



# File Manipulator

## Developer's Guide

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## I. Introduction

### Description

The File Manipulator plug-in offers functions that support manipulating files via a FileMaker Pro interface. The basic operation of the plug-ins is to offer the FileMaker user the ability to move, rename, copy or delete files and folders. The plug-in also offers access to file and folder metadata such as a file's creation date or a folder's last modification date. These operations are accomplished using FileMaker function calls from within FileMaker calculations. These calculations are generally determined from within FileMaker "SetField" or "If" script steps. For a list of available FileMaker functions and their functionality please see the accompanying "Function's Guide" document.

### Intended Audience

FileMaker developers or persons, who have knowledge of FileMaker scripting, calculations and relationships as proper use of the plug-in requires that FileMaker integration scripts be created in your FileMaker solution.

### Successful Integration Practices:

- 1) Read the Developer's Guide
- 2) Read the Functions Guides
- 3) Look at our FileMaker Demo

### Technical Note

All functions return a text string. It is up to the end user to convert this returned value when necessary. If an error occurs the function returns a representation of a negative number as a character string. This may help with capturing errors within your scripts.

For the following function definitions a file or folder path is formatted as follows:

**Mac** - Paths take the form of MountedVolume/path. Paths can also be user- relative (e.g., ~/Desktop )

**Windows** – Paths take the form of DriveLetter:\path (e.g. C:\Program Files ) or [\\ServerName\path](#)

## II. Integration Steps

Accessing and using the plug-in functions involve the following steps.

### 1) Installing and Registering the Plug-in

#### Installing the Plug-in:

The first step is to install the plug-in into FileMaker.

- 1) Quit FileMaker Pro completely.
- 2) Locate the plug-in in your download which will be located in a folder called "Plug-in". On Windows the plug-in will have a ".fmx" extension. On Mac the plug-in will have a ".fmplugin" extension.
- 3) Copy the actual plug-in and paste it to the Extensions folder which is inside the FileMaker program folder. On Windows this is normally located here: C:\Program Files\FileMaker\FileMaker X\Extensions. On Mac this is normally located here: Volume/Applications/FileMaker X/Extensions (Volume is the name of the mounted volume)
- 4) Start FileMaker. Confirm that the plug-in has been successfully installed by navigating to "Preferences" in FileMaker Pro, then click the "Plug-ins" Tab. There you should see the plug-in listed with a corresponding check box. This indicates that you have successfully installed the plug-in.

#### Registration:

The next step is to register the plug-in which enables all plug-in functions.

- 5) Confirm that you have access to the internet and open our FileMaker demo file, which can be found in the "FileMaker Demo File" folder in your original download.
- 6) If you are registering the plug-in in Demo mode, then simply click the "Register the Plug-in" button and do not change any of the fields. Your plug-in should now be running in "DEMO" mode. The mode is noted in our FileMaker Demo file on the Setup tab.
- 7) If you are registering a licensed copy, then simply enter your license number in the "LicenseID" field and click the "Register the Plug-in" button. Make sure you remove the Demo License ID and enter your registration information exactly as it appears in your confirmation email. Your plug-in should now be running in "LIVE" mode. The mode is noted in our FileMaker Demo file on the Setup tab.

Congratulations! You have now successfully installed and registered the plug-in!

#### Why do I need to Register?

In an effort to reduce software piracy, Productive Computing, Inc. has implemented a registration process for all plug-ins. The registration process sends information over the internet to a server managed by Productive Computing, Inc. The server uses this information to confirm that there is a valid license available and identifies the machine. If there is a license available, then the plug-in receives an acknowledgment from the server and installs a certificate on the machine. This certificate never expires. If the certificate is ever moved, modified or deleted, then the client will be required to register again. On Windows this certificate is in the form of a "pci" file. On Mac this certificate is in the form of a plist file.

The registration process also offers developers the ability to automatically register each client machine behind the scenes by hard coding the license ID in the PCFM\_Register function. This proves beneficial by eliminating the need to manually enter the registration number on each client machine. There are other various functions available such as PCFM\_GetOperatingMode and PCFM\_Version which can assist you when developing an installation and registration process in your FileMaker solution.

## 2) File Actions

The basic operation of the plug-in offers FileMaker the ability to copy, move, rename and delete files.

### Copy Files

Calling the PCFM FileCopy( SourcePath ; DestinationPath ; OverwriteFlag ; optDestFileName) function will copy a file from the source path to the destination path and rename if the destination file name is provided. The Overwrite Flag (Y/N) is N by default.

### Move Files

Calling the PCFM FileMove( SourcePath ; DestinationPath ; OverwriteFlag ; optDestFileName) function will move a file from the source path to the destination path and rename if the destination file name is provided. The Overwrite Flag (Y/N) is N by default.

### Rename Files

Calling the PCFM FileRename( SourcePath ; DestFileName) function will rename a file in the source path to the destination file name.

Delete Files Calling the PCFM FileDelete( SourcePath ) function deletes a file from the source path.

### 3) File Information

The plug-in also offers access to the following file metadata:

#### File Size

Calling the PCFM\_GetFileSize( SourcePath )function will get the size of the file in bytes.

#### Creation Date

Calling the PCFM\_GetFileCreationDate( SourcePath )function will get the creation date and time of the file.

#### Last Modification Date

Calling the PCFM\_GetFileModificationDate( SourcePath ) function will get the modification date and time of the file.

#### Last Access Date

Calling the PCFM\_GetFileAccessDate( SourcePath ) function will get the last access date and time of the file.

#### File Exists

Calling the PCFM\_FileExists( SourcePath ) function will return a zero if the file exists and a 1 if the file does not exist.

#### FileMaker Path Info

Calling the PCFM\_PCFM\_GetFileMakerPath( SourcePath )function will return the path of the FileMaker Pro application.

## 4) Folder Actions

The basic operation of the plug-in offers FileMaker the ability to create, copy, move, rename and delete folders.

### Create Folders

Calling the PCFM\_FolderCreate( SourcePath )function will create the folder (or folders) specified in the path. This function also requires the folder name.

### Copy Folders

Calling the PCFM\_FolderCopy( SourcePath ; DestinationPath )function will copy a folder (and its contents) from the source path to the destination path.

### Move Folders

Calling the PCFM\_FolderMove( SourcePath ; DestinationPath )function will copy a folder (and its contents) from the source path to the destination path.

### Rename Folders

Calling the PCFM\_FolderRename( SourcePath ; DestFolderName ) function will rename a folder.

### Delete Folders

Calling the PCFM\_FolderDelete( SourcePath ) function will delete a folder (and its contents).

## 5) Folder Information

The plug-in offers access to the following folder metadata:

### Folder Size

Calling the PCFM\_GetFolderSize( SourcePath ) function will get the size of the folder (and its contents) in bytes.

### Creation Date

Calling the PCFM\_GetFolderCreationDate( SourcePath ) function will get the creation date and time of the folder.

### Last Modification Date

Calling the PCFM\_GetFolderModificationDate( SourcePath ) function will get the modification date and time of the folder.

### Lat Access Date

Calling the PCFM\_GetFolderAccessDate( SourcePath ) function will return a zero (in the result field above) if the folder exists and a 1 if the folder doesn't.

### File Exists

Calling the PCFM\_GetFolderExists( SourcePath )function will get the access date and time of the folder.

## 6) Drive Information

The plug-in also offers retrieval of the following drive information:

### Drive Letters

Calling the PCFM\_GetDrives function will get all valid drive letters separated by return characters.

### Folder Names

Calling the PCFM\_GetFolders( SourcePath )function will get all folder names in the path specified, separated by returns.

### File Names

Calling the PCFM\_GetFiles( SourcePath )function will get all file names in the path specified, separated by returns.

### Number of Subfolders

Calling the PCFM\_GetNumSubfolders( SourcePath )function will get the number of subfolders in the path specified.

### Number of Files

Calling the PCFM\_GetNumFiles( SourcePath )function will get the number of files in the path specified.

### Drive Size

Calling the PCFM\_GetDriveSize( SourcePath )function will get the total size of the drive in bytes.

### III. Contact Us

Successful integration of a FileMaker plug-in requires the creation of integration scripts within your FileMaker solution. A working knowledge of FileMaker Pro, especially in the areas of scripting and calculations is necessary. If you need additional support for scripting, customization or setup (excluding registration) after reviewing the videos, documentation, FileMaker demo and sample scripts, then please contact us via the avenues listed below.

Phone: 760-510-1200

Email: [support@productivecomputing.com](mailto:support@productivecomputing.com)

Forum: [www.productivecomputing.com/forum](http://www.productivecomputing.com/forum)

Please note assisting you with implementing this plug-in (excluding registration) is billable at our standard hourly rate. We bill on a time and materials basis billing only for the time in minutes it takes to assist you. We will be happy to create your integration scripts for you and can provide you with a free estimate if you fill out a Request For Quote (RFQ) at [www.productivecomputing.com/rfq](http://www.productivecomputing.com/rfq) . We are ready to assist and look forward to hearing from you!