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Installation and Uninstallation in FileMaker Pro

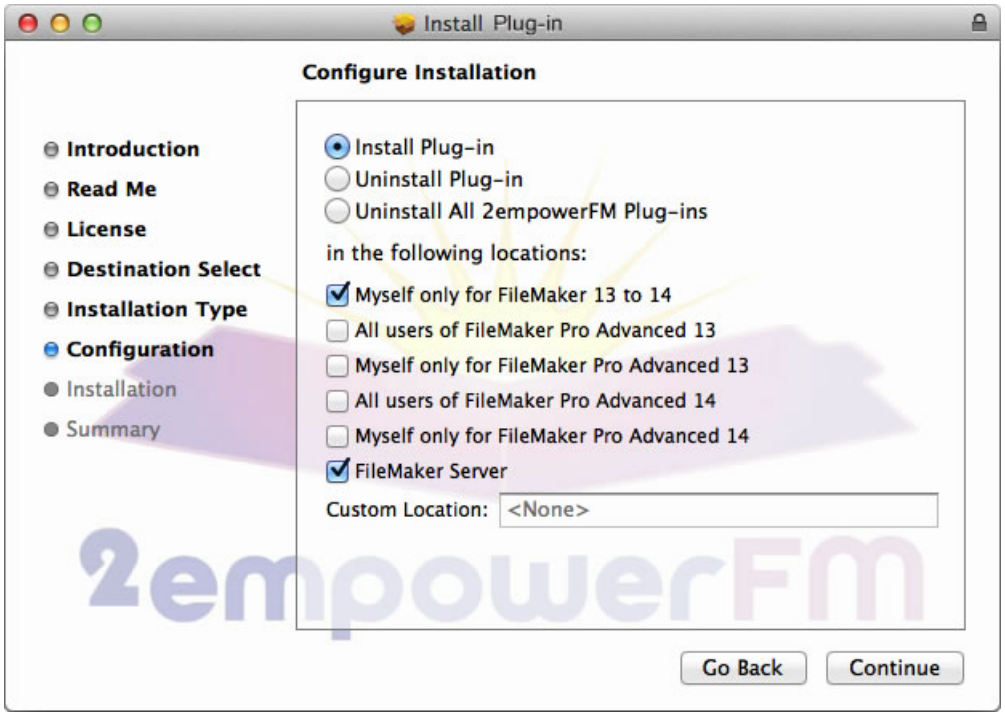
FileMaker Version Required

> ⚠ 2empowerFM SQL Runner v2.77 requires FileMaker 14 or later. Please use **2empowerFM Family v2.65** for FileMaker 13 and earlier.

Macintosh Installation and Uninstallation

1. You must be running OS X 10.13 (High Sierra) through macOS 26 (Tahoe).
2. If you have many copies of FileMaker where you want to install plug-in files, see the **Scripted Installation** section farther down. Otherwise, it's easiest to install on a few machines by following the steps below.
3. In the **2empowerFM SQL Runner v2.77.dmg** file you downloaded (where you found this manual), double click **Install 2empowerFM SQL Runner**. If you don't see **Install 2empowerFM SQL Runner**, try downloading the plug-in again and be sure to download the Macintosh version instead of the Windows version.
4. The 2empowerFM installer will guide you through the remainder of the installation process.

The installer will automatically detect locations you can install to:



If you need to install to a custom location, such as to the Extensions folder of a FileMaker "Runtime" solution, simply click in the **Custom Location** box and choose where you want to install.

The installer also makes sure 2empowerFM plug-ins you previously installed to all installation locations are compatible with the one you're installing and offers to download updates for any that aren't compatible.

Uninstallation

Run the installer and choose **Uninstall Plug-in** or **Uninstall All 2empowerFM Plug-ins** on the page in the above screenshot. Alternately, remove all plug-in files that begin with the name **2empowerFM** from all of the locations mentioned in the **Manual Installation** section below.

Manual Installation

For those running macOS 10.5 or earlier, or those who prefer to do a manual installation, please:

- **download the Parent plug-in**
  and
- **download the Child plug-in**

Double click each file to unzip it, then copy **both** unzipped plug-in files to **one** of the following locations:

- Yourself only for FileMaker Pro 9 and later:

  ```
  ~/Library/Application Support/FileMaker/Extensions
  ```

- Yourself only for a particular FileMaker Pro version (works only in FileMaker Pro 12 and later):

  ```
  ~/Library/Application Support/FileMaker/ <FileMaker Pro or FileMaker Pro Advanced> /
  <version> /Extensions
  ```

- All users of a particular FileMaker Pro version:

  ```
  /Applications/ <FileMaker version> /Extensions
  ```

- To reach one of the above locations, open **Finder** (the app you use to manage files and folders), then hold Command ⌘ and Shift ⇧, then press G. A **Go to the folder** dialog will appear. Paste the start of one of the above locations in that dialog and click **Go**.

> ⚠ When installing plug-ins for FileMaker Pro, make sure all 2empowerFM plug-ins are in only **one** of the above FM Pro locations or they may fail to work or even crash FileMaker if you leave old plug-in versions installed. Using the Macintosh Installer is highly recommended as it will ensure there are no duplicate copies of the plug-in in conflicting locations.

If you need help with manual installation, uninstallation, or with the installer, please contact us through **support.2empowerFM.com**.

Windows Installation and Uninstallation

1. If you have many copies of FileMaker where you want to install plug-in files, see the **Scripted Installation** section farther down. Otherwise, it's easiest to install on a few machines by following the steps below.
2. Make sure you are running Windows 2000 through Windows 11.
3. Make sure FileMaker is not open.
4. Open the Install folder inside the 2empowerFM SQL Runner v2.77.zip file you downloaded (the same file that contains this manual).
5. Copy the following files from the Install folder:

   ```
   2empowerFM.fmx64
     and
   2empowerFM_SQL_Runner.fmx64
   ```

   to **one** of the following locations:

   - Yourself only for FileMaker Pro 9 and later:

     ```
     \Users\ <your user name> \AppData\Local\FileMaker\Extensions
     ```

   - Yourself only for a particular FileMaker Pro version (works only in FileMaker Pro 12 and later):

     ```
     \Users\ <your user name> \AppData\Local\FileMaker\
     <FileMaker Pro or FileMaker Pro Advanced> \ <version> \Extensions
     ```

   - All users of a particular FileMaker Pro version:

\Program Files \ <FileMaker version> \Extensions\

Make sure all 2empowerFM plug-ins are in only one of the above locations or they may fail to work or even crash FileMaker if you leave old plug-in versions installed.

If **2empowerFM.fmx64** already exists in the location you are installing to, replace it with the version that came with **2empowerFM_SQL_Runner.fmx64**. When you start FileMaker, a dialog will tell you if other 2empowerFM plug-ins are not compatible with the newer **2empowerFM.fmx64**. In that case, please visit **www.2empowerFM.com** to download and install the latest version of each plug-in you are using.

Uninstallation

Remove all plug-in files that begin with the name **2empowerFM** from each of the following locations:

\Users\ <your user name> \AppData\Local\FileMaker\Extensions

\Users\ <your user name> \AppData\Local\FileMaker\Extensions\
<FileMaker Pro or FileMaker Pro Advanced> \ <version> \Extensions

\Program Files\ <FileMaker version> \Extensions\

Scripted Installation

Installing a plug-in via FileMaker scripts is useful if you need to install a plug-in on many machines at a company. If this is your first time installing the plug-in, we recommend that you skip this section and use the **Macintosh Installation and Uninstallation** or the **Windows Installation and Uninstallation** sections above.

FileMaker 12 and later provide an **Install Plug-in File** script step that can be used to install 2empowerFM plug-in files embedded into FileMaker database **Container** fields. FileMaker versions before 12 could also install plug-in files using a script, but only by using plug-in files placed in a special location on FileMaker Server. Either method takes longer to set up than a typical install but can save time if you need to installl or upgrade plug-ins on a number of FileMaker systems as soon as a database that needs the plug-ins is opened.

Whatever scripted method you use to install plug-in files, it's important to install all 2empowerFM Child plug-ins (such as **2empowerFM_SQL_Runner**) before installing the one 2empowerFM Parent plug-in (**2empowerFM_SQL_Runner.fmplugin** on Mac or **.fmx64** on Windows). The same Parent plug-in is used by all Child plug-ins, and all Child plug-ins have longer names such as **2empowerFM_SQL_Runner** or **2empowerFM_Text_Toolkit**.

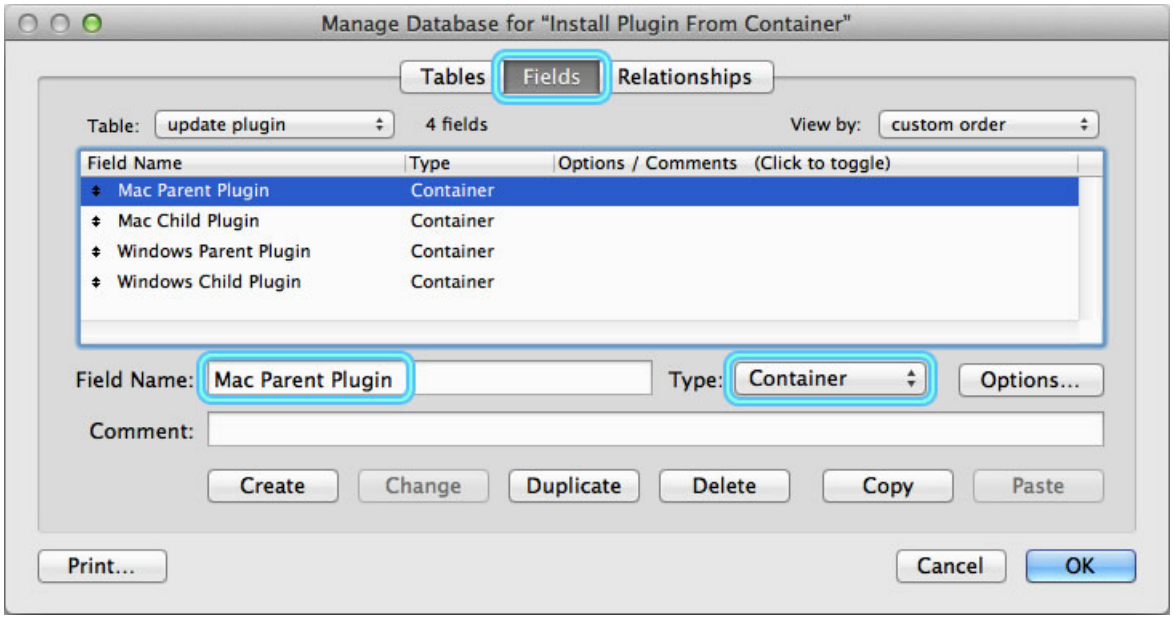
The Parent plug-in is responsible for telling FileMaker which plug-in functions are available, so if the Parent is installed before a Child plug-in, the Parent will not know it needs to make the Child's plug-ins functions available to FileMaker. If you accidentally install the Parent plug-in first, you can restart FileMaker after installing Child plug-ins to make their functions available.

To install plug-ins in FileMaker 11 and earlier, search the internet for **"FileMaker Server Guide to Updating Plug-ins"** to find FileMaker's official guide.

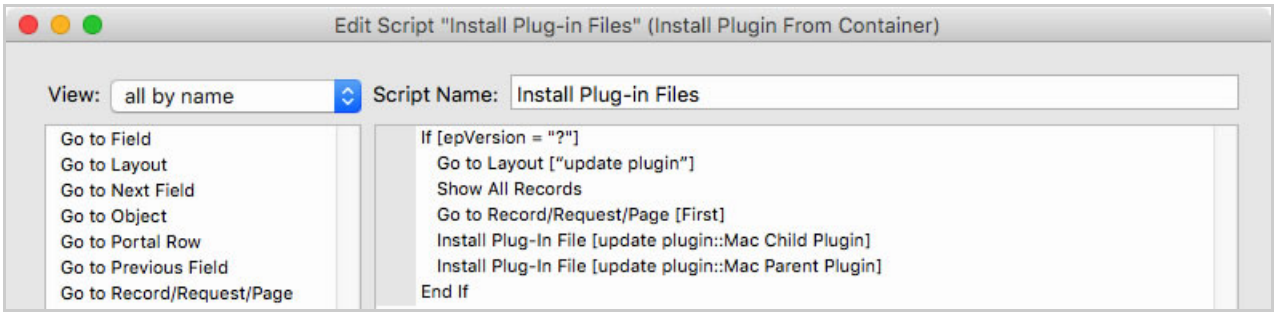
To install plug-ins in FileMaker 12 or later, use FileMaker 12's new **Install Plug-in File** script step as follows:

1. Create or open an existing FileMaker database in which you want to embed plug-in files to be installed.
2. Open the **File > Manage > Database...** menu.
3. In the **Tables** tab, create a new table called **update plugin**.
4. In the **Fields** tab, create a new **Container** field to store the 2empowerFM parent plug-in and an additional **Container** field to store each child plug-in you want to install. You will need an additional

set of containers to store Macintosh and Windows plug-in versions if you need to install both:



5. Go to the **update plugin** layout that should have been automatically created when you created the **update plugin** table.
6. Add all the **Container** fields you created to the **update plugin** layout.
7. Click the **New Record** button at the top of the **update plugin** layout to insert exactly one record. The layout should contain 1 and only 1 record.
8. For Macintosh plug-ins, download plug-in files using links in the **Manual Installation** section. Unzip the files you downloaded, then click and drag the **2empowerFM.fmplugin** file to the **Mac Parent Plugin** field you created on the FileMaker layout. Drag the **2empowerFM_SQL_Runner.fmplugin** file to the **Mac Child Plugin** field. If dragging files isn't working, try right clicking a container, then choose **Insert File...**
9. For Windows plug-ins, download **2empowerFM SQL Runner v2.77.zip** and open its `Install` folder. Drag the **2empowerFM.fmx64** file to the **Windows Parent Plugin** field you created on the FileMaker layout. Drag the **2empowerFM_SQL_Runner.fmx64** file to the **Windows Child Plugin** field. If dragging files isn't working, try right clicking a container, then choose **Insert File...**
10. Create a FileMaker script to install plug-in files that looks something like this:



11. If you find that FileMaker tells you **epVersion** is an unknown function, you will need to run the two **Install Plug-in File** script steps above without the **If/End If** around them.
12. Once the script is saved with a call to **epVersion** in it, if you load the script on another machine where the plug-ins aren't installed, the **If** statement above will change to `If [<Function Missing> = "?"]` which will still evaluate to true and so the **Install Plug-in File** script steps will be run to install the plug-ins.
13. If you ever need to upgrade older plug-in files to newer ones, you can change the **If** statement above to `If [epVersion ≠ "<new version>"]` where **<new version>** is whatever value **epVersion** returns in the new version you want to install.
14. If you need to detect whether to install Macintosh or Windows plug-in files, add `If [Get ( SystemPlatform ) = 1]` to your script and when true, install Macintosh plug-ins, otherwise install Windows plug-ins.

Installation and Uninstallation in FileMaker Server

Overview

SQL Runner can be installed on FileMaker Server to be used by the **Server Script Engine**. SQL Runner can also be installed for use in FileMaker Server web publishing. Web publishing includes many technologies such as **Instant Web Publishing**, **WebDirect**, and **Custom Web Publishing**.

The **Server Script Engine** handles running scheduled scripts directly on the server and can also be activated directly using FileMaker 13's new **Perform Script on Server** script step.

Instant Web Publishing and **WebDirect** both allow you to use your FileMaker layouts in a web browser. **WebDirect** was introduced in FileMaker Server 13 and uses HTML5 to make your layouts look and feel more like how they look and feel in FileMaker Pro.

Custom Web Publishing lets you use PHP scripts or XML/XLST to display FileMaker data in a web browser in any format you like. **Custom Web Publishing** can also run scripts on FileMaker Server that use plug-in functions.

SQL Runner can be run on FileMaker Server because it has no user interface (no UI). Other plug-ins, such as 2empowerFM Menu Popper, will not work in the **Server Script Engine** because no database UI is displayed on the server in which a menu can be shown. Even when a FileMaker Server database is displayed in a web browser using **Instant Web Publishing** or **WebDirect**, FileMaker Server provides no way for plug-ins to transmit custom UI elements such as menus to the web browser for display.

Since no FileMaker Server plug-in has access to a UI, error dialog boxes normally displayed by the plug-in can not be shown. Instead, errors are logged to **Control Panel > Event Viewer** on Windows or to the **system.log** file viewable in **Applications > Utilities > Console** on Macintosh. When an error occurs, plug-in functions will return `"?"` and you can get the text of the error by calling `epVar("$lastError")`.

Macintosh FileMaker Server Installation and Uninstallation

Most users of Macintosh FileMaker Server will install by choosing the various FileMaker Server checkboxes in the 2empowerFM installer app. If you need to install plug-in files manually, copy the files mentioned in the **Manual Installation** section to one or both of the following locations:

- FileMaker Server script engine:

```
/Library/FileMaker Server/Database Server/Extensions
```

- FileMaker Server web publishing:

```
/Library/FileMaker Server/Web Publishing/publishing-engine/cwpc/Plugins
```

> In FileMaker Server 12, you should also copy plug-ins to `wpc/Plugins`. In FileMaker Server 11 and earlier, there is no `cwpc/Plugins` folder, so copy plug-ins only to `wpc/Plugins`.
>
> Notice the final directory name is ***Plugins*, not *Extensions***. If you use the wrong one, plug-ins will not work and you will get no error saying why.

Open **Applications > Utilities > Terminal** and change into each of the directories you copied plug-in files to, then run the following two commands that ensure FileMaker Server has permission to read and execute the plug-ins:

```
sudo chown -R fmserver:fmsadmin 2empower*
sudo chmod -R 775 2empower*
```

Uninstallation

Run the 2empowerFM installer app and choose **Uninstall Plug-in** or **Uninstall All 2empowerFM Plug-ins**. Alternately, remove all plug-in files that begin with the name **2empowerFM** from all of the locations mentioned in the section above.

Windows FileMaker Server Installation and Uninstallation

FileMaker Server 13 and Later

Copy `2empowerFM.fmx64` and `2empowerFM_SQL_Runner.fmx64` to both of the following locations:

- FileMaker **Server Script Engine**:

```
\Program Files\FileMaker\FileMaker Server\Database Server\Extensions
```

- FileMaker Server web publishing:

```
\Program Files\FileMaker\FileMaker Server\Web Publishing\publishing-engine\cwpc\Plugins
```

Notice the final directory name is ***Plugins*, not *Extensions***. If you use the wrong one, plug-ins will not work and you will get no error saying why.

Uninstallation

Remove all plug-in files that begin with the name **2empowerFM** from all of the following locations:

```
\Program Files\FileMaker\FileMaker Server\Database Server\Extensions
```

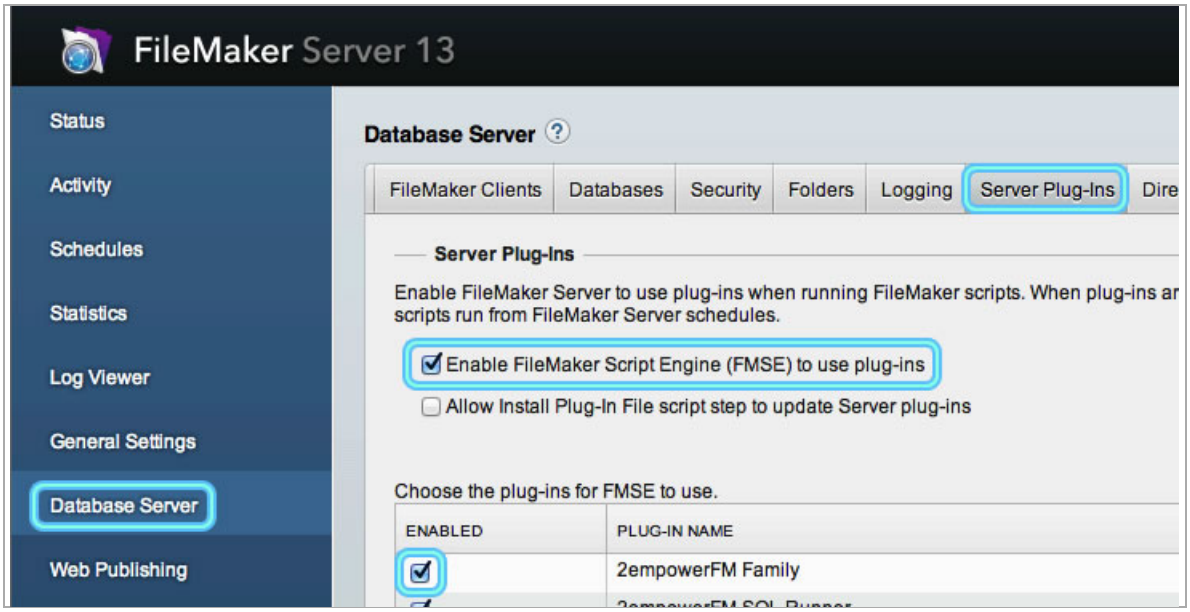
```
\Program Files\FileMaker\FileMaker Server\Web Publishing\publishing-engine\wpc\Plugins
```

```
\Program Files\FileMaker\FileMaker Server\Web Publishing\publishing-engine\cwpc\Plugins
```

Enabling FileMaker Server Plug-ins

Script Engine Plug-ins

To enable plug-ins for use in FileMaker Server's script engine, you must first open the FileMaker Server Admin Console. The screenshot below is from FileMaker Server 13. The console looks different in previous versions but has roughly the same layout and setting names.



Select **Database Server** on the left, then choose the **Server Plug-Ins** tab at the top. You should see a list of the plug-in files you recently copied, but keep going even if they don't show up yet. Check **Enable FileMaker Script Engine (FMSE) to use plug-ins** (older admin consoles use a different phrase, such as **Enable FileMaker Server to use plug-ins**), then click the **Save** button in the lower right.

Now you must wait until plug-ins are displayed in the list beneath the enable server plug-ins checkbox. It isn't clear if FileMaker refreshes the list of plug-ins on a timer or in response to something else, but in some cases the list will not update until you stop and start FileMaker Server. In other cases, a complete reboot is required. Once the plug-ins appear in the list, check the box in the **Enabled** column to the left of each plug-in and then click **Save**. If it's working properly, the plug-in name will appear instead of saying "Not loaded" and the **Enabled** checkboxes will remain checked.

Web Publishing Plug-ins

Plug-ins are automatically enabled for all forms of web publishing in FileMaker Server. In fact, you can't disable individual plug-ins or even see which plug-ins are loaded for web publishing. To load plug-ins after installing them, you merely have to stop and then start the web publishing engine. If plug-ins don't work, rebooting the machine may be required.

Troubleshooting

If plug-ins are not working, first look for errors or warnings in system logs. On Macintosh, logs are found in the **system.log** category in **Applications > Utilities > Console**. On Windows, logs may appear in the **System** or **Application** categories of **Control Panel > Event Viewer**.

If you see no errors or warnings, the most likely problem is that the plug-in files were not put in the correct location or do not have the correct file permissions to allow FileMaker Server to access them. Double check the steps in the appropriate installation section above, and if necessary, set file permissions on all plug-ins to allow "Everyone" to both read and execute. Make sure the folder the plug-ins are in is also set to read access by "Everyone". After fixing permissions, try rebooting the machine if possible.

Using Server Script Engine Plug-ins

Technically, **Server Script Engine** plug-ins are used for more than server-side scripts, but not much more. When you use your local copy of FileMaker Pro to open a database hosted by FileMaker Server, the server will use **Server Script Engine** plug-ins to evaluate a small subset of field calculations. For example, if you create a new **Calculation** field with a **stored** calculated value of `epHash("somevalue")`, the server will evaluate the call to **epHash** with its plug-ins. But if you change to an **unstored** calculated value or you check **Use global storage**, plug-ins installed in your local FileMaker Pro client will be used to evaluate **epHash**. To make matters more confusing, each time you create a new record, even the stored calculation field is evaluated by your local FileMaker, not by the server.

Things can always change in newer FileMaker versions, but in general, you should assume calls to plug-in functions will be evaluated by plug-ins installed in your local FileMaker Pro client. That means you **must generally have the plug-in installed on all FileMaker Pro clients, not just on the server**. The one reliable exception is FileMaker 13's new **Perform Script on Server** script step that can be used by a FileMaker Pro client to run a script entirely on the server using plug-ins on the server. You can also run scripts entirely on the server by scheduling them to run using the **Schedules** tab in the server admin console.