

# **FuelMaster Plus (FMPlus®) Installation Guide**

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Software Version: 5.23.3.0

Document Version: 7.2

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FMPlus Installation Guide

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## Document Version History

Version	Date	Description
6.0	11/1/2017	Updated FMPlus Installation Guide for MS SQL 2014.
7.0	11/13/2020	Updated FMPlus Installation Guide for MS SQL 2019.
7.1	3/11/2022	Updated to include <ul style="list-style-type: none"><li>• Recommended PC or Server Requirements</li><li>• Supported OSes</li><li>• Minimum PC Requirements</li></ul>
7.2	8/2/2022	Updated <a href="#">FMPlus Server Tools Installation</a> to factor in setup.exe.

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## Related documentation

The FMPlus User Manual contains information to which you may need to refer.

## Conventions used in this guide

To help you find important information, this guide uses the following conventions:

Convention	Indicates
<b>Bold text</b>	The names of elements of the user interface, such as menus, buttons, and options; In tutorials, clickable items
Monospaced text	Code, file names, directory paths, and on-screen computer output.
<b>Bold monospaced text</b>	Text that you should type exactly as shown, such as: Type <b>ABC</b> at the prompt.
<i>Italic text</i>	Command-line placeholders that you should replace with a real name or value. Also, book titles, new words or terms, or words to be emphasized.

### ***NOTE***

Notes that contain additional explanation.

### ***TIP***

Tips that contain shortcuts or special information.

### ***CAUTION***

Cautions that contain information to avoid equipment damage or data loss.

### ***WARNING***

Warnings that contain information about potentially damaging actions. Read them carefully to prevent personal injury and health hazards.

## Certifications

Certifications have been awarded by the following organizations.

- US and Canadian equipment certifications through the following:
  - FCC (Federal Communications Commission),
  - Intertek (ETL, cETL),
  - CAN/CSA (Canadian Standards Association),
  - National Conference on Weights and Measures (National Type Evaluation Program: NTEP),
  - Payment Card Industry (PCI) Security Standards Council (PA-DSS compliance),
- European equipment certification through the following:
  - TUV SUD, FM Approvals
  - ATEC Certification
- Microsoft Gold Partner

## Recommended PC or Server Requirements

- Intel Core i3 Processor or greater
- 4GB of RAM
- DVD-ROM
- 12GB free Hard Drive space – Additional space required if running full MS SQL Server for large databases.
- 56K Baud Analog Modem
- 1024x768 Screen Resolution
- Network Connection
- USB for Key Encoding, if needed
- Solid State Drive (SSD)

## Supported OSes

- Windows 10 64-bit
- Windows Server 2008/R2 64-bit
- Windows Server 2016 64-bit

Microsoft versions above these listed will also be supported.

## Minimum PC Requirements

- 3.0 GHz Pentium 4 Processor 64-bit
- 2GB of RAM for 64-bit
- 12x CD-ROM
- 6 GB free Hard Drive space
- 33.6K Baud Analog Modem or Network Internet Connection
- 1024x768 Screen Resolution
- USB for Key Encoding, if needed
- Windows 10 64-bit

### ***NOTE***

FMPlus is not compatible with Microsoft HOME editions.

## Introduction

This guide provides basic instructions on how to install FMPlus for use with a SQL database.

Beginning with the SW v5.23.3.0 release, The FMPlus Server Tools installation provides SQL Server 2019 SP2 Express. The guide first provides an overview on how to run the FMPlus Server Tools installation to install SQL Server 2019, proceeds with instructions on how to install the FMPlus software for use with a SQL database, as well as instructions for upgrading from a SQL or Access database.

## Applicability

This guide is for FuelMaster Plus software version 5.23.3.0 and greater.

Please note:

- FuelMaster Plus SW v5.14.3.0 to 5.22.3.0 provides MS SQL 2014; see FuelMaster Installation Guide Rev. 6.0, November 1, 2017.
- FuelMaster Plus SW v5.11.3.0 to v5.11.3.2 provides MS SQL 2012; see *FuelMaster Installation Guide Rev 5.0*, October 27, 2016.
- FuelMaster Plus SW v5.3.3.0 to v5.10.3.0 provides MS SQL 2008 R2; see *FuelMaster SQL Server Install Guide Rev 4.0*, June 16, 2014.
- For releases prior to 5.3.3.0, please see *FuelMaster SQL Server Install Guide Rev 3.0*, April 8, 2014.

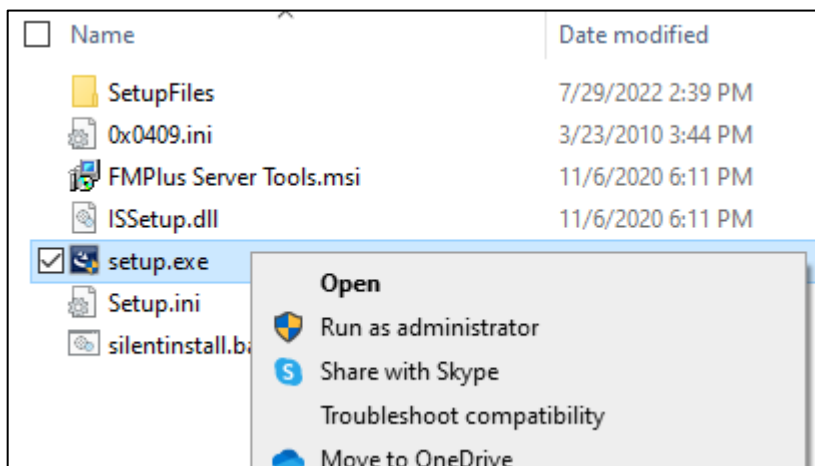


*Questions? Contact Syntech Systems, Inc.'s industry leading Customer Satisfaction Center (CSC) at (800) 888-9136 x2., or email us at [support@myfuelmaster.com](mailto:support@myfuelmaster.com).*

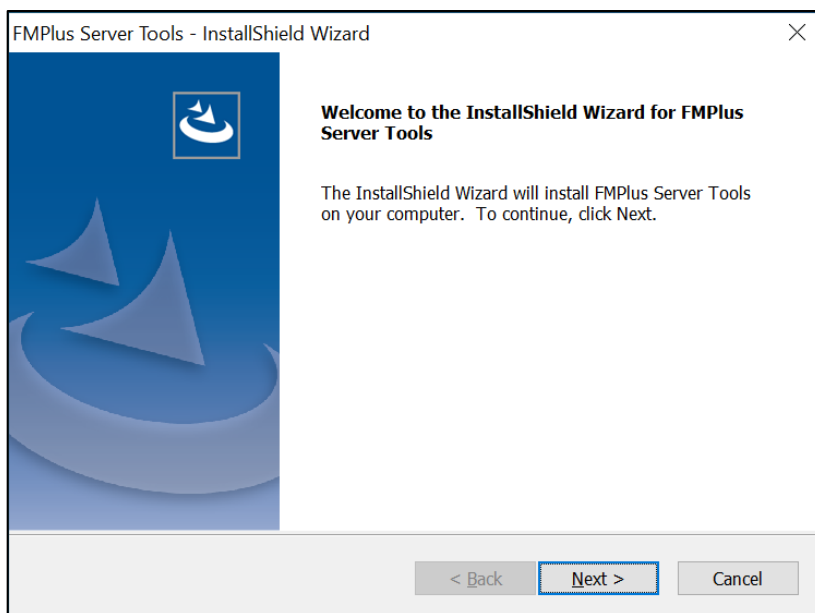
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## FMPlus Server Tools Installation

1. As an admin user (or run as administrator), open or Run as administrator **setup.exe**.

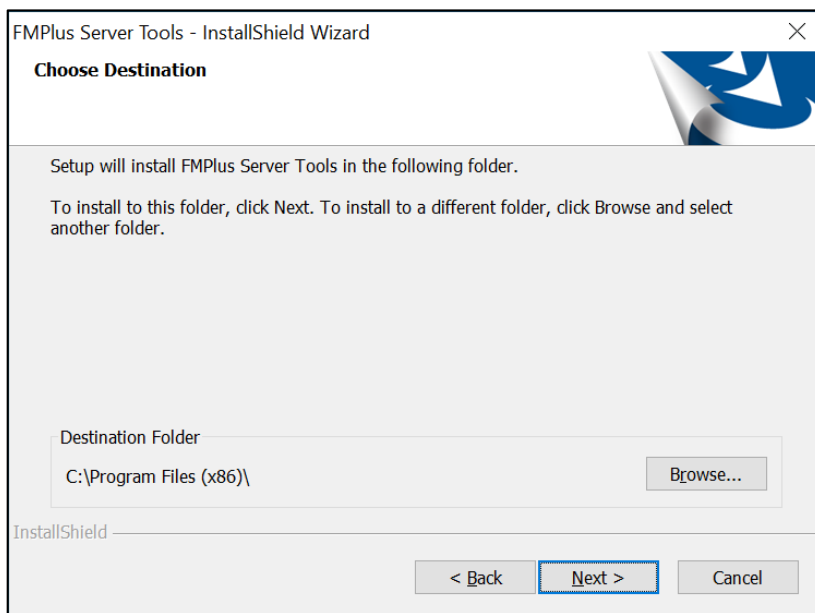


2. Select **Next** to begin.



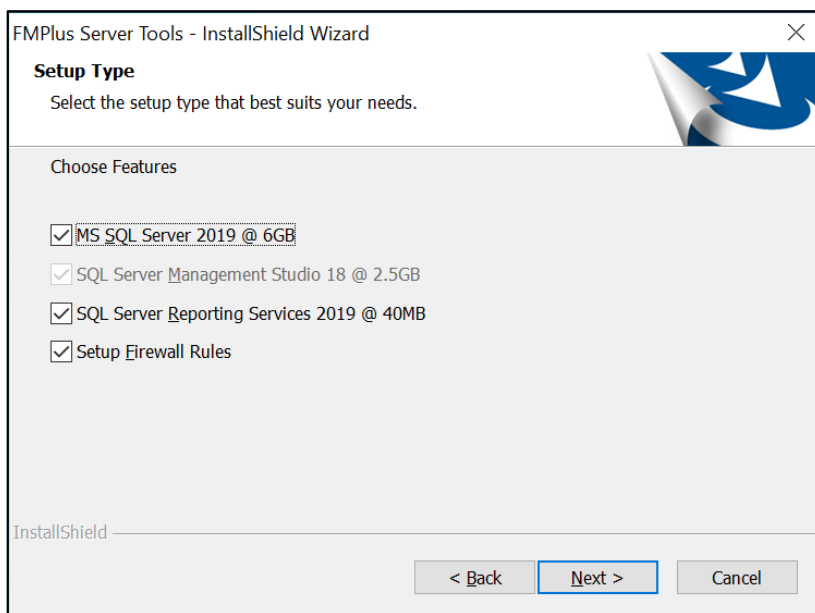
3. To install the the C: drive, select **Next**. To install to a different folder, select Browse, and select another folder.





4. Ensure the MS SQL Server 2019 @ 6GB checkbox is ticked.

5. Select **Next**.



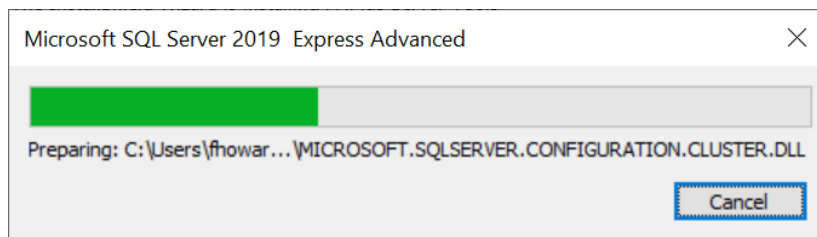
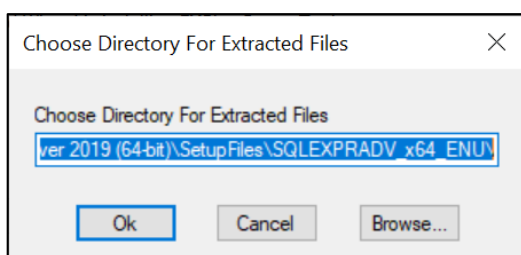
**NOTE**

Your feature selections will be installed in turn, beginning with MS SQL Server. If you have already installed MS SQL Server 2019, you may uncheck it to allow installation of SQL Server Management Studio.

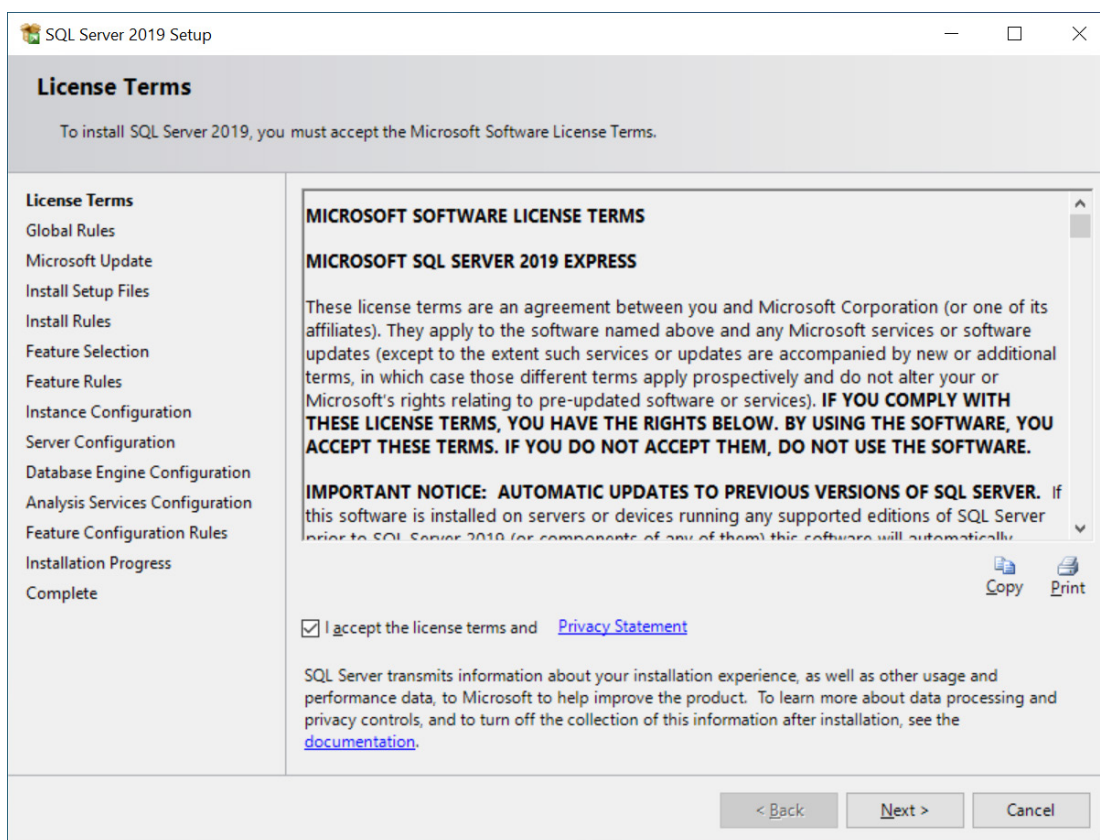
## Remaining Checkbox Options and Uses

Option	Use
SQL Server Management Studio	Optional but recommended; enables Syntech's Systems, Inc.'s CSC to troubleshoot issues with your database if necessary.
SQL Server Reporting Services	Optional; allows for reporting outside of FMPlus Crystal reporting (not necessary if FMPlus reporting suffices).
Setup Firewall Rules	Optional; helps if SQL Server is to be installed on one machine and FMPlus or the download service is to run on another machine.

6. Select **NEXT**. The SQL 2019 installation launches.



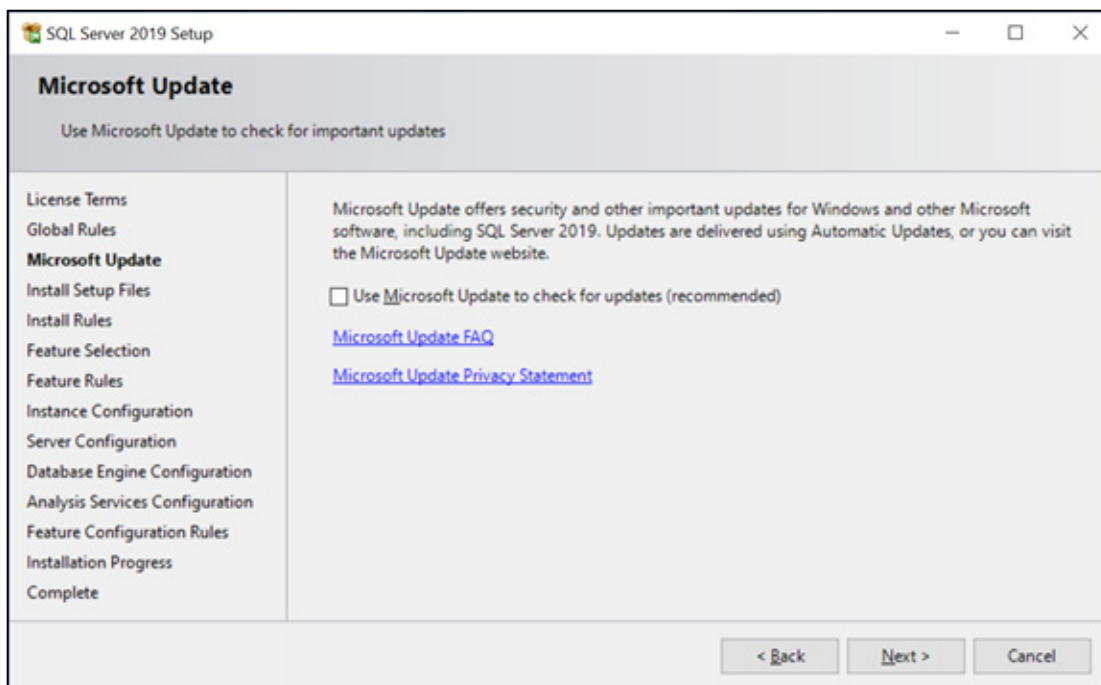
7. Ensure I accept the license terms and Privacy Statement checkbox is ticked, and select **Next**.



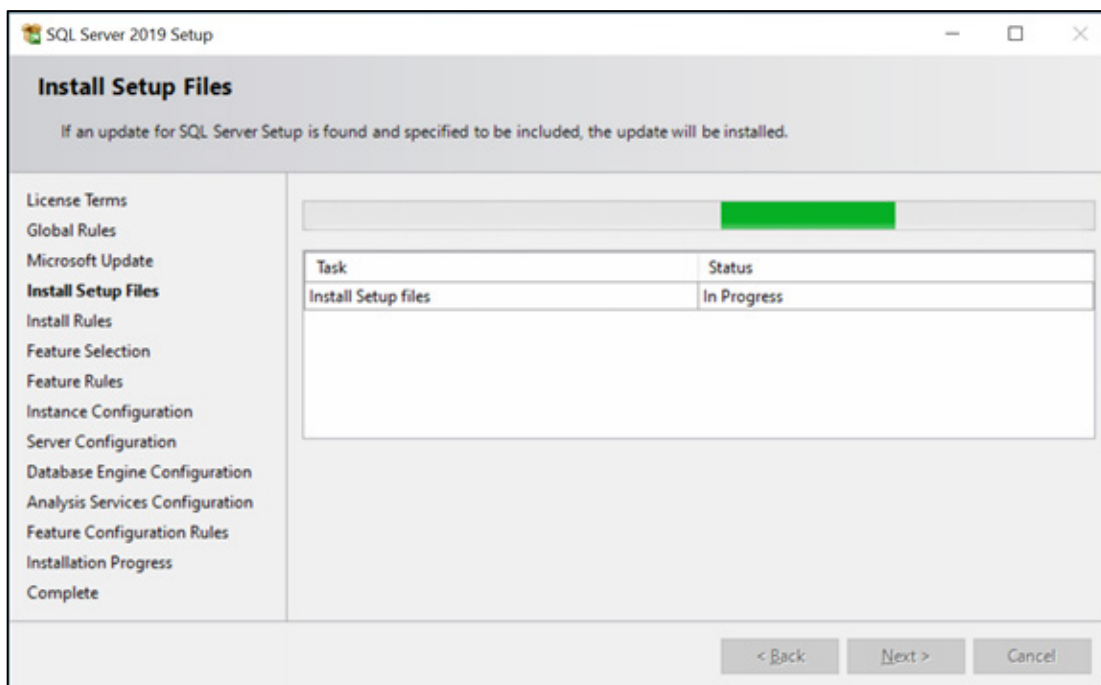
**NOTE** If Global Rules pass, the dialog may not be seen; if any Global Rules fail, the dialog will display and corrections must be made before restarting the installation.

8. Ensure the **Use Microsoft to check for updates** checkbox is not ticked.

**TIP** Tick this checkbox only if you have a fast connection, and/or you are not in a hurry to install SQL Server.

9. Select **Next**.

Assuming you allowed Microsoft to check for updates, if an update for SQL Server Setup is found and specified to be included, the update will be installed before automatically moving to the next dialog.



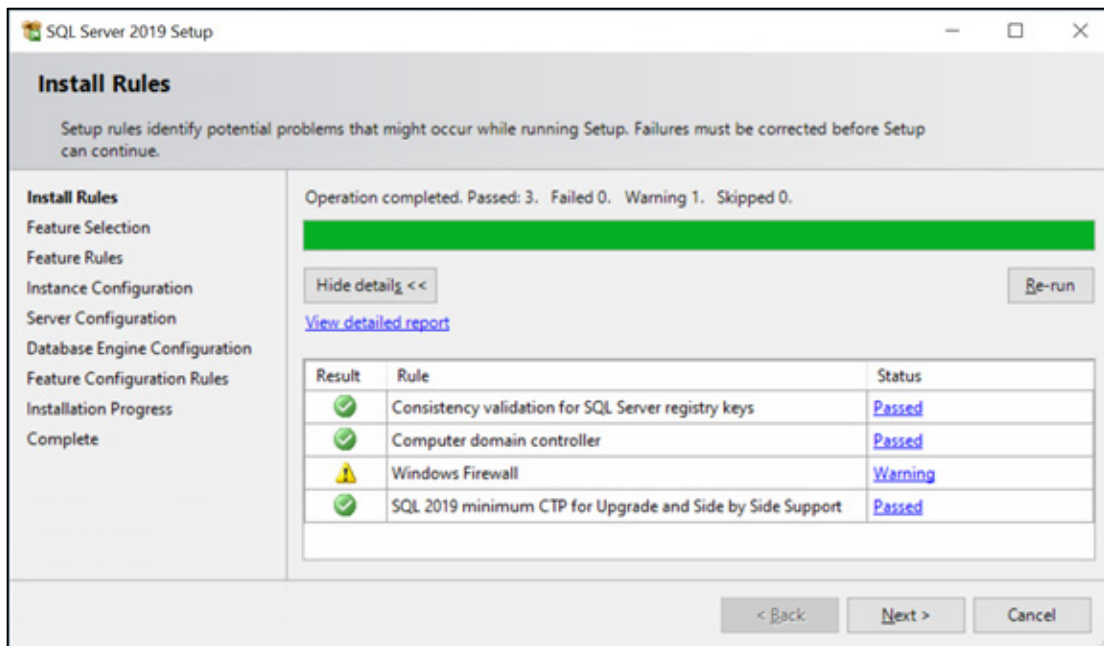
Setup rules identify potential problems that might occur while running Setup. Typically, these failures must be corrected before the setup can continue.

**NOTE**

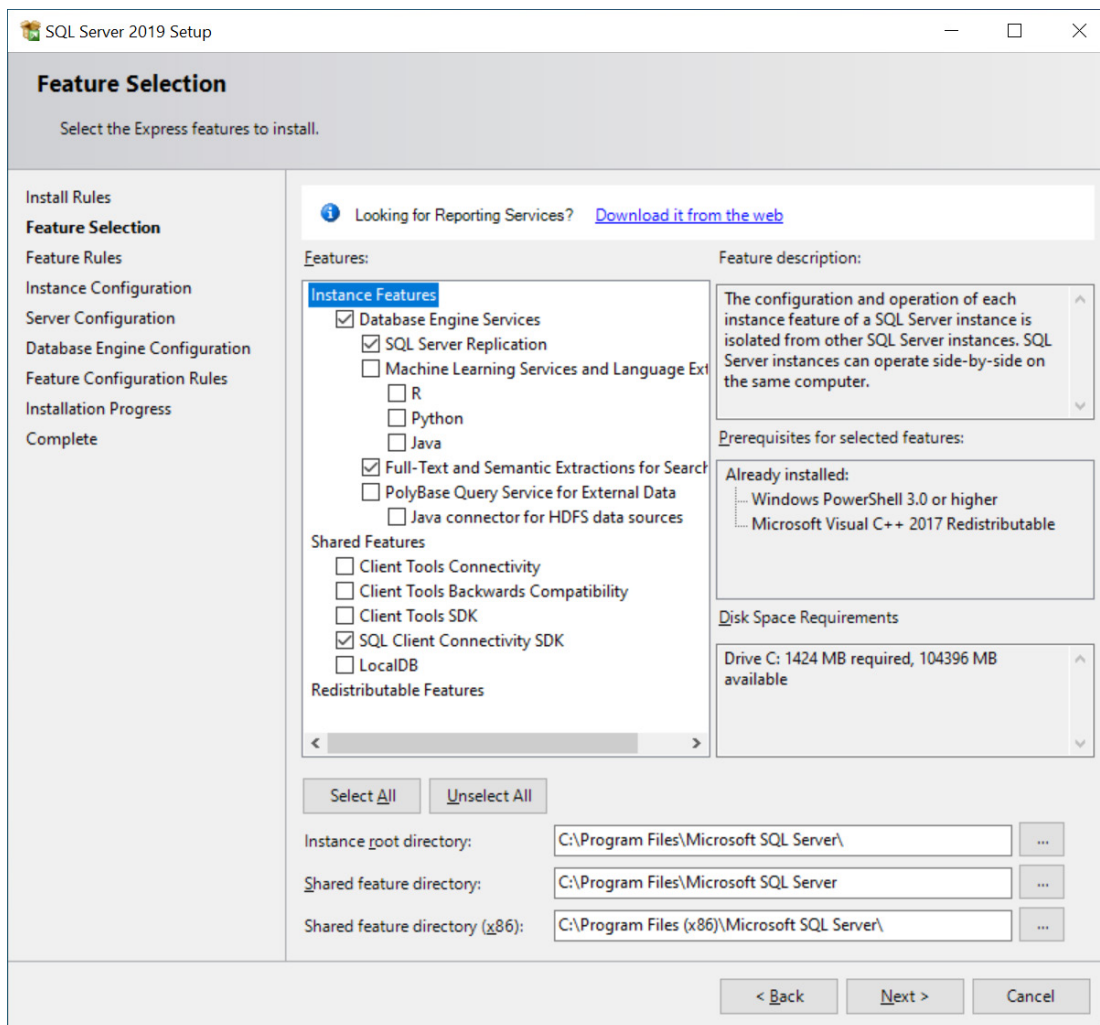
While installing setup rules, you might notice a Windows Firewall warning. Though some of the problems appearing in this list may block setup, the Windows Firewall warning does not block the installation.

FMPlus Server Tools can create firewall exceptions for SQL at the end of the installation.

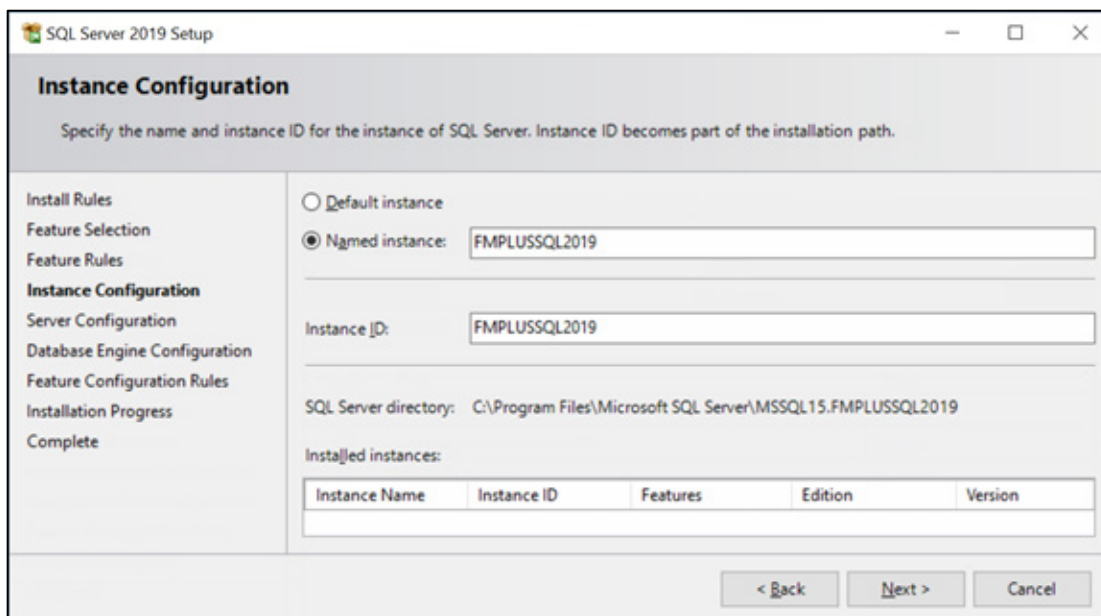
10. Select **Next**.

**NOTE**

The installer progress shows in the background behind the SQL Server 2019 Setup dialog box. You may move the box to monitor your progress.

11. Accept the defaults, and select **Next**.**NOTE**

If Feature Rules pass, the dialog may not be seen; if there any failures occur, they must be addressed, and the installation must be restarted.

12. Select **Next**.


**SQL Server 2019 Setup**

**Instance Configuration**

Specify the name and instance ID for the instance of SQL Server. Instance ID becomes part of the installation path.

Install Rules  
Feature Selection  
Feature Rules  
**Instance Configuration**  
Server Configuration  
Database Engine Configuration  
Feature Configuration Rules  
Installation Progress  
Complete

☐ Default instance

☒ Named instance:

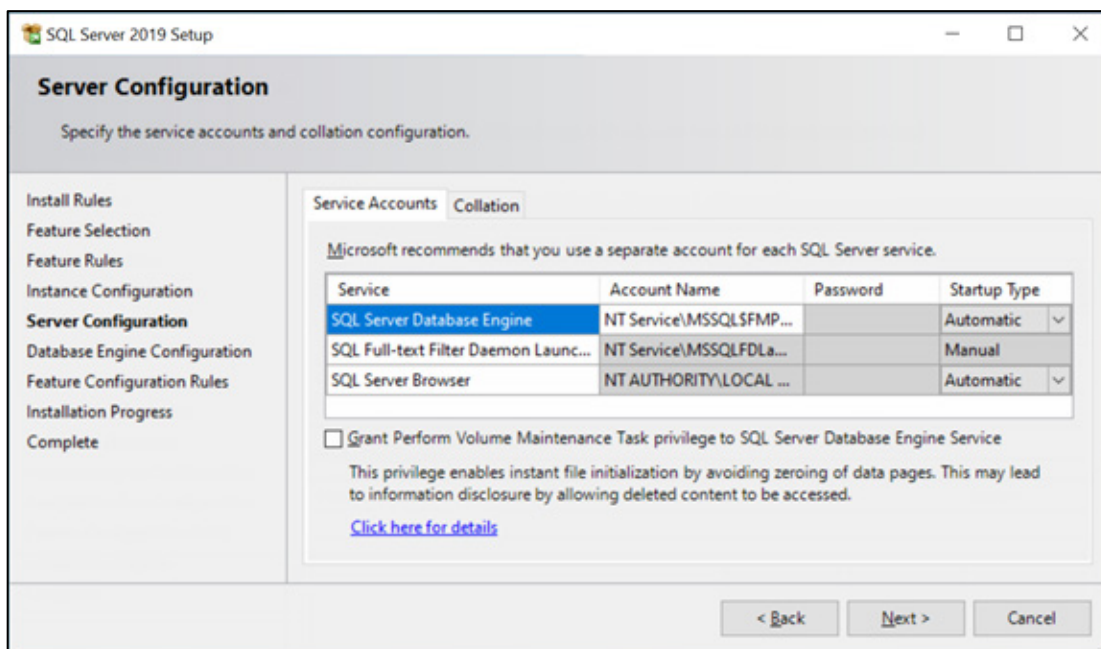
Instance ID:

SQL Server directory: C:\Program Files\Microsoft SQL Server\MSSQL15.FMPLUSSQL2019

Installed instances:

Instance Name	Instance ID	Features	Edition	Version

< Back   Next >   Cancel

13. Select **Next**.


**SQL Server 2019 Setup**

**Server Configuration**

Specify the service accounts and collation configuration.

Install Rules  
Feature Selection  
Feature Rules  
Instance Configuration  
**Server Configuration**  
Database Engine Configuration  
Feature Configuration Rules  
Installation Progress  
Complete

Service Accounts   Collation

Microsoft recommends that you use a separate account for each SQL Server service.

Service	Account Name	Password	Startup Type
SQL Server Database Engine	NT Service\MSSQL\$FMP...		Automatic
SQL Full-text Filter Daemon Launc...	NT Service\MSSQLFDLa...		Manual
SQL Server Browser	NT AUTHORITY\LOCAL ...		Automatic

☐ Grant Perform Volume Maintenance Task privilege to SQL Server Database Engine Service

This privilege enables instant file initialization by avoiding zeroing of data pages. This may lead to information disclosure by allowing deleted content to be accessed.

[Click here for details](#)

< Back   Next >   Cancel



14. Accept the defaults, and select **Next**.

**SQL Server 2019 Setup**

### Database Engine Configuration

Specify Database Engine authentication security mode, administrators, data directories, TempDB, Max degree of parallelism, Memory limits, and Filestream settings.

Install Rules  
Feature Selection  
Feature Rules  
Instance Configuration  
Server Configuration  
**Database Engine Configuration**  
Feature Configuration Rules  
Installation Progress  
Complete

Server Configuration | Data Directories | TempDB | Memory | User Instances | FILESTREAM

Specify the authentication mode and administrators for the Database Engine.

Authentication Mode

☐ Windows authentication mode

☒ Mixed Mode (SQL Server authentication and Windows authentication)

Specify the password for the SQL Server system administrator (sa) account.

Enter password: [password field]

Confirm password: [password field]

Specify SQL Server administrators

D-FHOWARD2-T3\fhadmin (fhadmin)

SQL Server administrators have unrestricted access to the Database Engine.

Add Current User | Add... | Remove

< Back | **Next >** | Cancel

**NOTE** Mixed Mode is required. The default SA password is **stS1234!**

**SQL Server 2019 Setup**

### Complete

Your SQL Server 2019 installation completed successfully.

Install Rules  
Feature Selection  
Feature Rules  
Instance Configuration  
Server Configuration  
Database Engine Configuration  
Feature Configuration Rules  
Installation Progress  
**Complete**

Information about the Setup operation or possible next steps:

Feature	Status
Full-Text and Semantic Extractions for Search	Succeeded
Database Engine Services	Succeeded
SQL Server Replication	Succeeded
SQL Browser	Succeeded
SQL Writer	Succeeded
SQL Client Connectivity SDK	Succeeded
SQL Client Connectivity	Succeeded

Details:

Install successful.

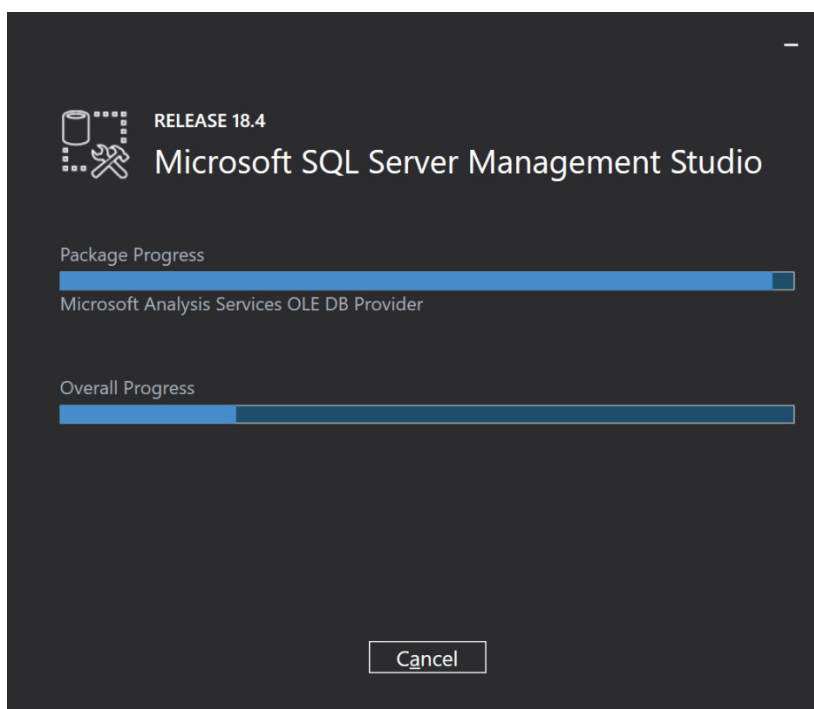
Summary log file has been saved to the following location:

[C:\Program Files\Microsoft SQL Server\150\Setup Bootstrap\Log\20201012\\_134507\Summary\\_D-FHOWARD2-T3\\_20201012\\_134507.txt](C:\Program Files\Microsoft SQL Server\150\Setup Bootstrap\Log\20201012_134507\Summary_D-FHOWARD2-T3_20201012_134507.txt)

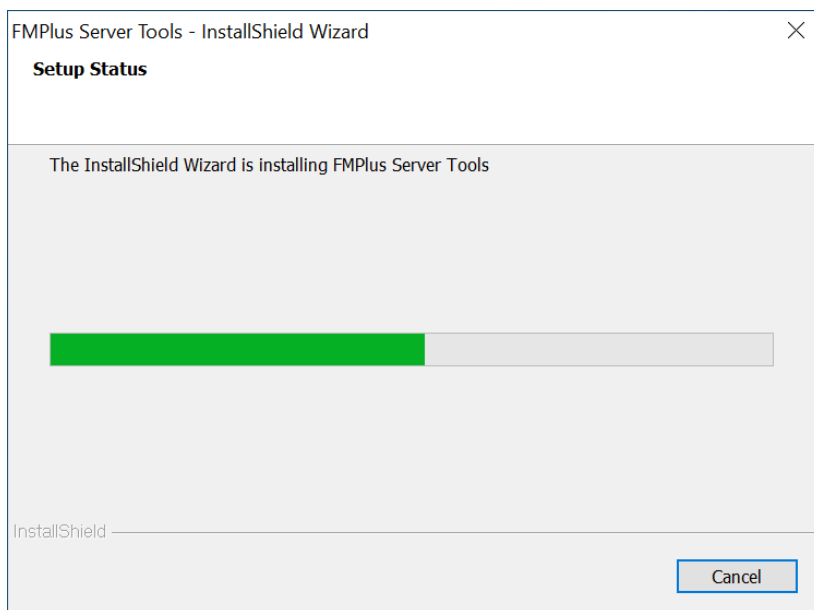
Close



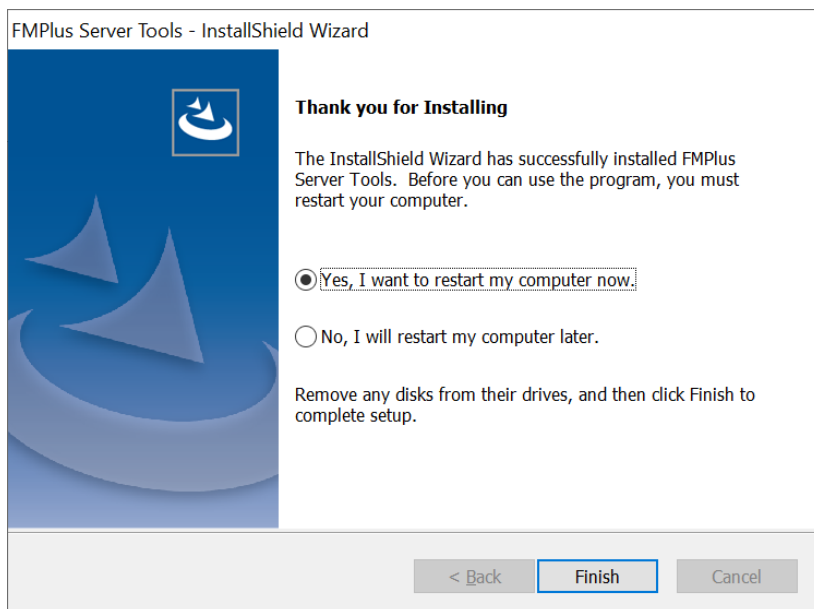
After the MS SQL Server installation completes, the SQL Server Management Studio installation launches.



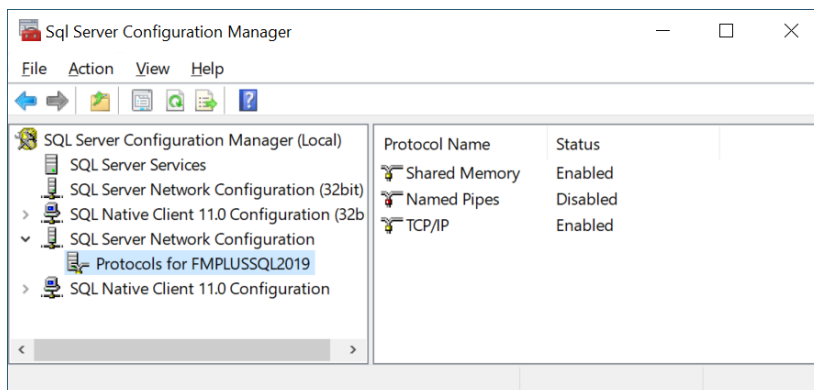
If chosen, the SQL Server Reporting Services install next. No dialogs are shown during the SSRS installation or setting the Firewall exceptions. The setup status displays during these processes.



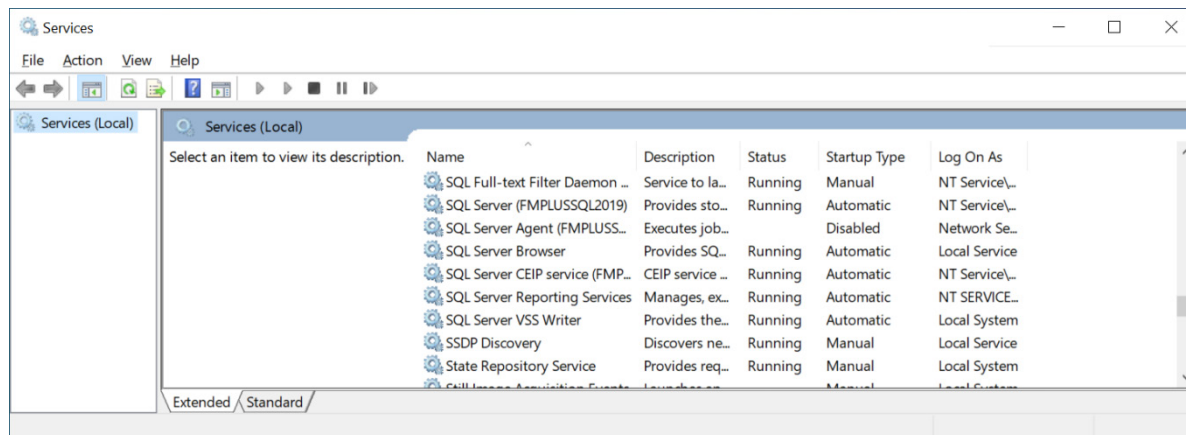
A Finish dialog displays when the installations are complete.

15. Select **Finish**.

As seen in the Configuration Manager, FMPlus Server Tools enables TCP/IP.



FMPlus Server Tools also sets the SQL Browser to run automatically.



## FMPlus Server Tools Silent Install Option

1. As an admin user (or run as administrator), launch the elevated command prompt.
2. Use **Windows CD** command to navigate to the SQL server install directory.
3. Type **silentinstall** followed by the switches for what you want to install. The installers run in the same order as the specified switches. For example, if you want SQL Server, SSMS, SSRS and the firewall rules in that order, enter:

```
silentinstall /SQLServer /SSMS /SSRS /FIREWALL
```

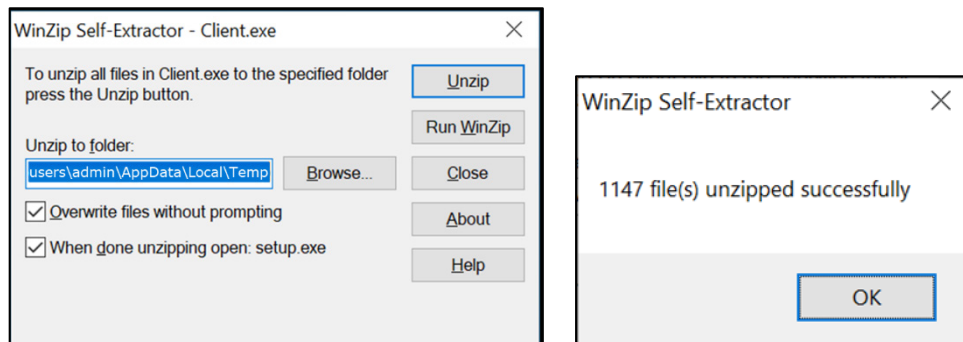
**NOTE**

The silent installer uses all the defaults. For values other than the defaults, use the interactive installer or edit the batch file and/or the INI for SQL Server.

4. If needed, enter **silentinstall** with no switches to display the available switches and what they do.

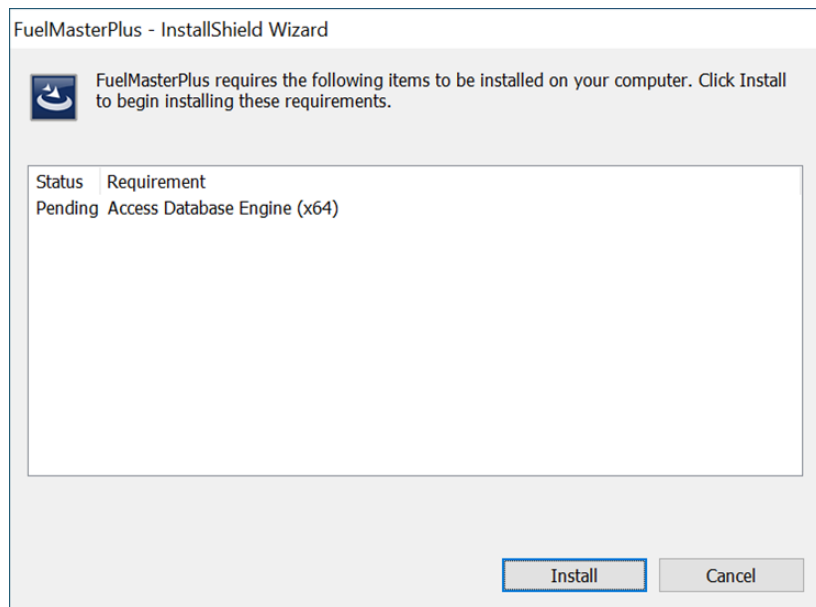
## FMPlus Installation

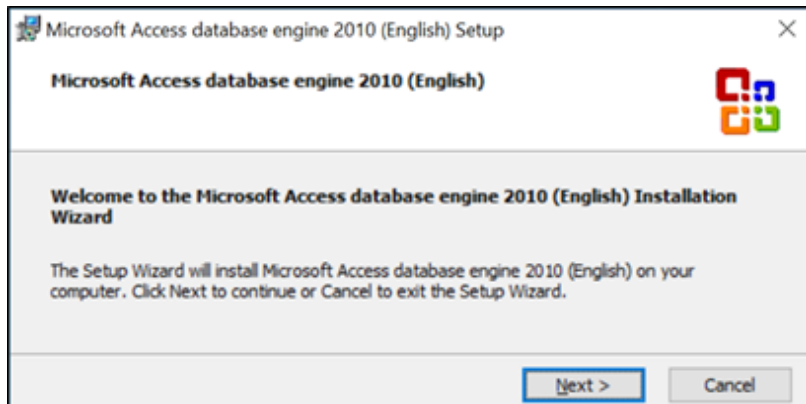
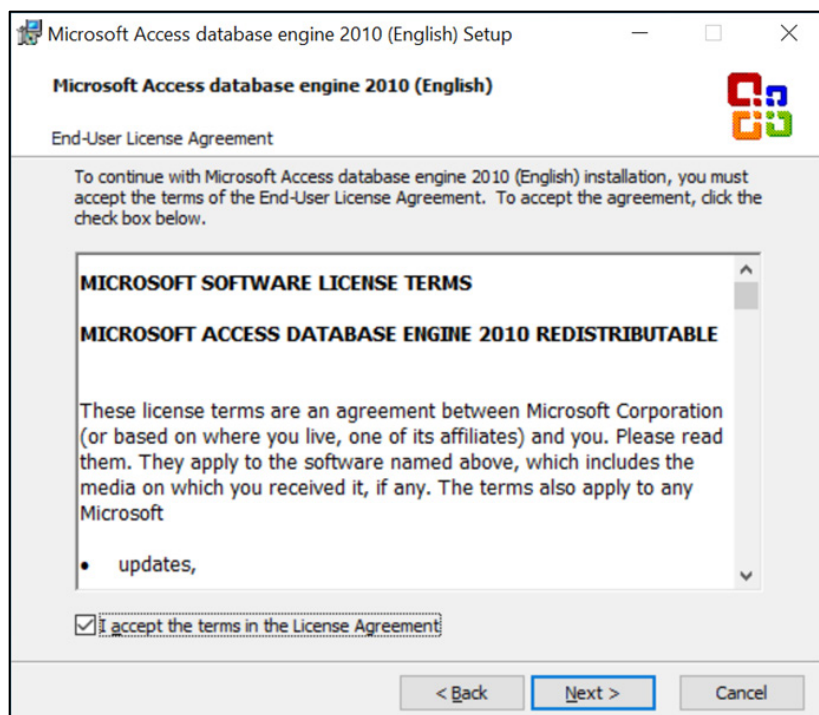
1. As an admin user (or run as administrator), launch the FMPlus Installer, **client.exe**, and start the installation process.
2. Select **Unzip** to install the files to a desired location. Click **OK** after the files have been unzipped.



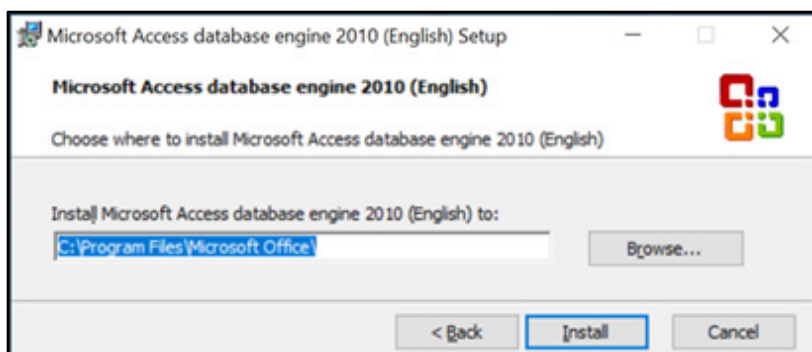
Once the files have been unzipped and the Wizard has prepared the installation, the installation process starts with the Status/Requirement screen, if applicable. If the Access Database Engine used for converting Access databases to SQL is already installed and the Welcome screen displays, skip to step 8.

3. Select **Install**.

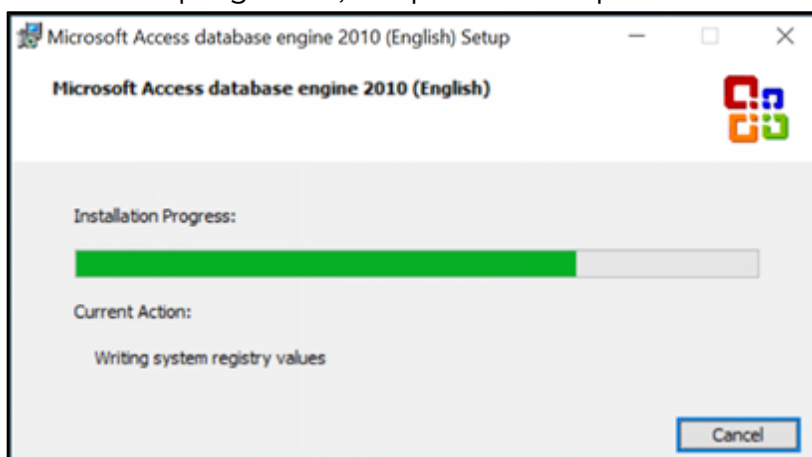


4. Select **Next**.5. Tick the **I accept the terms in this License Agreement** checkbox, and select **Next**.

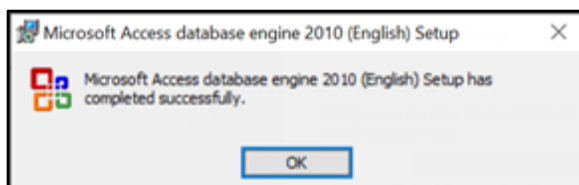
6. Select **Browse** to identify destination location of Microsoft Access if this differs from the default, and select **Install**.



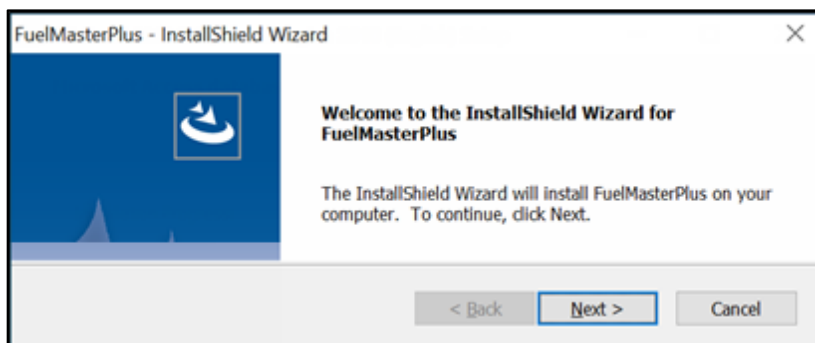
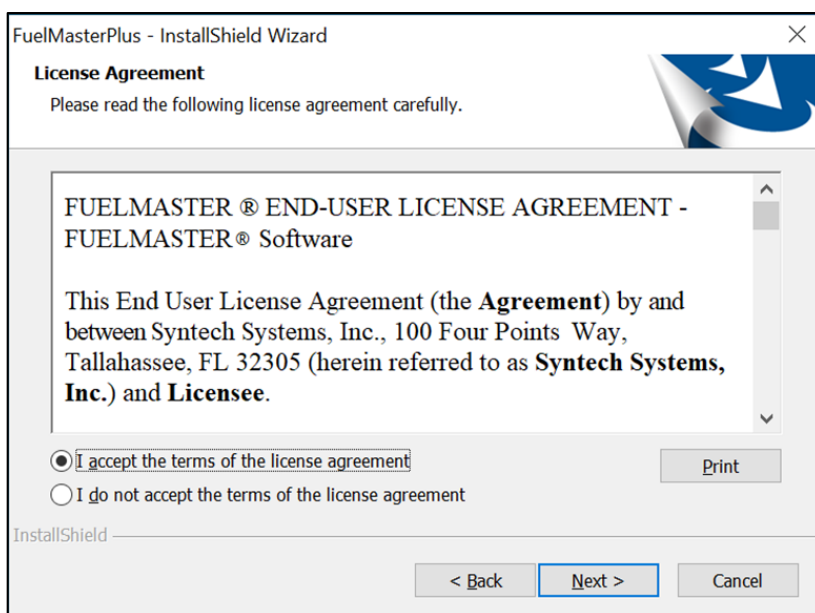
As the installation progresses, the percent complete and current action will display.



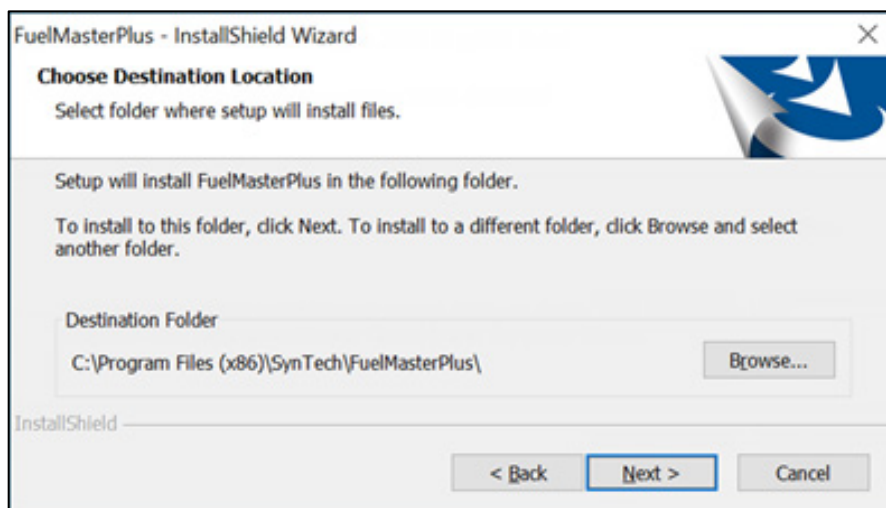
7. Select **OK** to acknowledge setup has completed successfully.



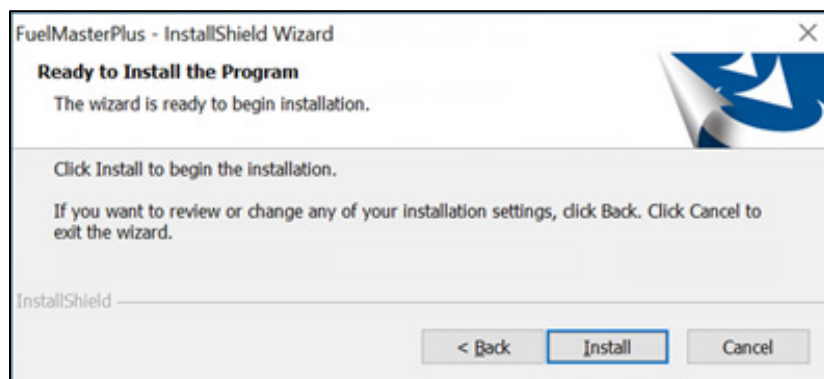
The InstallShield Wizard will install FuelMasterPlus on your computer.

8. Select **Next**.9. Select the **I accept the terms of the license agreement** checkbox, and select **Next**.

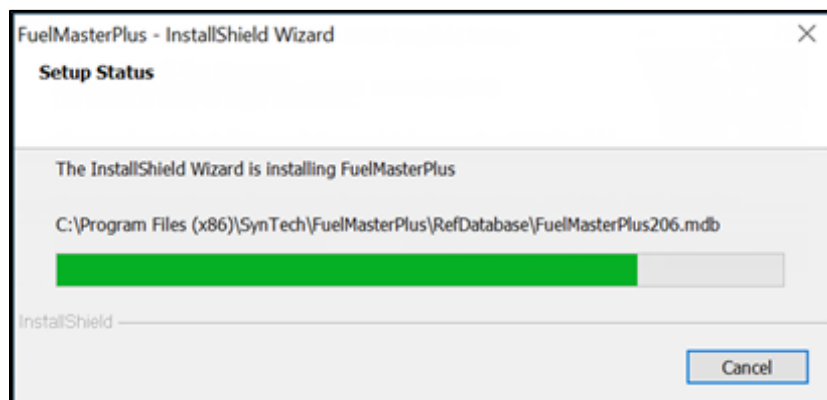
10. Select **Browse** to identify destination location of FMPlus software if you wish to install outside of the default location (Program Files x86 folder located on the local hard drive).



11. Select **Next**. The wizard is ready to begin installation.
12. Select **Install** to begin.

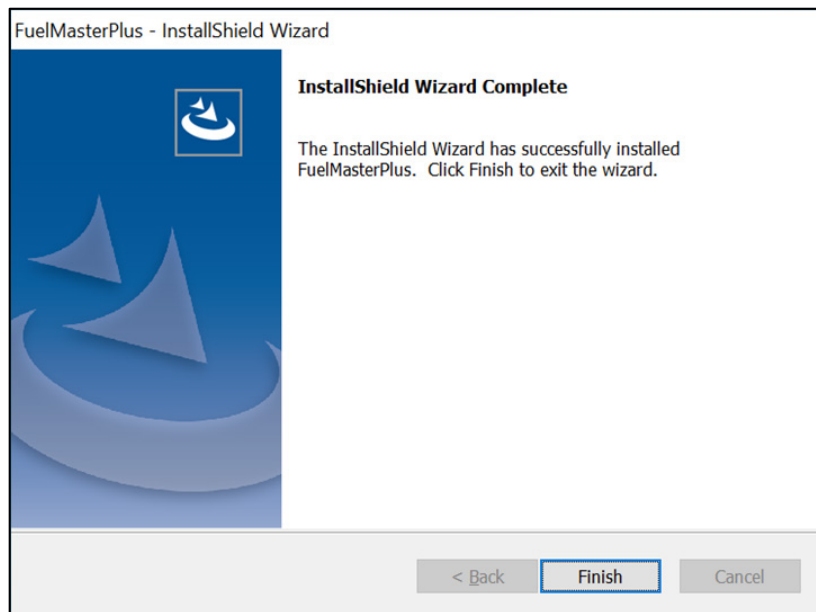


The installer will begin the installation process.





Upon completion, the following dialog box appears.



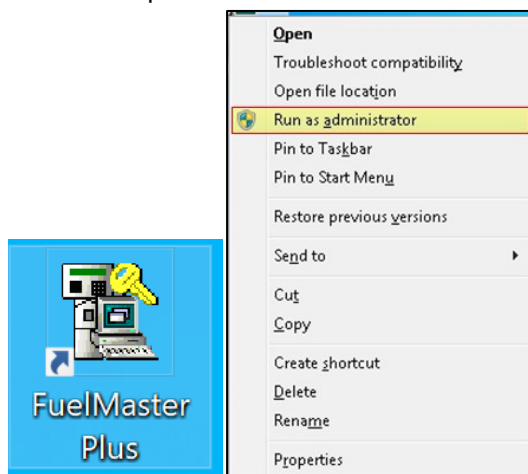
13. If a reboot is required, select to reboot now or later. Select **Finish**.

## Creating a New or Using an Existing SQL Database for FuelMaster

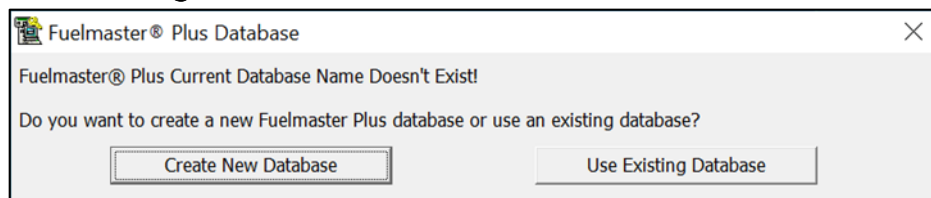
You may create a new database upon the first launch of FMPlus or by using **System > Database Manager**.

The instructions below assume FMPlus has been installed, the computer rebooted, and FMPlus is launched for the first time.

1. As an admin user (or run as administrator), launch the FuelMaster Plus icon on the desktop.



2. On the first run of FMPlus, the software prompts the user to create a new database or use an existing one. If you have an existing SQL database, select **Use Existing Database**. Otherwise, select **Create New Database**.



3. Enter the **FuelMaster Plus DB Entry Name**. MS SQL is selected by default.

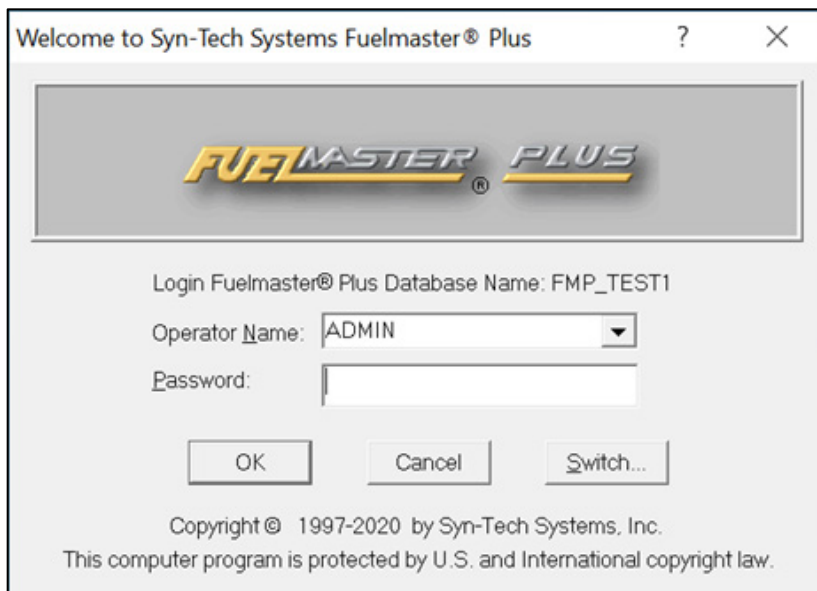
4. Enter the **SQL Server Name**.

**NOTE** SQL Server follows ANSI standard naming practices. Names must begin with a letter and contain only letters, underscore characters (\_), and digits.

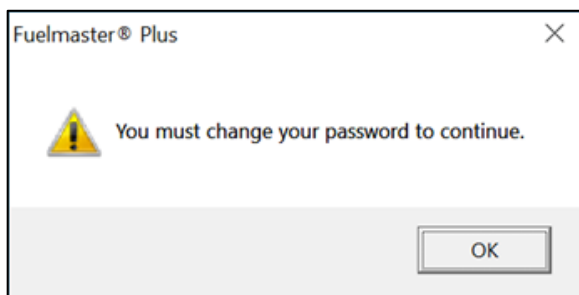
5. Select **SQL Auth**.
6. Enter the **SQL Server Login**. 'FM\_Owner' is recommended.
7. Enter the **SQL Server Password**. Recommended password: St\$1234!
8. Select **Set As Current Database**.

The Database Converter launches and begins building the database.

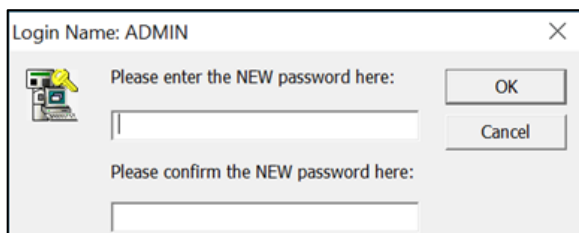
9. Upon completion, select **Exit**.
10. As an admin user (or run as administrator), launch the FuelMaster Plus icon on the desktop.
11. On the first logon screen, select **OK** without a password, and you will be prompted to set one.



12. Select **OK**.



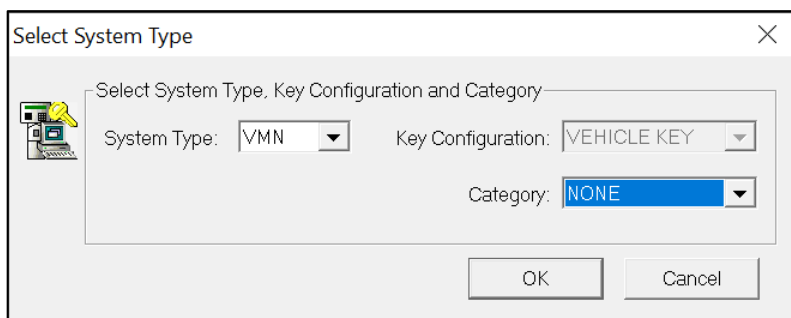
13. Set your password, and select **OK**.



14. Select **OK**.

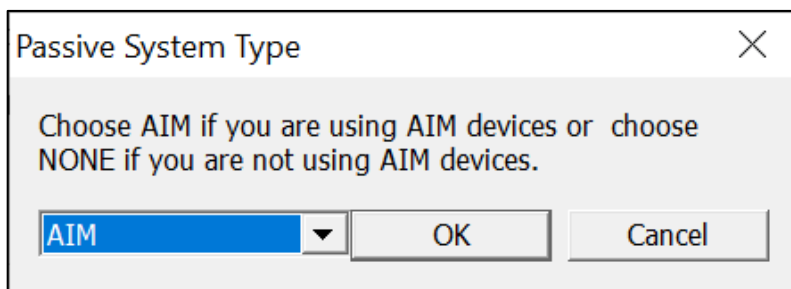


15. Select the desired **System Type**.



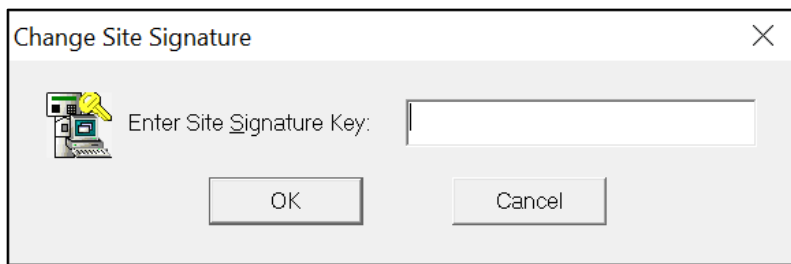
16. For **Category**, select None or Aviation. Select **OK**.

17. Choose AIM if you are using AIM devices or choose NONE if you are not using AIM devices.



18. Select **OK**.

19. Enter the **Site Signature Key**.

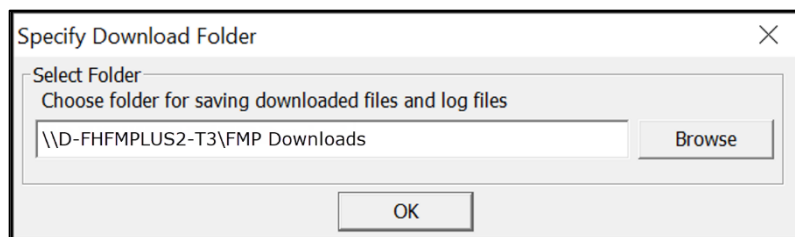


20. Select **OK**.

Before setting the Download Path, you are prompted to ensure the download directory is accessible by all users.

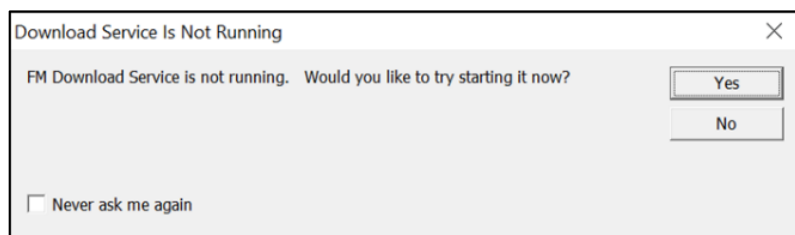
21. Select **OK**.

22. Specify a shared Download Folder by entering a network location or **Browse** to the desired network node.

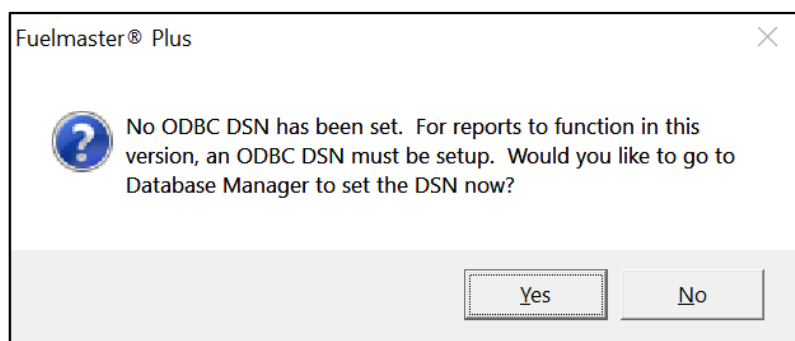


23. Select **OK**.

24. In the event the Download Service is not running, select **Yes** to try to start now.



25. Select **Yes** if the DSN has been created in ODBC.



26. Enter the ODBC DSN. When working with multiple databases, naming the DSN the same as the database may be helpful but is not required.

The screenshot shows the 'Database Manager' window for 'Fuelmaster® Plus Database'. It contains a table with the following data:

Entry Name	Database Type	Database Path	Central Or
FMP_Test1	MSSQL	D-FHFMPPLUS2-T3\FMPLUSSQL2019	No

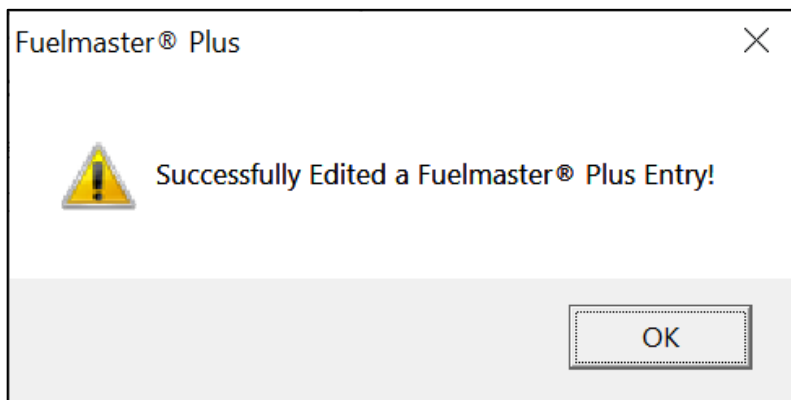
Buttons on the right: New >>, Add >>, Edit >>, Move To >>, Delete, Close.

Buttons at the bottom: Switch Database To FMP\_Test1, Cancel Edit <<, Save Edit <<.

Configuration fields below the table:

- Fuelmaster® Plus DB Entry Name: FMP\_Test1
- Change Path: ☐
- Fuelmaster Plus DB Type: ☐ MS Access, ☒ MS SQL
- Fuelmaster® Plus DB Path:  Browse...
- Windows Auth: ☐ SQL Auth: ☒
- SQL Server Login: FM\_Owner Password:
- SQL Server Name: D-FHFMPPLUS2-T3\FMPLUSSQL ODBC DSN: FMP\_TEST1
- Entry Comment:
- Operator Password:
- Central Go Online: ☐ Online Operator:

27. Select Save Edit.



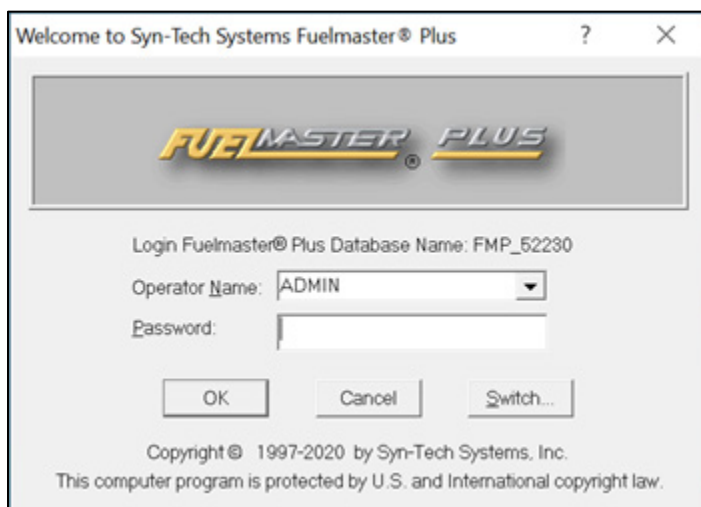
28. Select OK.

## Upgrading/Converting an Access Database to a SQL Database

When upgrading, the full client installation runs to be sure all the current files and resources are updated. Following the upgrade, on first launch of FMPlus, the conversion notice provided depends on the database type. MS SQL databases are directly converted to the correct database level, but MS Access databases must first be converted to MS SQL.

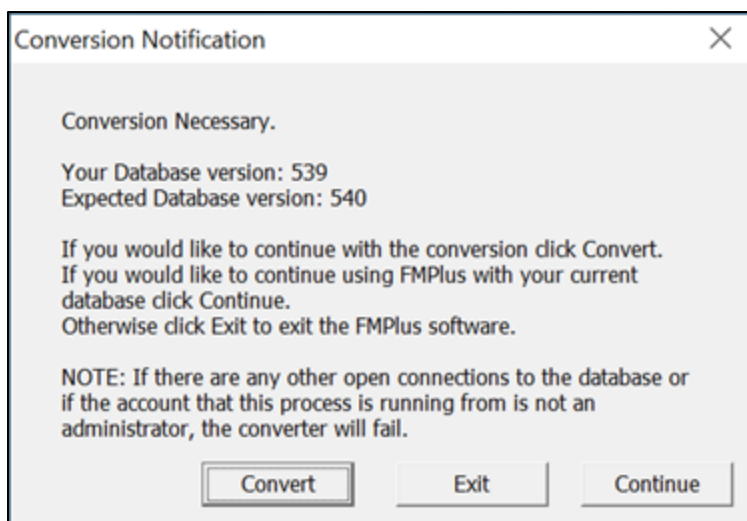
For Release 5.3.3.0 and greater, the FMPlus conversion notice for Access databases provides the ability to launch the **DB Manager** to convert the database to MS SQL and then apply the correct database level.

1. As an admin user (or run as administrator), launch the FuelMaster Plus icon on the desktop.
2. Enter your Admin password. Click *OK*.

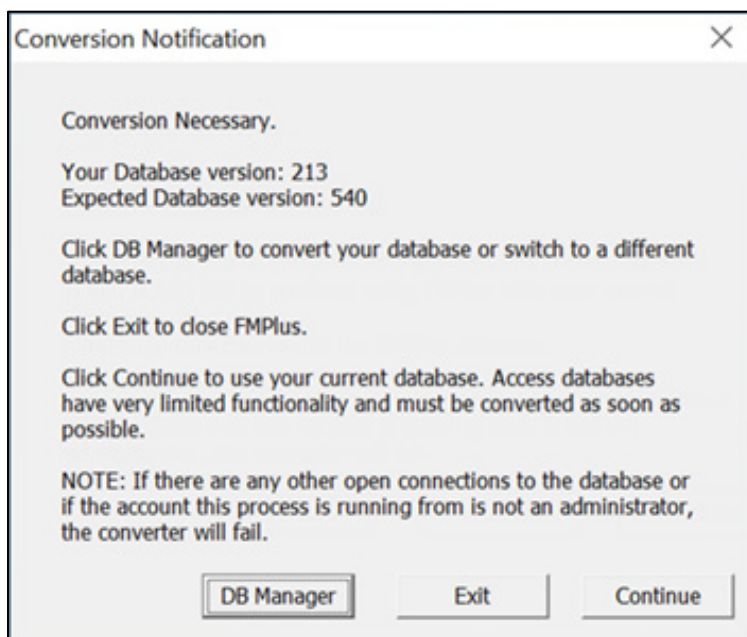




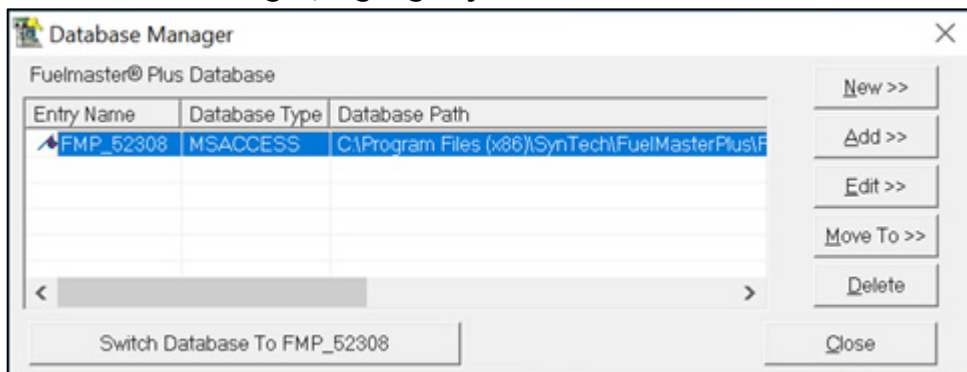
3. If you are upgrading with a SQL database, select **Convert** on the **Conversion Notification** dialog. When the conversion finishes, select **Exit**.



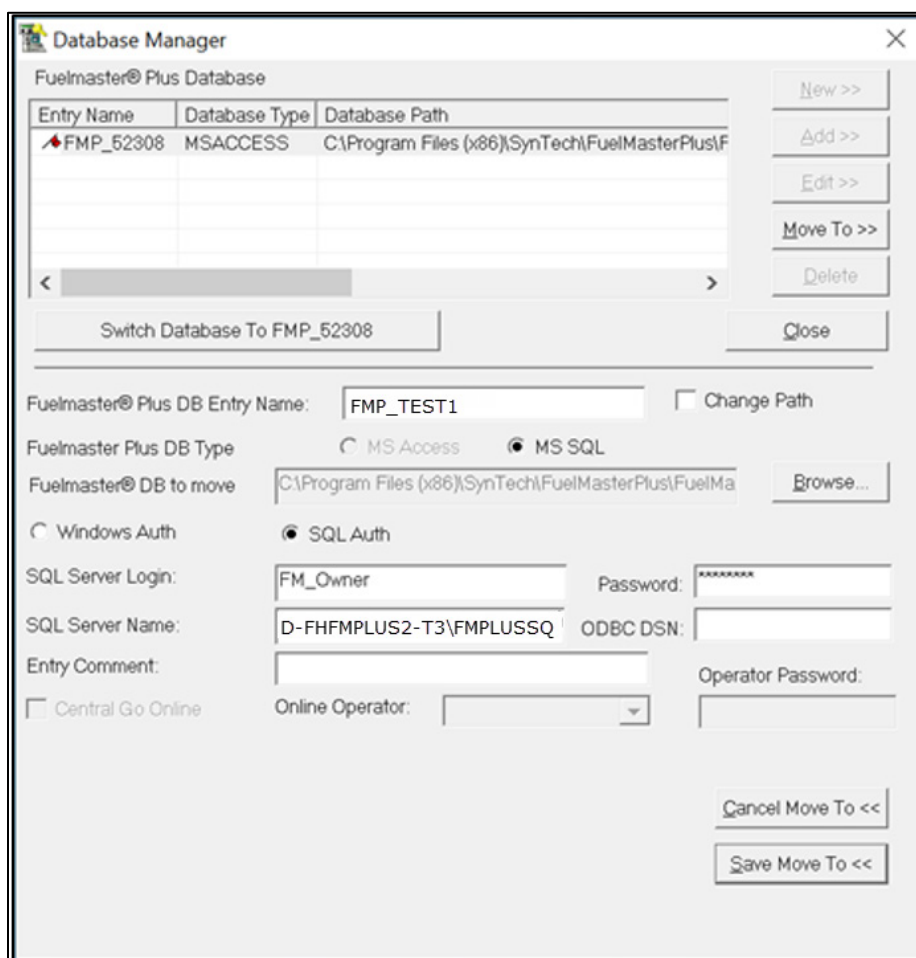
4. If you are upgrading with an Access database, on the **Conversion Notification** dialog, select **DB Manager**.



5. In Database Manager, highlight your Access database and select **Move To >>**.

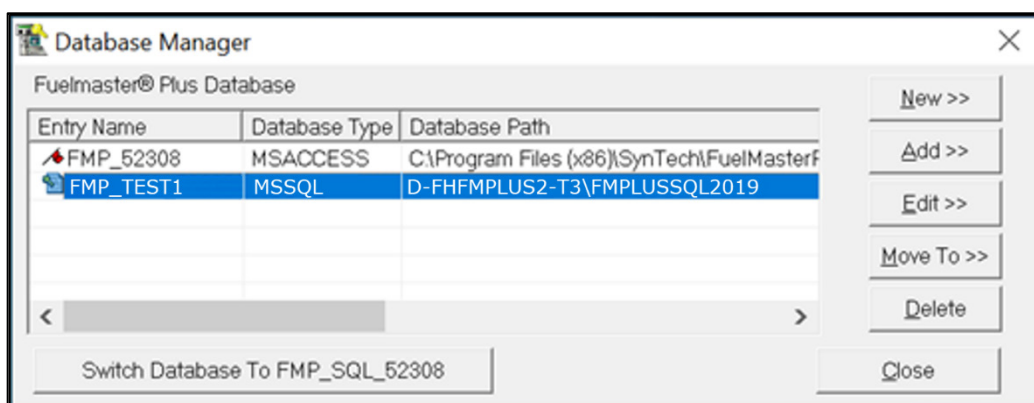


6. Complete the fields for DB Entry Name, Path to the DB to move, and the SQL Server Name (computer\_name\SQL\_instance). The default SQL Server Login and password are provided but may be changed if desired. Enter an Entry Comment if desired. Select **Save Move To <<**.

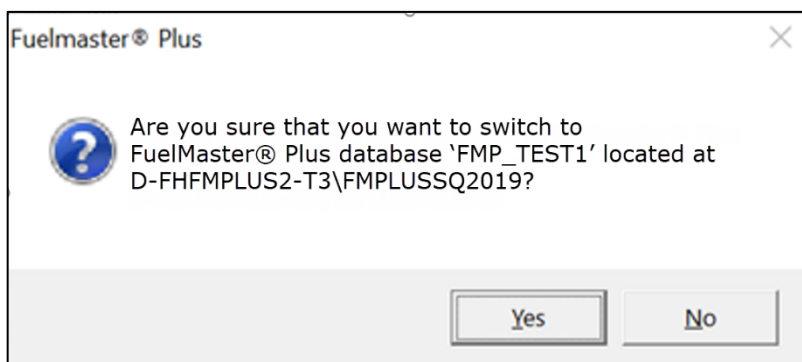


**NOTE** The new DB Entry Name must be unique and cannot be the same as any existing database, including the name of the Access database.

7. The Database Converter launches, runs the conversion, and automatically closes.
8. The **Database Manager** opens. Highlight the new DB Entry and select **Switch Database to [Database Name]**.



9. Select **Yes**.



10. After the switch to the converted SQL database succeeds, set your Admin password, the location for FMPlus download files, and the ODBC DSN for Reports.