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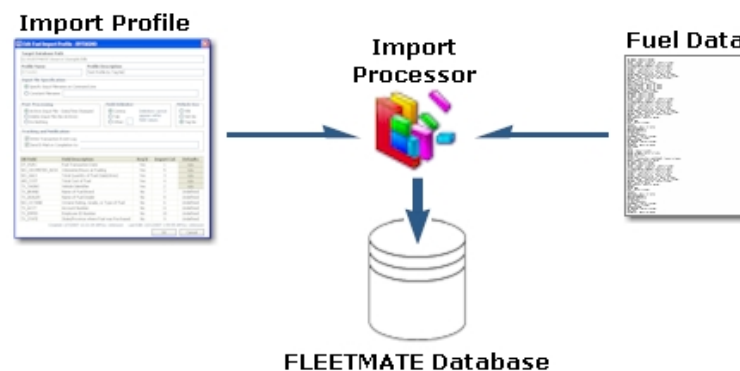
## CUSTOMER GUIDE: Fuel Import Manager

### Overview

The FLEETMATE Fuel Import Manager option is designed to simplify the process of importing fuel data from a fuel card vendor, into your FLEETMATE database. You can define a profile for each fuel provider. Each profile will contain the information necessary to map your fuel data to the appropriate fields in your FLEETMATE database. This saves you from having to manually manipulate your fuel import data prior to importing it.

There are two (2) components that make up the Fuel Import Manager:

- **Import Profile Editor – fm32fie.exe**  
This program enables you to create and manage a profile for each source of incoming fuel transaction data. This program displays a user-interface that you will use to define your profile(s). A profile will identify the column positions of each field of data in your import file. You may also specify other control options.
- **Fuel Import Processor – fm32fia.exe**  
This program will parse and import your fuel data, based on the definition of the specified fuel import profile. This program will run as an executable on your PC and does not feature a user-interface. The program is started from a command prompt or a shortcut with various arguments. You can also schedule this program to run at various times using the task/event scheduling features offered by Windows®. Using a batch file to run this program is an additional option. This can be helpful for stacking other related commands (i.e., FTP Get) into the entire fuel import process.



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Fuel Import Manager Structure

## CUSTOMER GUIDE: Fuel Import Manager

### Defining a Profile

Start the Fuel Profile Editor. Click the Profiles | Add New Profile... menu option to create a new profile.

**Profile Name**  
SAMPLE

**Profile Description**  
Sample Fuel Import Profile

**Input File Specification**  
 Specify Input Filename on Command Line  
 M:\Fuel\_Data\fuel\_data.csv

**Tracking and Completion Notification**  
 Write Log  
 E-Mail to: myemail@mydomain.com

**Data Formatting Options**  
 Unformatted Date: None  
 Unformatted Time: None  
 UNIX/Linux Data (Add CR/LF)  
 Accept Fuel Unit Cost  
 Left Decimal Shift Settings: Volume 0, Cost 0, Meter 0

**Post-Processing**  
 Archive Input File - Date/Time Stamped  
 Delete Input File (No Archive)  
 Do Nothing

**Field Delimiter**  
 Comma  
 Tab  
 Other: ,  
The delimiter cannot appear within data fields

**Vehicle Key**  
 VIN  
 Veh No  
 Tag No

DB Field	Field Description	Req'd	Column	Defaults
DT_PURC	Fuel Transaction Date	Yes	2	N/A
NO_ODOMETER_NOW	Odometer at Fueling	Yes	5	N/A
NO_GALS	Total Quantity of Fuel (Gals/Litres)	Yes	3	N/A
AM_COST	Total Cost of Fuel Dispensed	Yes	4	N/A
TX_VIN	Vehicle Identifier	Yes	1	N/A
TX_BRAND	Name of Fuel Brand	No	6	Undefined
TX_DEALER	Name of Fuel Dealer	No	7	Undefined
NO_OCTANE	Octane Rating, Grade, or Type of Fuel	No	8	Undefined
TX_ACCT	Account Number	No	9	Undefined
TX_EMPID	Employee ID Number of the Driver	No	10	Undefined
TX_STATE	State/Province where Fuel was Purchased	No	11	Undefined
DT_PURC_TIMESTAMP	Transaction Timestamp	No	-1	00:00
NO_HOURS	Hours at Fueling	No	-1	0

Created: 09/07/2024 8:58:18 AM by: admin    Last Edit: 09/07/2024 9:57:50 AM by: admin

Print Screen    OK    Cancel

Sample Fuel Import Profile Window

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**CUSTOMER GUIDE: Fuel Import Manager**Defining a Profile (*continued...*)

1. Provide a short, single word **Name** for your profile.
2. Provide a brief **Description** for your profile.
3. **Input File Specification**  
Choose whether you intend to specify an input filename on the command line using the "/F=" parameter, or whether each of your import files will be identified using the same filename. The latter is recommended.
4. **Tracking and Completion Notification**  
The Write Log option is **recommended**. The log will consist of all import failures that may occur. The E-Mail to: value represents the email address of the recipient for a completion notification. The completion notification email will automatically include the log file as an attachment.
5. **Data Processing Options**
  - a. If date and/or time values in your input data are not formatted in a traditional way (*e.g.*, MM/DD/YYYY), choose the unformatted pattern for the date/time values that appear in your import data.
  - b. If lines in your import data are not terminated with a traditional CRLF pair (*e.g.*, UNIX or Linux systems), check the **UNIX/Linux Data (Add CRLF)** checkbox.
  - c. If Total Cost per transaction is not present in your import data, but unit cost is available, check the **Accept Fuel Unit Cost** checkbox.
  - d. If a decimal stop is *implied*, but does not appear within your numeric data values, use the Left Decimal Shift setting(s) to specify the implied position of the decimal stop. The total character length of the numeric value read from your import file must be greater-than or equal-to the left decimal shift value
6. **Post-Processing**  
This setting determines how your input file will be handled once the import file is processed. The first option will archive and date/time stamp each input file as it is processed. This is the **recommended** setting.

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**CUSTOMER GUIDE: Fuel Import Manager**Defining a Profile (*continued...*)**7. Delimiter**

Specify the delimiter character that is used in your import data to separate individual data values. Common delimiters are a comma (i.e., "csv"), or a tab character.

If your fuel card vendor uses a different delimiter character, you may specify that delimiter.

Note that the delimiter character must not appear within your actual data values. As an example, if the value "Boston, MA" appears as a single value, you cannot use comma delimited format because a comma appears *within* the value.

**8. Vehicle Key**

Choose whether your import data will contain the VIN, Veh No, or the Tag No as the vehicle identifier. One of these three (3) vehicle identifiers must exist in your data.

If one or more of these options is disabled (gray) on the Fuel Import Profile window, that is an indication that the values in your FLEETMATE database are not unique, and cannot be used.

The vehicle key value within your fuel transaction data must be an **exact match** with a vehicle identifier in your FLEETMATE database.

The vehicle key chosen must remain consistent within all fuel transaction records in your fuel transaction data.

## CUSTOMER GUIDE: Fuel Import Manager

### Defining a Profile

The next step is to define where the various values in your import file are located. The first five (5) fields of a profile are *required*. You will be defining these values in the **Import Col** column. As an example, here is a sample import file with the comma-delimited field columns numbered. The column heading names and column numbers (below) are provided for clarity, and should **not** appear in your actual import file.

```
VIN          DATE          GALS  COST  METER  BRAND  DEALER  GR  ACCT  EMP ID  STATE
1           2           3     4     5     6     7     8  9     10     11
12345678901234567,02-22-2007,66.56,156.73,58731,SHEETZ,ROUTE 202,93,123456,3254331,PA
23456789012345678,02-22-2007,47.41,108.57,58731,ENRON3,MERRITT 7,91,123456,7184632,MD
34567890123456789,02-22-2007,61.50,139.61,58731,SHEETZ,ROUTE 202,87,123456,0191845,PA
45678901234567890,02-22-2007,56.84,130.16,58731,EXXON8,SEVERN AV,91,123456,3337454,MD
```

The illustration below shows how the column values above should be defined. An Import Col value of -1 means the column is not used.

DB Field	Field Description	Req'd	Column	Defaults
DT_PURC	Fuel Transaction Date	Yes	2	N/A
NO_ODOMETER_NOW	Odometer at Fueling	Yes	5	N/A
NO_GALS	Total Quantity of Fuel (Gals/Litres)	Yes	3	N/A
AM_COST	Total Cost of Fuel Dispensed	Yes	4	N/A
TX_VIN	Vehicle Identifier	Yes	1	N/A
TX_BRAND	Name of Fuel Brand	No	6	Undefined
TX_DEALER	Name of Fuel Dealer	No	7	Undefined
NO_OCTANE	Octane Rating, Grade, or Type of Fuel	No	8	Undefined
TX_ACCT	Account Number	No	9	Undefined
TX_EMPID	Employee ID Number of the Driver	No	10	Undefined
TX_STATE	State/Province where Fuel was Purchased	No	11	Undefined
DT_PURC_TIMESTAMP	Transaction Timestamp	No	-1	00:00
NO_HOURS	Hours at Fueling	No	-1	0

Created: 09/07/2024 8:58:18 AM by: admin Last Edit: 09/07/2024 9:57:50 AM by: admin

Print Screen OK Cancel

Illustration of Sample Column Positions Defined

The **Defaults** column enables you to define default values for certain fields where data does not exist. The text "Undefined" will appear in these fields if there is no data present in the fields. Click OK to save your profile, or click Cancel to abandon your changes.

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## CUSTOMER GUIDE: Fuel Import Manager

### Changing the Log File Folder

The log file (`fm32fia.log`) will be updated with each execution of the processor (`fm32fia.exe`). The most recent activity will be appended to the end of the log file.

The default location of the log file will be the `C:\Users\Public\FLEETMATE` folder on your PC. To alter this folder, use the "Log Path" menu function in the Fuel Profile Editor.

### Executing the Fuel Import Processor

NOTE: As you're becoming familiar with the Fuel Import Manager, make a **copy** of your production database, create your profile in the **copy**, and import your fuel data into your **copy**, not into your production database.

You may need to perform numerous test runs until you are familiar with the process, as well as potential inconsistencies in your import data, and how these issues should be handled.

There is no rollback feature for a fuel import. Transactions are immediately written to your database.

### User Permissions Settings

The Fuel Import Processor (`fm32fia.exe`) will write a log of exceptions to the default FLEETMATE data folder, which is the `C:\Users\Public\FLEETMATE` folder. Full Control must be granted to this folder, *and* to the folder containing your fuel import data files from your fuel card vendor. The filename of the log file is `fm32fia.log`.

You may optionally redirect the location of the exception log by altering the following registry value to the desired path in your Windows file system. This capability is purely optional, but may be useful if your IT staff requires it.

`HKEY_CURRENT_USER\Software\SCB\FLEETMATE\General\FIMLogPath`

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## CUSTOMER GUIDE: Fuel Import Manager

### Starting the Fuel Import Processor

The Fuel Import Processor (`fm32fia.exe`) is an executable program that is run from the command line or from a desktop shortcut that you define.

You may also request that your IT staff create a batch file to execute the program, so that changing command-line parameters (if necessary) is easier. A batch file is particularly useful if you will be importing fuel data via two or more profiles since you can *stack* the commands in a single batch file. Likewise, you can also include FTP commands to download your fuel data file first, before executing the processor.

To execute the processor at a preset time, your IT staff may use Windows Task/Event Scheduler. This requires that your command-line parameters are always the same (*e.g., your input filename remains the same*), or that you make any necessary command-line changes prior to the next execution by the Task/Event Scheduler. We recommend that you create a batch file to do this.

### The Easy Way to Create your Fuel Import Processor Shortcut

The next two (2) pages go into the technical details of defining the parameters required for your Fuel Import Processor shortcut. This is primarily for IT personnel, so that they understand the details and options available.



As long as your fuel profile has an **Input File Specification** defined, you can skip the next two pages. Simply right-click on a profile listed in Fuel Profile Editor, and then click **Create Desktop Shortcut**. This will automatically create the desktop shortcut for you.

The shortcut will be named `<YourProfileName> + " Fuel Import."` As an example, if your profile is named "**GASPRO**", this function will create a desktop shortcut named "**GASPRO Fuel Import**" on your Windows desktop. You may of course edit the shortcut name if you like.

Once you download your fuel card data, simply double-click your new Fuel Import Processor shortcut to import your fuel data.

**NOTE:** This function will not add the `/SORT` argument to the command-line, so you will need to manually edit the command-line if you need to use it. When used, the `/SORT` argument must be the first argument on the command-line.

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**CUSTOMER GUIDE: Fuel Import Manager**

## Runtime Syntax

`fm32fia parameters`

Where *parameters* are:

`[/SORT]`

`/P=filename`

`/C=connectionstring`

`[/F=importfilename]`

`[ALLOWDUPES]`

### Parameters:

- **/SORT – Optional**  
This option will sort your fuel transactions by date/time prior to processing it. **IMPORTANT:** column headings must *not* appear in your data, the date value must appear in the left-most column position, and /SORT must be the *first* argument on the command-line.
- **filename - Required**  
The name of the profile that will control the import process.
- **connectionstring – Required**  
This tells the import processor which database to import your fuel data into.
- **importfilename – Conditional**  
If you define your input file in the **Input File Specification** section in your profile, this parameter is not required. However, if each import filename will be unique, you will need to specify the new import filename using this parameter. You must specify the full path to your import file.
- **ALLOWDUPES – Optional**  
This parameter will turn off duplicate record checking.  
**IMPORTANT:** This must be the *last* parameter on the command line.



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**CUSTOMER GUIDE: Fuel Import Manager**

## Processor Shortcut Examples

In this example, our fuel import profile is named FUELPRO. Follow the steps below to create your fuel import shortcut.

1. Right-click on your Windows desktop, select New, and click on Shortcut.
2. Browse to C:\Program Files (x86)\FLEETMATE\fm32fia.exe file, and then click Next.
3. Provide a Name for your shortcut (e.g., Import Fuel Data).
4. Click Finish.

Next, right-click on your new shortcut and choose Properties. At the very end of the Target path, specify the name of your profile and click OK. An example of how the edited line should appear is listed below. Note the double-quotes, which are required. Also note that the text is wrapping in this document. These parameters are entered on one (1) physical line.

```
"C:\Program Files (x86)\FLEETMATE\fm32fia.exe" /P=FUELPRO  
/C=Provider=Microsoft.Jet.OLEDB.4.0;Data  
Source=Z:\FLEETMATE.fdb;Persist Security Info=False
```

In the above example, FUELPRO is the name of the profile. The "/P=" is required to specify the name of the profile. In this profile, the input data file always has the same filename, and it is always located in the same folder. The C/= parameter tells the processor which database to access.

If your input filename varies with each download, you will need to edit the filename in the Target setting prior to running each import. An example of this target setting is listed below.

```
"C:\Program Files (x86)\FLEETMATE\fm32fia.exe" /P=FUELPRO  
/F=C:\fueldata\data1234.csv  
/C=Provider=Microsoft.Jet.OLEDB.4.0;Data  
Source=Z:\FLEETMATE.fdb;Persist Security Info=False
```

In the above example, we're using the "F/" parameter to specify that C:\fueldata\data1234.csv is the file that contains your fuel card data.

To execute the fuel import processor, double-click on your new shortcut. Afterwards, review the log file (fm32fia.log) to check for any errors that may have occurred during the import process.

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## CUSTOMER GUIDE: Fuel Import Manager

### Reviewing a Fuel Import Log

The Fuel Import Processor will write a log file of import exceptions to the default FLEETMATE data folder C:\Users\Public\FLEETMATE. Full Control should be granted to this folder, and to the folder containing your input files.

The log file (fm32fia.log) will continually grow in size, as information is appended to it with each execution. The most recent log activity will be written to the end of the file. You should periodically cut old log entries using a text editor, or simply delete the log file once it has been reviewed. The Fuel Import Processor will automatically recreate a new log file whenever needed. Other than initialization and completion information, the log will only contain import failures, not records successfully imported. Following an import, start FLEETMATE and manually review your data to verify that it is what you expect.

A Header will appear in the log file for each execution. Headers in the log file will appear similar to the sample below:

```
=====
| FLEETMATE® Fuel Import Manager. Copyright © SCB CONSULTING, LLC
| FM32FIA Agent process started. 2/24/2019 9:01:05 AM
| Software Version: 1.0.12
| This Software is Licensed to: S&S Towing, Inc.
=====
| -- processing errors and dupes will appear here...
| -- processing errors and dupes will appear here...
| -- processing errors and dupes will appear here...
| -- processing errors and dupes will appear here...
=====
FM32FIA Agent process stopped. 2/24/2019 9:01:31 AM
```

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**CUSTOMER GUIDE: Fuel Import Manager****Duplicate Entry Messages: \*DUPE**

A row in your input file is considered a duplicate if the odometer value already exists in the fuel log for the same vehicle for the same date. If you have defined the DT\_PURC\_TIMESTAMP import field, a line entry in your input file is considered a duplicate if the odometer value already exists in the fuel log for the vehicle for the same date/time. These records are skipped, and are noted as \*DUPE lines in your log file. Specify the optional ALLOWDUPES command-line parameter if you do not want duplicate checking active.

**Error Messages: >ERR**

Check your log for any lines indicating an error. These will begin with the text >ERR.

Some errors may be normal. As an example, if you have fewer vehicles in your FLEETMATE database than those in your fuel import file, errors should be expected because some vehicles will not be found. However, if errors are not expected, you will need to research the issue using the error message displayed, and by reviewing the source fuel input data.

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**CUSTOMER GUIDE: Fuel Import Manager****Technical Notes****Rules Concerning Comma-Delimited Input Data**

A delimiter is a character that delimits or *separates* each individual data value within a row of clear text data. A common delimiter is a *comma*. These types of files are referred to as comma-delimited files, or occasionally as “csv” (comma separated value) files.

Delimiter characters must not appear within the actual data values. As an example, if you choose a comma as your field delimiter, commas must not appear within your actual field values. Below is an example row of comma-delimited data that will be invalid, and that will not import correctly:

**INVALID**

BOSTON MA , RICHMOND VA , BALTIMORE , MD , AUSTIN TX

The above row of data is intended to contain four (4) data values. However, the comma following the word BALTIMORE will cause the text “ MD” to be interpreted as an additional column, and will invalidate all of the data columns that follow to the right of that comma.

If the above scenario presents a problem that cannot be avoided, FLEETMATE Fuel Import Manager will also accept any alternate delimiter character, including a tab-delimited format.

Any input line in your input file must contain at least five (5) delimiters. Otherwise the line will be considered invalid and will be skipped.

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**CUSTOMER GUIDE: Fuel Import Manager**Technical Notes (*continued...*)**Numeric and Currency Values**

Currency values and Number values should appear as numeric values only, especially in a comma-delimited (csv) file.

A decimal stop is permitted for floating-point numeric values. Your import data must not contain formatting characters such as a thousands separator or a currency symbol. Examples are listed below.

- \$12,345.67 is invalid. It must appear in your input file as: 12345.67
- 12,345.67 is invalid. It must appear in your input file as: 12345.67

If a decimal stop is *implied*, but does not appear within your data values, use the Left Decimal Shift setting(s) to specify the implied position of the decimal stop for the value.

The total character length of the numeric value read from your import file must be greater-than or equal-to the left decimal shift value.

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**CUSTOMER GUIDE: Fuel Import Manager**Technical Notes (*continued...*)**Rules Concerning Date and Time Values**

Date and time values that appear in your input file should be properly formatted as dates (e.g., mm-dd-yy, yyyy-mm-dd, etc.) and times (e.g., hh:mm:ss). The Short Date setting in Windows Control Panel should match the date format that appears in your input file.

If your date and/or time values are not properly formatted using a familiar format in your input file, you may use one of the Date and/or Time format settings so that the import processor can properly interpret the unformatted values.

**Using Unsorted Data**

FLEETMATE Fuel Import Manager expects data to be sorted chronological order by date and time.

If your input data file contains rows that are not sorted properly, you may use the optional **/SORT** command-line directive.

When using the **/SORT** command-line argument, there are three (3) important requirements:

- ❖ Column headings **must not** exist in the input data
- ❖ The date value **must exist in the left-most column** in your input data
- ❖ **/SORT** must be the first parameter on the command-line

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**CUSTOMER GUIDE: Fuel Import Manager****Technical Notes** (*continued...*)

The E-Mail Notification feature will use email settings defined within FLEETMATE on the Mail tab on the Options | Preferences... dialog. If these email settings are not correct the email notification process will fail. If your system utilizes certain anti-Spam measures, the mail message may not successfully arrive in the recipient's in-box.

If you define an import filename on the command-line using the "/F=" parameter, it will over-ride any predefined path/filename defined in your fuel import profile.

If a column does not appear in your import data, set the Import Col value to -1.

The exception log will be updated with each execution of the processor. The most recent activity will appended to the end of the log file. The default path for the log file will be the C:\Users\Public\FLEETMATE folder.

To alter this path, use the "Log Path" menu function in the Fuel Profile Editor. This value is stored in the registry in the following location:

```
HKEY_CURRENT_USER\Software\SCB\FLEETMATE\General\FIMLogPath
```

If you prefer, you may manually redirect the log file to a different folder programmatically using a Windows login script. You will need to modify the registry value noted above. Note that this folder location is unique to each user.

If you need assistance setting-up and using the Fuel Import Manager, please write us at: **support@fleetmate.com**.