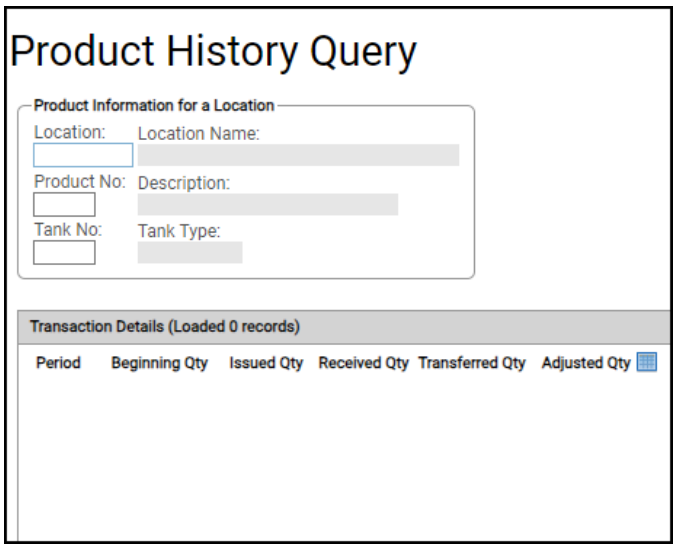
ICU Events Query

The *ICU Events Query* frame offers a detailed list of events that have occurred at the ICU. The selection criteria allows you to search by location or all locations, specific type of event and by date.



Product History Query

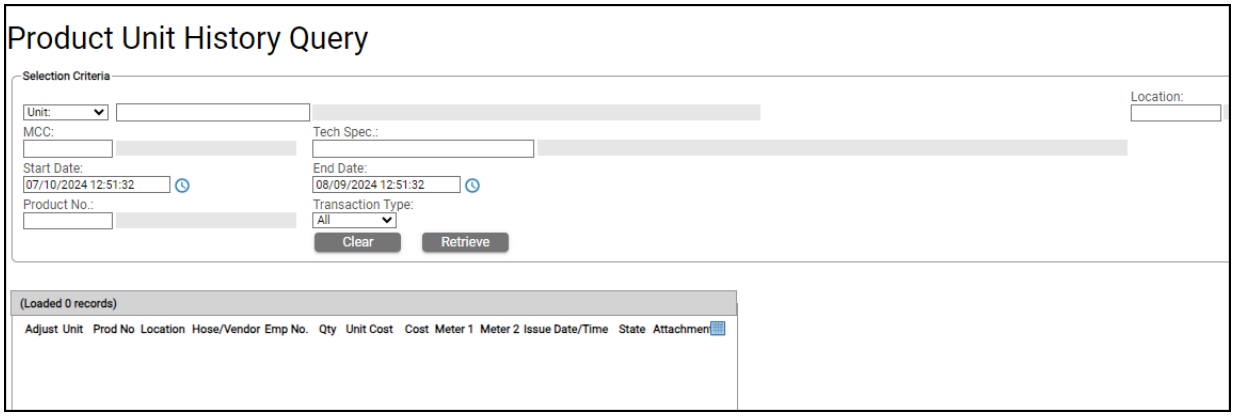
The *Product History Query* frame offers a detailed list by period of all receipts, total issues and adjustment made against a specific product and tank. Users can refer to this list periodically to check for inconsistent amounts due to keypunch error. This frame is also valuable in offering a cursory glance at location consumption during a given period.



Product Unit History Query

The *Product Unit History Query* is a frame that displays the units, products, hoses, employee and issue date and time for a given unit, location and product for a specified date range.

The selection criteria includes: **Unit** or **Department** number, **Location**, **MCC**, **Tech Spec**, **Start** and **End** date/time, **Product** number, and **Transaction Type**.



Reports

Here is the current list of Fuel Reports. Please see the *M5 Fuel Reports Guide* for a sample of each report and a fuel description.

- Product Issue Journal
- Product Receipt Journal
- Product Transfer Journal
- Product Commercial Issue Journal
- Product Orders
- Product Issue Summary
- Product Sticking
- Product Transaction Journal
- Product Issue Transactions 2
- Product Unit Summary
  Product
- Stick Reconciliation Product
- Book Reconciliation Product
- Receipt History Product Unit
- UPQ
- Product UPQ History
- Unit Product Configuration
- Unit Product History

Carbon Foot Printing Reports

- Greenhouse Emission Trend
- Greenhouse Emission by Type

Section K – Carbon Footprint Reporting

Climate change and the potential impacts of global warming have focused attention on the production of carbon dioxide (CO2) and other greenhouse gases (GHG). As policy makers focus on ways to reduce the emission of GHG, governments and industry are being pushed to begin reporting on their own production of GHG related to their consumption of fossil fuels.

Greenhouse gases Carbon Dioxide (CO2), Methane (CH4) and Nitrous Oxide (N2O) are emitted directly by the burning of fossil fuels. Additionally, the fluorocarbon greenhouse gases: Hydrofluorocarbon (HFC) and perfluorocarbon (PFC) are emitted from leaks in air condition and refrigeration systems. The predominate GHG is CO2, which accounts for nearly 95% - 98% of all GHG emissions from fossil fuels. Gasoline powered automobiles alone produce twenty percent (20%) of the US CO2 emissions.

For non-manufacturing fleets, the primary source of GHG emissions will come from the fuel consumed by the fleet. Agriculture, mining, manufacturing and utility fleets that generate GHG through other sources also have an interest in tracking the fleet generated emissions to facilitate trading in carbon credits based on overall corporate GHG outputs. Therefore, FleetFocus M5 now has the ability to analyze the fuel consumption information captured in the database and has the ability to report on the amount of GHG produced by fleet operations.

In order to support our client's efforts to provide emissions reporting based on federal regulations, several enhancements were implemented in M5.

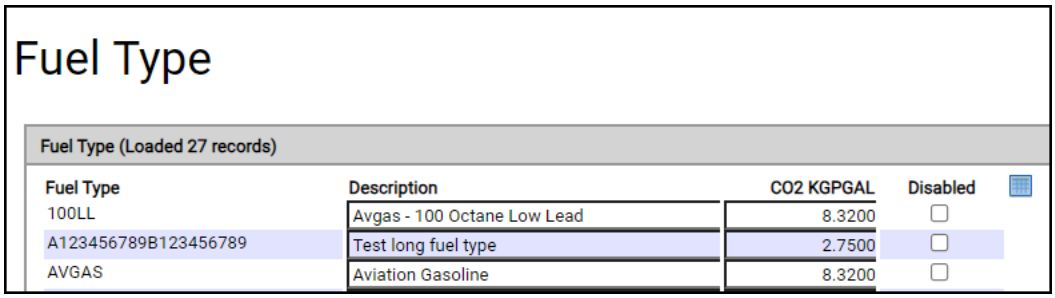
Fuel Type

The *Fuel Type* frame is used to enter each valid fuel type code, description and CO2 KGPGAL (carbon output). The **Fuel Type** field has been added to *Product Main* so it can be associated to a product. This field is made active if the user sets the **Product Type** equal to *FUEL*. The new fuel type field is not required.

1. **Fuel Type** – In a blank row, enter a fuel type code.
2. **Description** – Enter a description for the fuel type.
3. **CO2 KGPGAL** – Enter the CO2 KGPGAL (carbon output).
4. Select the **SAVE** icon when complete.
5. A fuel type may be disabled by selecting the **Disabled** checkbox and then selecting the **SAVE** button.

Calculating CO2 emissions only requires knowing the amount of fuel consumed. Calculating N2O and CH4 requires also knowing the vehicle type, if its on-road or off- road, emission control technology and the fuel type.

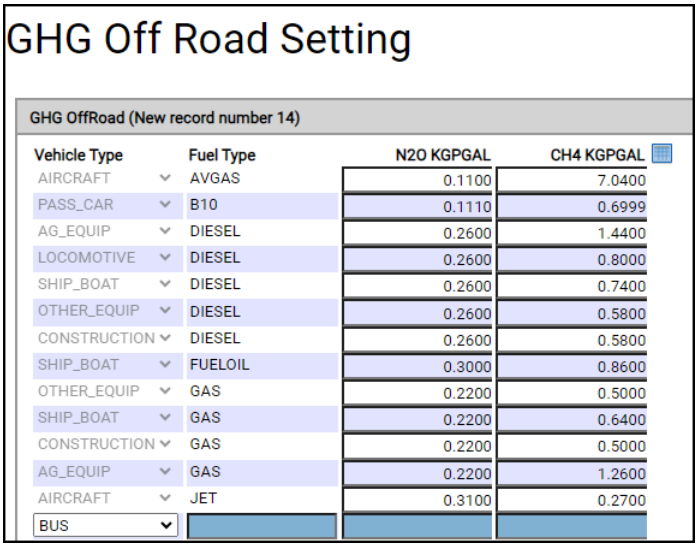
To assign the coefficient, new fields have been added to the *Technical Specification* frame to determine the vehicle type and emission technology. Fuel Economy class and mileage fields have also been added to the *Technical Specification* frame to allow comparison of actual vs. expected mileage and for estimating fuel usage where no fuel issues are available.



GHG Off Road

Because of the variability in coefficient values due to the vehicle type and fuel type, separate columns in the table will be created to capture N2O and CH4 coefficients. Additionally, because of differences between On-Road and Off-road calculations, separate tables will be needed to handle both.
The Off-Road calculation is based on the number of gallons times the kilograms per gallon coefficient for the vehicle and fuel type combination.

1. Select the **Vehicle Type** from the dropdown.
2. Enter the **Fuel Type**.
3. Enter the Nitrous Oxide - **N20 KGPGAL**.
4. Enter the Carbon Dioxide - **CH4 KGPGAL**.
5. Select the **SAVE** icon when complete.

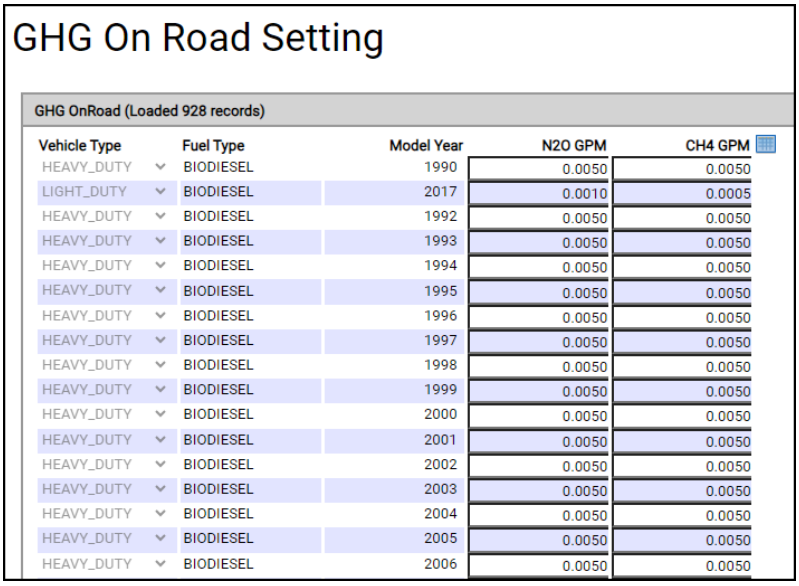


GHG On-Road

Because of the variability in coefficient values due to the vehicle type and fuel type, separate columns in the table will be created to capture N2O and CH4 coefficients.

The On-Road calculation is based on the number of miles traveled times the grams per mile coefficient for the **Vehicle Type**, **Fuel Type**, and **Model Year** combination.

1. Select the **Vehicle Type** from the dropdown.
2. Enter the **Fuel Type**.
3. Enter the **Model Year**.
4. Enter the Nitrous Oxide - **N20 GPM**.
5. Enter the Carbon Dioxide - **CH4 GPM**.
6. Select the **SAVE** icon when complete.



Updates

Release	Section	Description
23.1	ICU “Health” Checks	Added new ICU Tank Leak Test Query frame.
23.2	All sections	Applied miscellaneous writing style updates throughout the document.
24.3	ICU Events Query Notifications	Added ICU Events Query section. Added new notifications: • Sensor Alarm • System Alarm
24.3	Product Setup Tanks	Added a Note for Tank Number entry.
24.3	Section A – General FuelFocus Configuration	Added a Note for AssetWorks GPS configuration.