

.com Solutions Inc.



FmPro Migrator - Access to FileMaker Migration Procedure

FmPro Migrator - Access to FileMaker Migration Procedure

1 Overview

- 1.1 Overview 5
- 1.2 Licensing FmPro Migrator 6

2 Step 1

- 2.1 Office 365 Compatibility 11
- 2.2 Step 1 - Get Info - Access to FileMaker Pro 16
- 2.3 Install FileMaker ODBC Driver - macOS (FileMaker 11+) 21
- 2.4 Install FileMaker ODBC Driver - Windows - FileMaker 11+ 37

3 Step 2

- 3.1 Step 2 - Create Tables 50

4 Step 3

- 4.1 Step 3 - Transfer Data - Access to FileMaker Pro 56
- 4.2 Step 3 - Transfer Data - Access to FileMaker Import Scripts 62

5 Migrating Forms/Reports, Relationships, Value Lists & Visual Basic Code

- 5.1 AccessDDRExport - Extracting Info From Access (FileMaker Pro Migration) 67
- 5.2 Using Licensed Mode - Access to FmPro 77
- 5.3 Creating TOs - Access to FmPro 80
- 5.4 Creating Relationships - Access to FmPro 83
- 5.5 Creating Value Lists - Access to FmPro 85
- 5.6 Using the Microsoft Access Code Conversion Workbench - Access to FmPro Conversions 91
- 5.7 Creating FileMaker Scripts from Visual Basic Code - Access to FmPro 95

5.8 Creating Layouts - Access to FmPro

98

6 Manual Completion Tasks

6.1 Manual Tasks - Access to FmPro

104

Overview

Overview

This document provides an explanation of the steps required to perform a Microsoft Access to FileMaker Pro Migration project using FmPro Migrator. This migration process includes the migration of Tables/Fields, data, Relationships, Value Lists, Forms/Reports and Visual Basic code.

Revision 20
4/14/2024

[Revision Notes: Updated for FmPro Migrator Platinum Edition 11.01.
Added new Licensing FmPro Migrator info, updated screenshots.]

Licensing FmPro Migrator

As of FmPro Migrator v11, all FmPro Migrator downloads are fully functional with features unlocked via a single license key.

This section of the manual shows how to enter the license key to unlock the features within FmPro Migrator.

FmPro Migrator 11.01

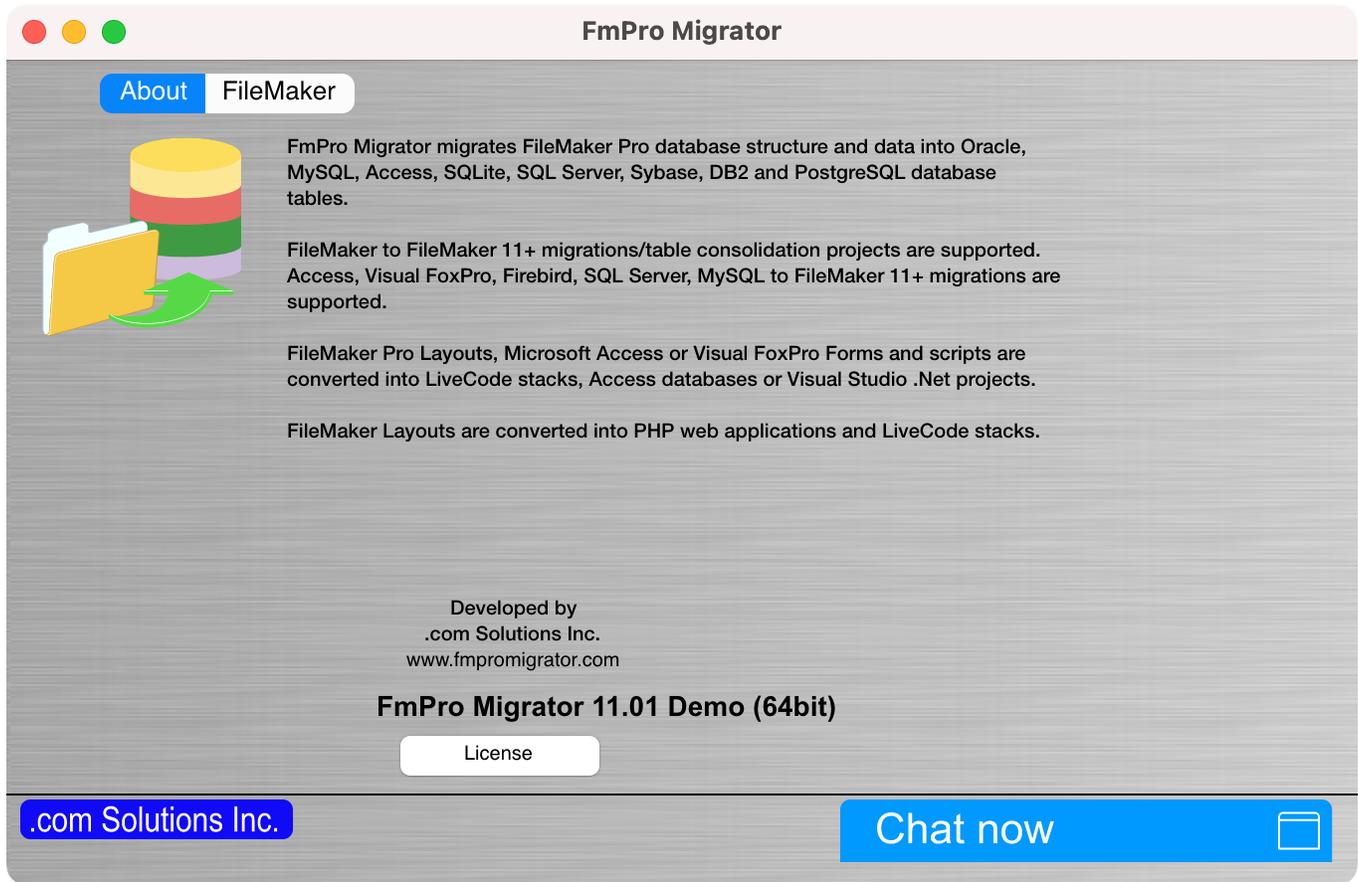
4/14/2024

Demo Edition Dialog



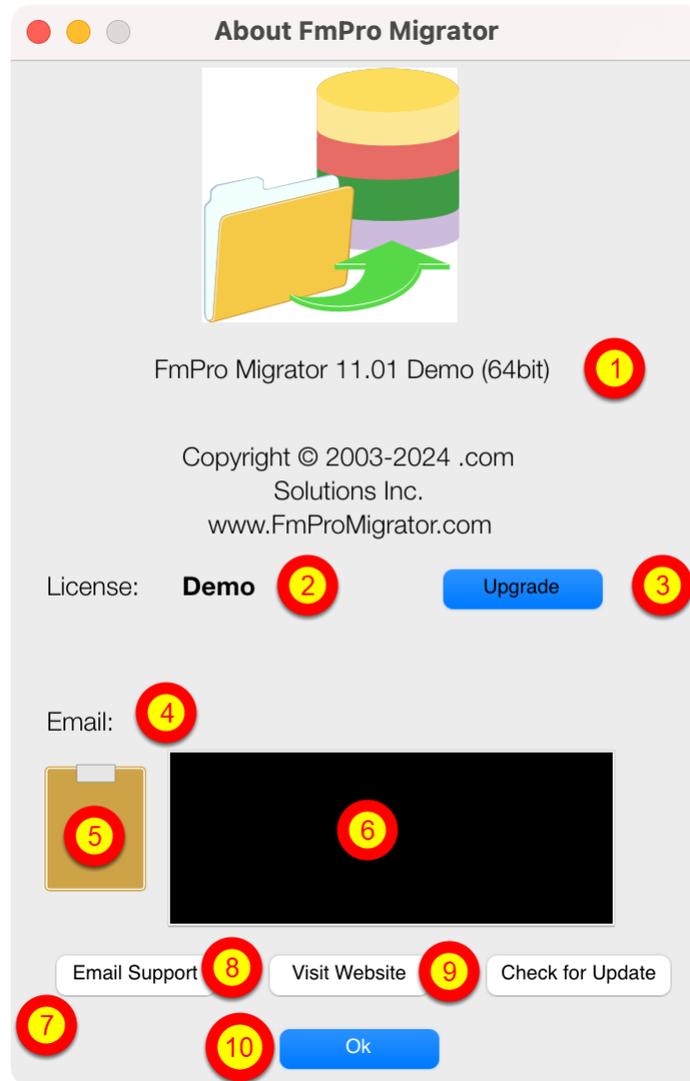
When launched the first time, FmPro Migrator will be running in Demo mode as shown in this screenshot. Clicking the Ok button opens the order page of the website.

In addition to transferring data for 5 database fields, the conversion features shown on the GUI tab of the Migration Process window will convert 5 layouts or forms/reports & scripts.



Clicking the "License" button on the About tab, or selecting the Help -> License/About menu items will open the About window where you can enter the license key.

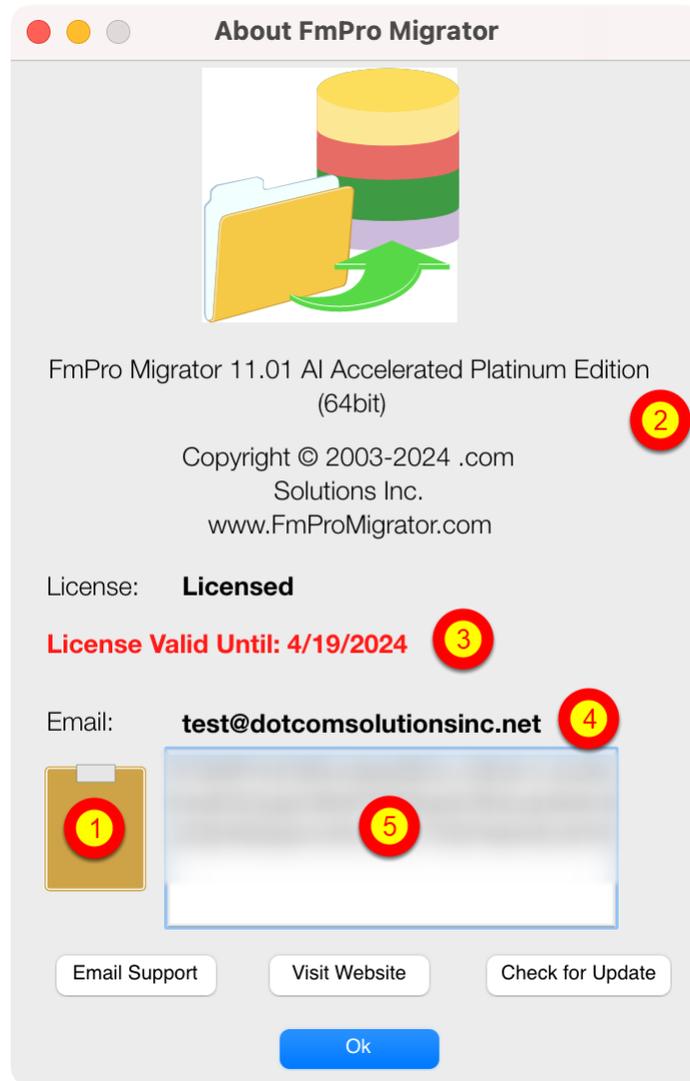
About/License Window



On the About FmPro Migrator window:

(1) Product name and version licensed, (2) Demo or Licensed will be displayed, (3) The Upgrade button opens the website order page, (4) Email address associated with your license key, (5) Clipboard button reads the license key from the clipboard, (6) License key field, (7) Email Support button opens the Contact form on the website, (8) Visit Website opens the order page in Demo mode or the product page in Licensed mode, (9) Check for Update opens the downloads page with the latest software version, (10) Ok button closes the About window.

Pasting License Key



Your product license key will be displayed in your web browser when your order has been completed. It will also be sent via email at the same time, please check your SPAM folder if the email doesn't arrive in a few minutes.

(1) Copy the license key to the clipboard and click the clipboard icon. Once validated (2) the product name will change, (3) the License validation date will be updated, (4) your email address will be displayed, and (5) the license key will be displayed in the field under the Email address when clicking inside the field. In this screenshot the license key has been obscured.

And that is all you need to do to license all of the features of FmPro Migrator.

Step 1

Office 365 Compatibility

Previously, Microsoft Office 365 was incompatible with the installation of the ACEODBC.dll file required to provide support for reading or writing Access .accdb database files by external applications via ODBC. This problem is now resolved with Office 365 installations in 2023 when running the offline installer.

Installing Microsoft 365 Access Runtime - for ODBC Driver [Optional]

Install the Microsoft 365 Access Runtime

The Microsoft 365 Access Runtime files are available as a free download in either the 32-bit (x86) or 64-bit (x64) versions in all supported languages.

1. Decide which bit version you need. For more information, see [Choose between the 64-bit or 32-bit version of Office](#).
2. In the following drop-down list, select the language you want, and then click the appropriate bit version.
3. Depending on your browser, select **Run**(in Edge or Internet Explorer), **Setup**(in Chrome), or **SaveFile**(in Firefox). If you see the User Account Control prompt that says, **Do you want to allow this app to make changes to your device?** select **Yes**. The install begins.

LANGUAGE	CULTURE (LL-CC)	DOWNLOAD LINKS
English	en-us	32-bit Download 64-bit Download

This step can probably be skipped as of 2023.

Testing being done in June 2023 shows that the Access 2016 32-bit and 64-bit ODBC drivers are being installed with the Office 365 offline installer: O365HomePremRetail.img (4.7GB). You only

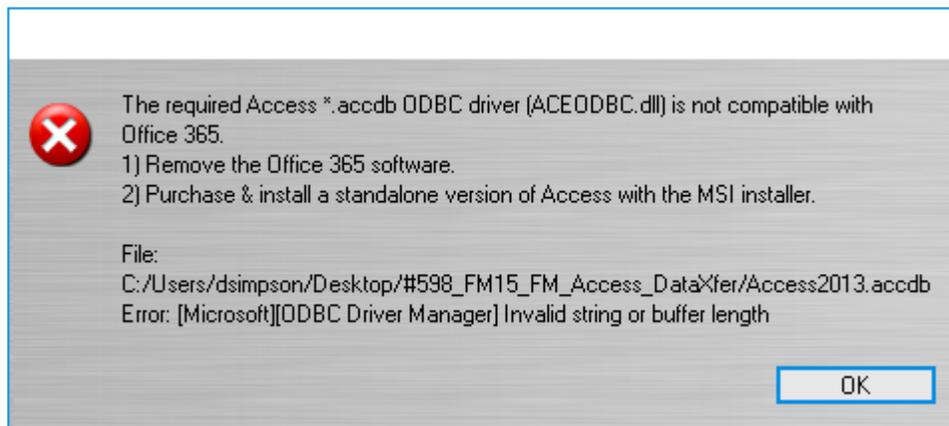
need to install this runtime if the installer didn't install the ODBC driver.

But after installing the runtime, you will probably need to uninstall the runtime - which will leave the ODBC driver in place. Testing after installing the runtime caused problems with Access which prevented seeing any of the tables/fields or data within the database since the runtime was being used instead of the full copy of the Access database application.

The URL for this Microsoft 365 Runtime is currently located as follows:

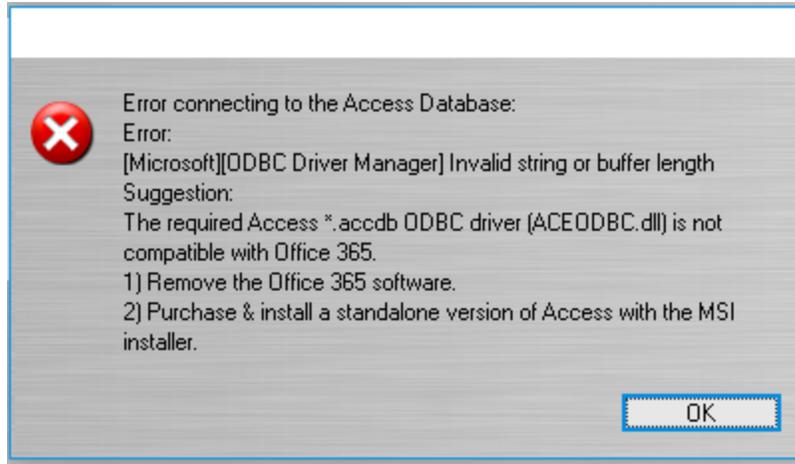
<https://support.microsoft.com/en-us/office/download-and-install-microsoft-365-access-runtime-185c>

FmPro Migrator Office 365 Error Dialog - Importing .accdb Files [Obsolete]

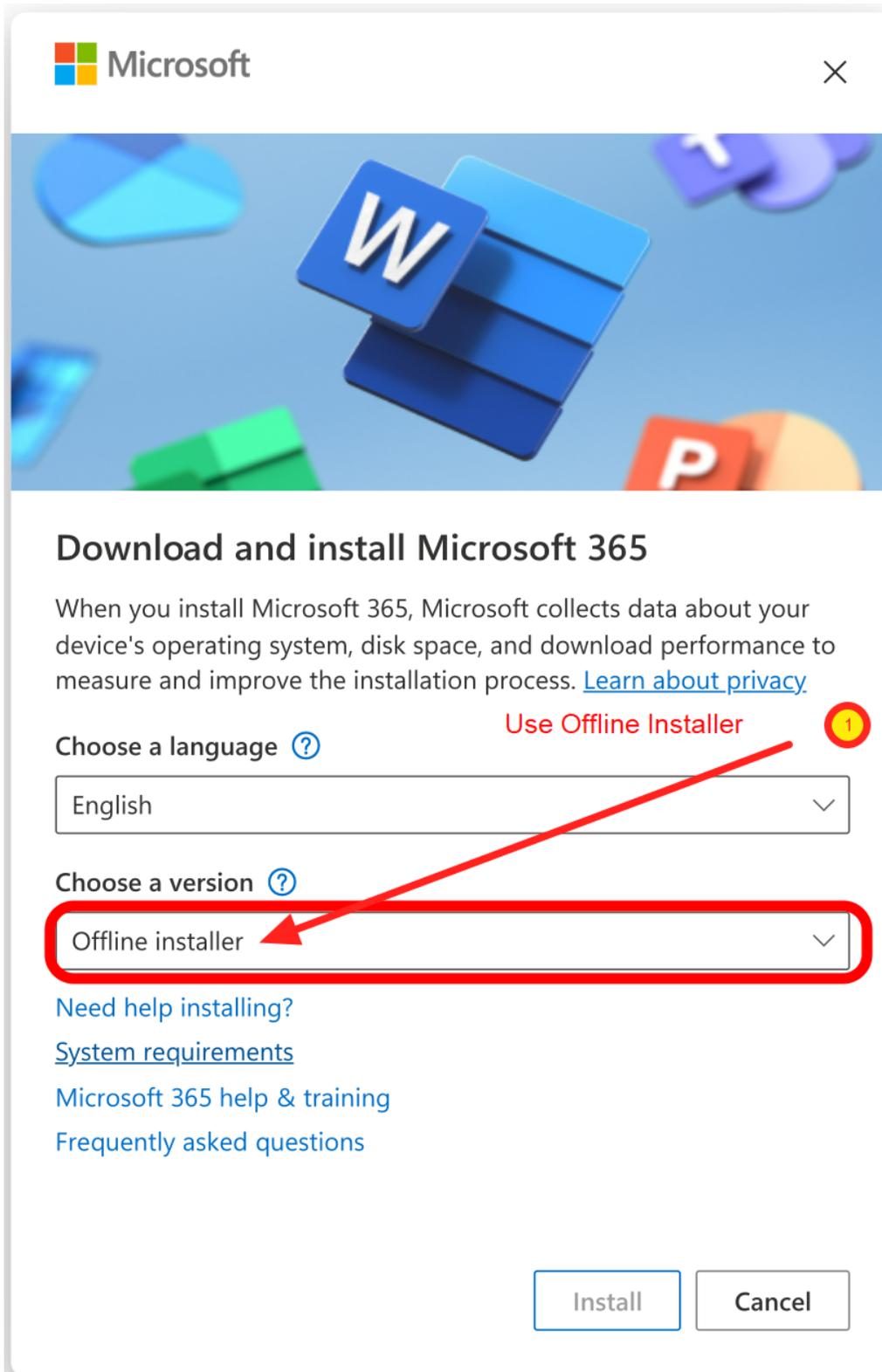


This error should no longer occur with new Office 365 installations. New installations are installing the ODBC driver and it works correctly on x86-64 hardware. This note in the manual is just for historical and documentation purposes - and should not occur with newer versions of Office 365 as of 2023.

If this error occurs, please send an email via the Contact page on the FmProMigrator website. The code which checks for this registry key still remains in FmPro Migrator, but should not get triggered anymore.



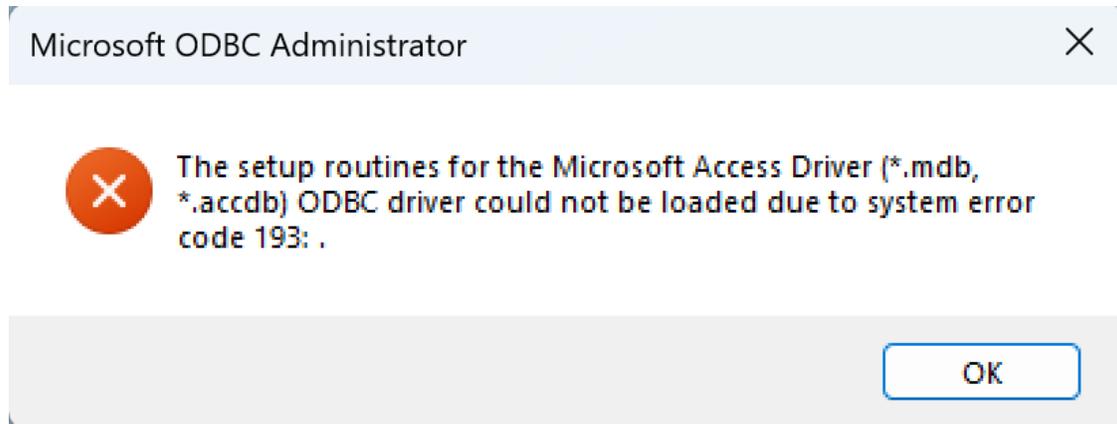
This error should no longer occur with new Office 365 installations as of 2023. Previously, this error could occur when creating a table or transferring data into an Access .accdb file.



By default, Microsoft will use the ClickToRun installer. You should download the offline installer. The offline installer includes both 32-bit and 64-bit versions of Office software.

FmPro Migrator is available in both 32-bit and 64-bit versions which are both included with your purchase. You should match the version of FileMaker Pro which you have installed. For instance, if the copy of FileMaker Pro is 64-bit, then all of the rest of the software should also be 64-bit.

Access ODBC Driver Error 193 - Windows 11 ARM



The remaining issues with Office 365 or Access 2016 ODBC functionality at this time, seems to be when running on Windows 11 ARM.

- 1) When creating/updating a 64-bit ODBC DSN, error 193 is displayed. Manually editing the registry entries has not solved this issue. A 32-bit DSN can be created and edited, but the .mdb driver doesn't support .accdb files. It may be possible to convert .accdb files into .mdb files, but features may be lost.
- 2) The system created links to the 32-bit and 64-bit ODBC Administrator EXE files are not created properly and need to be created manually for the Start menu.

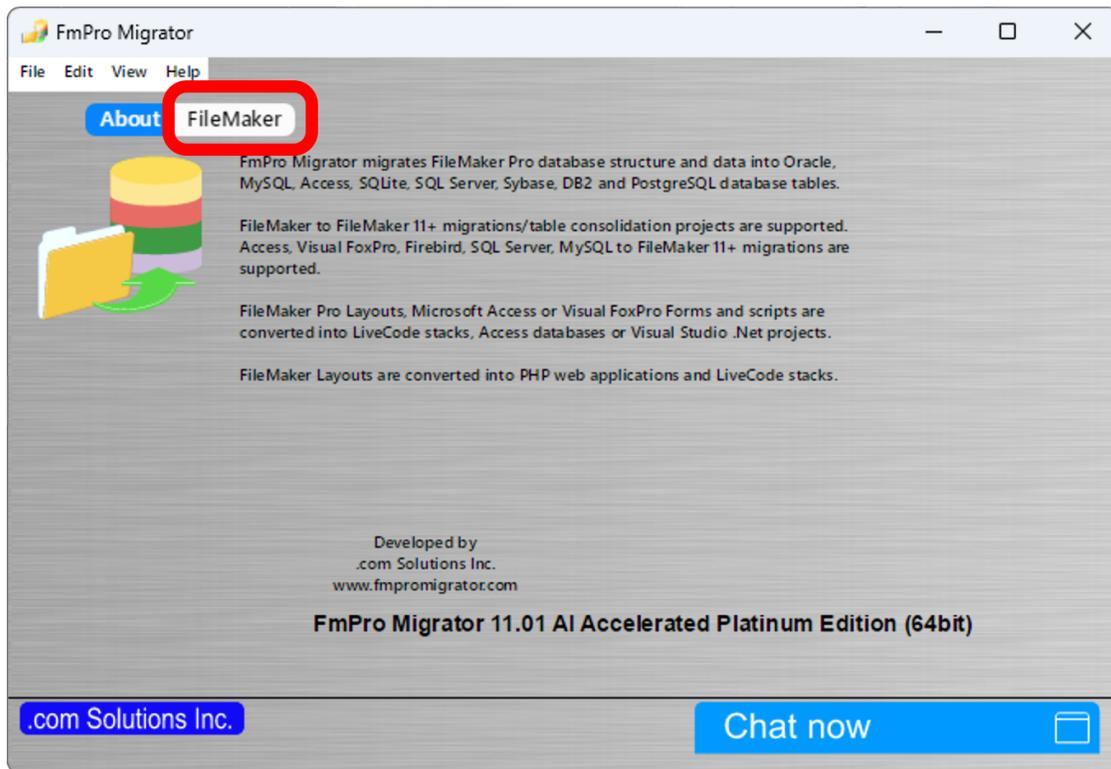
These problems don't occur with Windows 11 on x86-64 CPUs.

Step 1 - Get Info - Access to FileMaker Pro

FmPro Migrator uses the information within the Access mdb/accdb file to perform the conversion of tables/fields and data from Microsoft Access to FileMaker Pro. FmPro Migrator can be running on macOS or Windows in order to perform the conversion. It is not necessary to have a copy of Access running on the computer which is being used to perform the conversion, but FileMaker Pro is required.

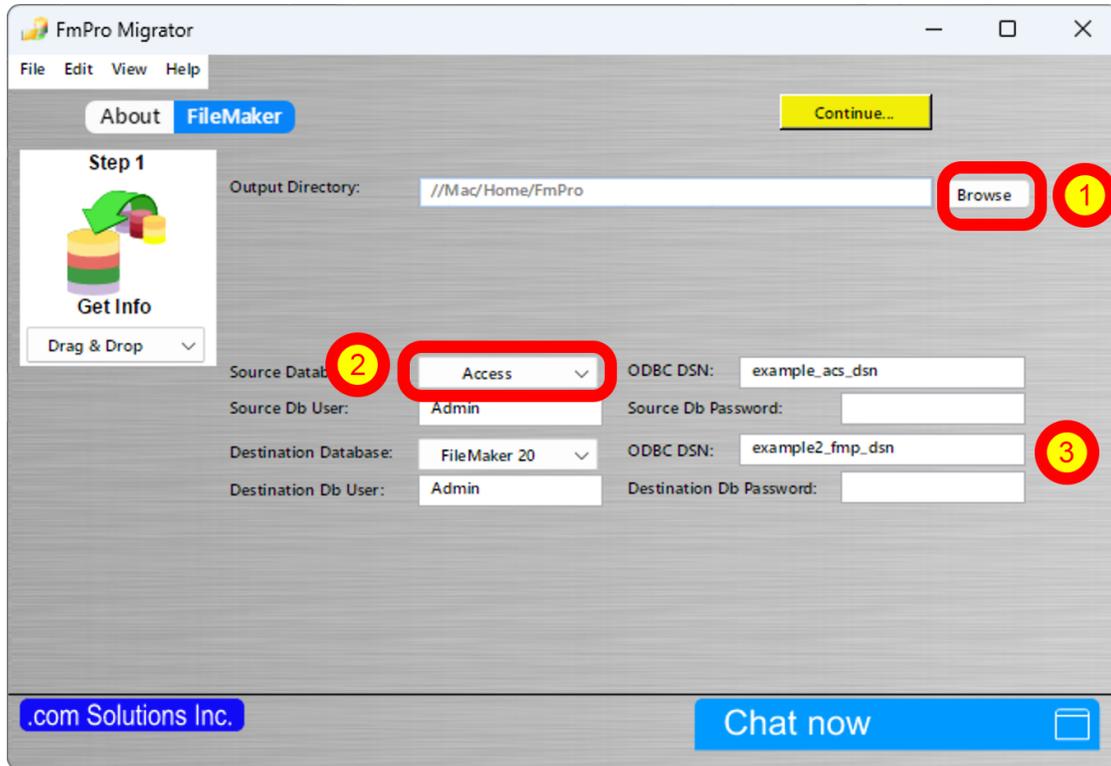
When using FmPro Migrator on macOS, the [Actual Technologies](#) ODBC Driver for Access is required.

Step 1 - Click FileMaker Tab



Launch FmPro Migrator, then click on the FileMaker tab at the top of the window.

Step 1 - Get Info - Select Output Directory



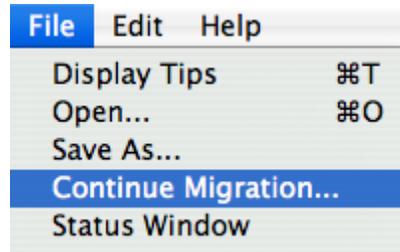
FmPro Migrator stores migration process information within a SQLite database file named MigrationProcess.db3. This file contains the metadata for the source Access database file, including tables, fields, table creation SQL code and status info. Therefore the first step in the migration process is to click the Browse button to select the output folder FmPro Migrator will use when creating the MigrationProcess.db3 file.

(1) Select the output directory, then (2) select Access from the Source Database menu.
(3) Create an ODBC DSN to the FileMaker database using the name already shown in the Destination Database ODBC DSN field. Or you may create an ODBC DSN with a different name and enter the name in this field.

[Details are provided in the following pages for installing FileMaker ODBC drivers and creating the ODBC DSN.]

Note: FmPro Migrator will automatically create a File DSN to read table info from the Access database. But you should create an ODBC DSN (shown later) when transferring data from Access to FileMaker [on Windows].

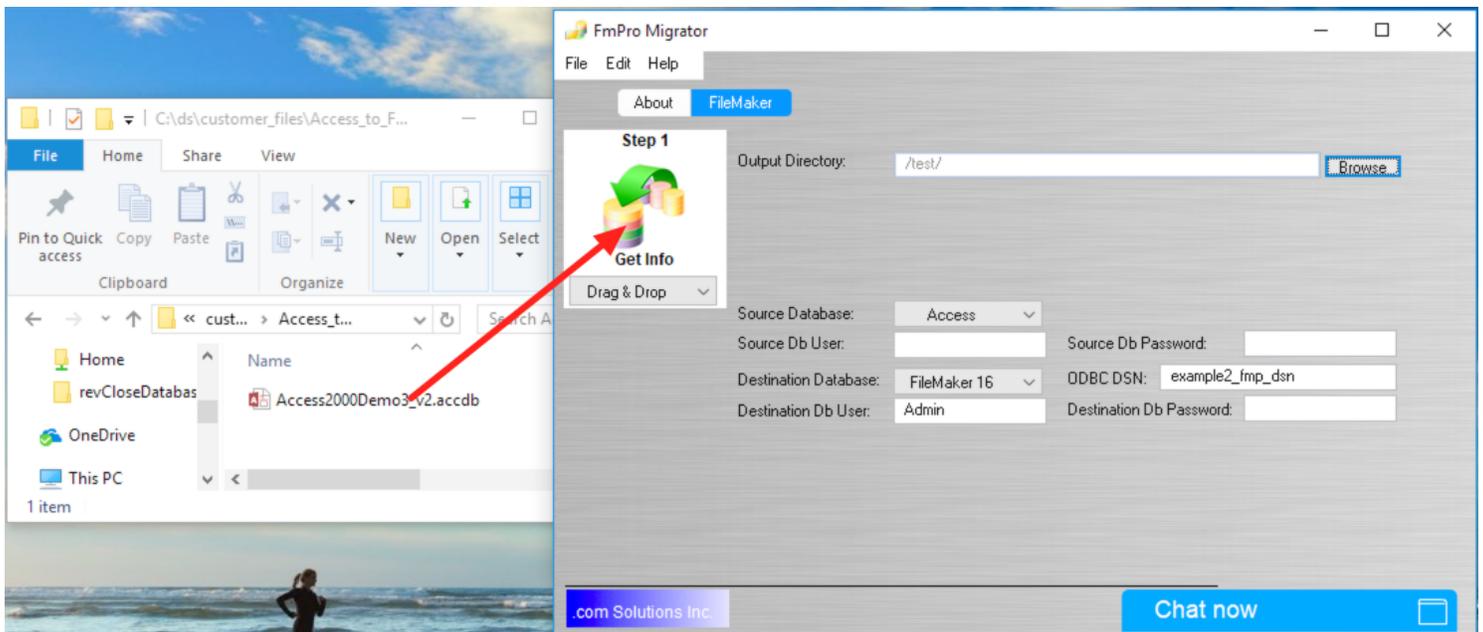
Continue Migration...



Tip: To restart an existing migration project, select the output directory, then select Continue Migration... from the File menu.

Click the yellow Continue button to open the Migration Process window.

Step 1 - Get Info - Drag & Drop Access File



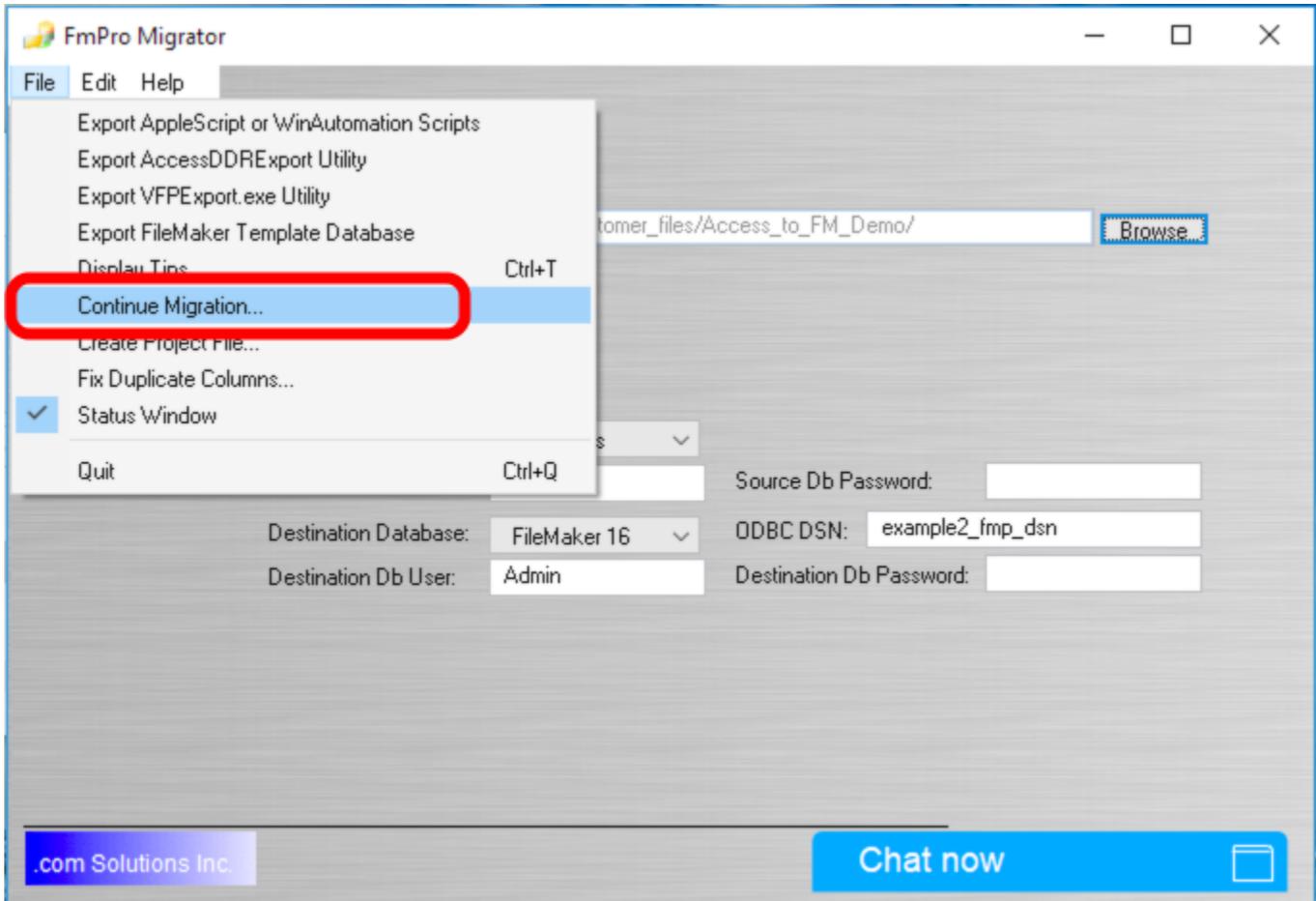
Drag & Drop the Access file onto the Step 1 Get Info icon.

Step 1 - Get Info - Troubleshooting

Note: FmPro Migrator makes a file DSN connection to read the structure info from the Access database file. On macOS, this process requires the Actual ODBC Driver for Microsoft Access from Actual Technologies (www.actualtech.com).

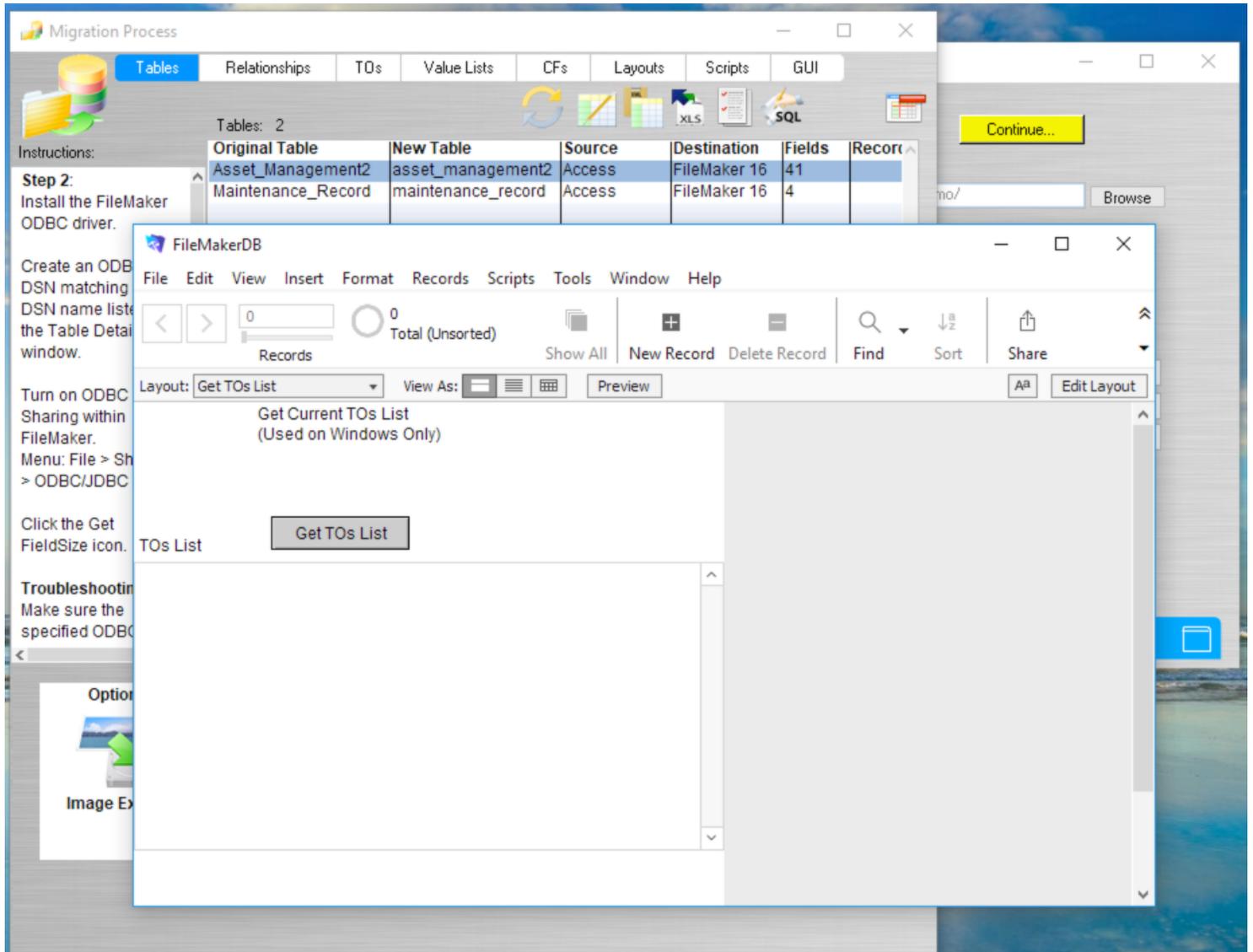
On Windows, the Microsoft Access ODBC driver is pre-installed when Microsoft Access is installed.

Step 1 - Get Info - Select Continue... Menu



After the Gathering Info... dialog disappears, select the File -> Continue Migration... menu or click the yellow Continue... button.

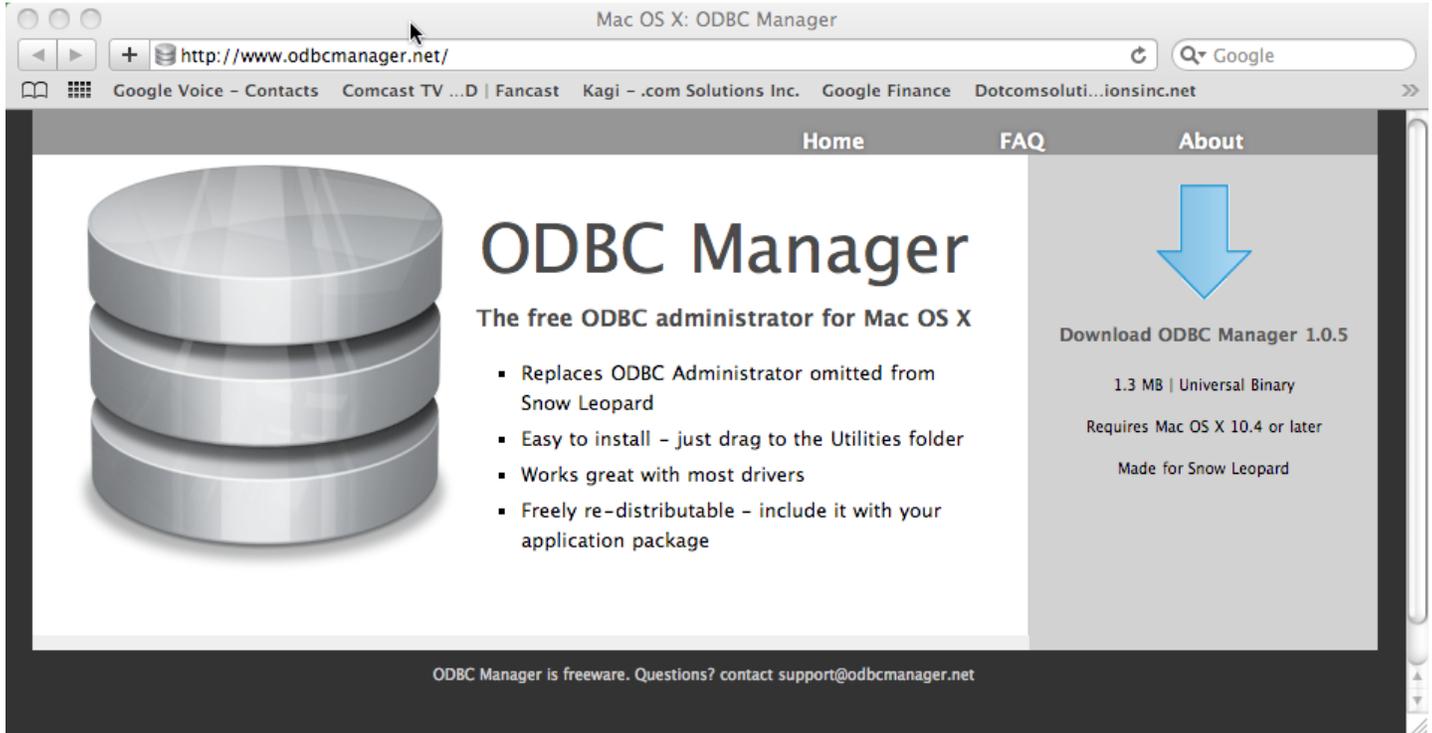
Step 1 - FileMakerDB & Migration Process Windows



After Continue Migration has been selected, the Migration Process window will open. FmPro Migrator will also save a FileMaker template database file named FileMakerDB.fp7/.fmp12 to the output directory and will open the FileMaker database file.

Install FileMaker ODBC Driver - macOS (FileMaker 11+)

Download ODBC Manager



Download and install the free ODBC Administrator for macOS from www.odbcmanager.net

You will use the ODBC Administrator to create and manage your ODBC DSNs on macOS.

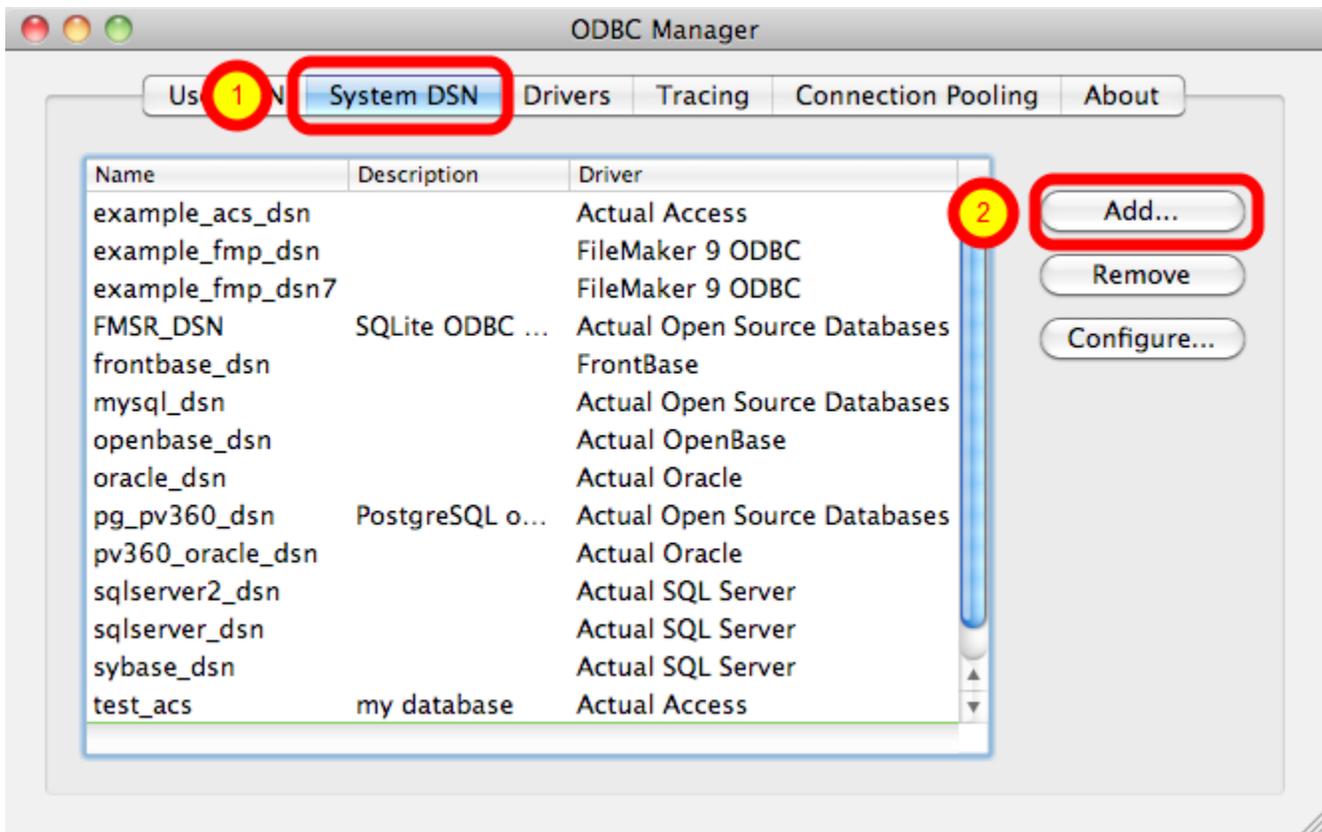
Install the FileMaker ODBC Driver



(1) Open the xDBC folder on the FileMaker install CD (or installer image DMG file).

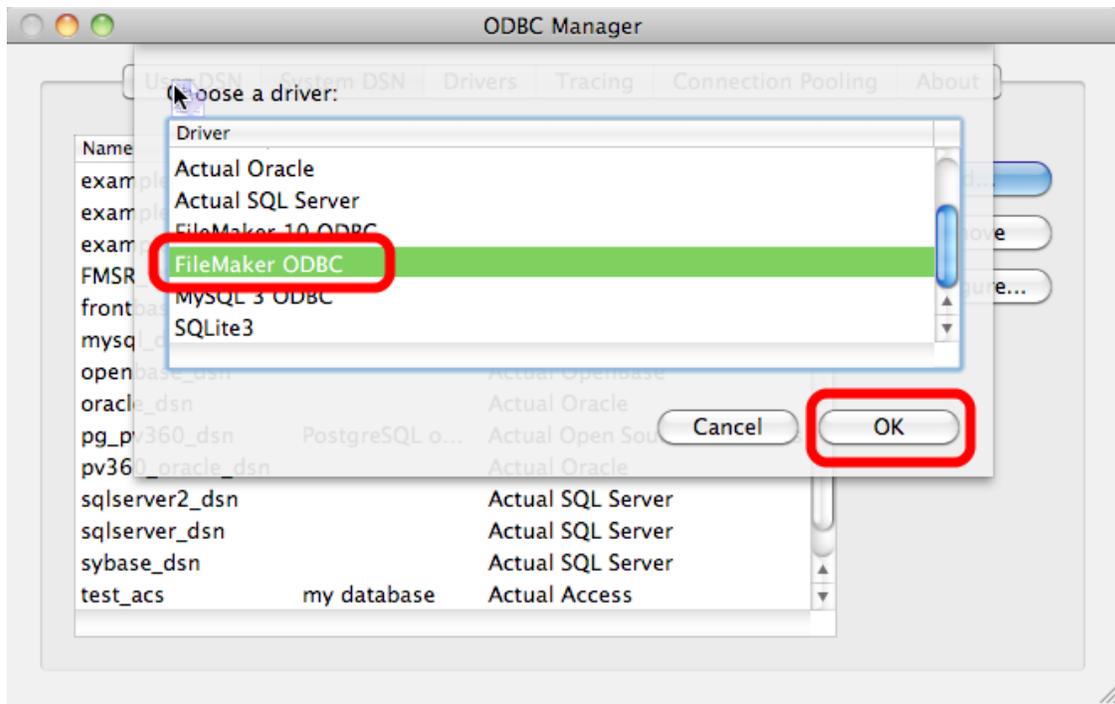
(2) Double-click the FileMaker ODBC.mpkg installer to install the FileMaker ODBC driver. Follow the insular prompts.

Add a System DSN

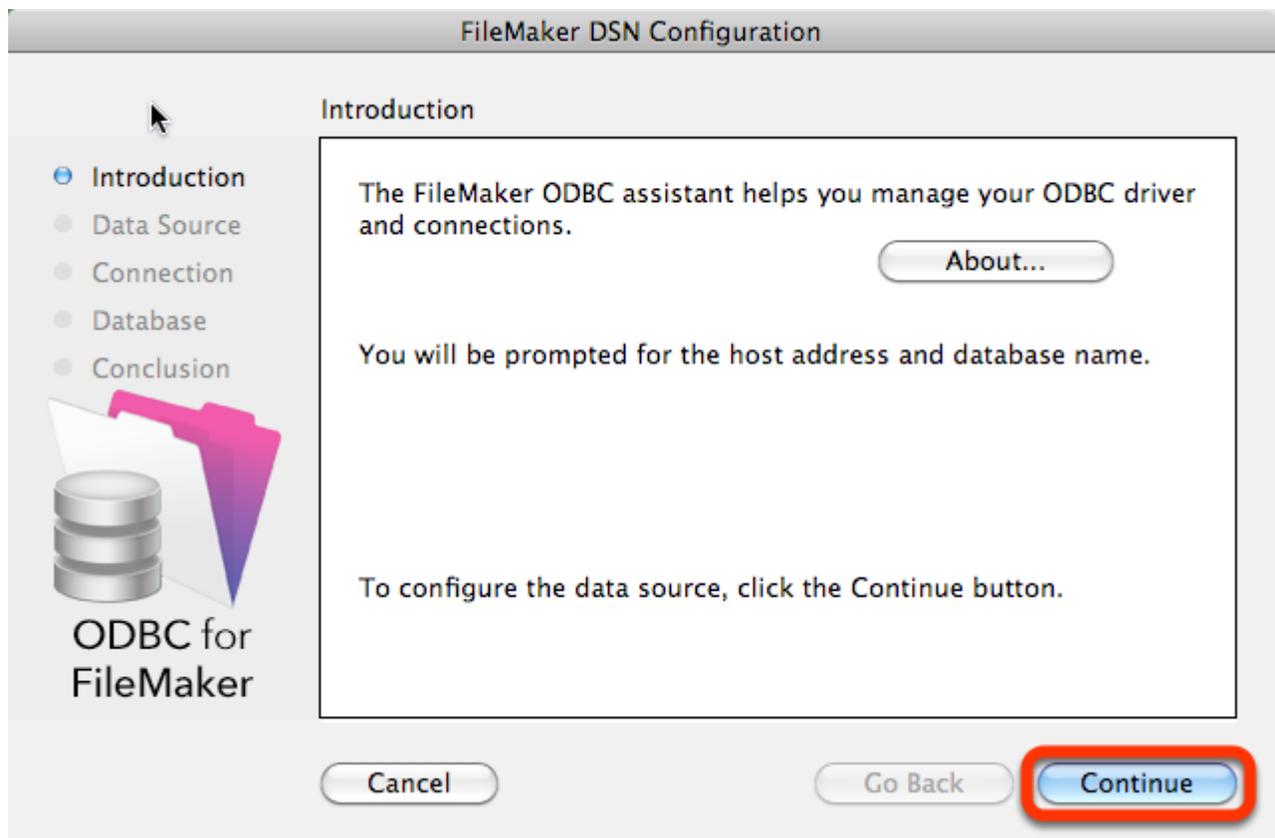


(1) Click the System DSN tab, then (2) click the Add button.

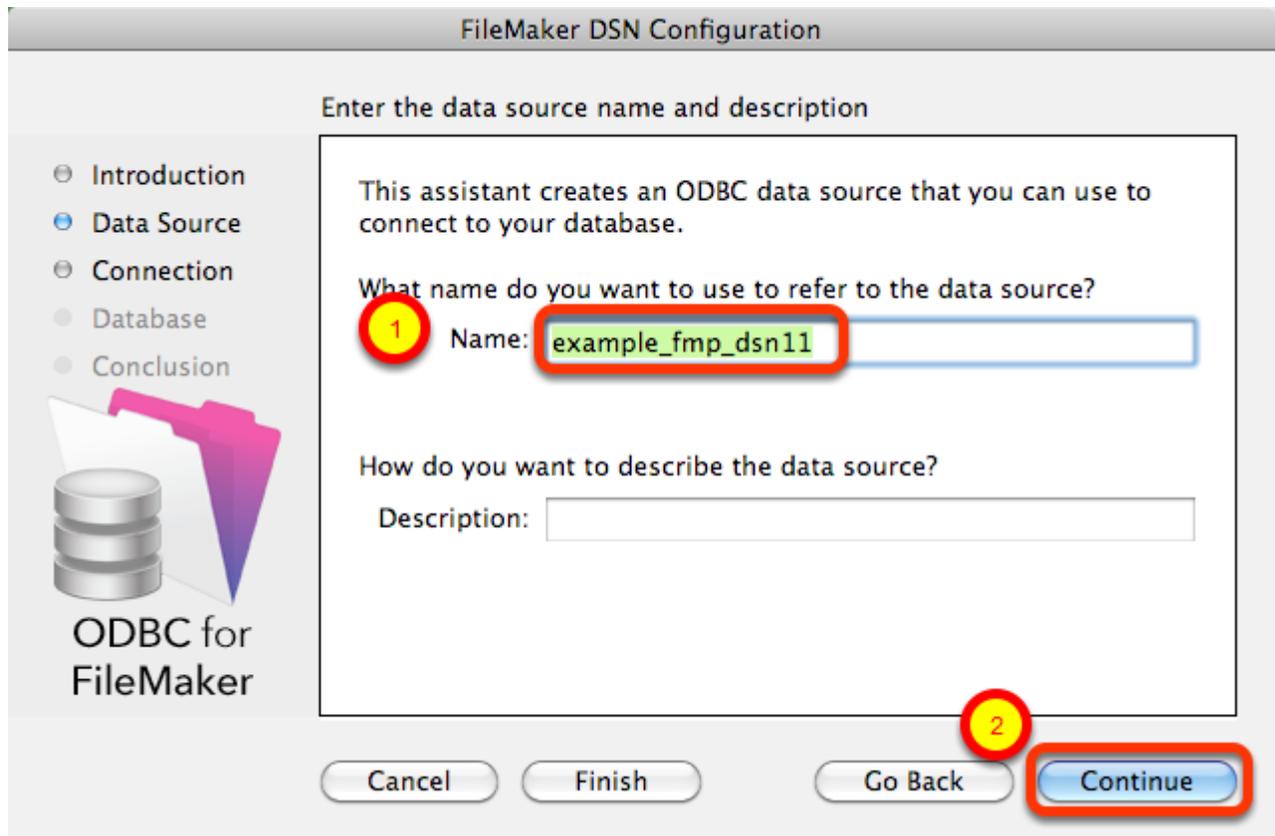
Choose the FileMaker ODBC Driver



(1) Select the FileMaker ODBC driver from the list, (2) click the Ok button.



Click the Continue button.

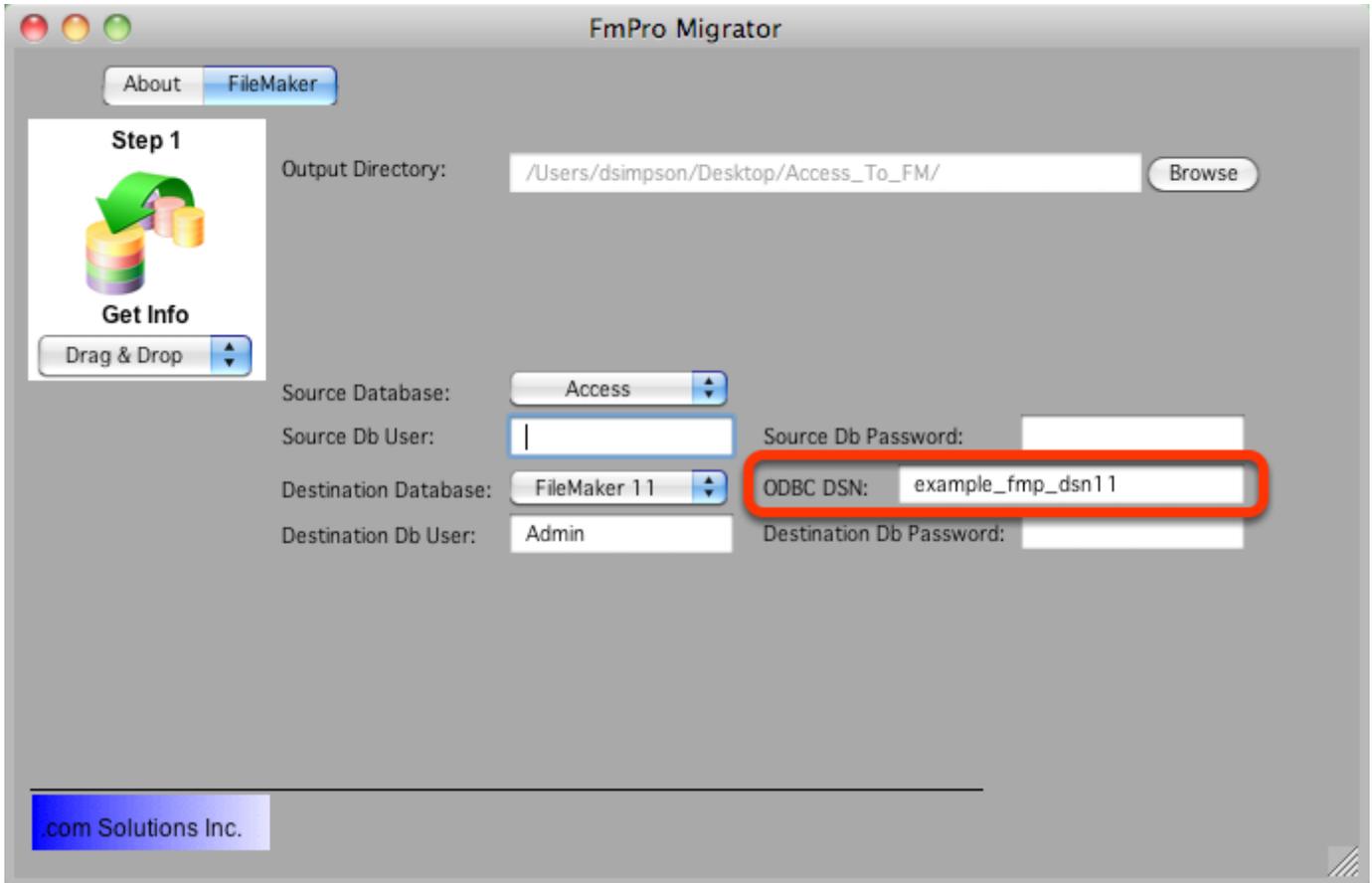


(1) Enter a name for the FileMaker ODBC DSN. The name used here needs to be exactly the same as the ODBC DSN Name you enter into FmPro Migrator.

(2) Click the Continue button.

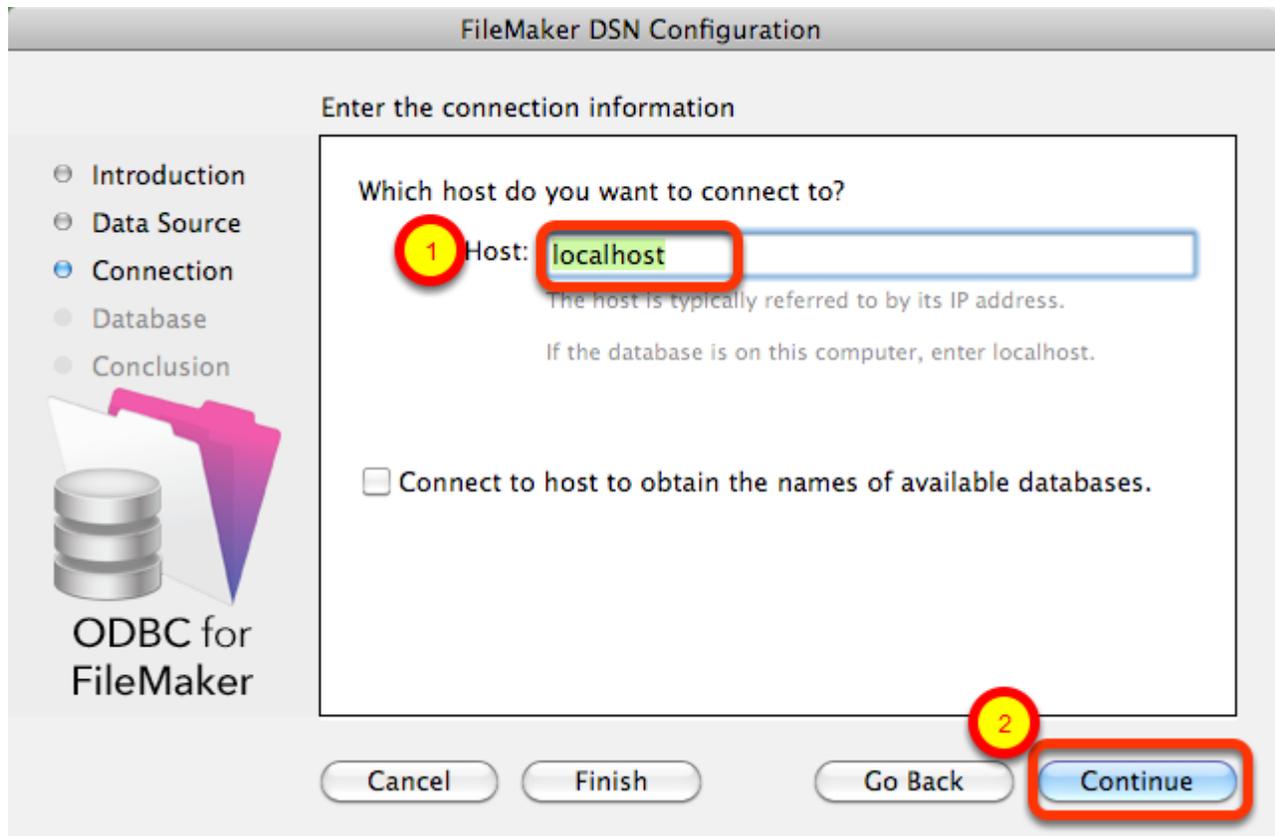
Note: You can pick a different name than you see here, just make sure that you enter exactly the same name into FmPro Migrator.

FileMaker ODBC DSN Configuration - ODBC DSN Field in FmPro Migrator



In this screenshot, the FileMaker 11 database is the destination database, therefore the FileMaker ODBC DSN name is entered in the Destination Database ODBC DSN field.

If the FileMaker database was the source database, and the data was being copied to a different database server, then the FileMaker ODBC DSN would be entered into the ODBC DSN field for the Source Database (not shown in this screenshot).

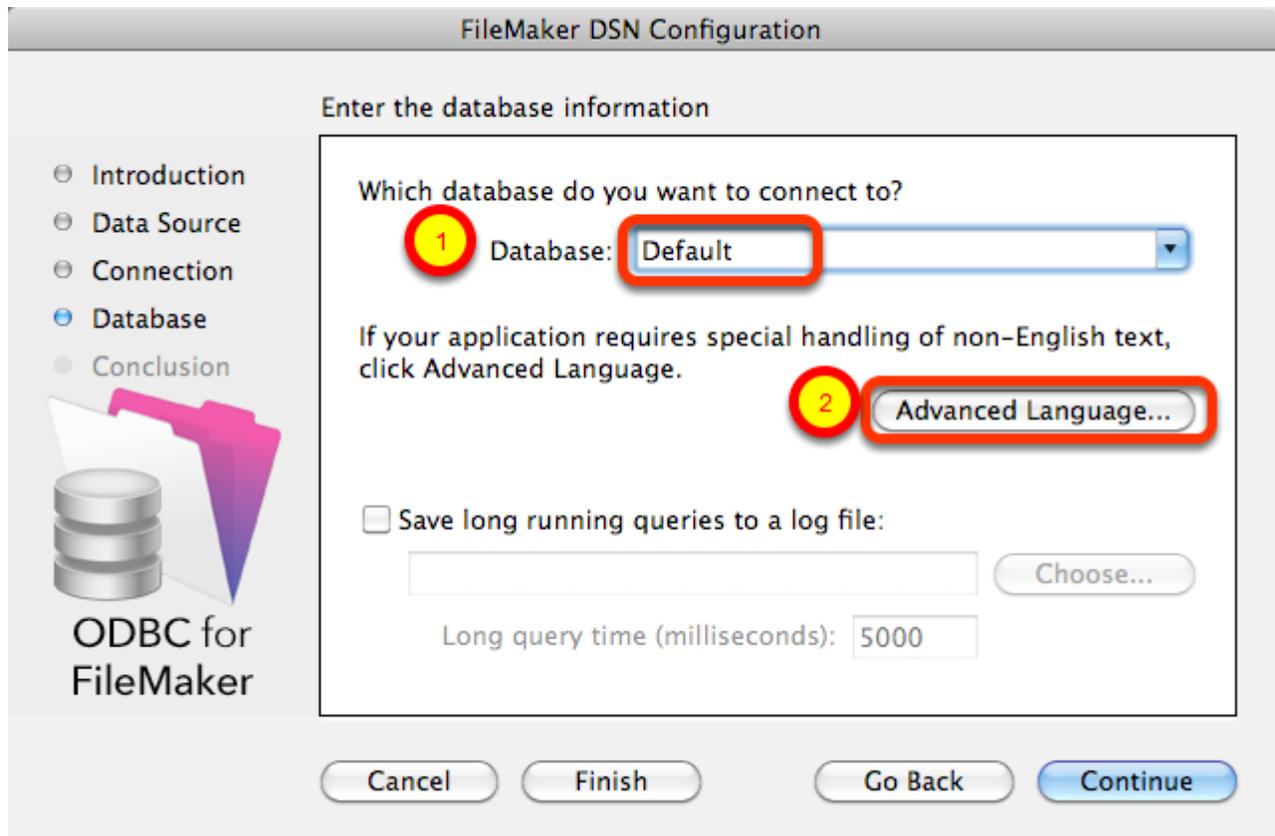


(1) Enter the hostname for the FileMaker database (default is localhost).

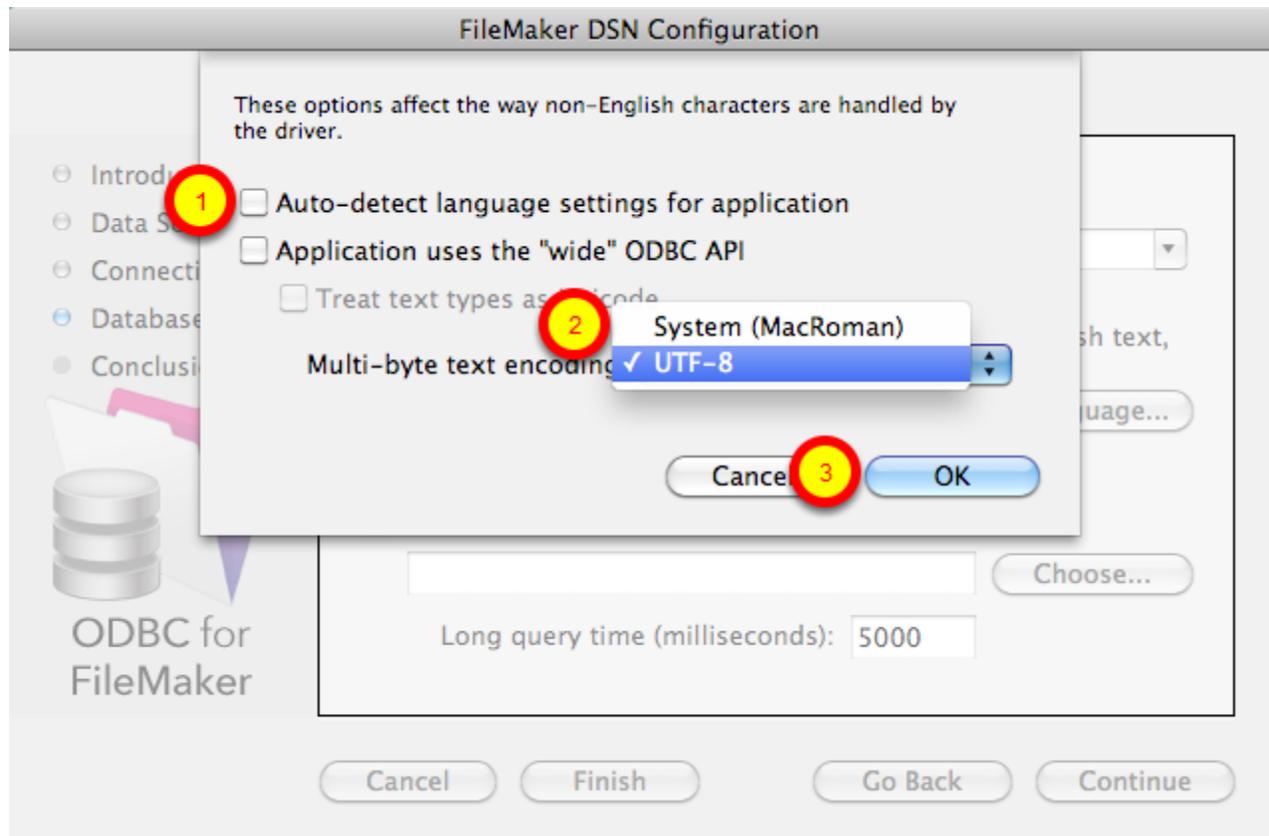
(2) Click the Continue button.

For a file which has been opened on your local desktop machine, leave the default setting of localhost.

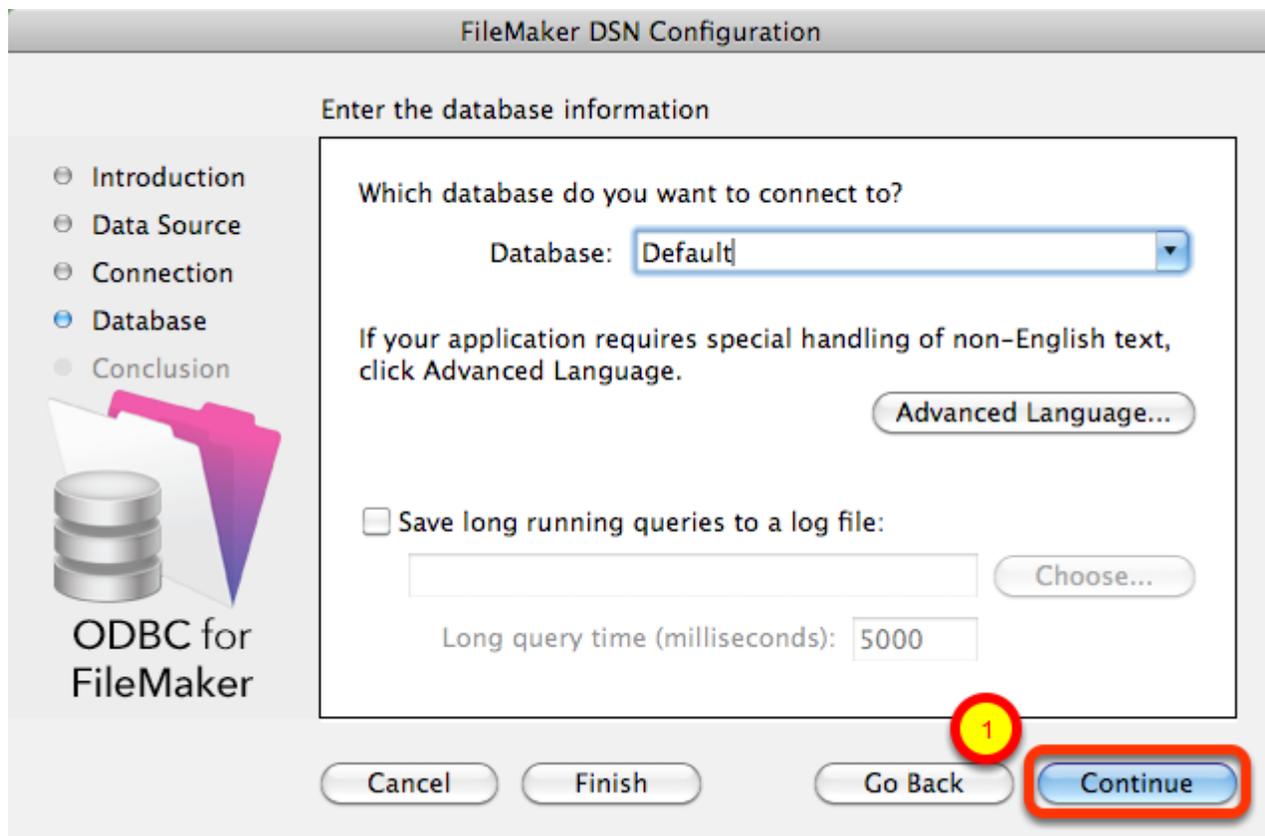
For a hosted file hosted by FileMaker Server Advanced, enter the IP Address or hostname of the FileMaker Server Advanced computer.



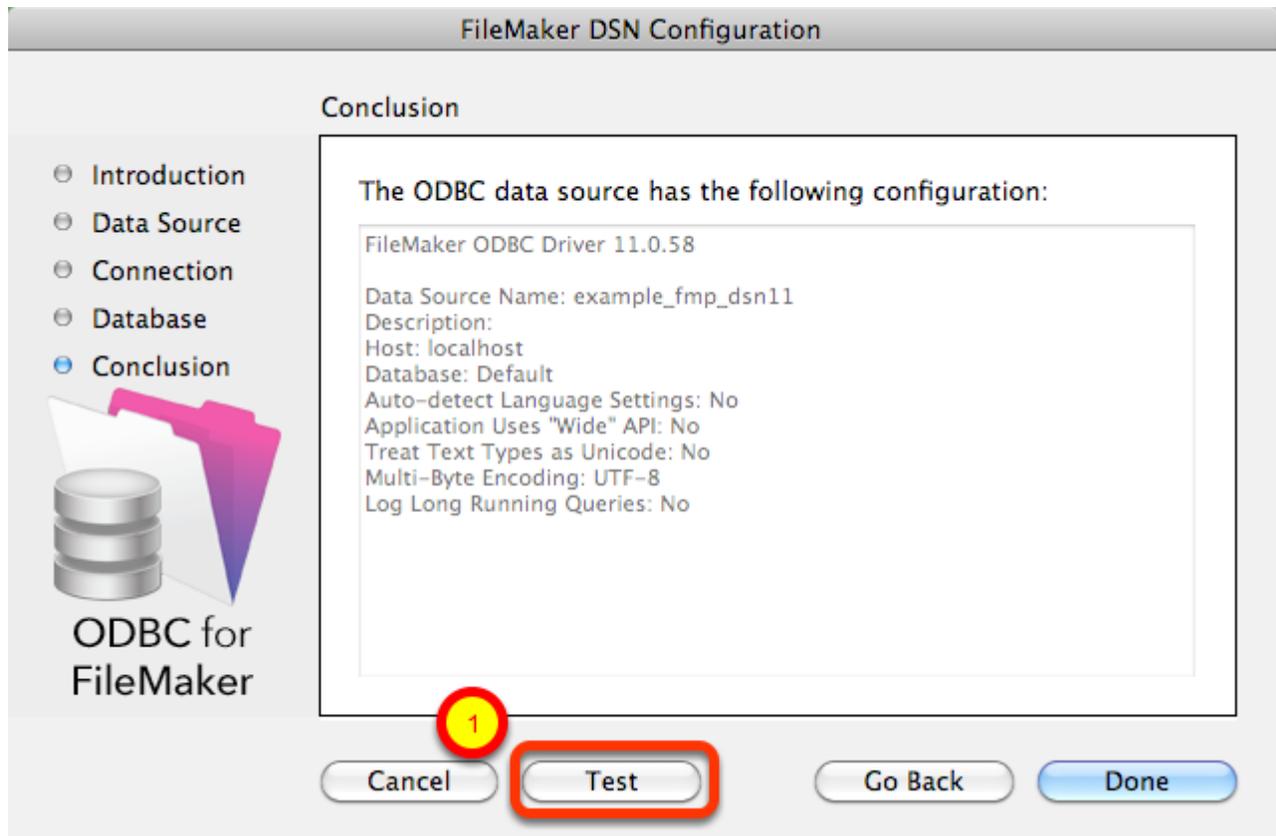
- (1) For most locally hosted database files, enter the text "Default" into the Database field, instead of selecting a database from the list. This way you can use any single database file without re-selecting the database name each time you open a new file. To use this feature, you must only have one FileMaker database file open at a time, or an error will occur when attempting to read info from the database.
- (2) Click the Advanced Language button.



- (1) Un-check the Auto-detect language settings checkbox.
- (2) Select UTF-8 from the Multi-byte text encoding menu.
- (3) Click the Ok button.



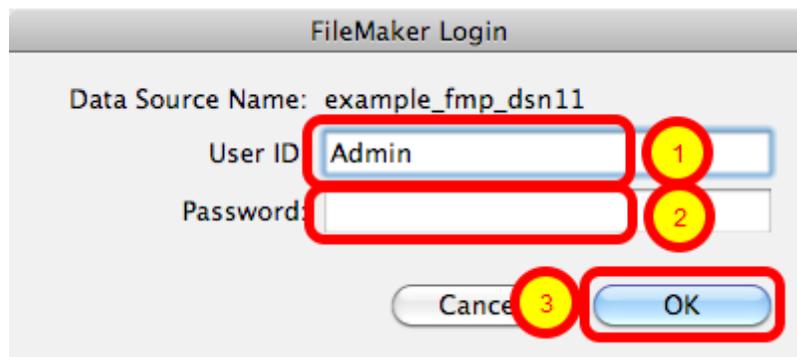
(1) Click the Continue button.



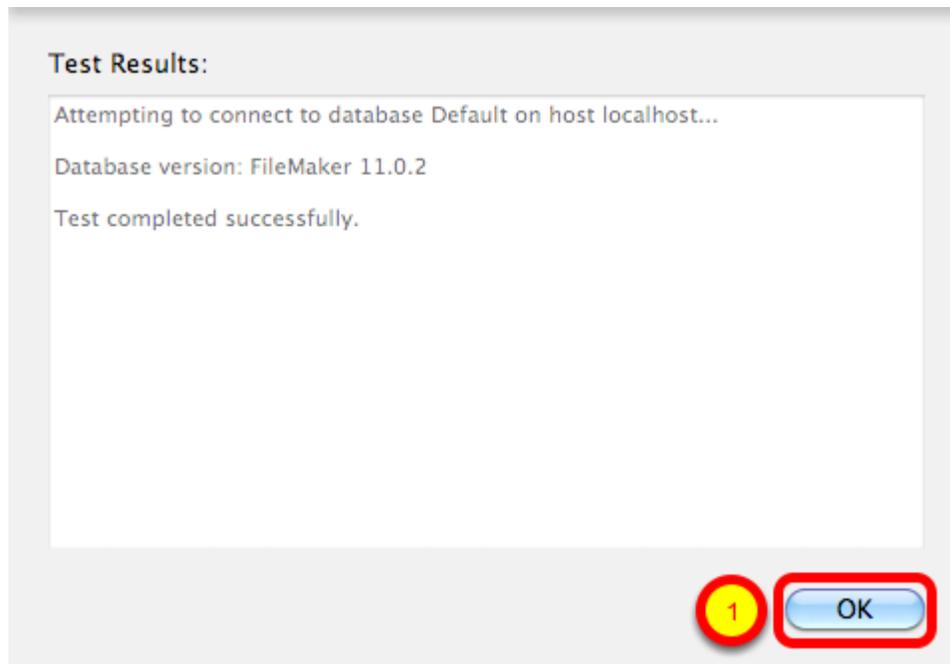
(1) Click the Test button.

If the test fails, use the following steps to enable ODBC sharing for the FileMaker database.

Note: Each FileMaker database needs to have ODBC sharing enabled individually.



Enter the (1) Username, (2) Password, then (3) click the Ok button to test the ODBC DSN.

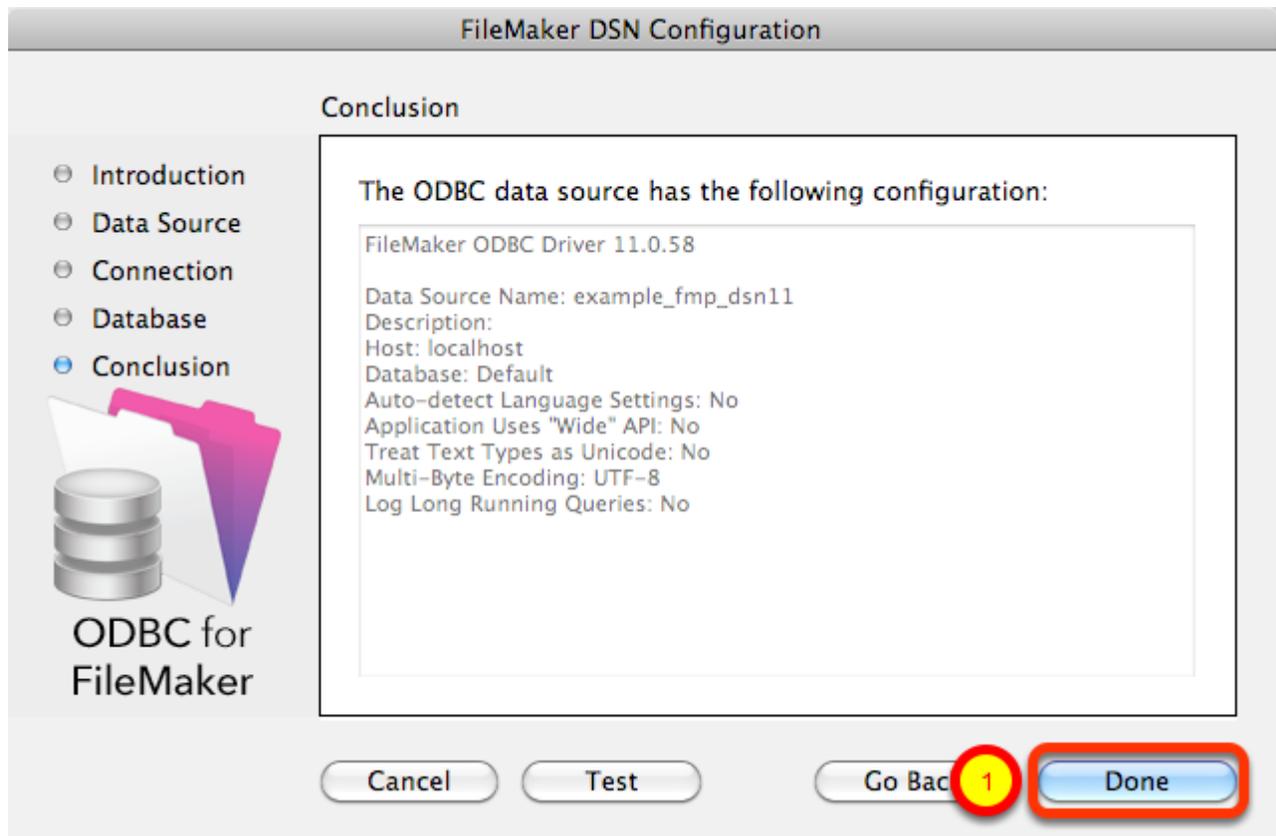


(1) Click the Ok button.

If the test passes, this dialog will be displayed, showing that the ODBC Driver Manger has used this ODBC DSN to successfully connect to the FileMaker database.

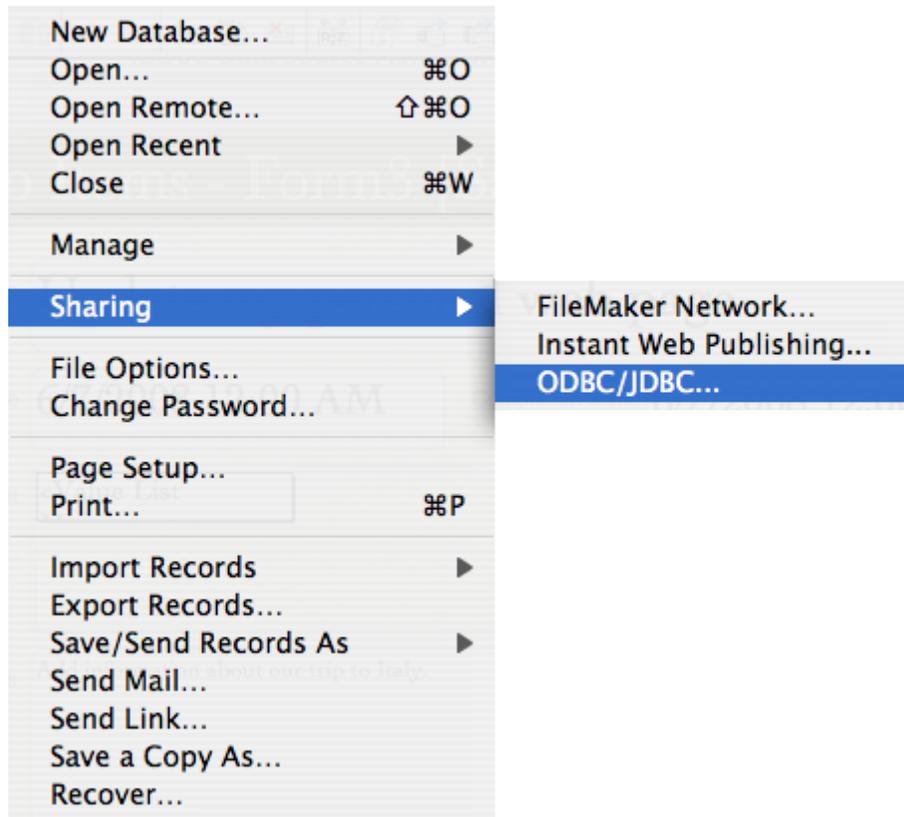
If the test fails:

- 1) Verify that the FileMaker database file is open.
- 2) Verify that FileMaker ODBC sharing is enabled for the account entered in the connection test dialog prompt.
- 4) Make sure that there aren't two different copies of FileMaker running at the same time. Both older and current versions of FileMaker use TCP/IP Port# 2399 for ODBC connectivity. If this type of conflict occurs, close both versions of the FileMaker application, and only open the one copy you want to serve the database file being migrated.
- 5) Try rebooting the computer (after clicking Ok to save changes and close this ODBC dialog). Then test the DSN again after rebooting.



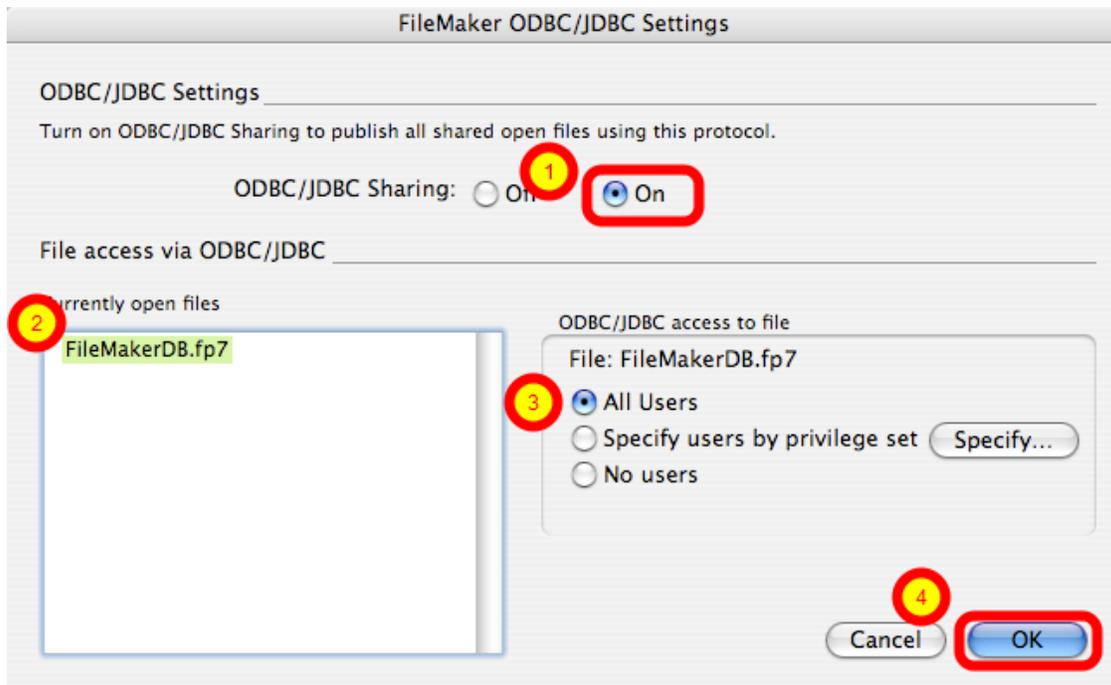
(1) Click the Done button to save the new ODBC DSN.

Enable ODBC/JDBC Sharing within FileMaker Pro



ODBC/JDBC Sharing needs to be enabled within any FileMaker Pro database file which is going to be used with the FileMaker ODBC driver.

Select Sharing Parameters



(1) Turn on ODBC/JDBC Sharing, (2) for the currently open FileMaker Pro database file, (3) for All Users, then (4) click the Ok button.

Install FileMaker ODBC Driver - Windows - FileMaker 11+

Install the FileMaker ODBC driver from within the xDBC folder on the installation CD or CD image file.

Downloading the FileMaker ODBC Driver

Software Update: FileMaker xDBC client drivers for FileMaker

xDBC Client Drivers for FileMaker 19

Products	Windows download	Macintosh download
FileMaker Pro 19.4.1 FileMaker Server 19.4.1		 Requires 64-bit ODBC Manager
Products	Windows download	Macintosh download
FileMaker Pro 19.3.1 FileMaker Server 19.3.1		 Requires 64-bit ODBC Manager

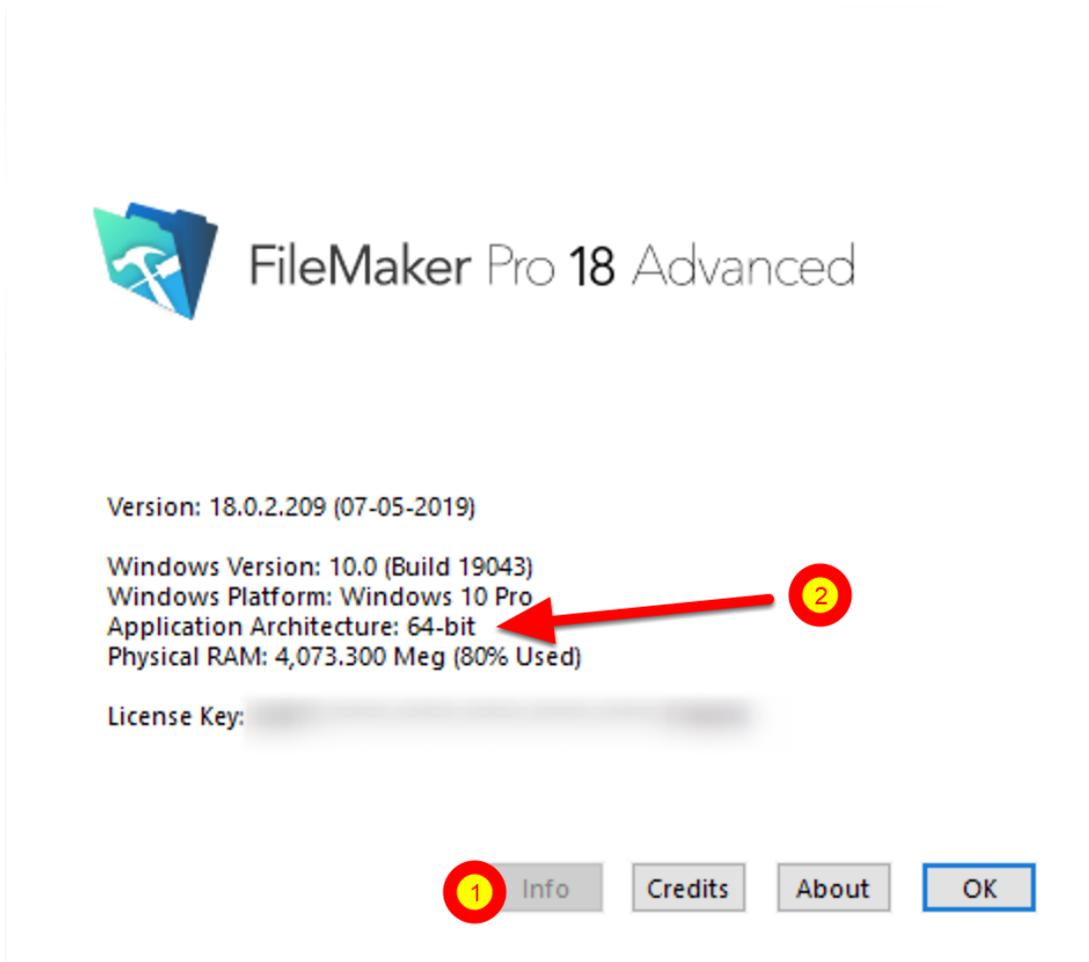
The FileMaker ODBC driver is also available from the Claris support website:

<https://www.claris.com/resources/downloads/>

On this web page, look for the item labelled:

xDBC update for FileMaker Platform

This item will link to the page shown in this screenshot, the actual URL has a very specific document number, which might change - so it is best to start with the downloads page.

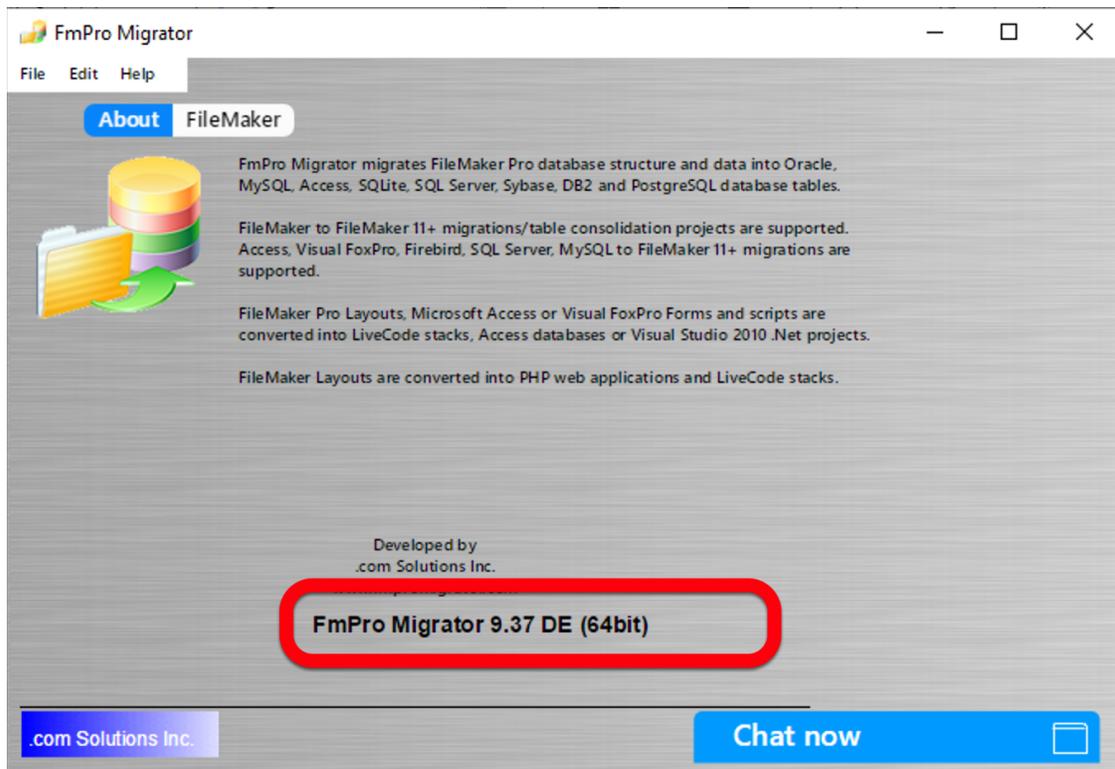


Starting with FileMaker Pro 19, only 64-bit versions are available for installation. Earlier versions of FileMaker may include both 32-bit and 64-bit versions. To find the version of FileMaker running on your computer:

1) Select the Help -> About FileMaker Pro Advanced menu. 2) Click the Info button as shown above to see the Application Architecture.

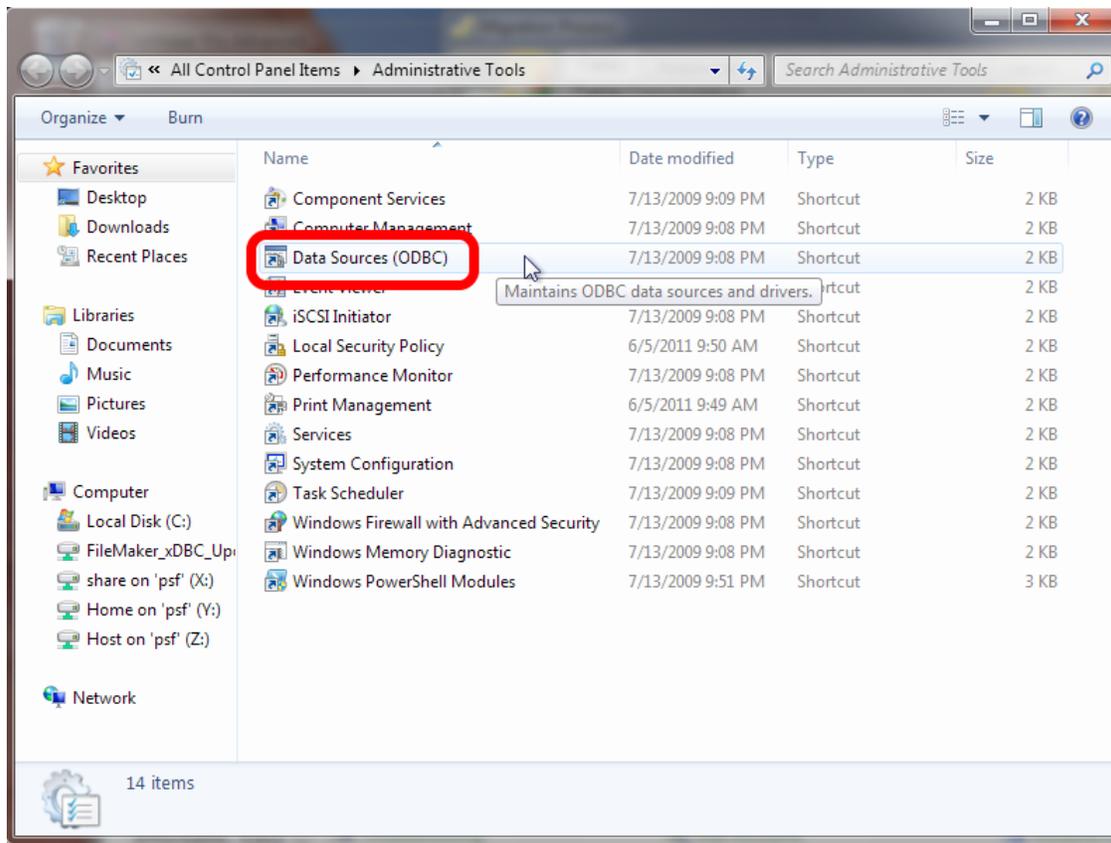
If you are running the 64-bit version of FileMaker Pro, then you want to be using the 64-bit version of FmPro Migrator and the 64-bit version of the ODBC Administrator to create the ODBC DSN.

FmPro Migrator - 64bit



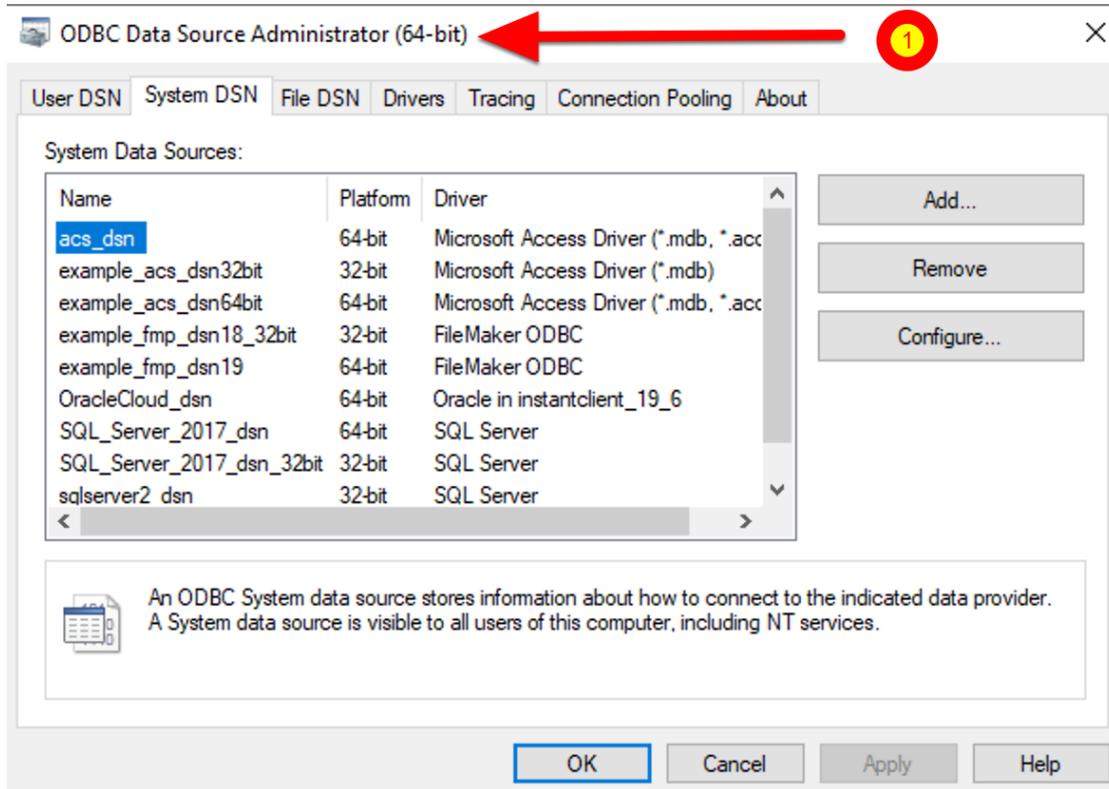
Both 32-bit and 64-bit versions of FmPro Migrator are available. The About screen shows which version you are running.

Create ODBC DSN - Windows



To create a new System ODBC DSN, open the Control Panel > Administrative Tools > Data Sources (ODBC) Control Panel.

64-bit ODBC Data Source Administrator

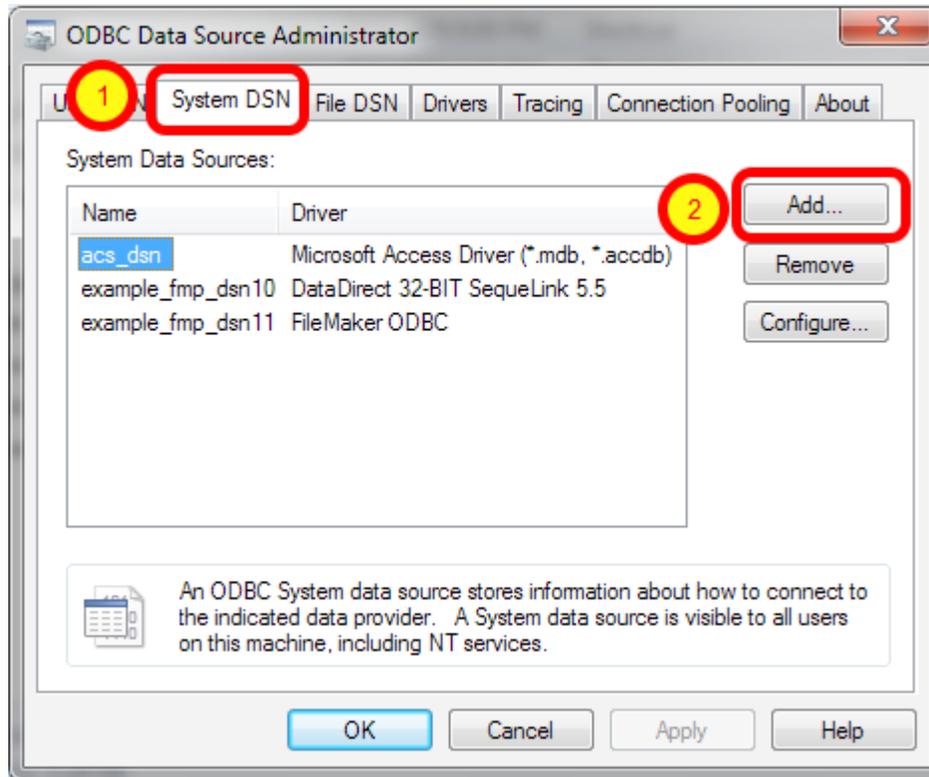


The 64-bit ODBC Administrator shown in this screenshot is available from the path:
%windir%\system32\odbcad32.exe

Both 32-bit and 64-bit ODBC DSNs are displayed in the ODBC Administrator, as shown in the Platform column of the listing.

Running under Windows 10, it shows (64-bit) in its window title when running.

32-bit ODBC Administrator

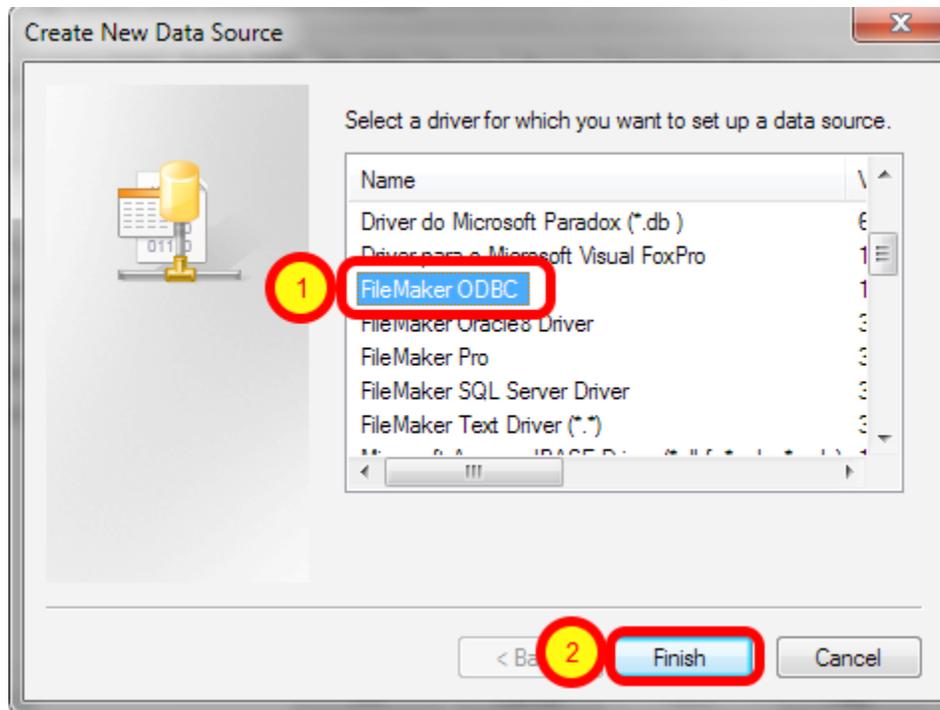


The 32-bit ODBC Administrator is available from the path:
%windir%\syswow64\odbcad32.exe

This screenshot is from an earlier version of Windows, which doesn't show the Platform type in the list of ODBC DSNs and it also doesn't show in its title whether it is running 32-bit or 64-bit.

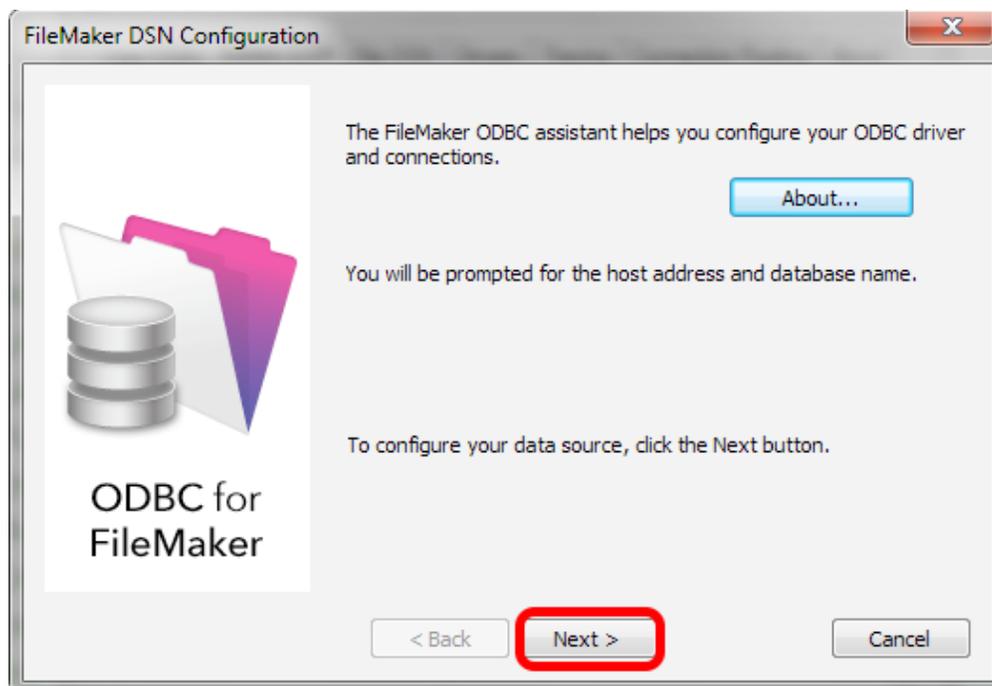
(1) Click the System DSN tab, then (2) click the Add button.

Select ODBC Driver - FileMaker 11 - Windows



(1) Select the FileMaker ODBC driver, then (2) click the Finish button.

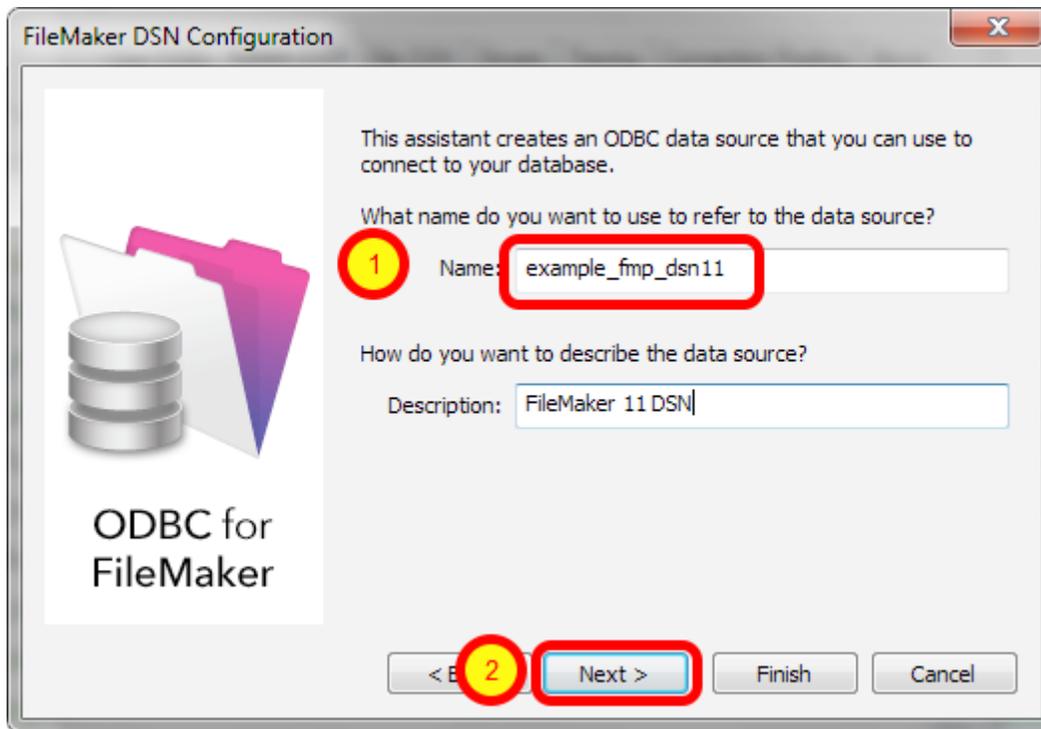
ODBC Driver Configuration - FileMaker 11+ - Windows (1)



Click Next button.

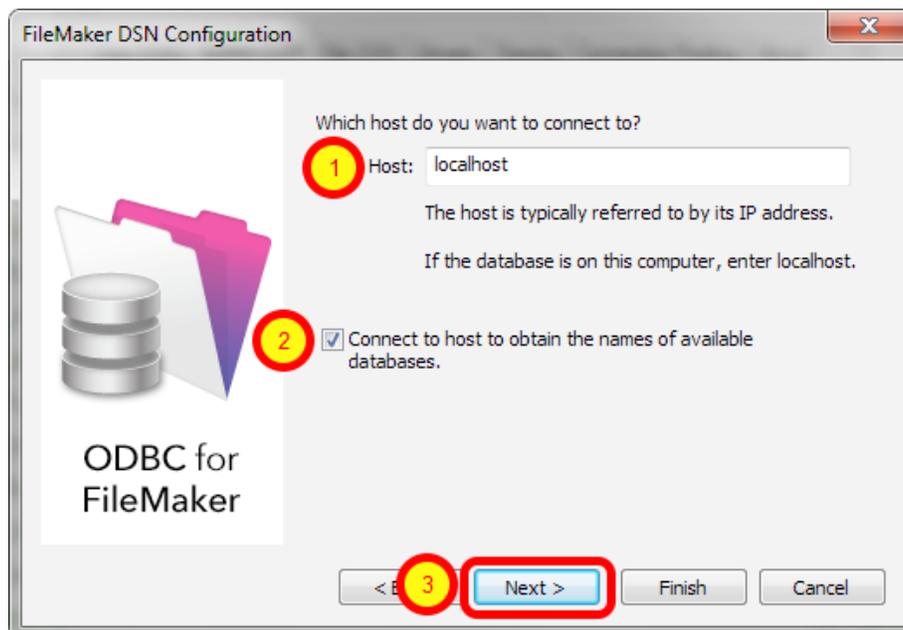
Click the About button if you need to find the version number for the driver.

ODBC Driver Configuration - FileMaker 11+ - Windows (2)



1) Enter a name for the ODBC DSN, (2) click the Next button.

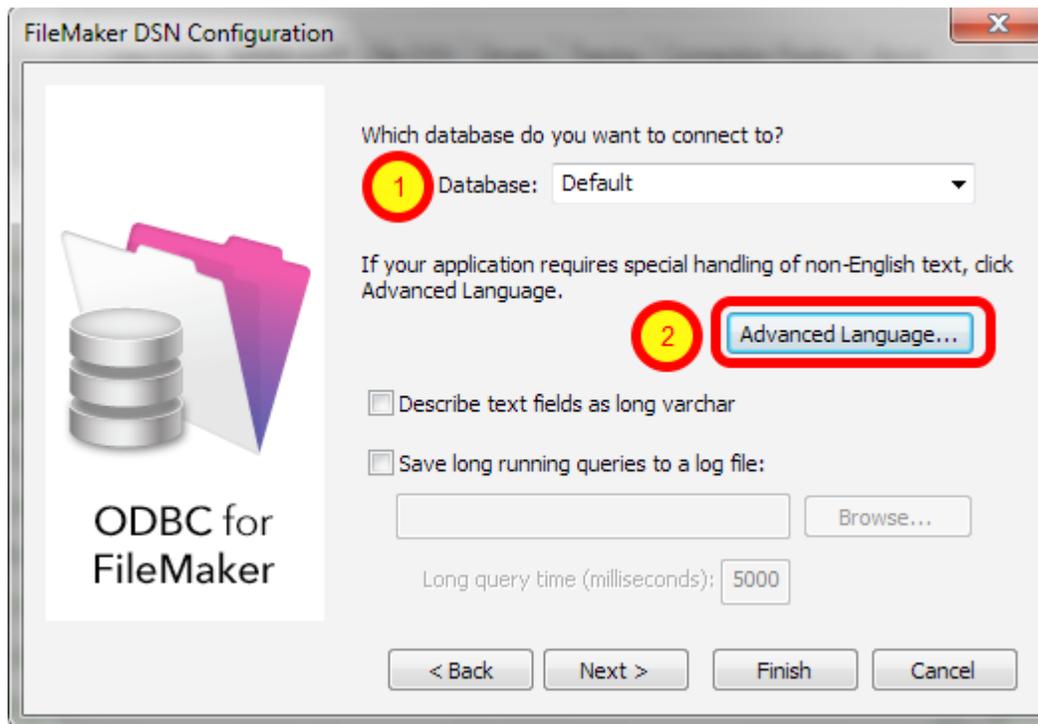
ODBC Driver Configuration - FileMaker 11+ - Windows (3)



1) If you are using a local copy of FileMaker Pro or FileMaker Pro Advanced, then use "localhost" as the host name. Otherwise use the IP address or hostname of the FileMaker Advanced Server.
2) You may optionally click the "Connect to host ..." button to get a list of database files.

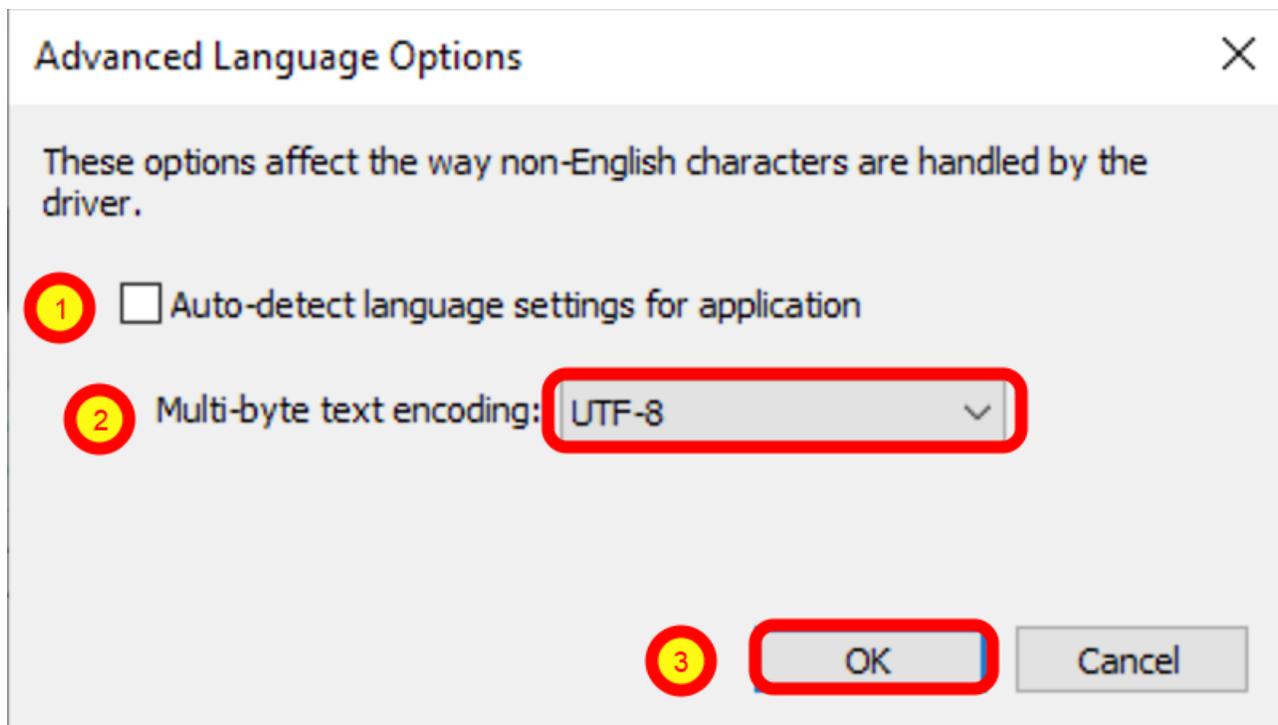
3) Click the Next button.

ODBC Driver Configuration - FileMaker 11+ - Windows (4)



1) Enter "Default" as the database name. Or if you have multiple database files open locally or on the server, then select the database name from the list or enter the name of the database. Using the Default keyword means that you can avoid changing the setup of the ODBC DSN when using different database files - but it means that only one file can be open at a time.

2) Click the Advanced Language button.

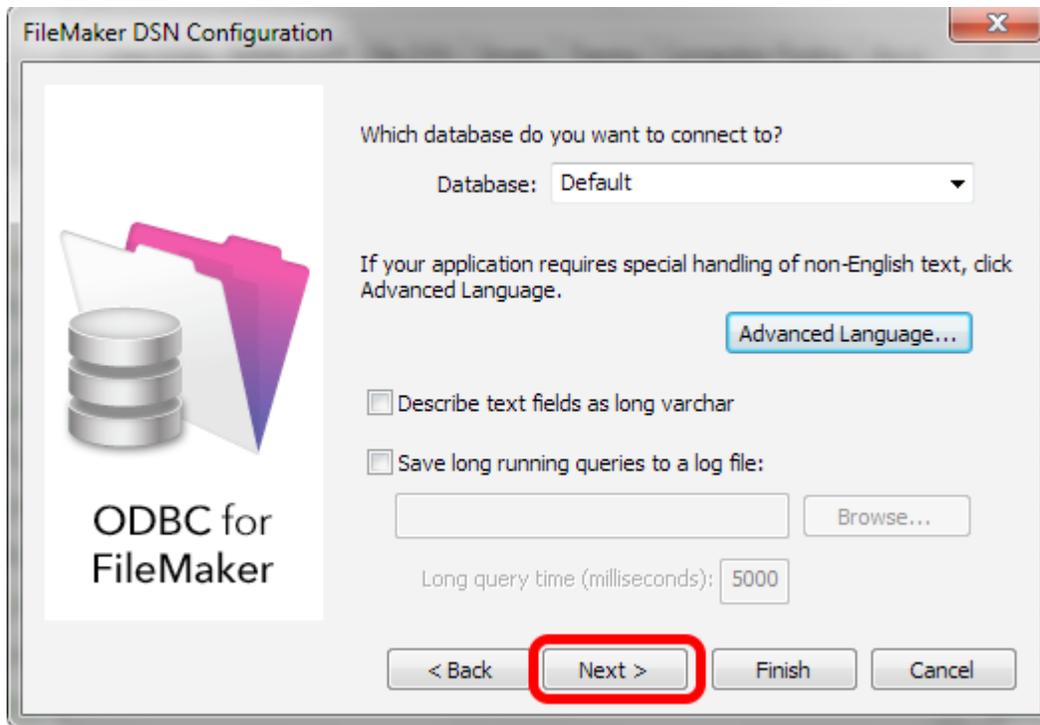


1) Uncheck the "Auto-detect language settings" button, 2) select System (WinLatin1) for the text encoding, 3) click the Ok button.

It has been found that for proper character encoding, the following configuration works well:

- 1) Install matching platform versions (64-bit or 32-bit) of the FileMaker database and FmPro Migrator on Windows.
 - 2) In the FileMaker ODBC driver, disable the Auto-Detect Language checkbox in the Advanced Language dialog.
 - 3) Set the Multi-byte Text Encoding menu to UTF-8 in the Advanced Language dialog.
- For SQL Server:
- 4) Enable the Perform Translation for Character Data checkbox on the last panel of the SQL Server ODBC DSN configuration.

ODBC Driver Configuration - FileMaker 11+ - Windows (6)



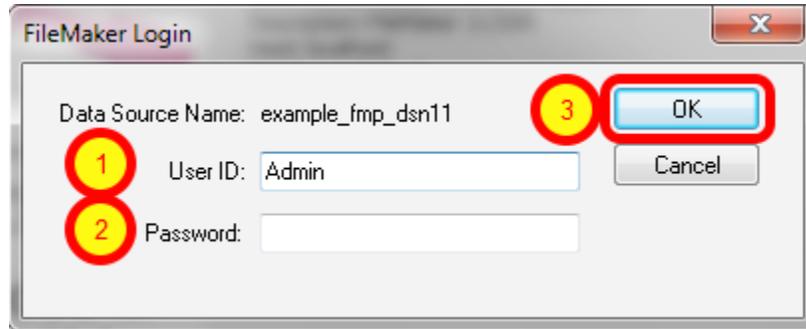
Click the Next button.

ODBC Driver Configuration - FileMaker 11+ - Windows (7)



Click the Test button.

ODBC Driver Configuration - FileMaker 11+ - Windows (8)



1) Enter Username, 2) Password (if needed), 3) click the Ok button.

Review the test results, make corrections as necessary until the test passes.

ODBC Error Troubleshooting Steps:

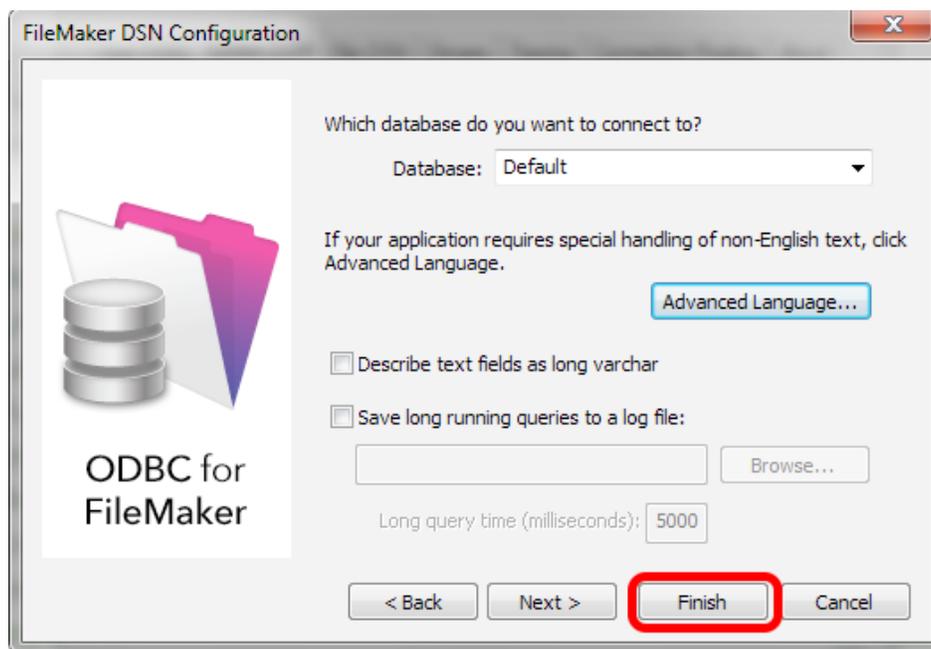
1) Verify that the FileMaker database file is open.

2) Verify that ODBC sharing is enabled for the account entered in the connection test dialog prompt.

3) Make sure that there aren't two different copies of FileMaker running at the same time. Both older and current versions of FileMaker use TCP/IP Port# 2399 for ODBC connectivity. If this type of conflict occurs, close both versions of the FileMaker application, and only open the one copy you want to serve the database file being migrated.

4) Try rebooting the computer (after clicking Ok to save changes and close this ODBC dialog). Then test the DSN again after rebooting.

ODBC Driver Configuration - FileMaker 11+ - Windows (9)



Click the Finish button.

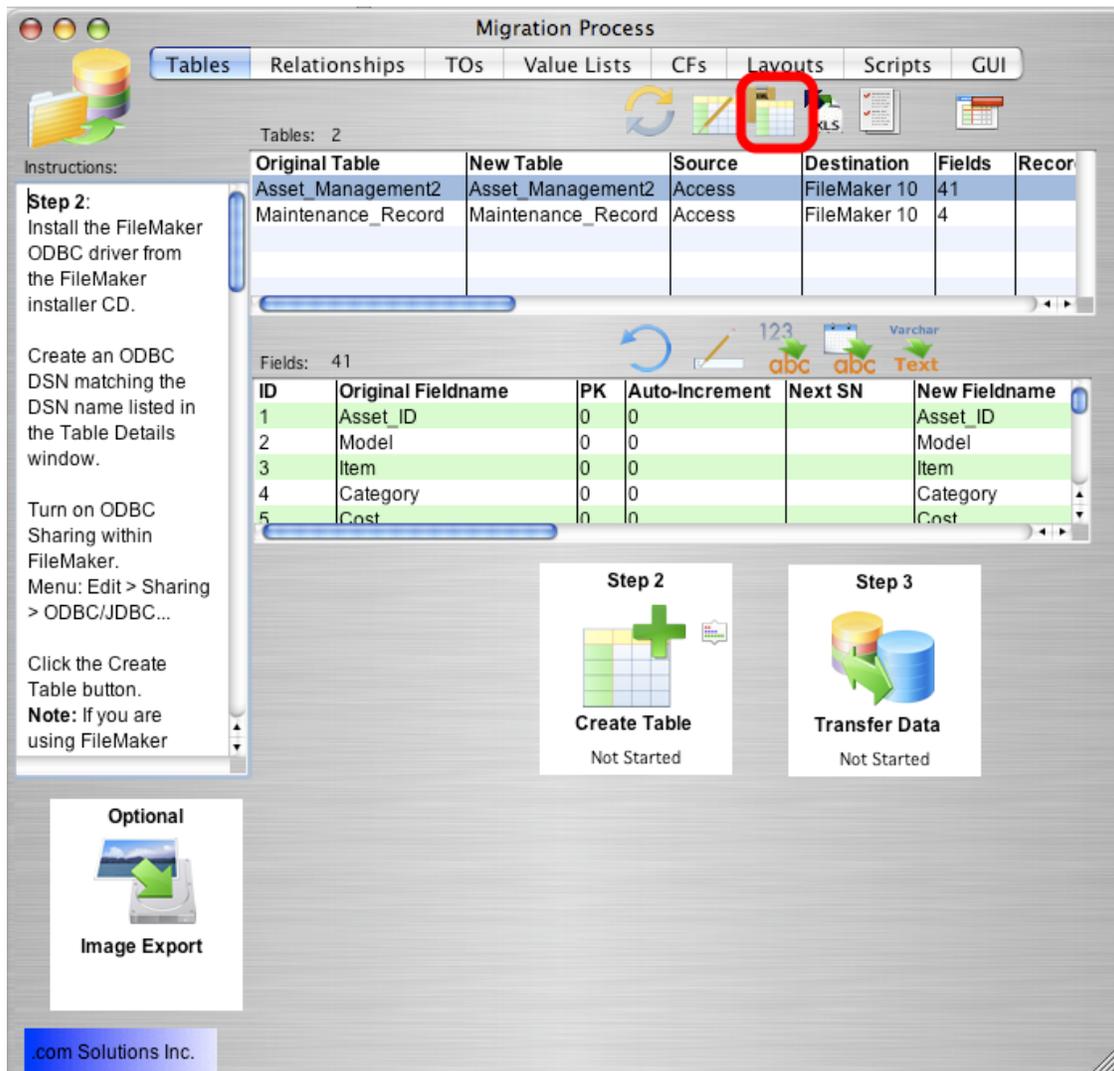
Step 2

Step 2 - Create Tables

At this point in the process, the FileMaker ODBC driver should be installed. The Access tables can be created in FileMaker Pro either by pasting the tables into FileMaker Pro Advanced via the ClipBoard, or via the FileMaker Pro ODBC DSN created earlier.

Note: Starting with FileMaker 16, both FileMaker Pro and FileMaker Pro Advanced allow copying/pasting of tables via the clipboard - so the older ODBC method is no longer detailed in this manual.

Step 2 - Create Tables via ClipBoard - Using FileMaker Pro Advanced



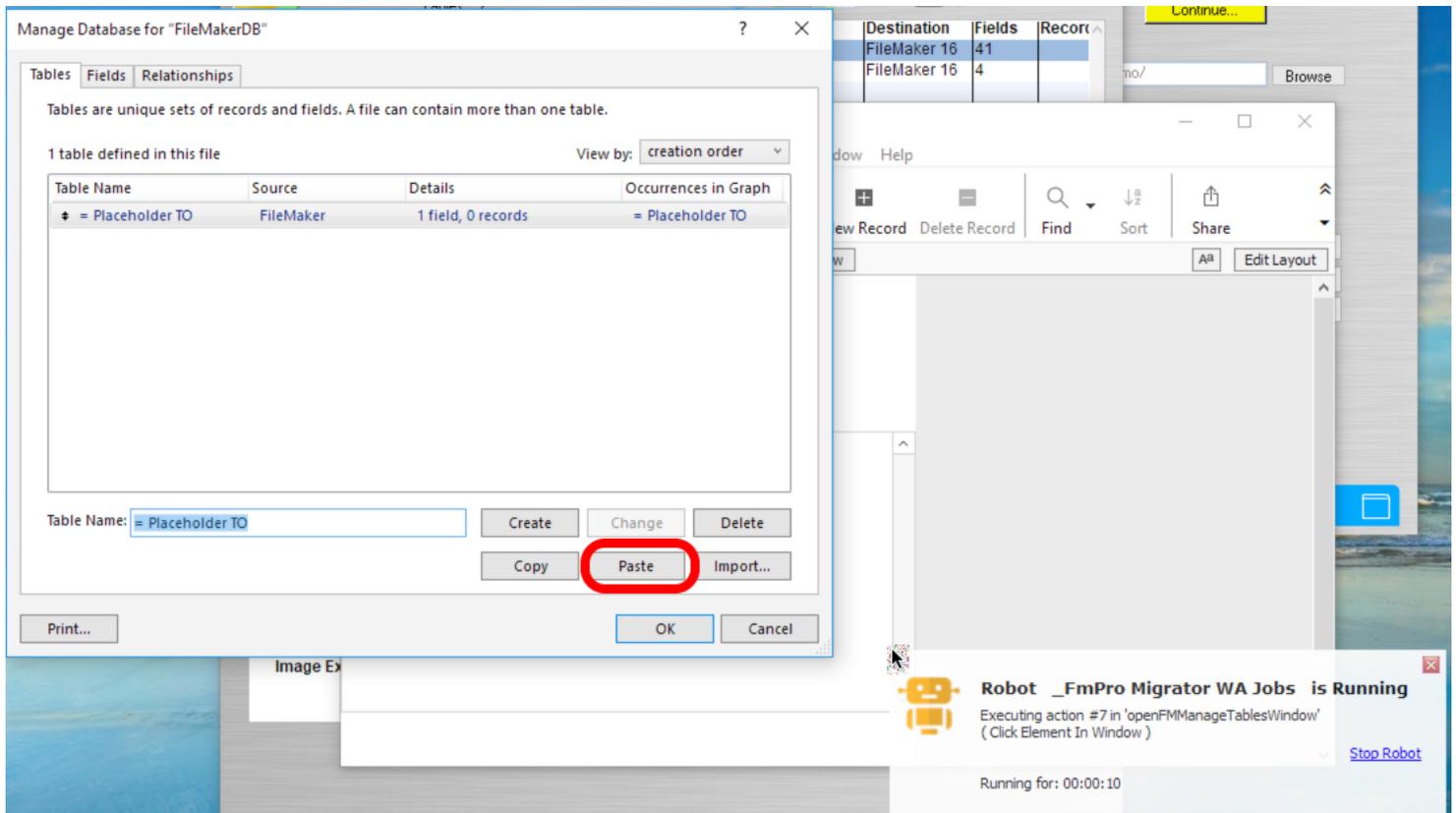
If FileMaker Pro Advanced is being used, it is faster to create the tables by pasting the Table XML code via the ClipBoard.

This process creates all of the tables at once, without requiring each table to be clicked in the list

of tables.

Click the CopyAll Tables to ClipBoard button on the Tables Tab of the Migration Process window.

Step 2 - Create Tables via ClipBoard - WinAutomation



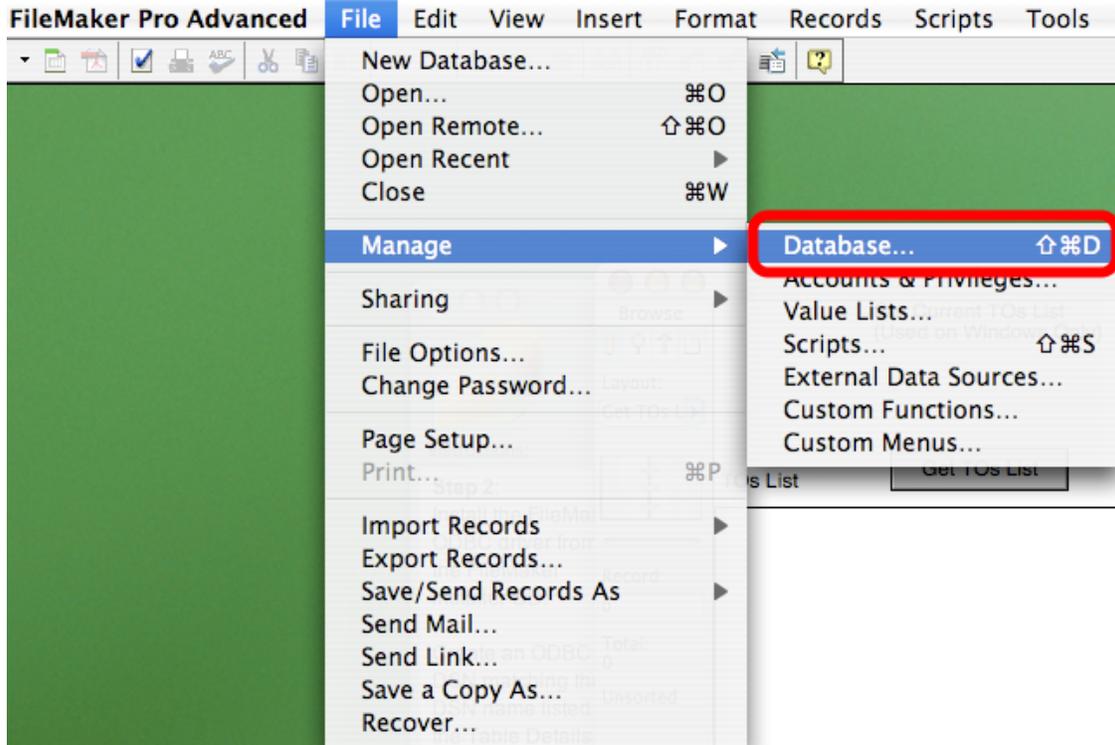
While gathering info from the Access file, FmPro Migrator created and opened a new empty FileMaker Pro database file named FileMakerDB.fp7/.fmp12 within the output directory.

FmPro Migrator will install and run a WinAutomation Robot (or AppleScript on macOS) which will automatically open the Manage Database window, and will also click the Tables tab.

Just click the Paste button to paste the tables which have already been copied to the clipboard by FmPro Migrator.

Note: Starting with FileMaker 16, both FileMaker Pro and FileMaker Pro Advanced allow copying/pasting of tables via the clipboard.

Step 2 - Create Tables via ClipBoard - Define/Manage Database... Menu - Manual Process

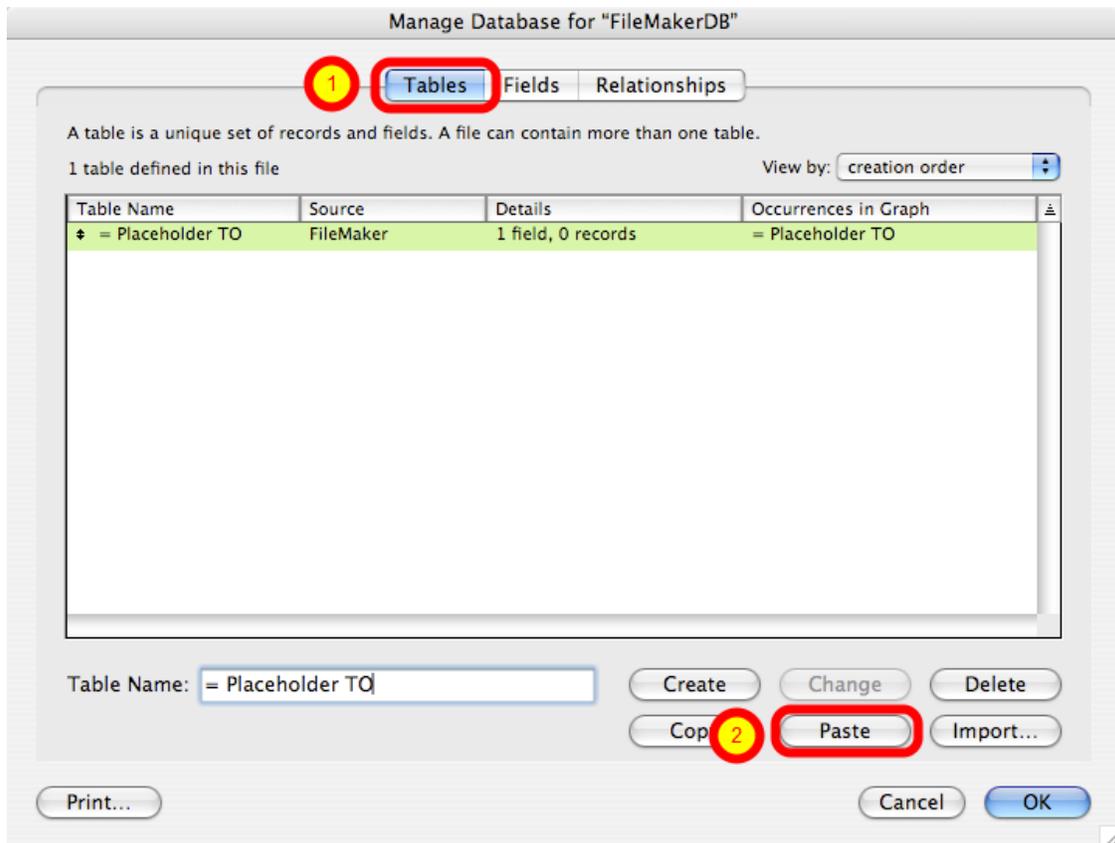


While gathering info from the Access file, FmPro Migrator created and opened a new empty FileMaker Pro database file named FileMakerDB.fp7/.fmp12 within the output directory.

If the WinAutomation Robot (or AppleScript on macOS) doesn't run, you can open the Manage Database window manually.

Select Define/Manage Database... from the File menu within FileMaker Pro Advanced.

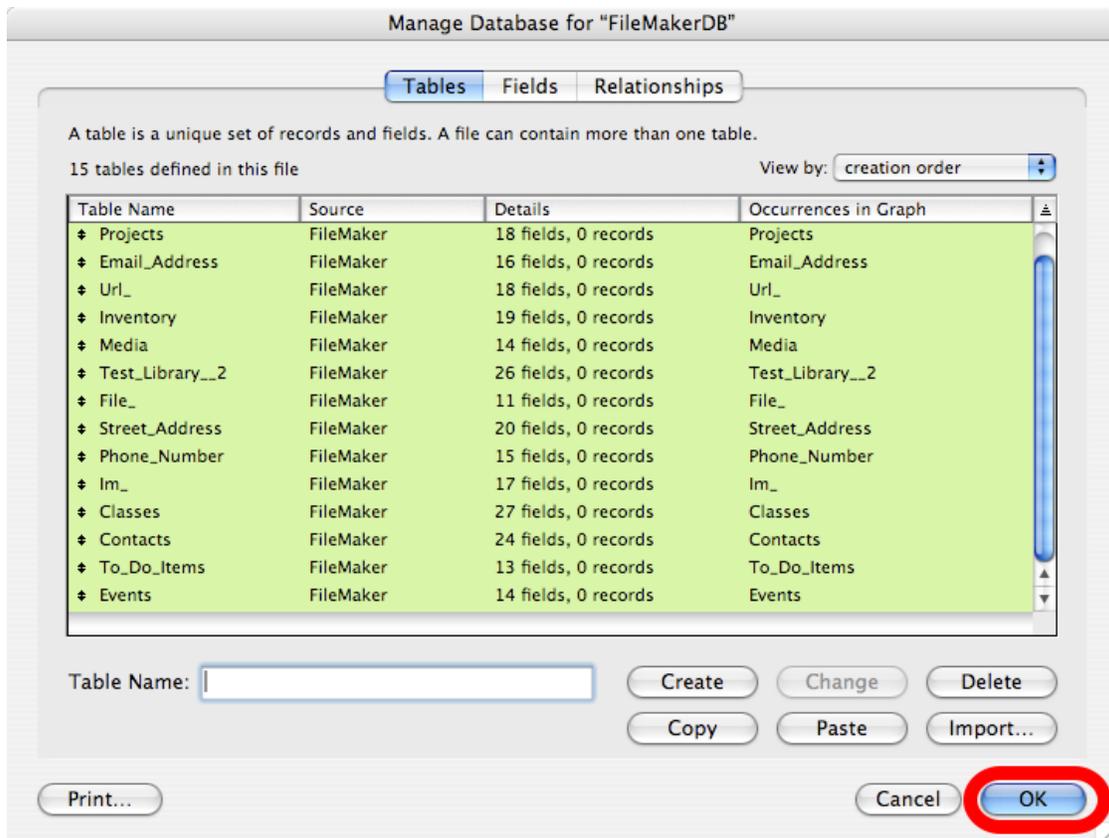
Step 2 - Create Tables via ClipBoard - Paste Tables



(1) Click the Tables tab (if necessary), (2) then click on the Paste button.

Note: If the Paste button is grayed out, this means that the table XML code didn't get copied to the ClipBoard before the Define/Manage Database dialog was opened. If this happens, click the Copy All Tables to ClipBoard button again from within FmPro Migrator. Switching from the Fields tab and then switching back to the Tables tab will cause FileMaker Pro Advanced to check the ClipBoard again for Table XML info. When the Table XML code is found on the ClipBoard, the Paste button will be enabled.

Step 2 - Create Tables via ClipBoard - Paste Tables Result



The new tables will be created and then displayed within the Tables list. FileMaker Pro Advanced will also create a basic layout and a TO on the relationship graph for each of these new tables.

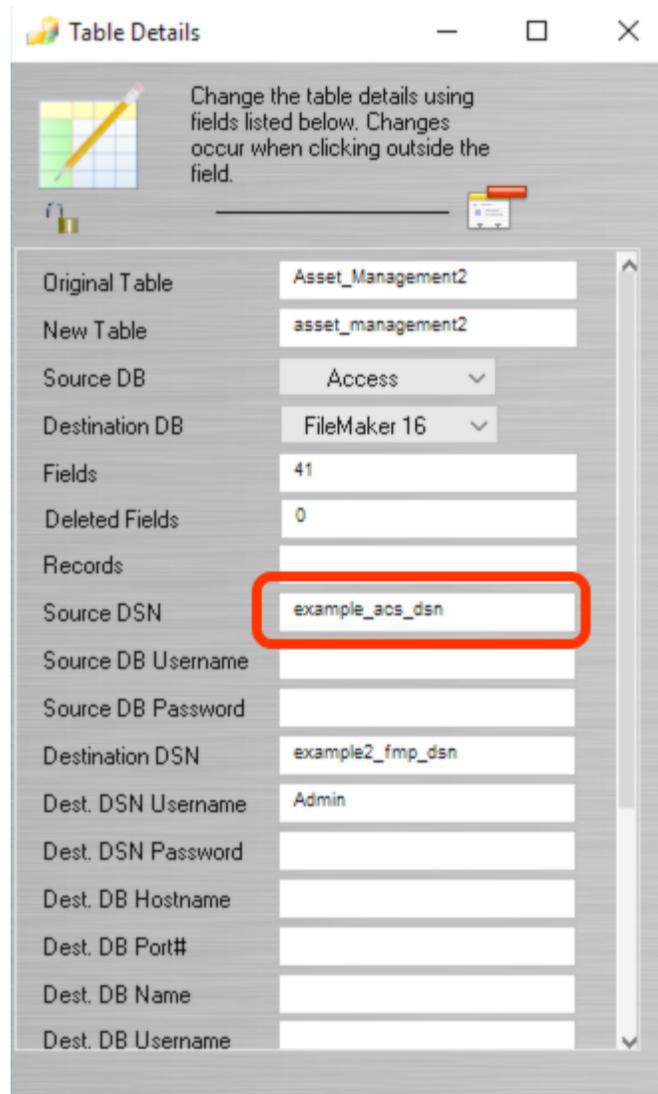
Click the Ok button to close the Manage Database window.

Step 3

Step 3 - Transfer Data - Access to FileMaker Pro

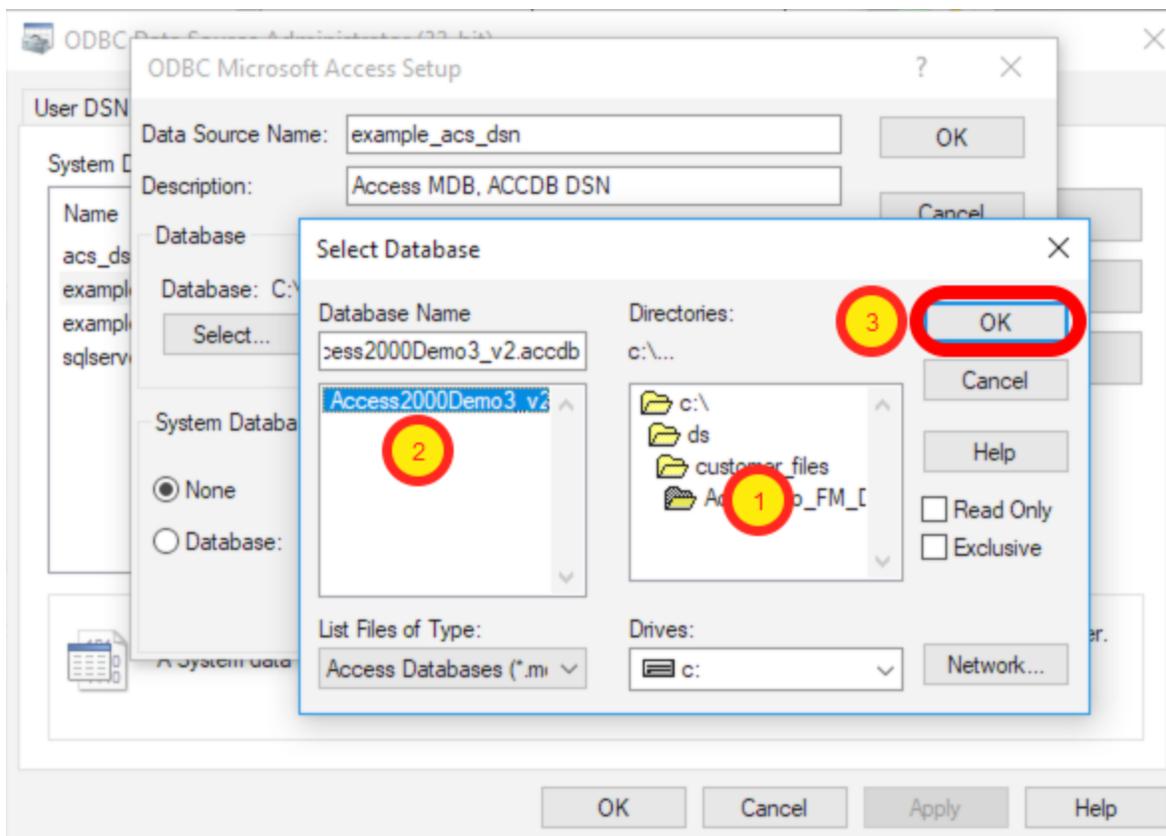
On macOS a File DSN is used to connect to the Access database for transferring data. On Windows a User or System DSN needs created to connect with the Access database.

Configure Access ODBC DSN Name - Windows



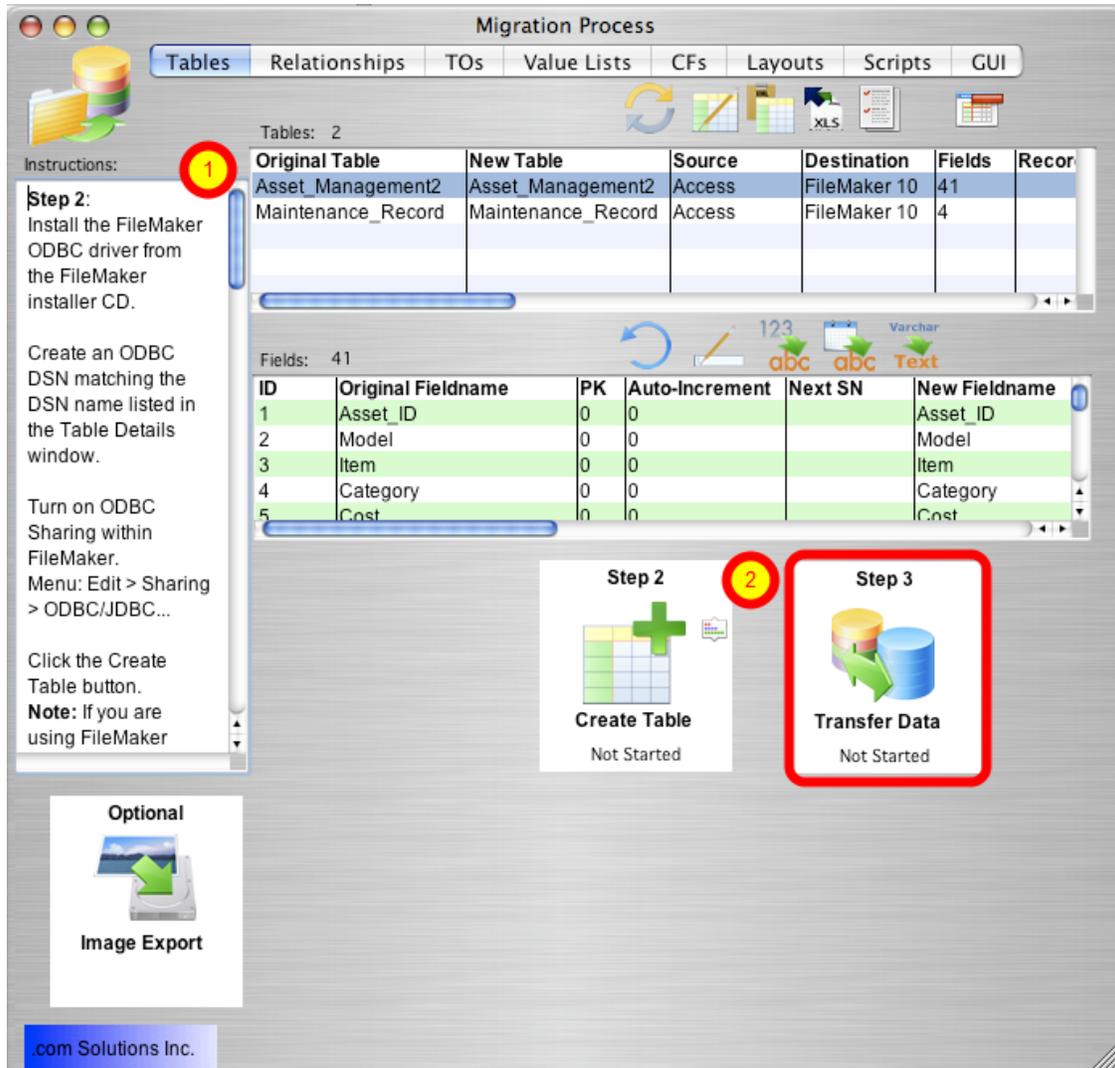
Create an ODBC DSN for the Access database file matching the name shown in the Table Details window, and enter the name of the new ODBC DSN in the Source DSN field on the Table Details window. It is not usually necessary to enter a username/password for Access database files.

Access ODBC DSN Creation - Windows



Select the name of the Access database file (1) (2) in the Database Name pane. (3) Click the Ok button.

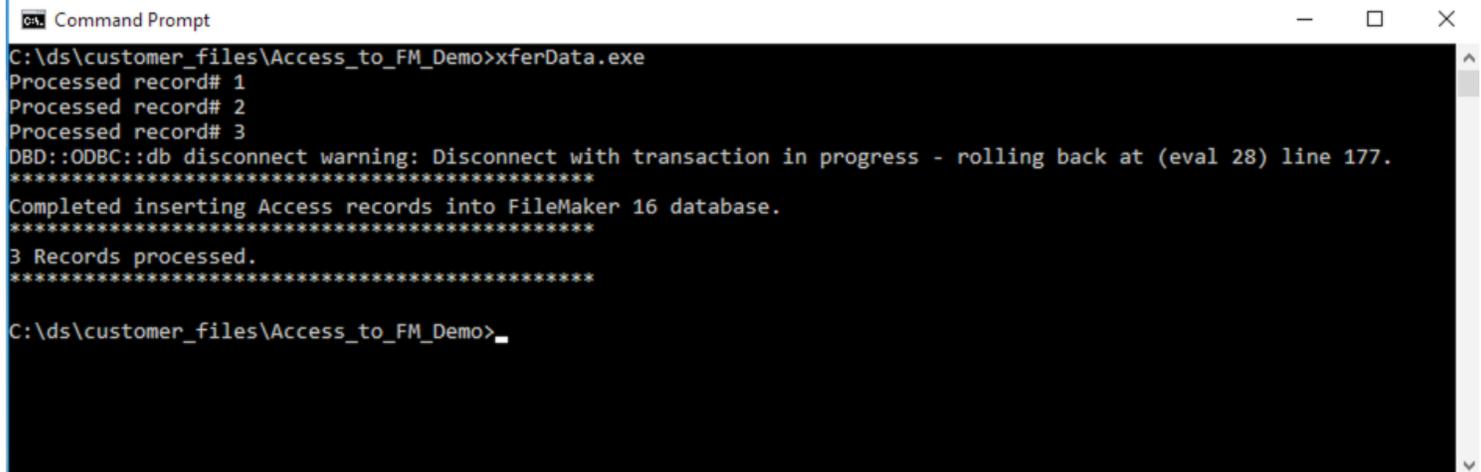
Step 3 - Transfer Data - Windows



(1) Click a table in the list of tables, (2) then click the Step 3 Transfer Data button to transfer data for the selected table from Access into FileMaker Pro.

Repeat this process for each table in the Access database file.

Data Transfer Method - Windows - xferDataPerl.exe



```
Command Prompt
C:\ds\customer_files\Access_to_FM_Demo>xferData.exe
Processed record# 1
Processed record# 2
Processed record# 3
DBD::ODBC::db disconnect warning: Disconnect with transaction in progress - rolling back at (eval 28) line 177.
*****
Completed inserting Access records into FileMaker 16 database.
*****
3 Records processed.
*****

C:\ds\customer_files\Access_to_FM_Demo>_
```

On Windows, the command prompt window will open, and will display the results of transferring the data from the Access database into FileMaker Pro. This window will then close automatically once the data has been transferred.

Step 3 - Transfer Data - macOS

Migration Process

Tables: 28

Original Table	New Table	Source	Destination	Fields	Records
Customers	customers	Access	FileMaker 20	18	
Employee Privileges	employee_privileges	Access	FileMaker 20	2	
Employees	employees	Access	FileMaker 20	18	
Inventory Transaction Ty	inventory_transaction_t	Access	FileMaker 20	2	
Inventory Transactions	inventory_transactions	Access	FileMaker 20	9	

Fields: 18

ID	Original Fieldname	PK	Auto-Increment	Next SN	New Fieldname
1	ID		0		id
2	Company		0		company
3	Last Name		0		last_name
4	First Name		0		first_name
5	Email Address		0		email_address

Instructions:

Step 2:
Install the FileMaker ODBC driver.
Create an ODBC DSN matching the DSN name listed in the Table Details window.
Turn on ODBC Sharing within FileMaker.
Menu: File > Sharing > ODBC/JDBC
Click the Get FieldSize icon.

Troubleshooting:
Make sure the specified ODBC DSN

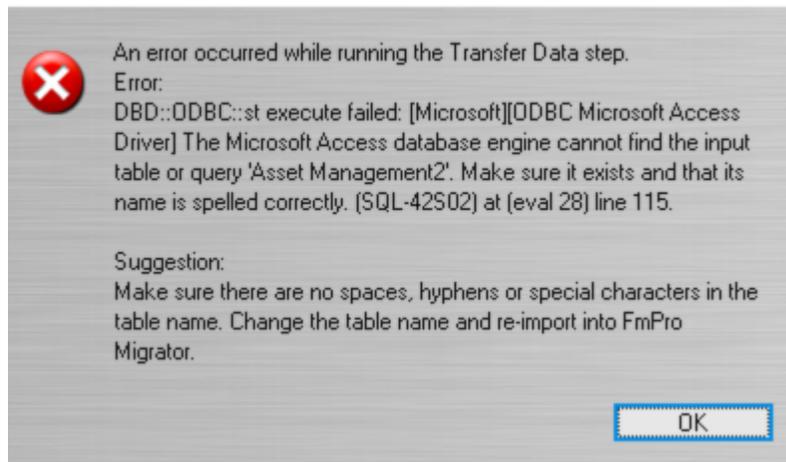
Step 2
Create Table
Completed

Step 3
Transfer Data
Not Started

(1) Click a table in the list of tables, (2) then click the Step 3 Transfer Data button to transfer data for the selected table from Access into FileMaker Pro. A file DSN is used to connect to the Access database on macOS using the Actual Technologies ODBC for Access driver, so it isn't necessary to create a User or System DSN with ODBC Manager.

As shown in Step #2 - a DSN does need created for the FileMaker database - as shown in the Step #2 instructions.

Repeat this process for each table in the Access database file.



This error can mean that the ODBC DSN specified in FmPro Migrator for the Source Database (the Access database), does not point to the correct Access database file. This DSN needs to be changed each time a new Access database file is processed by FmPro Migrator.

Note: This warning dialog suggests that tables containing spaces and special characters may not be read properly. This is not always the case, it is just something to review and change if problems occur when transferring data.

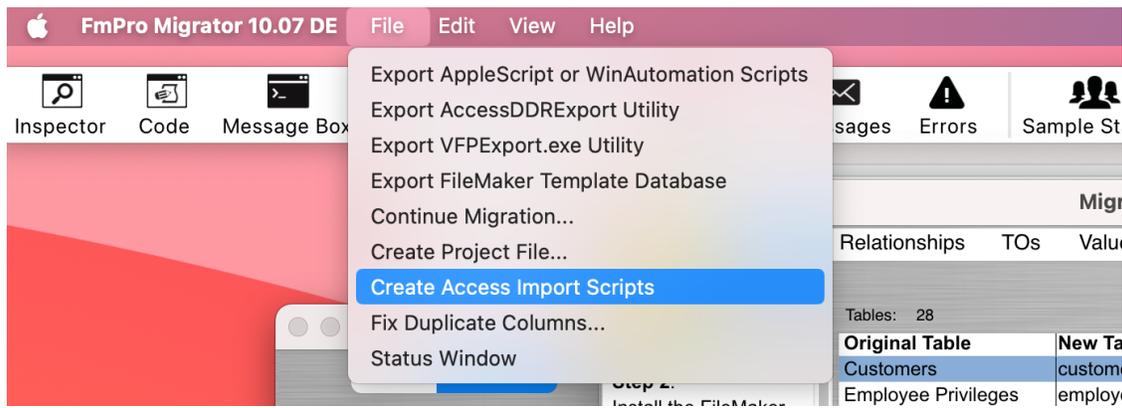
Recent improvements in the design of the FmPro Migrator data transfer scripts will allow many of these tables to work just fine because the table names are enclosed with square brackets.

Step 3 - Transfer Data - Access to FileMaker Import Scripts

FmPro Migrator versions 10.07 and higher include a new File -> Create Access Import Scripts menu item. This menu item creates FileMaker import scripts for each Access database table and can be used at any time to truncate and re-import the data from Access databases into FileMaker Pro.

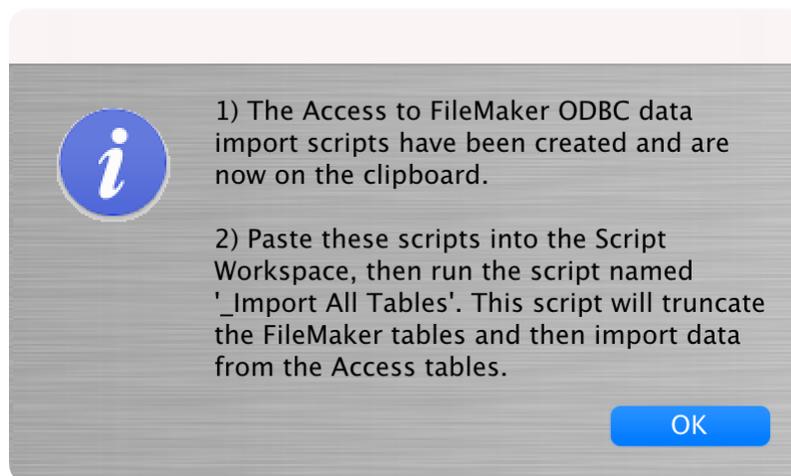
Note: These scripts can be used to import data from any ODBC database into FileMaker Pro on macOS or Windows. You will need to create an ODBC DSN for the source database and enter the username/password info into the Import Records script step.

Select File -> Create Access Import Scripts



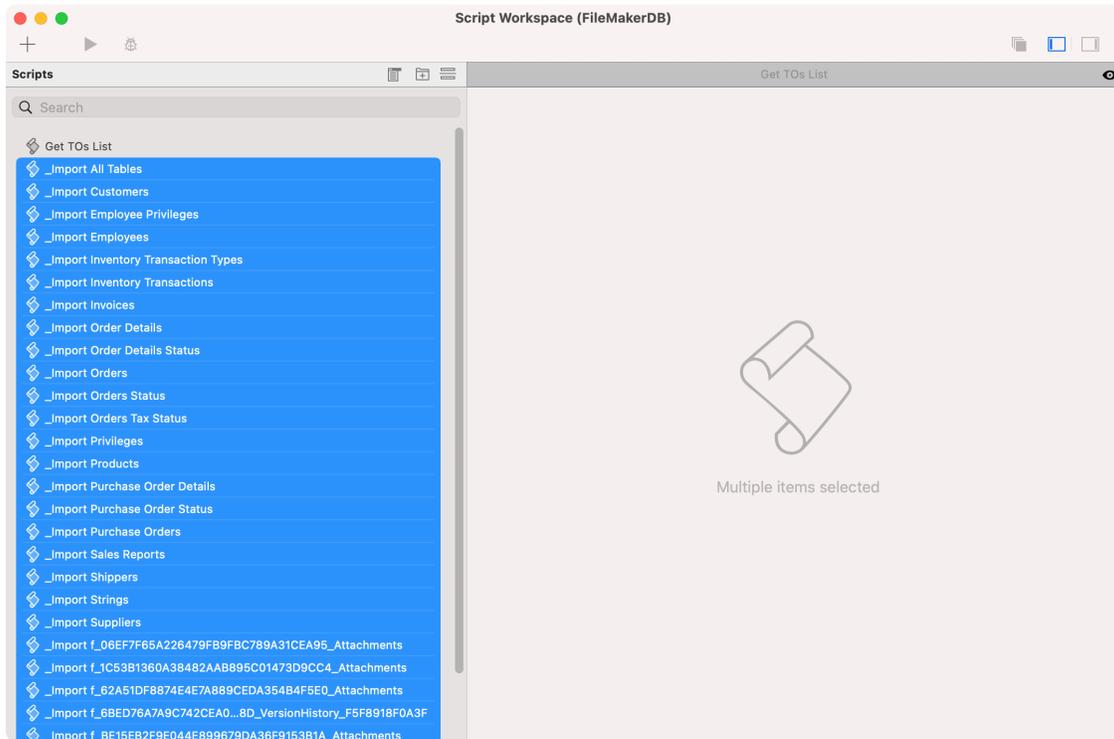
Select the File -> Create Access Import Scripts to create the ODBC import scripts.

Import Scripts Created Dialog



Click the Ok button.

Paste Scripts into FileMaker Script Workspace



Click the top script in the list, then select the Edit -> Paste menu or Command/Control V to paste the scripts into the Script Workspace.

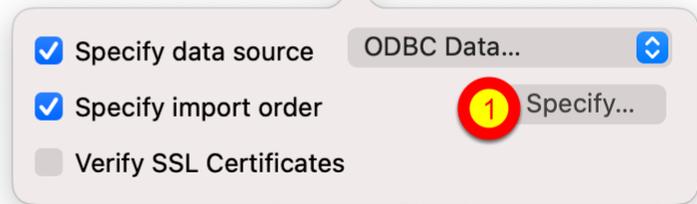
Verify Layout Name - Each Import Script



It is not always possible for FmPro Migrator to identify the correct layout name to be used for each import and Truncate Table script. So it is important to verify the name of each layout you want to use for each table import.

Edit Import Parameters (1)

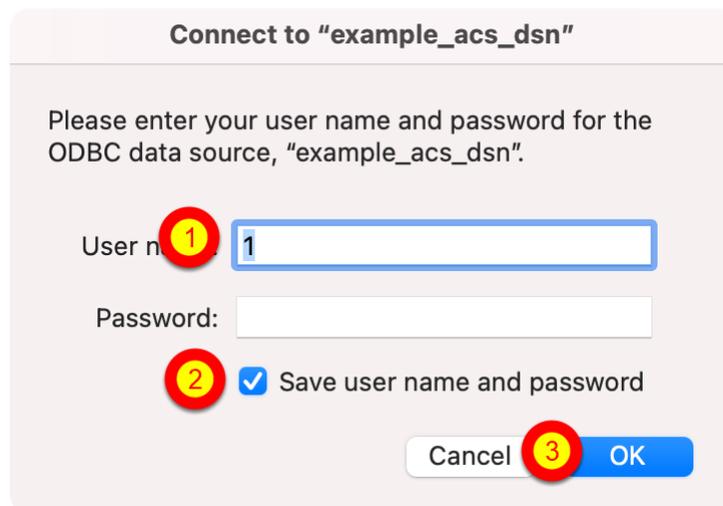
```
able [ With dialog: Off ; Table: customers ]  
ords [ With dialog: Off ; Table: customers ;  
le_acs_dsn; SQL Text: SELECT * FROM "Customers" ; Add; UTF-8 ]
```



Specify data source ODBC Data...
 Specify import order **1** Specify...
 Verify SSL Certificates

Click Specify... button.

Edit Import Parameters (2)



Connect to "example_acs_dsn"

Please enter your user name and password for the ODBC data source, "example_acs_dsn".

User name **1**

Password:

Save user name and password

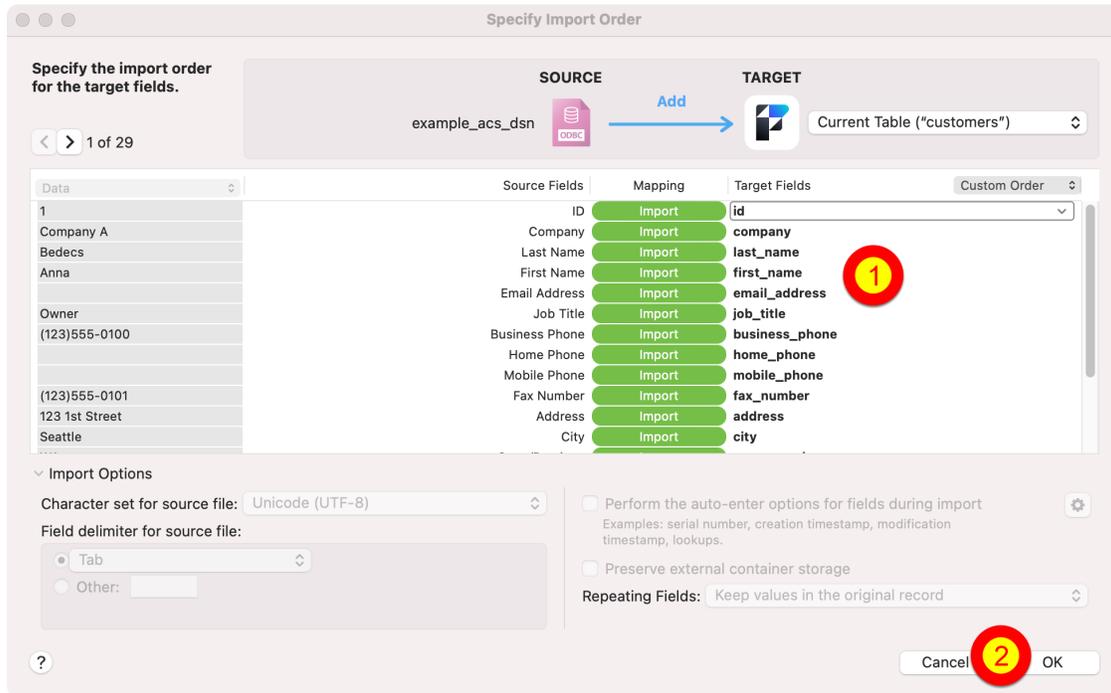
Cancel **3** OK

(1) By default, FmPro Migrator sets a user name of "1" for the ODBC import dialog because FileMaker doesn't seem to allow a blank value. On macOS, the Actual Technologies ODBC for Access driver doesn't require or use any login info when connecting to Access database files. Also - FmPro Migrator uses the ODBC DSN shown for the source Access database on the main screen. Changing this default name of "example_acs_dsn" will use the value you configure when generating the scripts.

(2) Check the "Save username and password" check box so that the scripts can run without prompting.

(3) Click the Ok button.

Edit Import Parameters (3)



Verify the selection of the Target Fields, then click the Ok button to save the changes and save the script changes in the Script Workspace.

Test each individual script, then test the `_ImportAll Tables` script.

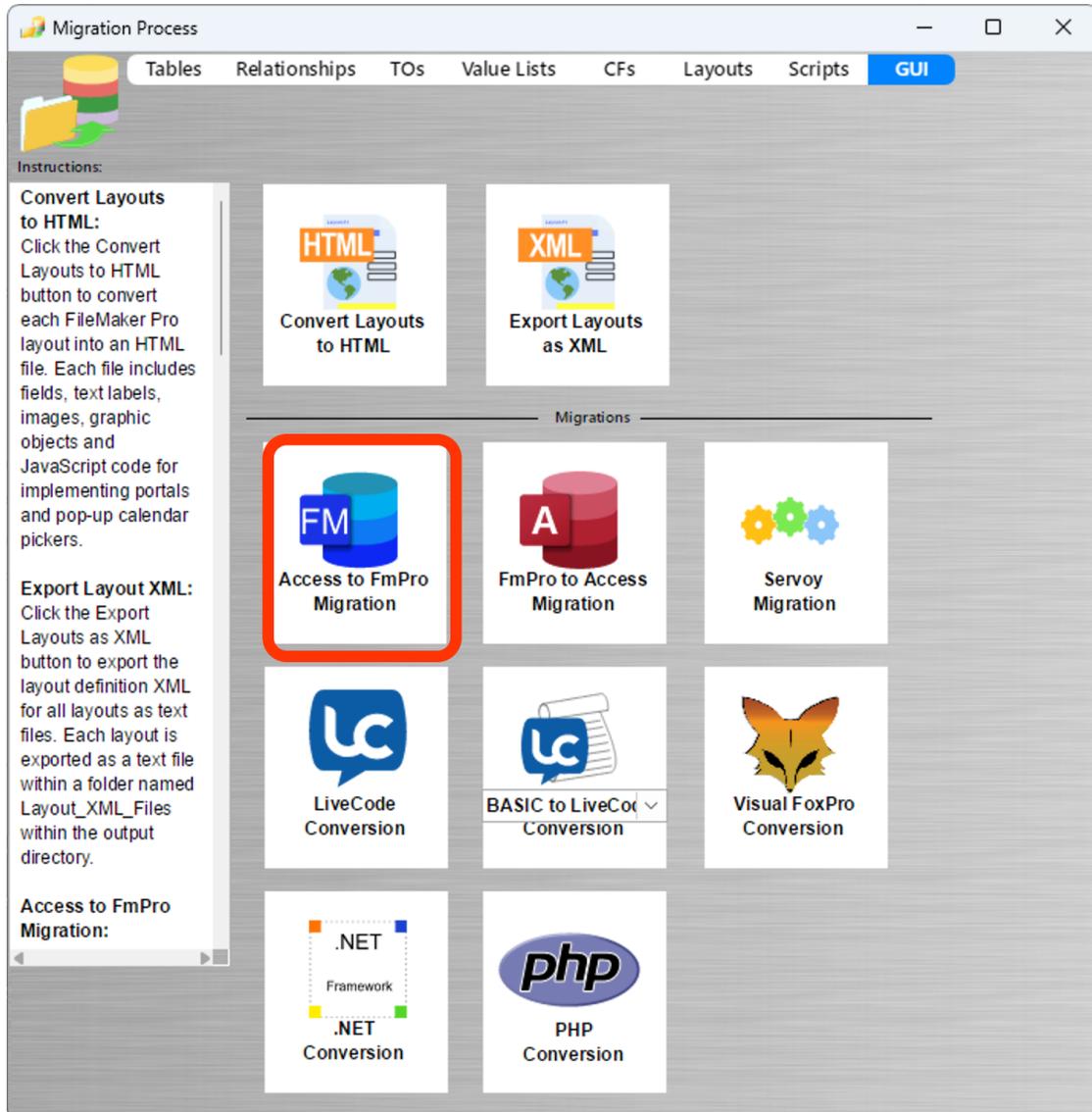
Migrating Forms/Reports, Relationships, Value Lists & Visual Basic Code

AccessDDRExport - Extracting Info From Access (FileMaker Pro Migration)

FmPro Migrator Platinum Edition includes features for migrating Microsoft Access Forms/Reports, Queries, Relationships, Value Lists and Visual Basic code into FileMaker Pro.

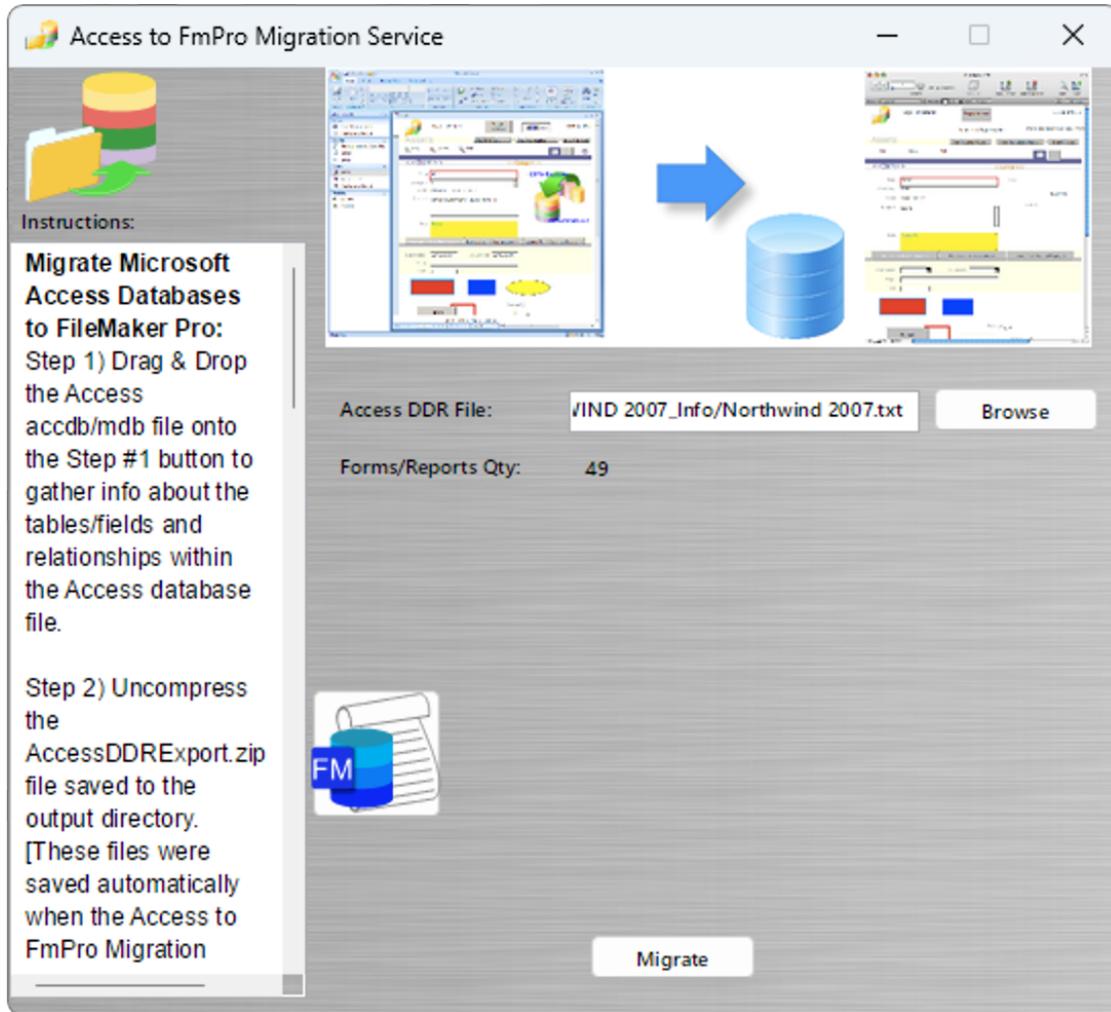
These features utilize AppleScript/WinAutomation to automate the process of creating the objects within the FileMaker database file, along with the Access to FmPro Migration Service feature on the GUI tab of FmPro Migrator Developer Edition.

Access to FmPro Migration Service button



Click the Access to FmPro Migration button on the GUI tab within FmPro Migrator Platinum Edition.

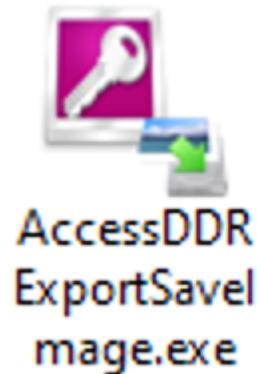
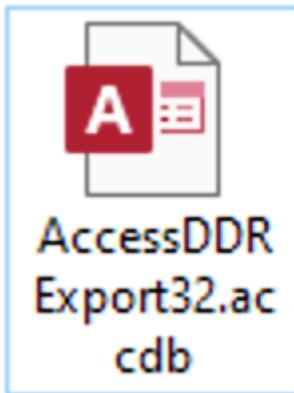
Access to FmPro Migration Window



Clicking the Access to FmPro Migration Service button opens the Access to FmPro Migration Service window.

As this window is opened, the AccessDDRExport.zip file is written into the output directory.

AccessDDRExport.zip Contents



Extract the files from this zip archive.

The files within this zip archive include:

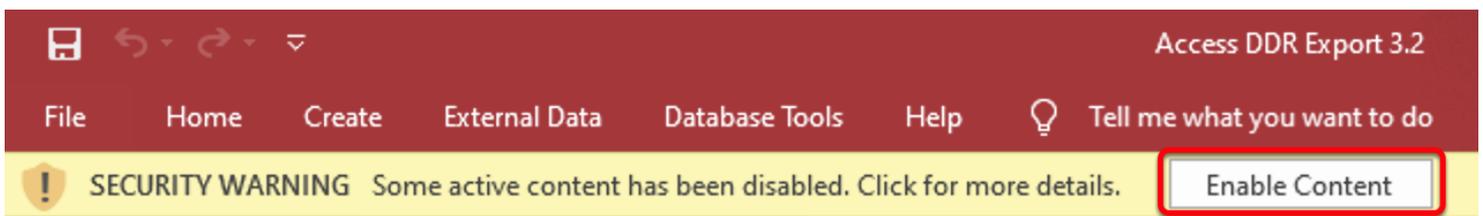
AccessDDRExport??.accdb - An unsigned Access 2010+ DDR Export database file, created with Access 2016.

AccessDDRExport??.mdb - The Access 2000/2003 DDR Export database file.

AccessDDRExportSavelmage.exe - A digitally signed 32-bit VB6 compiled EXE which extracts images from Access forms/reports by using the ijl15.dll within the same folder.

ijl15.dll - A digitally signed 32-bit dll licensed from Intel which is used to extract images from Access forms/reports. This dll no longer needs to be installed into the Windows folder.

AccessDDRExport.accdb - Security Notice



The Access 2010/2016 ACCDB file always disables active content until the "Enable Content" button is clicked.

Overview - Using the AccessDDRExport.accde/.mde Database Files

The process for extracting Forms/Reports, Queries, Value Lists and Visual Basic code from Access database files requires running one of the two Microsoft Access Export database files on a computer or virtual machine running Windows. These database files cannot be used with

CodeWeavers CrossOver Mac. They must be run under a full copy of Windows with a full copy of Microsoft Access.

The AccessDDRExport.accde/mde database creates a database design report text file within a top-level folder having the same name as the selected Microsoft Access database file. Images embedded within the Forms/Reports are exported into an Images folder within the top-level folder. Once the database design report and images have been extracted from the Access database file, the top-level folder and its contents may be copied between computers and used on either macOS or Windows to complete the migration process.

AccessDDRExport - AccessDDRExportSaveImage.EXE and ijl15.dll on Windows

 Access DDR Export



AccessDDR Export Utility 3.2

www.FmProMigrator.com

This utility exports a Database Design Report textfile for Access 2000 - 2016 .mdb/.accdb database files. Images are extracted to an Images subfolder, in preparation for importing into FmPro Migrator.

Note: Please, make sure that the ijl15.dll file is in the same folder as the Access DDR Export utility and the AccessDDRExportSaveImage.exe file.

Before running the AccessDDRExport.accde/mde database files, the ijl15.dll and AccessDDRExportSaveImage.exe files both need to be located within the same folder as the AccessDDRExport???.accdb/mdb files. This is the default location for these files when the folder is unzipped, so unless these files get moved or renamed, the error message shown above won't be displayed.

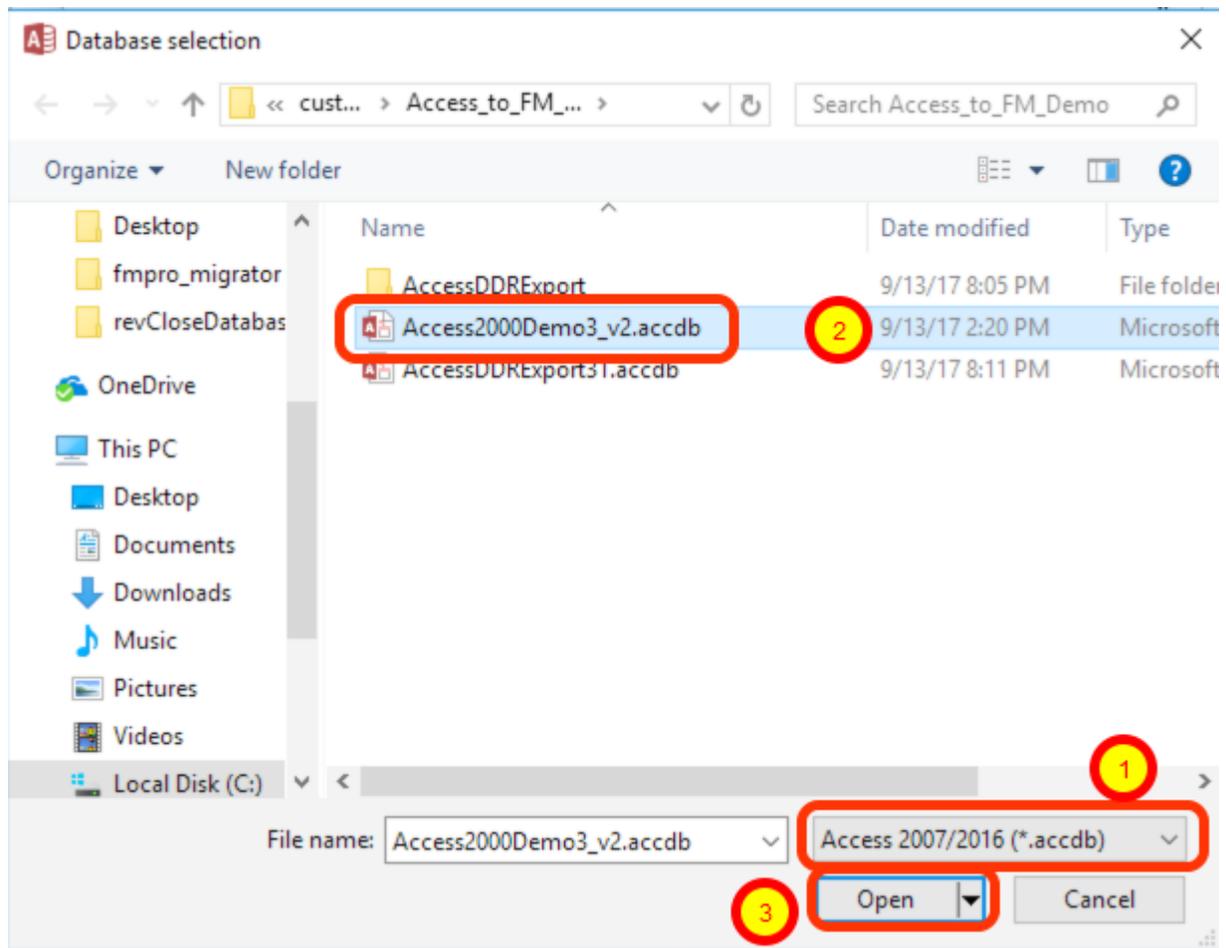
These two files are used for extracting the embedded images from Microsoft Access Forms/Reports. If these files are not installed, the rest of the database design report creation process will work Ok, but the images won't be processed.

After these files have been restored to the same folder, re-launch the AccessDDRExport.accdb/mdb database.



Launch the AccessDDRExport.accdb/mdb database file.
Click the Select Database button.

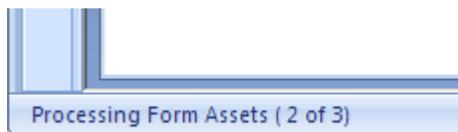
AccessDDRExport - Select Access Database



(1) Select the type of Access database file to be opened (accdb/mdb), (2) select the database file, then click the Open button.

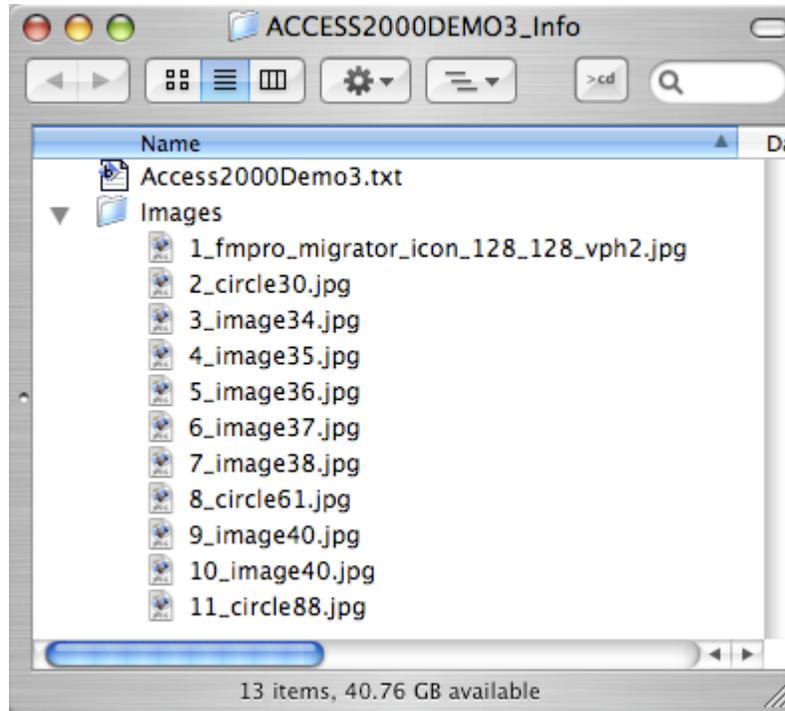
Note: By default, .accdb files will be displayed in the open file dialog when running Access 2007 and higher.

AccessDDRExport - Processing Status



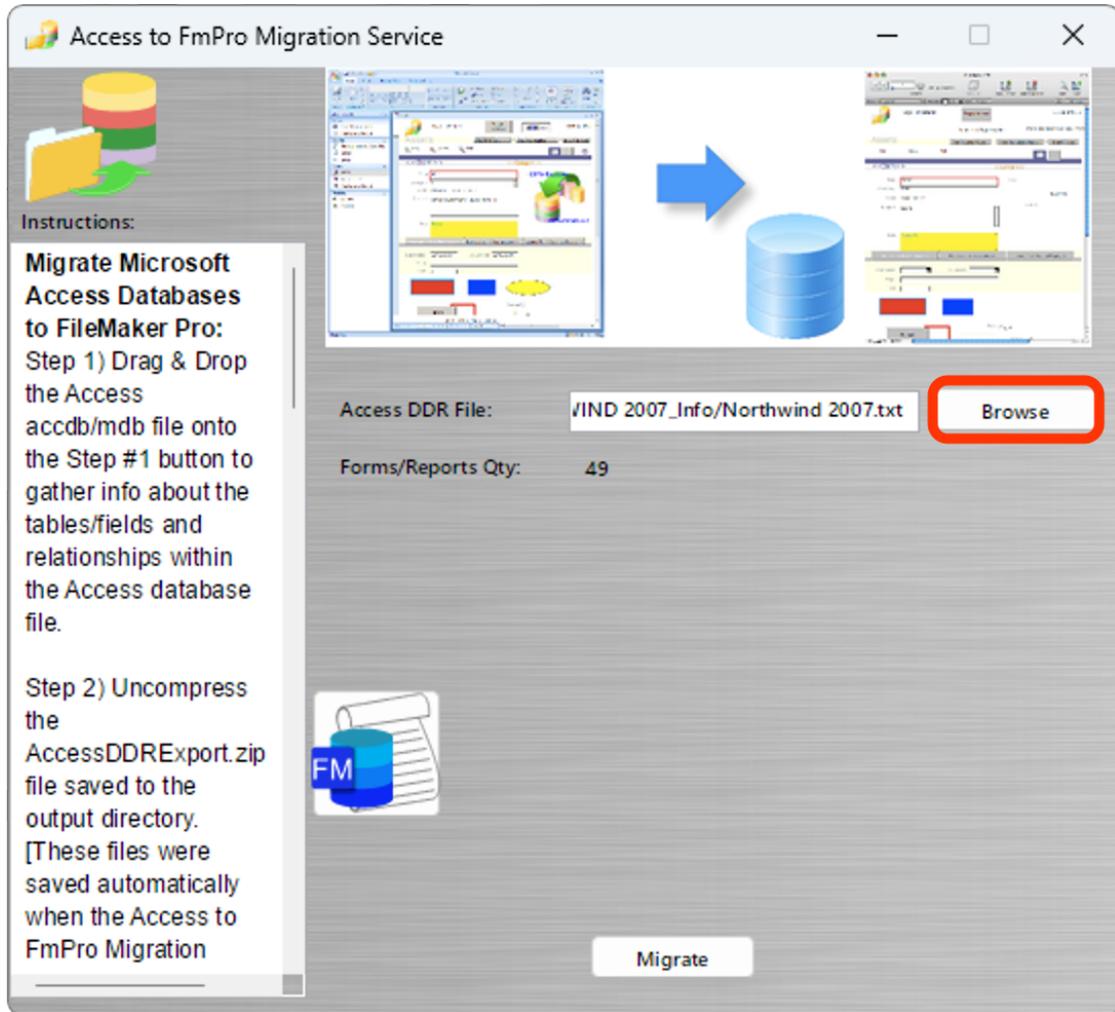
The selected Access database will be opened, and the processing status will be displayed in the lower left corner of the AccessDDRExport window. At the completion of the export process, the selected database file will be closed and the cursor will return to the arrow cursor and the status area text will change to "Processing Completed".

AccessDDRExport - Results



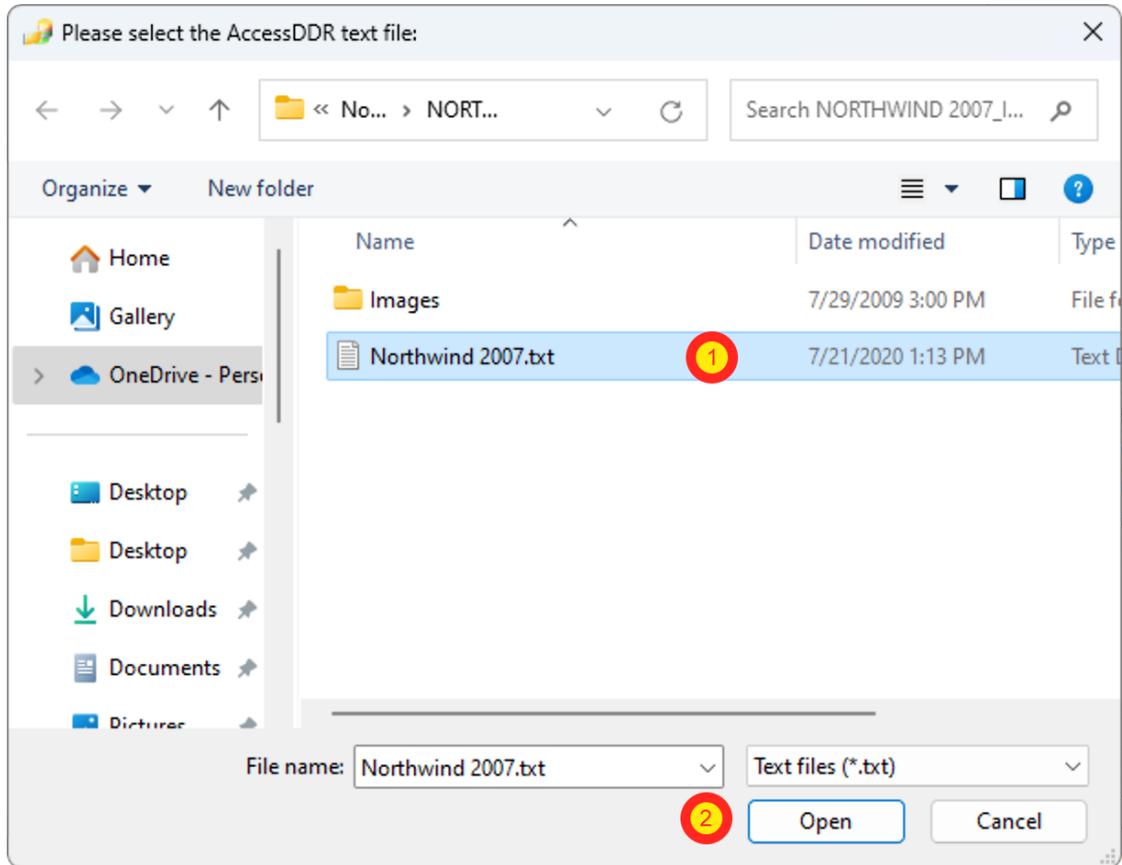
The AccessDDRExport text file and the embedded Form/Report images will be extracted into a folder within the same directory as the original Access database file. This folder can be copied to another computer if necessary for further processing by FmPro Migrator Developer Edition.

Access to FmPro Migration - Select AccessDDR Text File



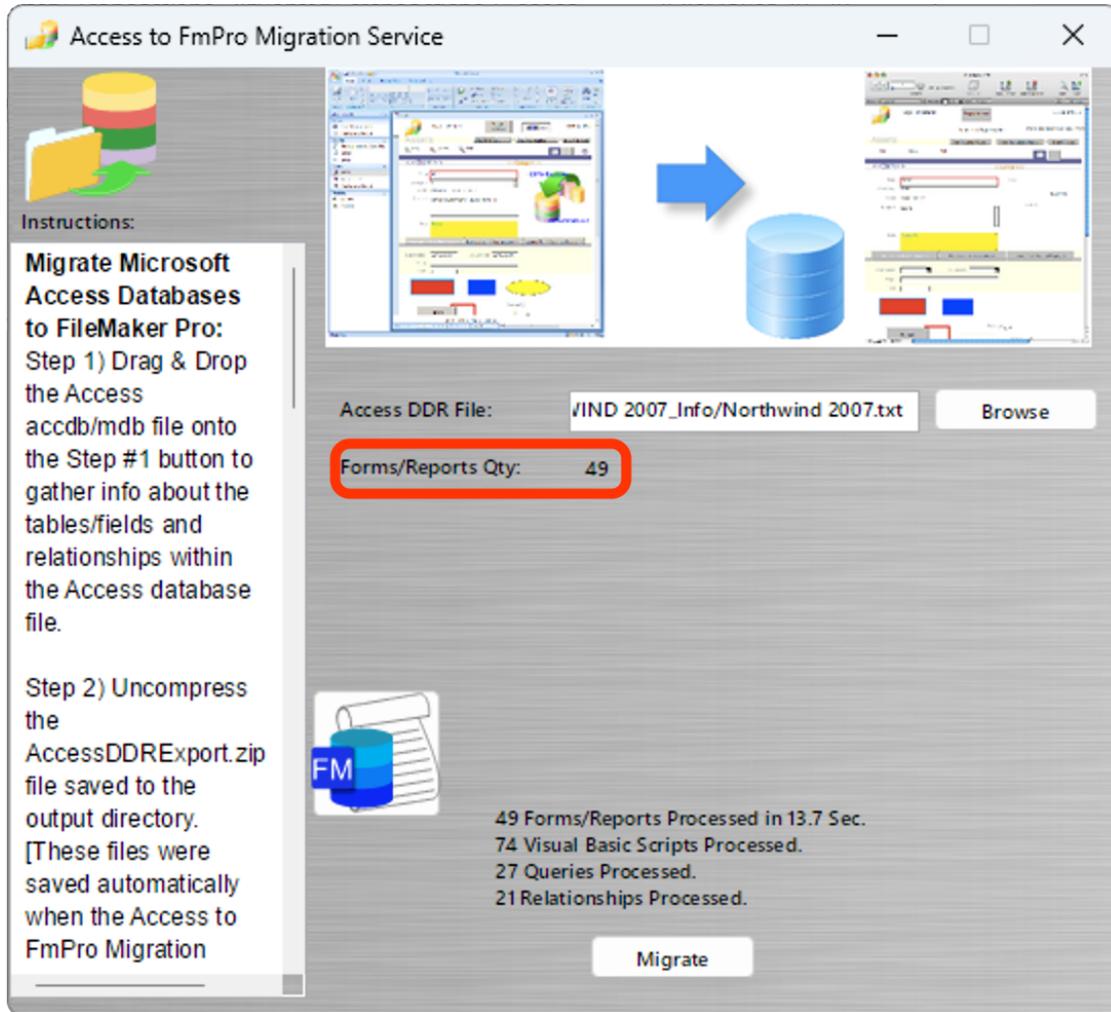
Click the Browse button to select the AccessDDR text file.

Select the Access DDR Text File



(1) Select the text file created by the AccessDDRExport database, (2) click the open button.

Access to FmPro Migration - Forms/Reports Count



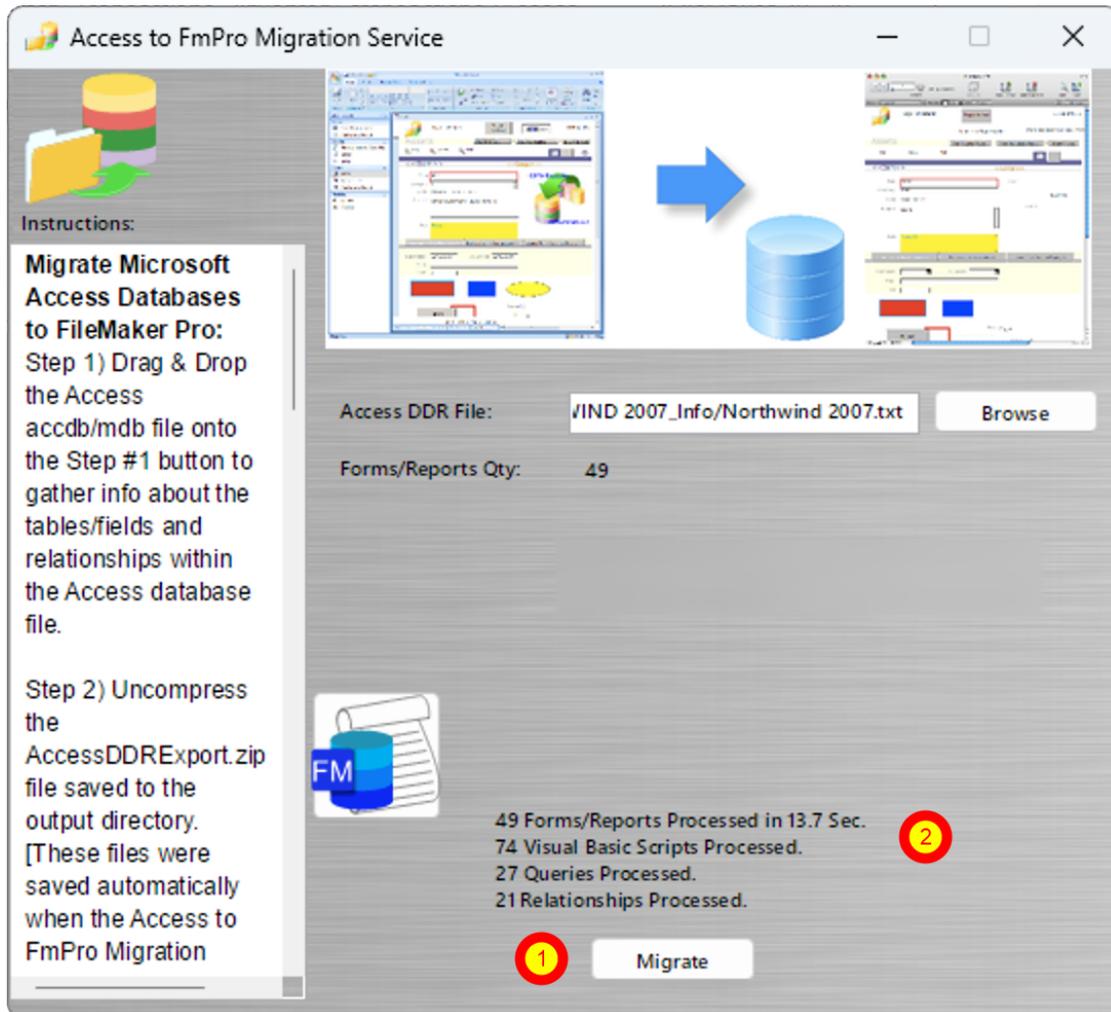
FmPro Migrator will read the Access DDR text file, validate the format of the file and display the count of Forms and Reports within the file.

Note: Even if there are no Forms/Reports within the file, Relationships and VBAcode will still be imported.

Using Licensed Mode - Access to FmPro

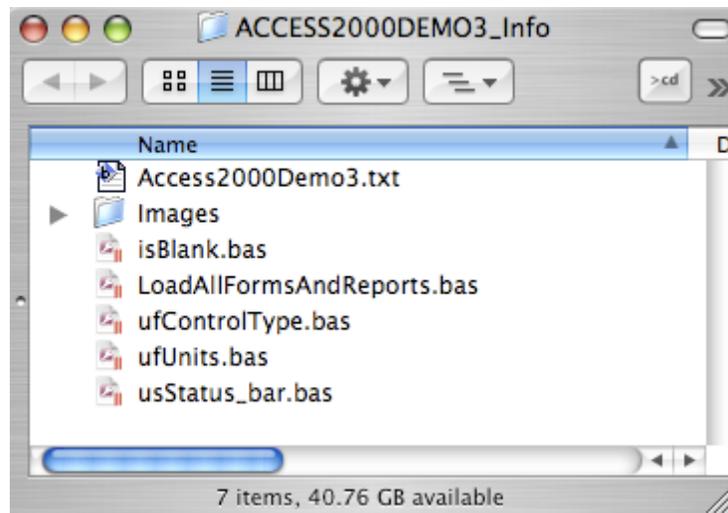
Using the Access to FmPro Migration Service in Demo mode, limits processing tasks to 5 Forms/Reports and 5 Visual Basic scripts. Ordering a license key lifts these operating limits for this service. Using the License Key allows for the processing of an unlimited number of database files and scripts for the purchased Forms/Reports quantity during the duration of the license key.

Migration Statistics - Licensed Mode



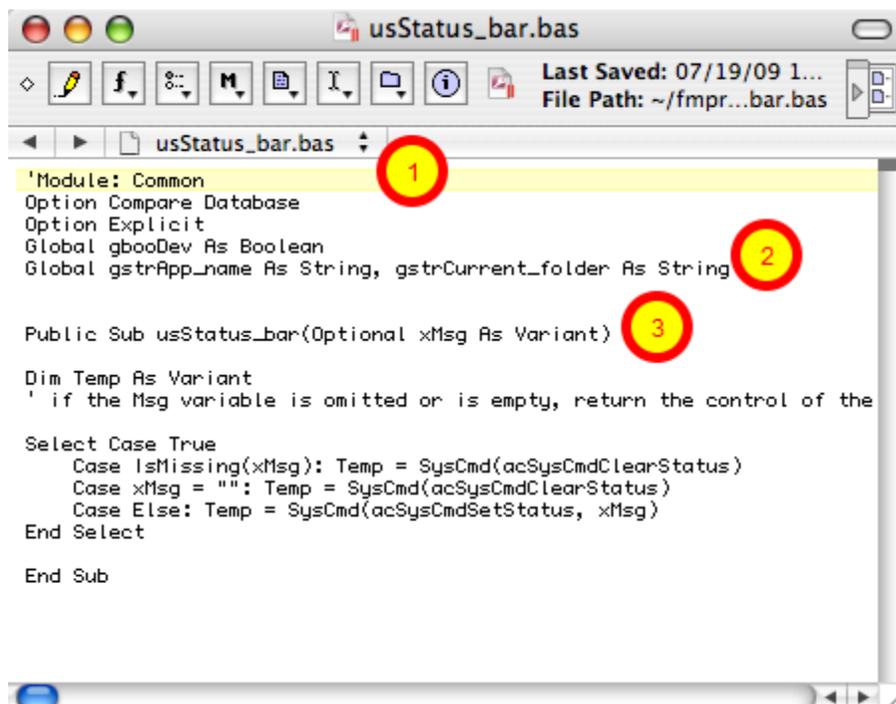
(1) Click the Migrate button to convert the AccessDDR text info into FileMaker layouts, value lists, scripts and relationships. A progress dialog will be displayed during the processing of the file. Clicking the Migrate button with the license key enables the processing of the number of Forms/Reports as specified in the license key and the conversion of an unlimited number of Visual Basic scripts, with the (2) resulting processing statistics displayed the Migrate button. Value Lists will also be created from the Form/Report objects imported into FmPro Migrator. These Value Lists will be visible under the Value Lists tab of the Migration Process window after the completion of processing.

Review Exported Visual Basic Files



The exported Visual Basic code has been converted into FileMaker Scripts formatted for pasting into the FileMaker scripts window. This code has also been saved as individual text files within the AccessDDR Info directory.

Visual Basic Code Details



Each Visual Basic Subroutine or Function is extracted into a separate text file and corresponding FileMaker script (1) including the name of the original code module, (2) global variables for the enclosing code module, (3) followed by the actual text of the Subroutine or Function.

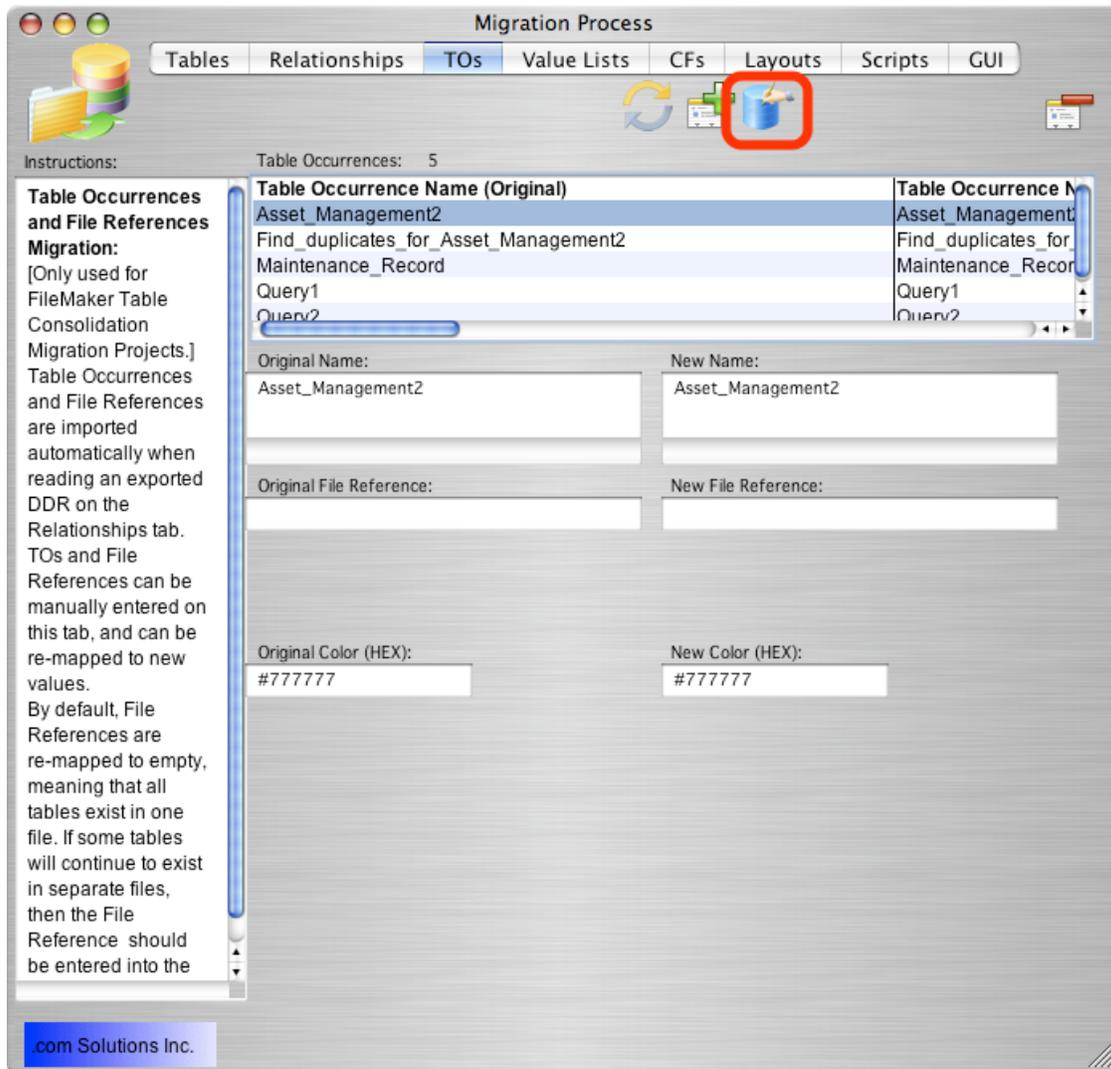
Troubleshooting - Visual Basic Code

If the AccessDDRExport database reports that 0 Visual Basic modules were found within the file, verify that the Visual Basic code was compiled within the Access database. Uncompiled Visual Basic code will cause the number of code modules to be reported as 0.

Creating TOs - Access to FmPro

During the migration process, FmPro Migrator creates additional TOs to represent each migrated Query. These additional TOs need to be created prior to creating relationships and layouts.

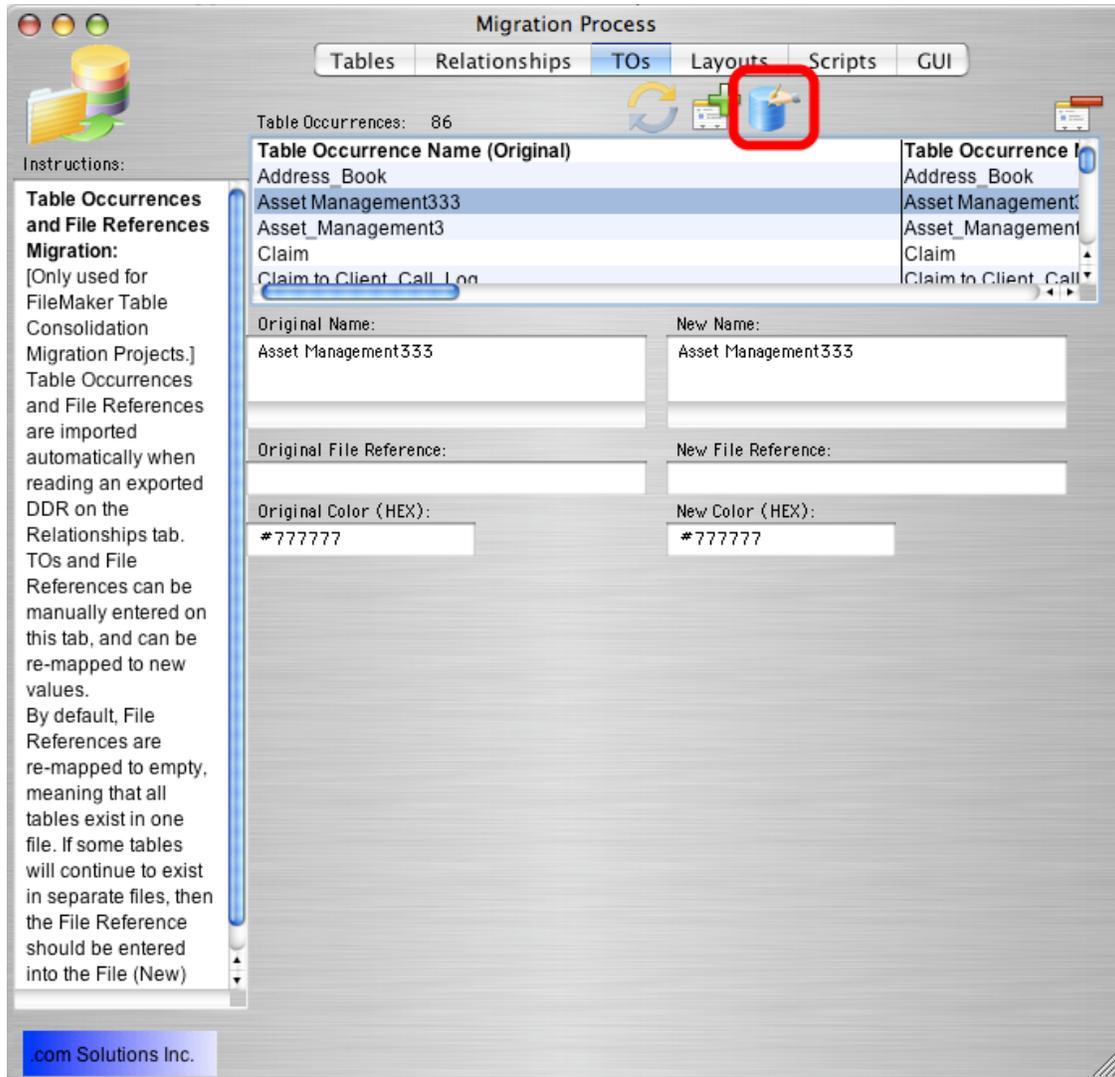
TOs List



Click on the TOs tab of the Migration Process window to display the list of TOs. Clicking on a TO in the list will display the details of the TO.

Click on the Create All TOs in FileMaker button to automate the creation of the TOs using WinAutomation(Windows)/AppleScript(macOS).

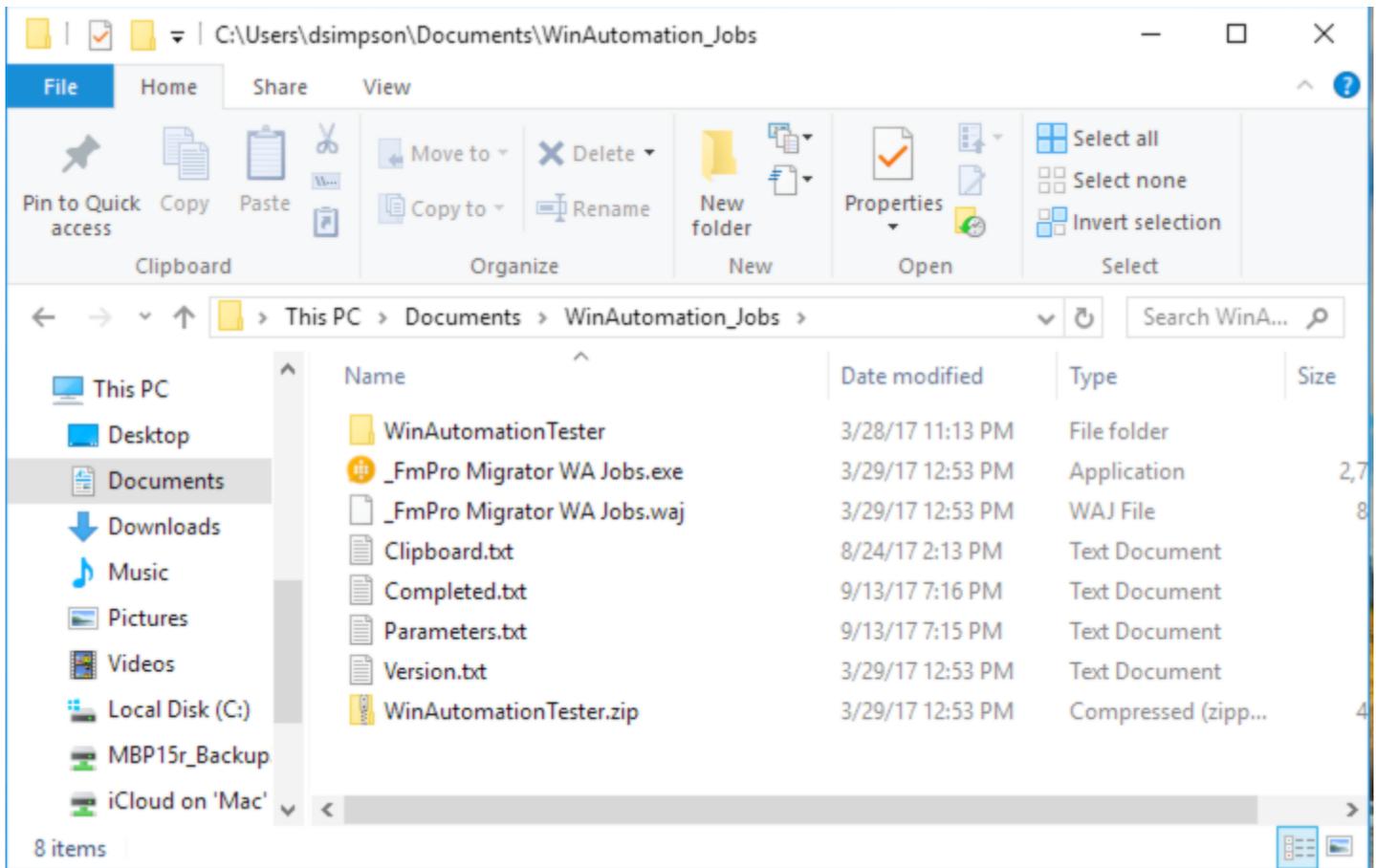
Create TOs Button



Click the TOs tab.

Click the Create All TOs in FileMaker button, to build the non-Base Table TOs within the destination FileMaker database file.

Create Relationships - Windows WinAutomation Files



The first time you click the Create All TOs button on Windows, the WinAutomation Jobs folder will be created. The _FmPro Migrator WAJobs.exe will be executed in order to perform the automation tasks sent by FmPro Migrator.

The WinAutomationTester folder is a separate zip file which can be downloaded from the File menu of FmPro Migrator for testing purposes - but is not required for normal automation tasks.

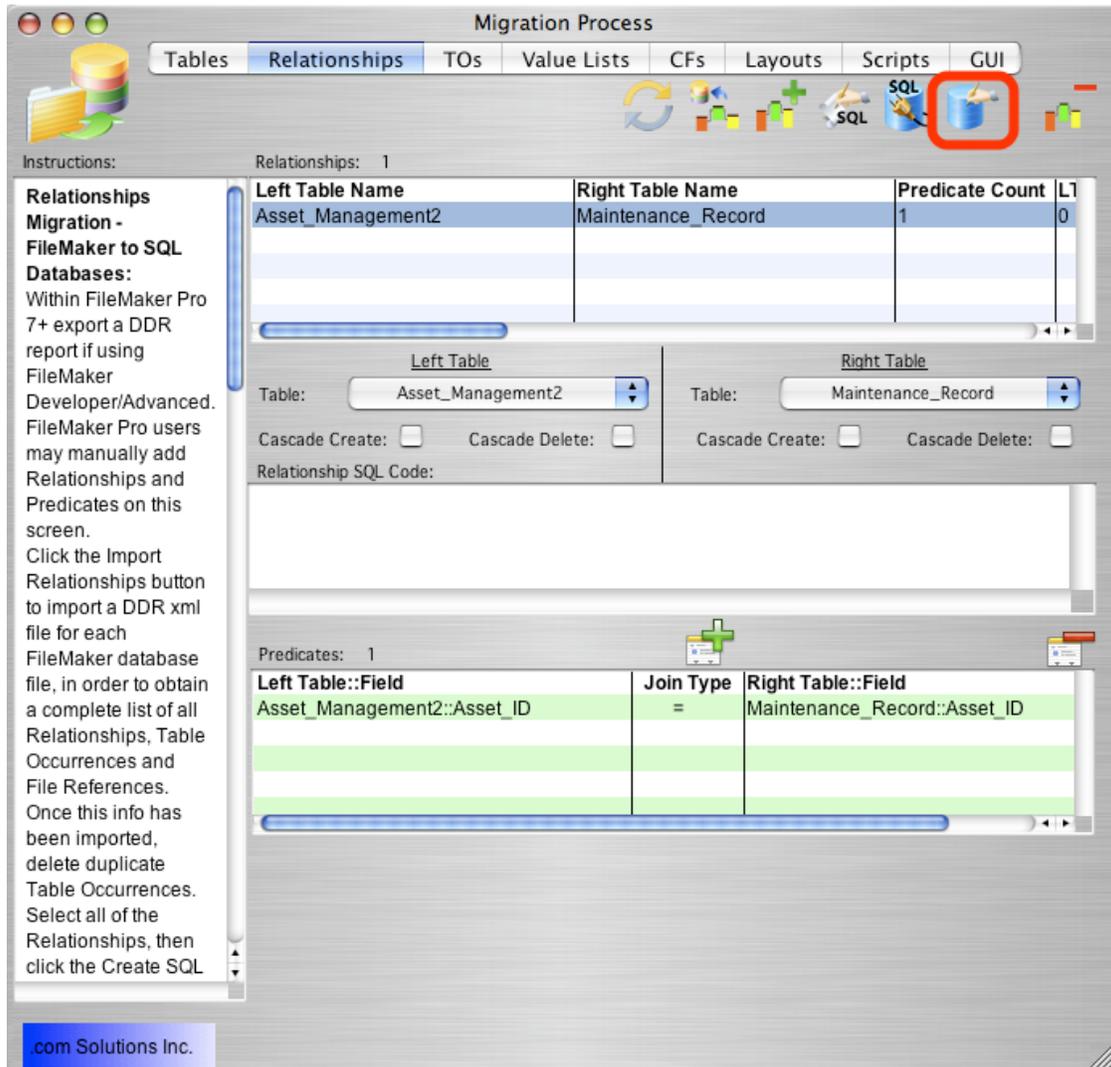
macOS Note: On macOS, AppleScript is executed from within FmPro Migrator to perform the automation tasks. If you want to see the AppleScript automation source code, select the File menu option "Export AppleScript or WinAutomation scripts".

Creating Relationships - Access to FmPro

Creating Relationships on Windows:

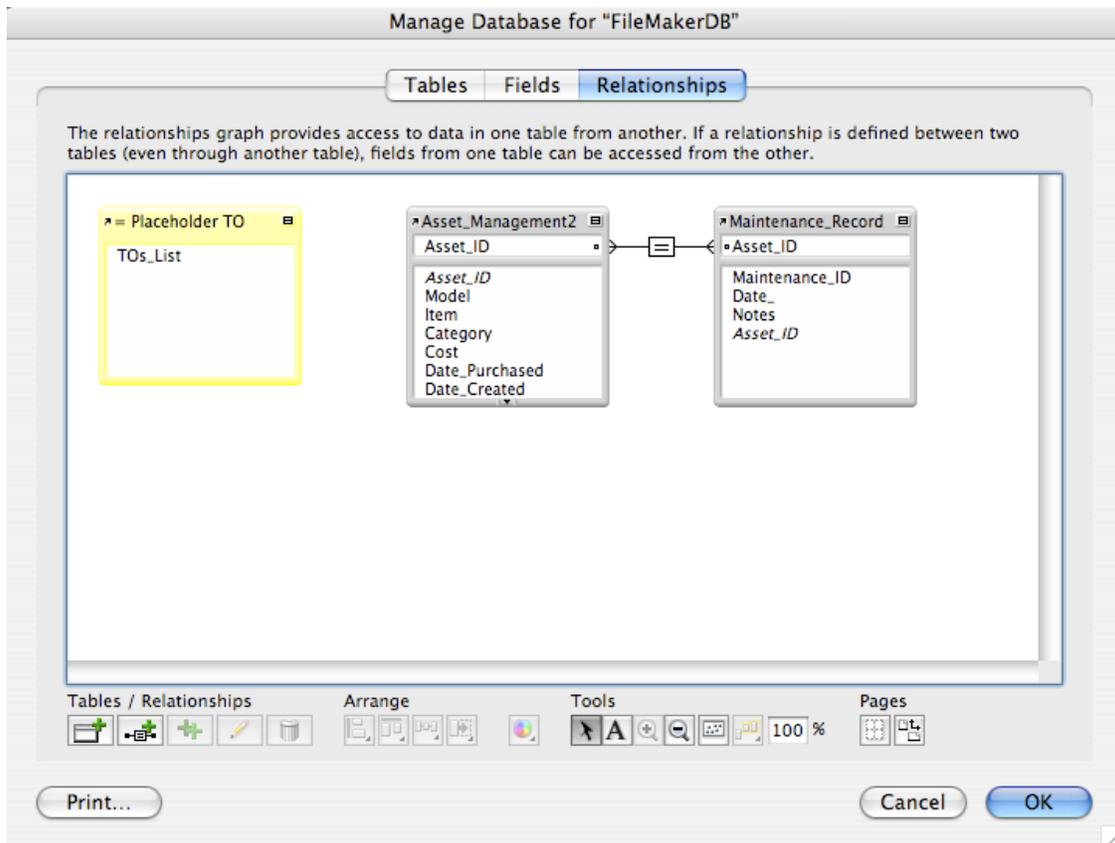
At the present time, FmPro Migrator is not able to automate the creation of relationships on Windows. This task can only be automated on macOS.

Relationships List



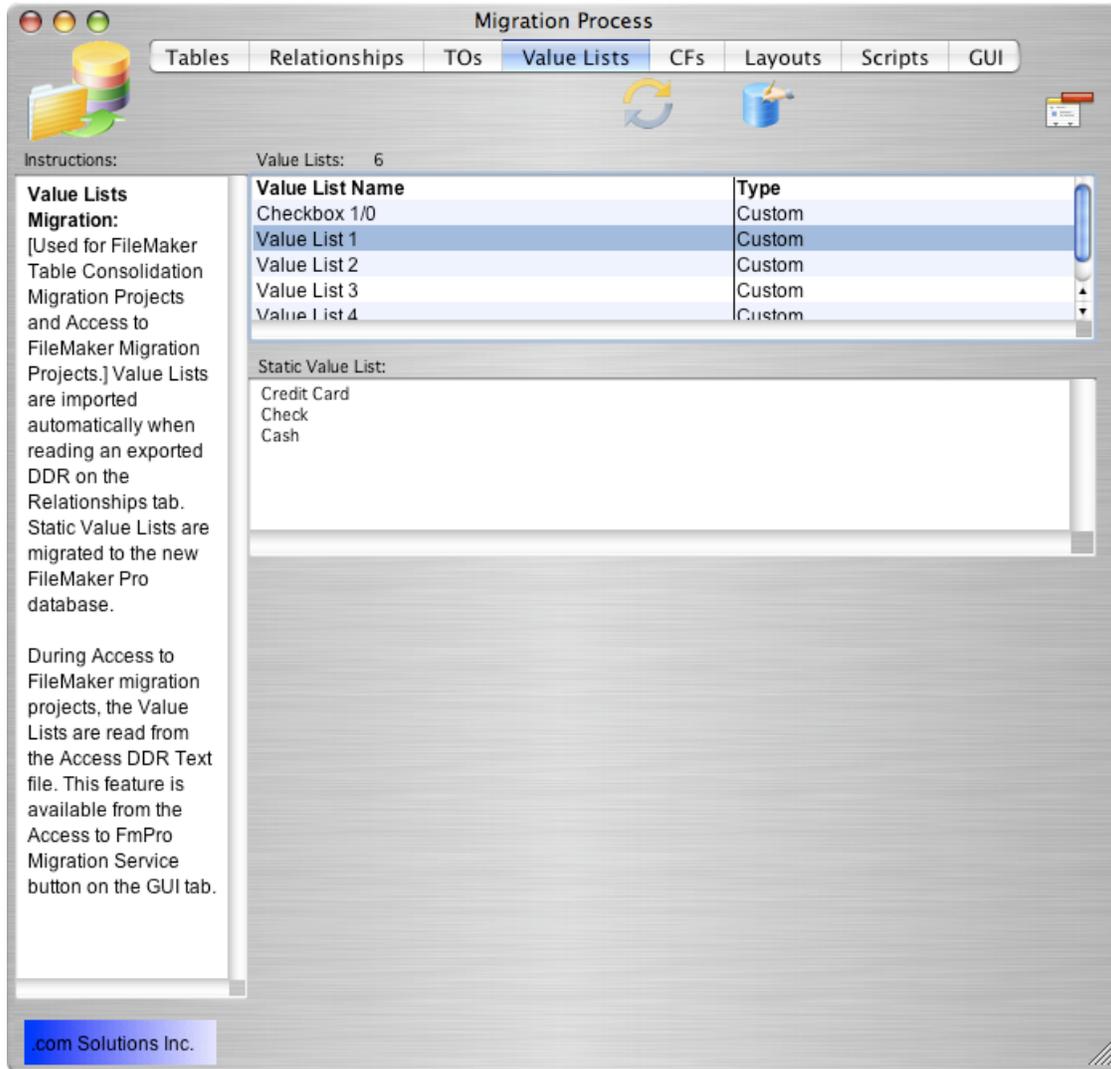
Click on the Relationships tab of the Migration Process window to display the list of converted relationships. Clicking on a relationship in the list will display the details of the relationship. Click on the Create All Relationships in FileMaker button to automate the creation of the relationships using WinAutomation(Windows)/AppleScript(macOS).

Created Relationships - Relationship Graph



After the relationships have been created, they can be observed on the FileMaker relationship graph.

Value Lists - Overview



Click on the Value Lists tab of the Migration Process window to display the list of converted Value Lists. Clicking on a Value List in the list will show the details for the selected Value List.

Microsoft Access does not contain a centralized list of value lists like FileMaker Pro. Value lists are embedded within Form/Report objects throughout the entire database.

FmPro Migrator extracts value lists embedded within all fields in the Forms/Reports within the Access database file. A checksum is created for the contents of each value list during the migration processing. If a new value list is found, which matches the checksum of an existing value list, then the existing value list name is used to represent the value list when it is converted for use in FileMaker. Otherwise, a new value list will be created for use within the FileMaker database.

Microsoft Access also embeds value list information within checkbox and radio button (acOptionGroup) objects. FmPro Migrator automatically extracts the numeric values assigned to each individual checkbox/radio button object, along with the associated text label. As shown in the screenshot, the numeric values are listed, followed by a semi colon and the text label value.

FmPro Migrator always creates the first value list named "Checkbox 1/0" for use with single (ungrouped) radio buttons and checkboxes.

FileMaker developers have a couple of options to choose from concerning how to handle the numeric values utilized within Access value lists.

Option #1: If you have an Access database which will be used to refresh information within the FileMaker database on a regular basis, then you should continue to store numeric values within the FileMaker database fields.

In this scenario, manually create a value list lookup table for each Access value list, and populate the table with the numeric and text values within the value list. Change the created value list to use values from the fields of the value list lookup table.

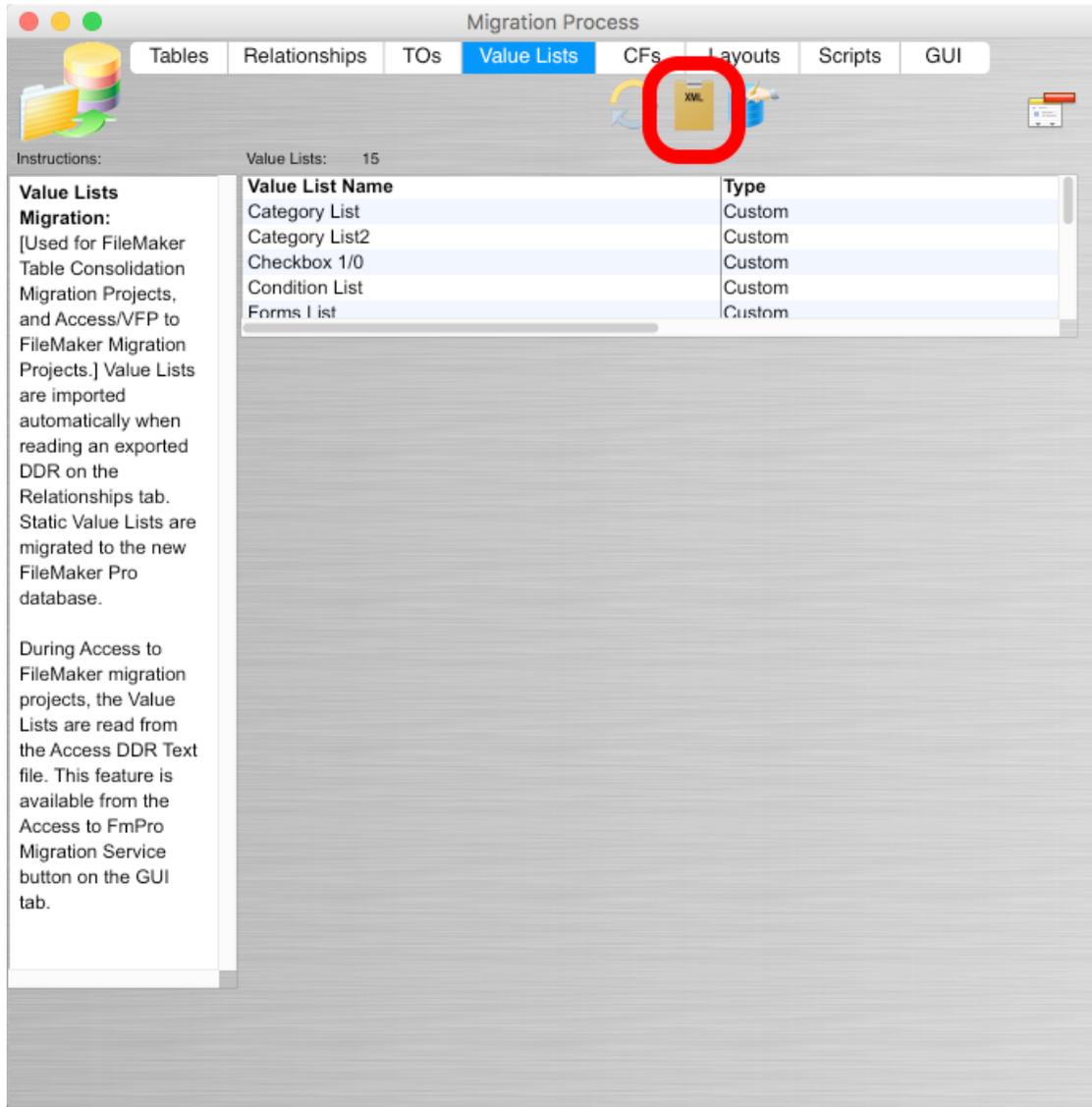
Option #2: If all of the functionality within the Access database will be permanently transferred into the FileMaker database, then follow the following steps:

1) Change the underlying FileMaker database field from numeric to text within the Manage Database -> Fields window.

2) Individually search for each value list numeric value, then use the Records -> Replace Field Contents feature to replace the numeric value with the value list text value.

3) Edit the contents of the actual static value list to remove the numeric value and its semicolon. The editing of the value list contents may be done either in FmPro Migrator or within FileMaker.

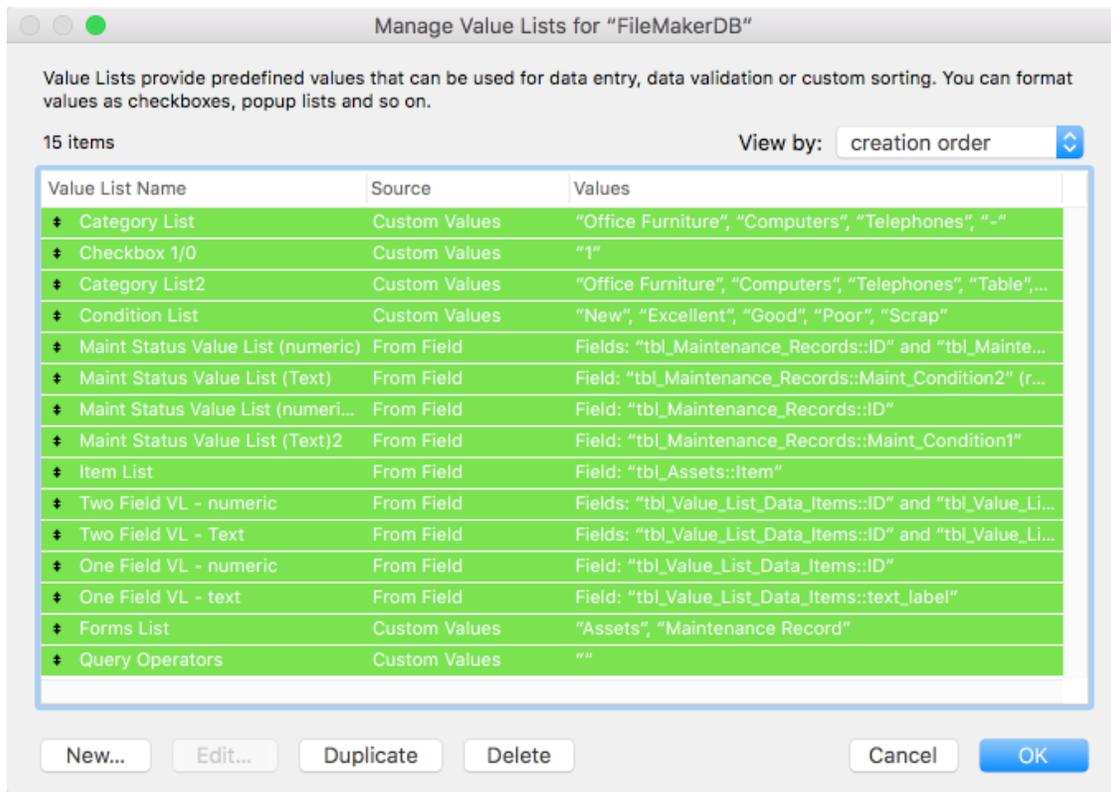
Step 7 - FileMaker 16+ Copy Value Lists to Clipboard



FileMaker Pro Advanced 16 and higher versions include a new feature enabling the copy & paste of Value Lists via the clipboard. FmPro Migrator supports this new feature with a new button on the Value Lists tab.

Click the CopyAll Value Lists to Clipboard button.

Step 7 - FileMaker 16+ Paste Value Lists into Manage Value Lists Window



FmPro Migrator will:

- 1) Put the Value Lists data onto the clipboard in the correct format for FileMaker to read.
- 2) Open the Manage Value Lists window.
- 3) Automatically enter Command-V (macOS) or Control-V (Windows) which instantly pastes the Value Lists into the Manage Value Lists window.

Notice in this screenshot, that all Custom and Field based Value Lists have been created automatically.

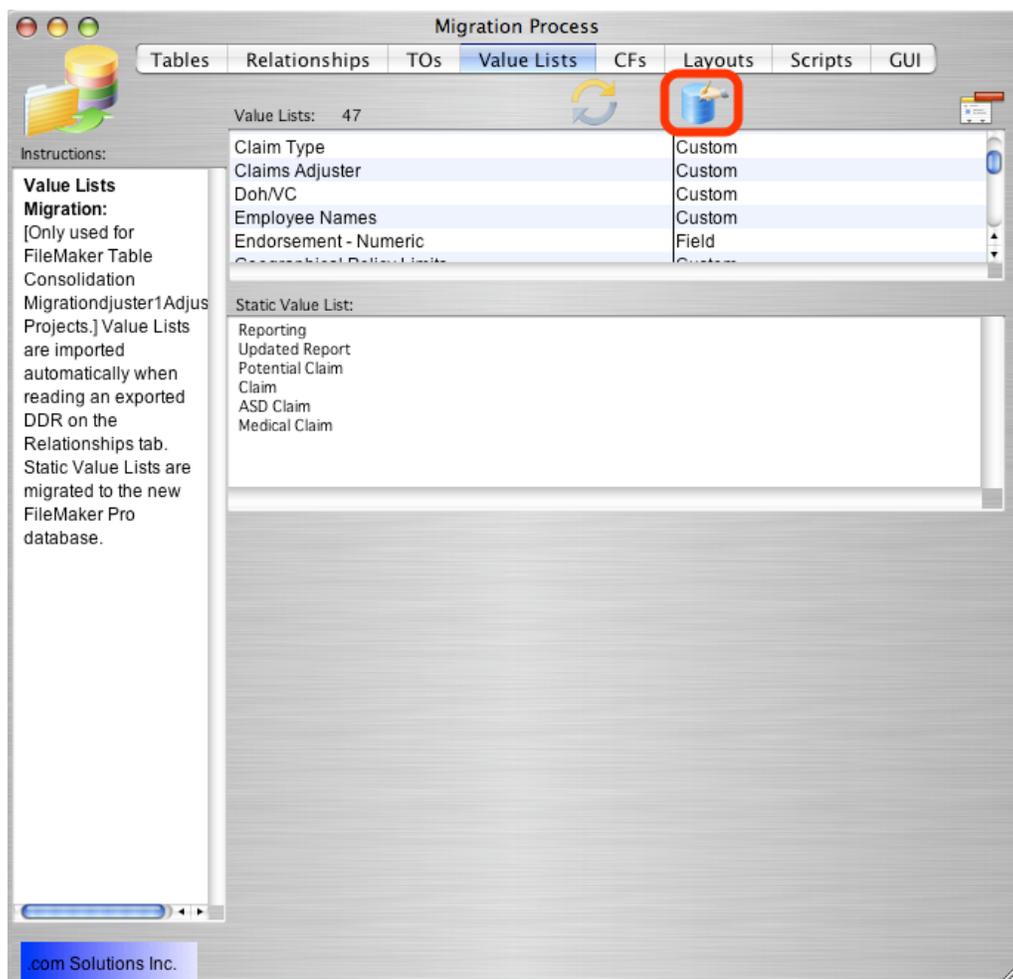
From here, you may Click the Ok button to save the new Value Lists, make changes or click the Cancel button.

FileMaker 16+ Create Value Lists



When using FileMaker 16+, if you click the "Create All Value Lists in FileMaker" button, you will be prompted to use the new "CopyAll Value Lists to Clipboard" button.

FileMaker 11 - 15 - Create Value Lists - Click Create All Value Lists Button

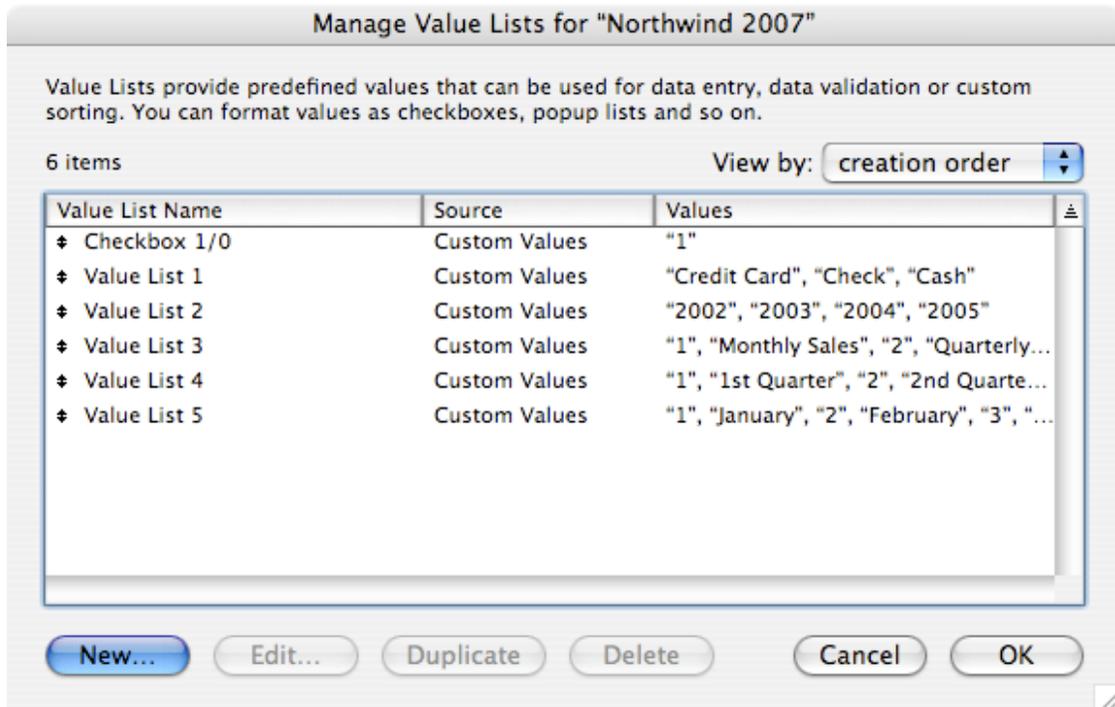


Click the Create All Value Lists button.

Click on the Create All Value Lists in FileMaker button to automate the creation of the Value Lists

using WinAutomation(Windows)/AppleScript(macOS).

Converted Value Lists - Within FileMaker Pro Manage Value Lists Window



The created Value Lists as displayed within the Manage Value Lists window.

Using the Microsoft Access Code Conversion Workbench - Access to FmPro Conversions

This chapter shows how to use the Microsoft Access Code Conversion Workbench - included with the AI Accelerated version of FmPro Migrator. This feature replaces copying the unconverted scripts into the FileMaker Pro database as was done previously. Before performing the code conversion with the Microsoft Access Code Conversion Workbench, you should have already imported the Microsoft Access database into FmPro Migrator, including tables, relationships, value lists, forms/reports and scripts.

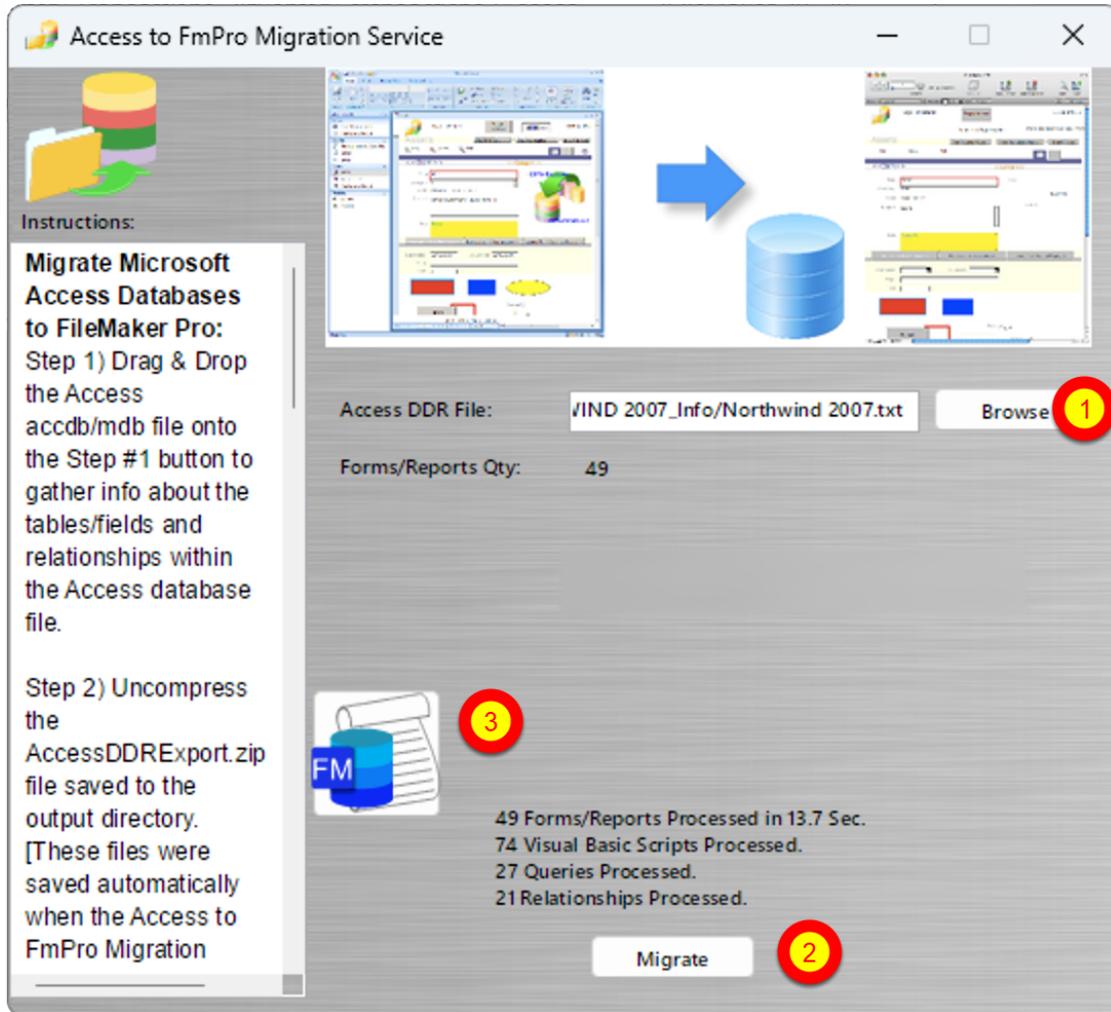
Access to FmPro Migration Button - GUI Tab



Access to FmPro Migration

Click the [Access to FmPro Migration](#) button on the GUI tab of the Migration Process window of FmPro Migrator.

Access to FmPro Migration Window



Prior to reaching this step, you should have, (1) selected the AccessDDRExport text file and (2) clicked the Migrate button to import the Access database metadata into FmPro Migrator. You may have already started building the new FileMaker Pro database which would mean that you are ready (3) to click the Code Conversion Workbench button.

Microsoft Access Code Conversion Workbench Window

Code Conversion Workbench

Microsoft Access Code Conversion Workbench

Completed: 2 of 6 Scripts Load Data

Status	ID	Size	Script Name
Completed	1	175	Open Script
Completed	2	46	Clear Sort Indicator
Completed	3	35	Toggle Window
Not Started	4	675	Find
Not Started	5	59	Go to Form Layout
Not Started	6	66	Go to Information Layout
Not Started	7	66	Go to List Layout
Not Started	8	354	Sort by Category
Not Started	9	333	Sort by Item
Not Started	10	339	Sort by Model
Not Started	11	381	Sort by Serial Number
Not Started	12	369	Sort by Assigned To
Not Started	13	355	Sort by Location
Not Started	14	228	Sort by Category Ascending
Not Started	15	229	Sort by Category Descending
Not Started	16	188	Sort by Item Ascending
Not Started	17	189	Sort by Item Descending
Not Started	18	190	Sort by Model Ascending
Not Started	19	191	Sort by Model Descending

Source Script (Editable): Size: 175

```
Module: Order Details:Form_Order Details
Option Compare Database
Option Explicit

Sub SetDefaultShippingAddress()
If IsNull(Me![Customer ID]) Then
ClearShippingAddress
Else
Dim rs As New RecordsetWrapper
If rs.OpenRecordset("Customers Extended", "[ID] = " & Me.Customer_ID)
```

Command (Editable):

Translate this Microsoft Access VBA code into FileMaker Pro script

Converted Script:

```
FileMaker Pro
Module: Order Details:Form_Order Details
#SetDefaultShippingAddress
If IsEmpty(GetField("Customer ID")) Then
Perform Script ["ClearShippingAddress"]
Else
Set Variable [rs; Value:New RecordsetWrapper]
If $rs.OpenRecordset("Customers Extended"; "[ID] = " & GetField("Customer ID")) Then
With $rs.Recordset
Set Field ["Ship Name"; $rs.Recordset.GetField("Contact Name")]
Set Field ["Ship Address"; $rs.Recordset.GetField("Address")]
Set Field ["Ship City"; $rs.Recordset.GetField("City")]
Set Field ["Ship State/Province"];
$rs.Recordset.GetField("State/Province")]
Set Field ["Ship ZIP/Postal Code"; $rs.Recordset.GetField("ZIP/Postal Code")]
Set Field ["Ship Country/Region";
$rs.Recordset.GetField("Country/Region")]
End With
End If
End If
```

Source: Microsoft Access

Output Language: FileMaker Pro

Convert

Vendor: OpenAI

API Key: dcsi

Model: gpt-3.5-turbo Refresh

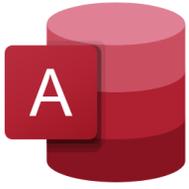
Tokens Used Today: 597

Output Filename: Open Script.txt

Need Help?

By default, the Microsoft Access Code Conversion Workbench window opens with the (1) scripts listed in the grid, (2) Microsoft Access selected as the Source Database Type and (3) FileMaker Pro selected as the destination language.

Just because the options are selected a certain way when the window opens, doesn't mean you can't change them. You can easily change the default settings on this window for Output Language, Vendor, API Key Type, or AI Model - and the changes will be saved into the project or application preferences for FmPro Migrator.



+



Microsoft Access Code Conversion Workbench Demo

If you forgot to enter your license key or didn't have a license for the AI Accelerated version of FmPro Migrator, then the Microsoft Access Code Conversion Workbench will open in Demo mode. A previously converted set of sample scripts will be displayed in the grid instead of the scripts from your own Microsoft Access database. Clicking any of the scripts will display the text "This demo only includes a few scripts." in the Source Script field.

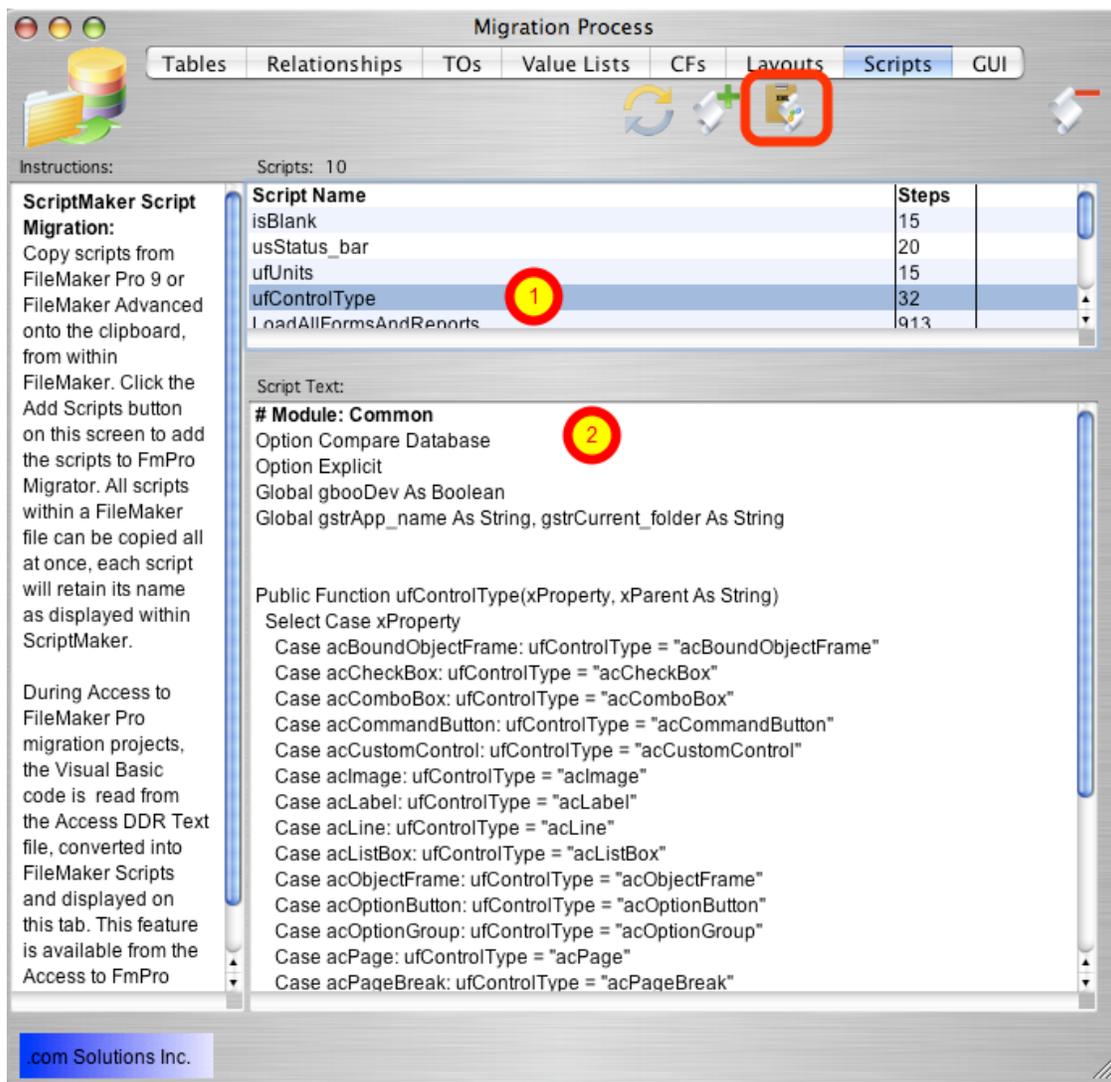
[At the present time, there aren't any Microsoft Access demo scripts.]

Creating FileMaker Scripts from Visual Basic Code - Access to FmPro

Note: This is the legacy script copying feature which copies the commented Visual Basic scripts from Access into FileMaker Pro. This feature is replaced with the new Code Conversion Workbench feature included with the AI Accelerated version of FmPro Migrator.

The copying of the scripts from FmPro Migrator to FileMaker should occur before creating the layouts. The layouts will typically contain buttons linked to the scripts, therefore the scripts need to be available within FileMaker at the time the layouts are created.

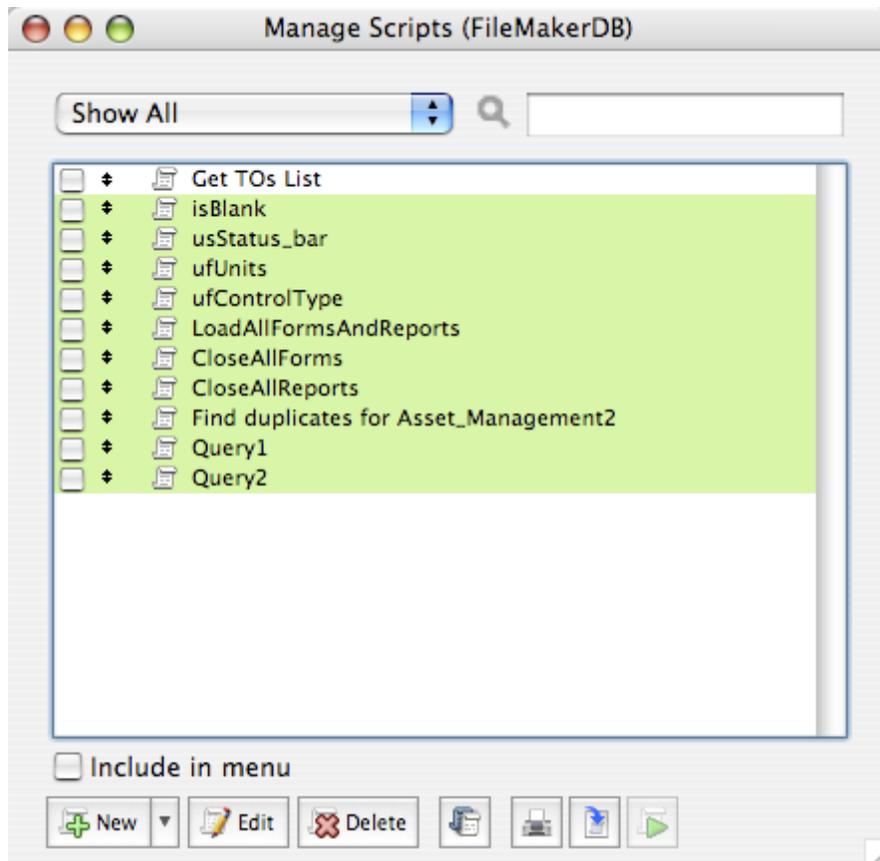
Scripts List



Click on the Scripts tab of the Migration Process window to display the list of converted Scripts. Clicking on a Script in the list will display its contents.

Click on the CopyAll Scripts to Clipboard button to copy the scripts onto the clipboard.

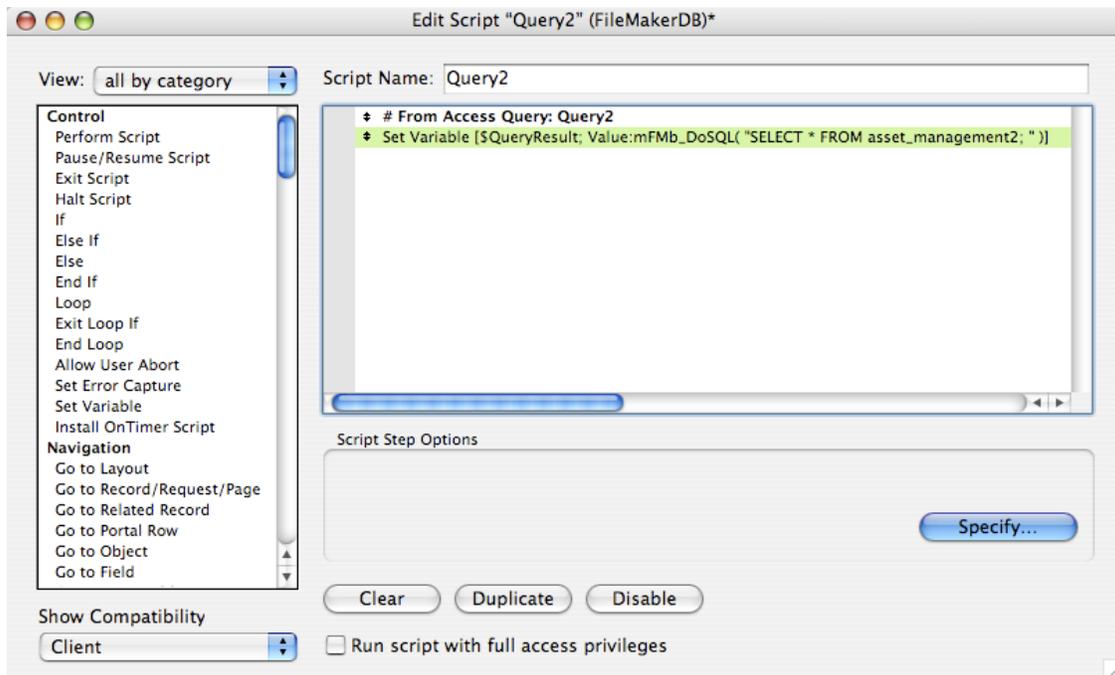
Pasted Scripts into the Manage Scripts Window



Select the Scripts -> Manage Scripts menu item to open the Manage Scripts window within FileMaker.

Select Paste from the Edit menu to paste the scripts.

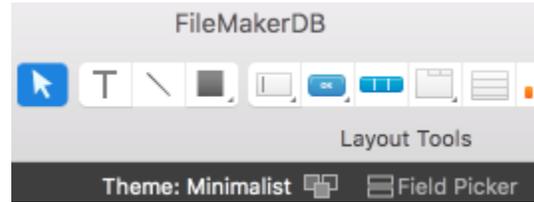
Script Details - Converted Access Queries



In addition to converting Visual Basic Subroutines and Functions into FileMaker Scripts, FmPro Migrator also converts Microsoft Access Queries into FileMaker Scripts. Each Microsoft Access Query is converted into a Script using the [SHPartners/myFMBButler](http://SHPartners.com/myFMBButler) DoSQL plug-in from myFMBButler to implement the SQL code of the original Query.

Creating Layouts - Access to FmPro

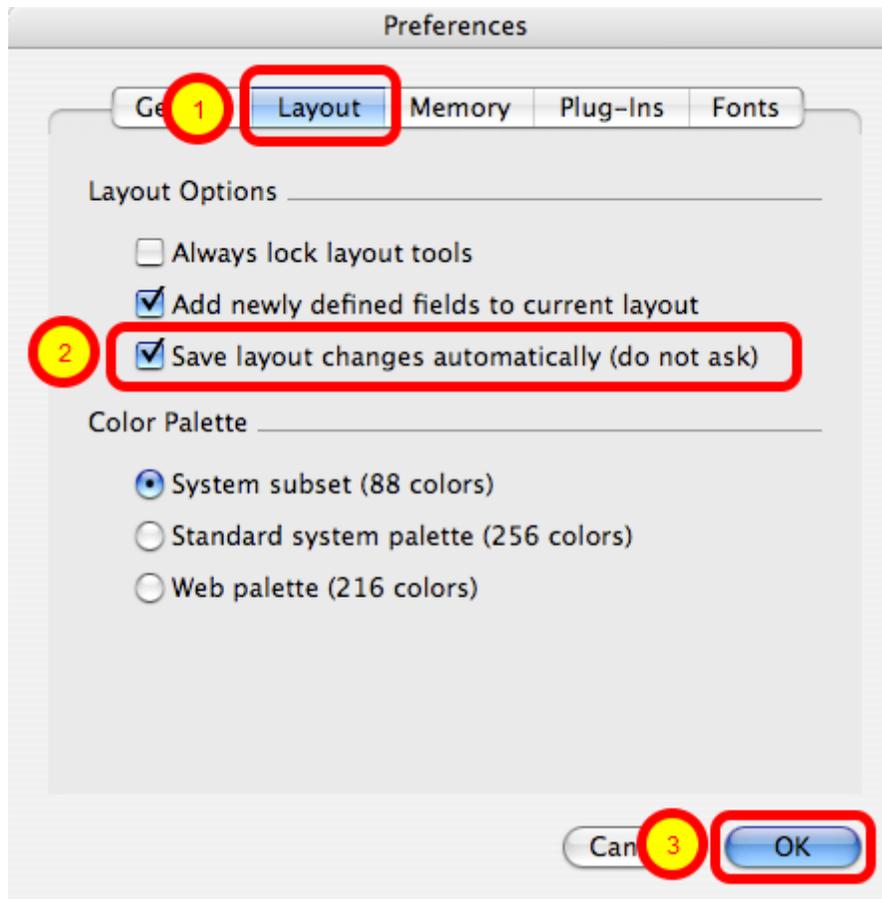
FileMaker Themes with FileMaker 12+



FmPro Migrator includes a template database FileMakerDB.fp7/FileMakerDB.fmp12 which is exported automatically for your use. When using FileMaker 12+ versions, the FileMakerDB.fmp12 file is used. This database has been configured to use the Minimalist theme by default. Using this theme will insure that all layout objects look as closely as possible to their original style within the original Access database.

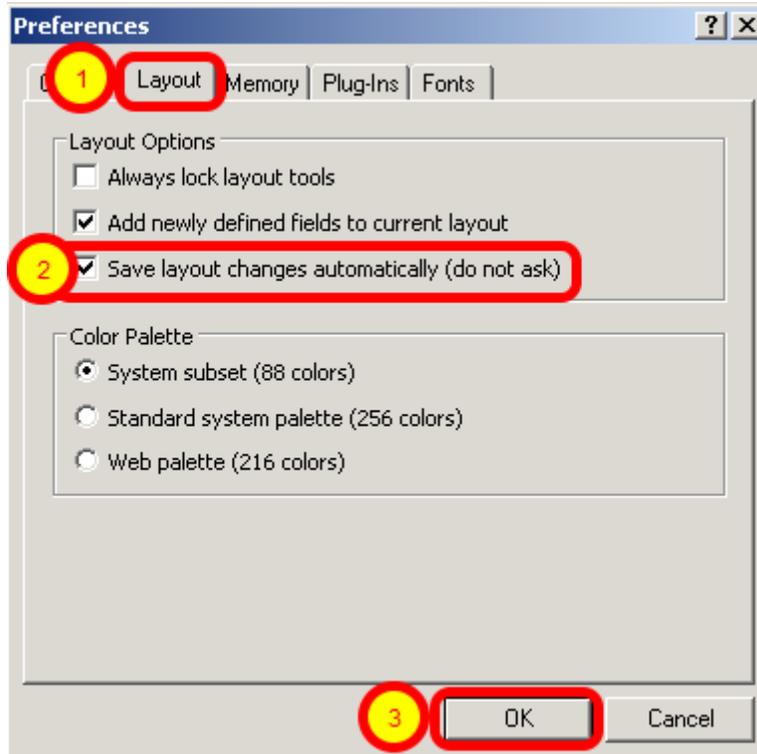
Note: Some objects (like rectangles), will lose their fill and border color if the theme is changed on the layout. So if you want to change the theme, please be aware that you may need to manually change the colors of some objects.

Step 7 - Automatically Save Layout Changes Preference (macOS) - [1st Time Setup Step]



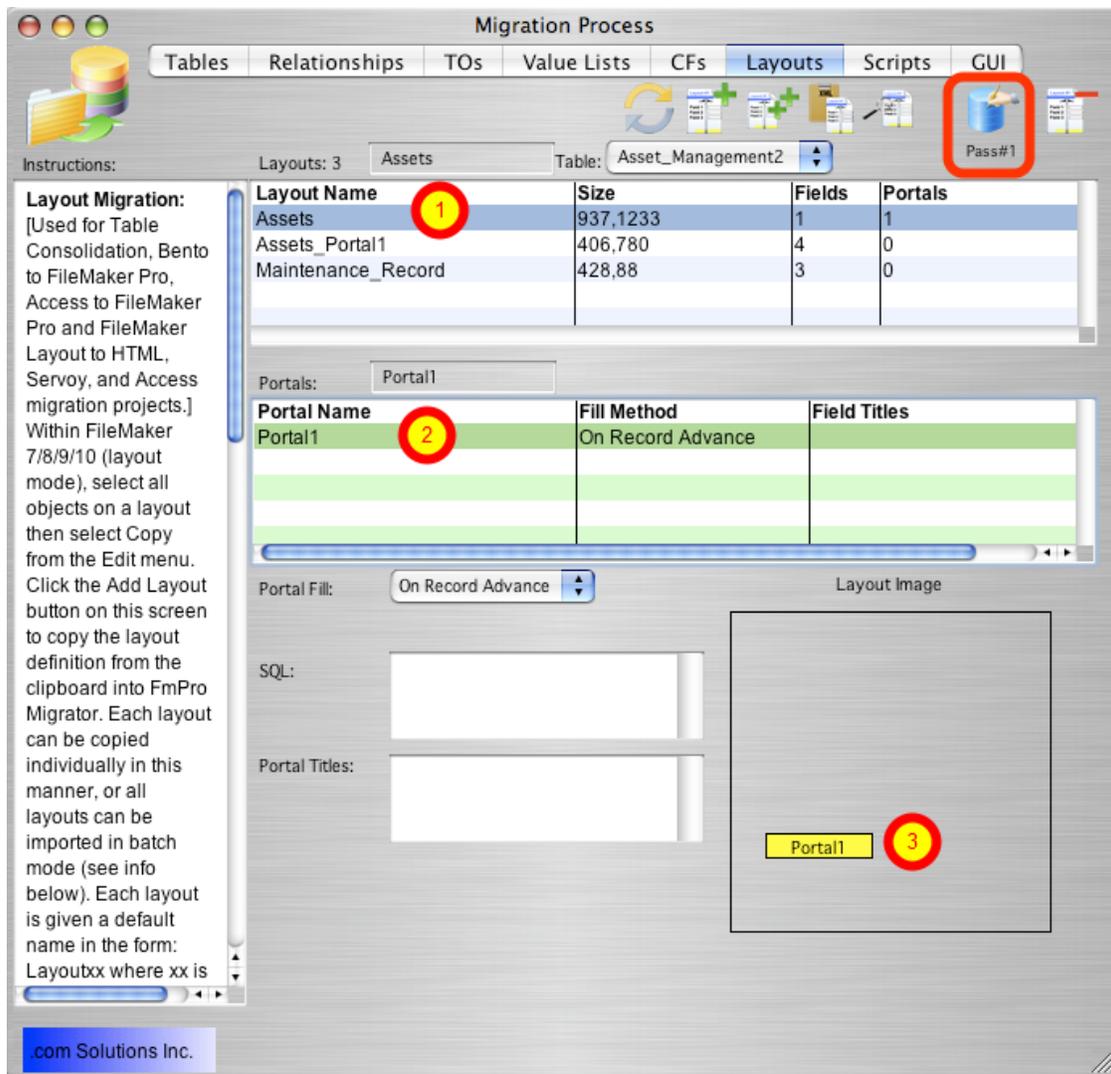
Select the FileMaker Preferences menu item, (1) click the Layouts tab, (2) click the checkbox to enable the "Save layout changes automatically (do not ask)" option, then (3) click the OK button.

Step 7 - Automatically Save Layout Changes Preference (Windows) - [1st Time Setup Step]



One of the important tasks listed in the WinAutomation Installation PDF file is to set the "Save layout changes automatically" option within the FileMaker Advanced Preferences dialog. Select the FileMaker Preferences menu item, (1) click the Layouts tab, (2) click the checkbox to enable the "Save layout changes automatically (do not ask)" option, then (3) click the OK button.

Layouts List



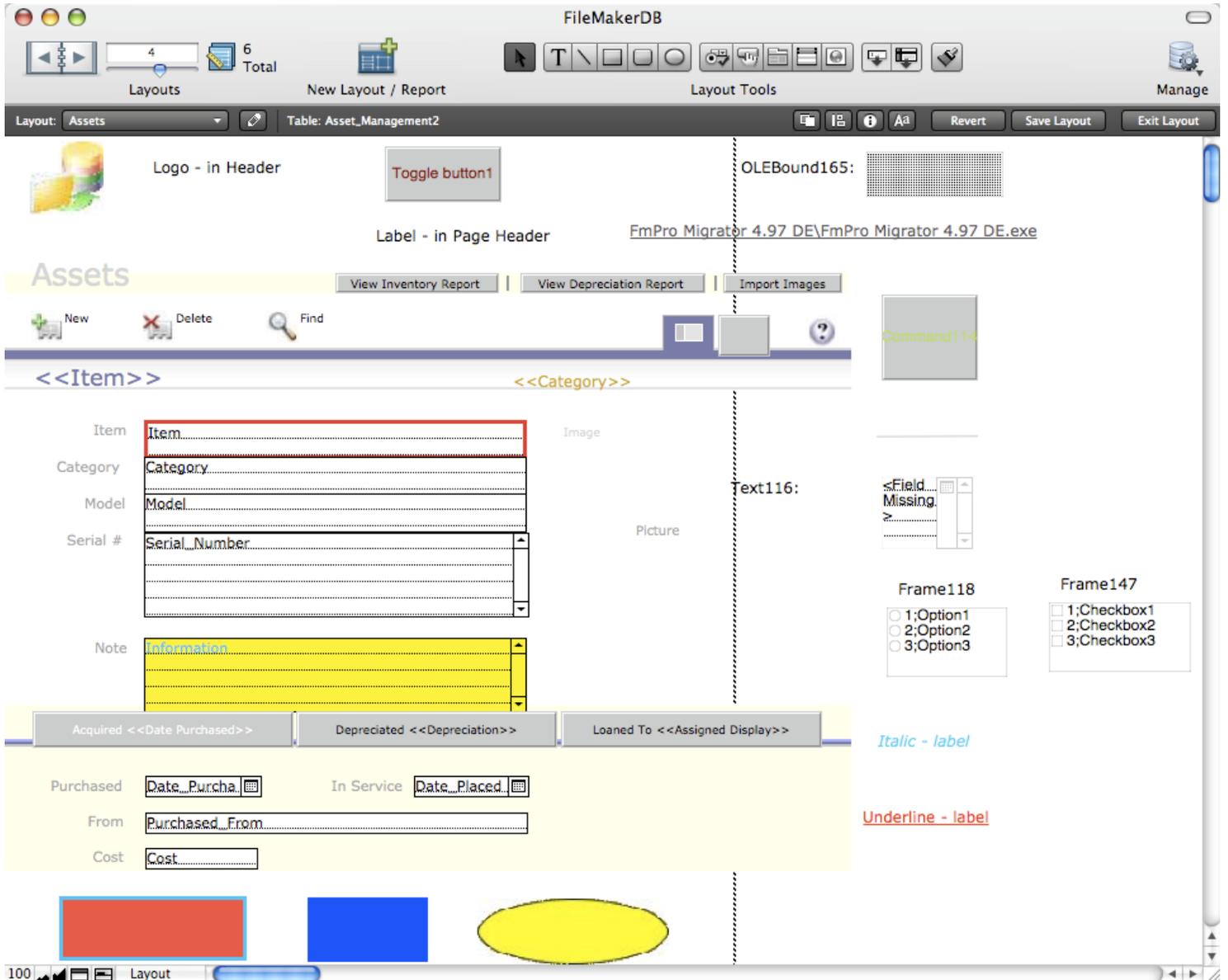
Click on the Layouts tab of the Migration Process window to display the list of converted Layouts. Clicking on a Layout in the list will display the details for the layout.

The converted form shown in this screenshot of the list of Layouts, shows a layout named (1) Assets which will be created within the FileMaker database with one (2) portal. The portal will be created in the location shown in yellow within the empty Layout Image box. This Layout was created from a Form within the Access database which had a SubForm embedded within the original form. FmPro Migrator will convert this SubForm into a FileMaker portal, related to the base table associated with the original SubForm. The portal fields will automatically be created and placed within the portal on the new FileMaker layout.

Click on the Create All Layouts in FileMaker button to automate the creation of the Layouts using WinAutomation(Windows)/AppleScript(macOS).

Note: The pop-up menu below this button should be left at its default value of "Pass 1".

Converted Layout - Displayed Within FileMaker Pro



The converted Assets form from Microsoft Access is shown in Layout mode within FileMaker Pro. Embedded graphics, rectangles, fields, checkbox/radio button groups and drop down calendar pickers are implemented within FileMaker in the same manner as they were displayed within the original Access Form.

Manual Completion Tasks

Manual Tasks - Access to FmPro

There are some processing steps which must be completed manually when performing an Access to FileMaker Migration.

Layout Parts - Header, Footer, Subsummary

Microsoft Access incorporates Form/Report part objects with similar functionality to FileMaker layout parts. However there is not any method available to specify the inclusion of layout parts or the placement of objects within these parts when pasting FileMaker layouts via the clipboard. These layout parts will need to be added manually.

Unsupported Form/Report Objects

Some objects implemented on Microsoft Access Form/Reports do not have equivalent features within a FileMaker database:

acToggleButton - FmPro Migrator creates these objects as regular buttons on the layout.

acBoundObjectFrame - These are created as regular field objects, using the table/field specified within the original object.

acObjectFrame - These are created as regular field objects, using the table/field specified within the original object.

chart - Access database charts should be manually re-created by using the FileMaker chart object. This feature can also be implemented using a variety of plug-ins (i.e. [xmChart](#)) or add-ons which can use the WebViewer to display rendered JavaScript code (i.e. [FusionCharts for FileMaker](#)).

acCustomControl - An acCustomControl can represent any compiled ActiveX dll installed for use with Microsoft Access. These types of features can usually be replaced with FileMaker plug-ins available from a variety of vendors.

Relationship Testing

The screenshot shows the 'Migration Process' application window with the 'Relationships' tab selected. The interface includes a top navigation bar with tabs for Tables, Relationships, TOs, Value Lists, CFs, Layouts, Scripts, and GUI. Below the navigation bar is a toolbar with various icons. The main area is divided into several sections:

- Instructions:** A vertical pane on the left containing text instructions for migrating FileMaker relationships to SQL databases.
- Relationships:** A table listing the current relationship configuration.
- Left Table:** Configuration for the left table, 'Asset_Management2', including options for 'Cascade Create' and 'Cascade Delete'.
- Right Table:** Configuration for the right table, 'Maintenance_Record', including options for 'Cascade Create' and 'Cascade Delete'.
- Relationship SQL Code:** A text field containing the relationship definition: 'One-to-many' and 'Asset_ID = Asset_ID', which is highlighted with a red circle.
- Predicates:** A table showing the specific fields and join type for the relationship.

Left Table Name	Right Table Name	Predicate Count	L1
Asset_Management2	Maintenance_Record	1	0

Left Table::Field	Join Type	Right Table::Field
Asset_Management2::Asset_ID	=	Maintenance_Record::Asset_ID

Within Access databases, there are no TOs within the database structure. All Forms/Reports and fields are tied directly to a base table, SQL Query or view within the database. When creating the Access relationships within a FileMaker database, additional TOs will often be created automatically. It will be necessary to review the additional TOs to verify whether the base table or the new TOs should be used.

Access database files may contain Left Outer Join or Right Outer Join relationships not directly supported in FileMaker. FmPro Migrator will create all Access relationships as equijoin relationships. However the text description about the original relationship will be displayed in the normally unused SQL code field of each converted relationship, as shown above.

Portal Field Sizes

FmPro Migrator automatically creates a new portal to represent any SubForms/SubReports found on the original Access Form/Report. Unlike FileMaker portal objects, Access SubForm/SubReport objects contain horizontal scrollbars. Therefore there could be too many fields incorporated on the original SubForm/SubReport to make a readable display within the area of the new FileMaker portal. FmPro Migrator divides the width of the portal by the number of fields and creates each field of the same size. The fields are also created in the same left to right display order as they were created on the original SubForm/SubReport. Therefore some objects surrounding the portal may need to be moved and the portal may need to be enlarged to support a readable display of large numbers of fields. It may also be helpful to manually resize the individual portal fields to accommodate the actual data which will be displayed within the portal fields.

Completed: 1 of 200 Scripts Load Data

Status	ID	Size	Script Name
<input type="checkbox"/> Not Started	1	1074	Order Details_cmdCompleteOrd
<input checked="" type="checkbox"/> Completed	2	320	CanApprovePurchases
<input type="checkbox"/> Not Started	3	419	DAvgWrapper
<input type="checkbox"/> Not Started	4	2051	Sales Reports Dialog_InitFilterItem
<input type="checkbox"/> Not Started	5	471	Purchases Subform for Purchase C
<input type="checkbox"/> Not Started	6	547	Purchase Order Details_cmdSubm
<input type="checkbox"/> Not Started	7	740	Purchase Order Details_FFRemove
<input type="checkbox"/> Not Started	8	1252	Monthly Sales Report_Report_Op
<input type="checkbox"/> Not Started	9	803	Order Details_cmdClearAddress_C
<input type="checkbox"/> Not Started	10	404	Receiving Subform for Purchase C
<input type="checkbox"/> Not Started	11	362	Edit
<input type="checkbox"/> Not Started	12	525	Purchases Subform for Purchase C
<input type="checkbox"/> Not Started	13	784	LogError
<input type="checkbox"/> Not Started	14	1926	Sales Reports Dialog_1stSalesPer
<input type="checkbox"/> Not Started	15	2003	Order Subform for Order Details. C
<input type="checkbox"/> Not Started	16	2068	Order Details_cmdCreatelInvoice_t
<input type="checkbox"/> Not Started	17	462	DLookupNumberWrapper
<input type="checkbox"/> Not Started	18	3568	SetStatus
<input type="checkbox"/> Not Started	19	1579	Receiving Subform for Purchase C

Source Script (Editable): Size: 320

```
Module: Privileges
Option Compare Database
Option Explicit

Public Enum PrivilegeEnum
    Administrator_Privilege = 1
    PurchaseApprovals_Privilege = 2
End Enum

Public Function CanApprovePurchases() As Boolean
```

Command (Editable):

Translate this Microsoft Access VBA code into FileMaker Pro script

Converted Script:

```
"" FileMaker Pro
# Script: Privileges
Allow User Abort [ Off ]
Set Error Capture [ On ]

# Enum: PrivilegeEnum
Set Variable [ $Administrator_Privilege ; Value: 1 ]
Set Variable [ $PurchaseApprovals_Privilege ; Value: 2 ]

# Function: CanApprovePurchases
Set Variable [ $CanApprovePurchases ; Value: EmployeeHas ( GetCurrentUserID ; $PurchaseApprovals_Privilege ) ]
Set Field [ Table::CanApprovePurchases ; $CanApprovePurchases ]
```

Source: Microsoft Access
Output Language: FileMaker Pro
Convert

Vendor: OpenAI
API Key: dcsi
Model: gpt-3.5-turbo-0613 Refresh
Tokens Used Today: 409
Output Filename: CanApprovePurchases.txt
Need Help?

The Microsoft Access Code Conversion Workbench feature is included with the AI Accelerated edition of FmPro Migrator. Each VBA script can potentially be converted into FileMaker script code by an AI model. Once converted, clicking the clipboard icon copies the commented script code onto the clipboard for pasting into the FileMaker Pro script workspace window. The script is also written to disk as a text file.

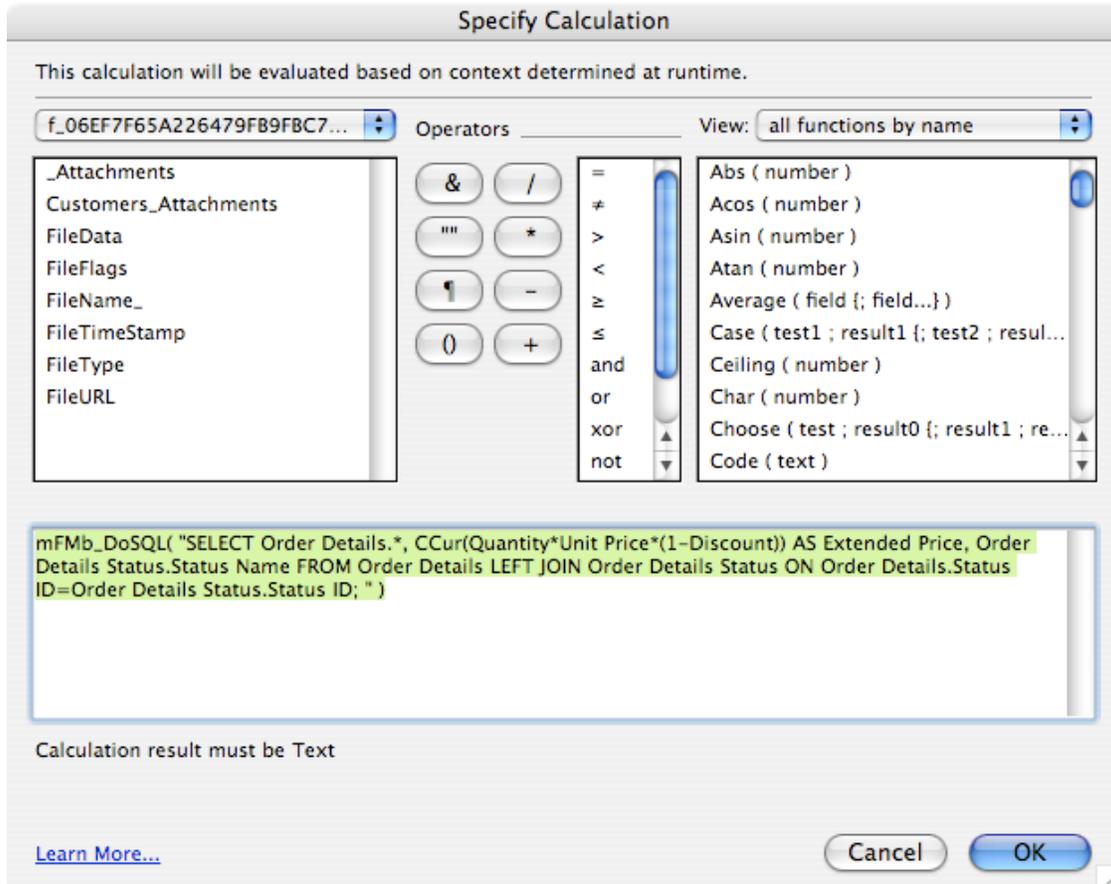
Each script step is commented, and the text can be copied into a new script script step. This converted code is intended to serve as a template for the writing of new FileMaker script functionality. Many Visual Basic commands can be deleted, because they incorporate functionality which is not needed or doesn't exist within a FileMaker database. All commands will need to be carefully examined in order to replicate the original program logic as functional FileMaker script steps.

More details about using this feature are included in the "Using the Microsoft Access Code Conversion Workbench" section of this manual.

Button Linking

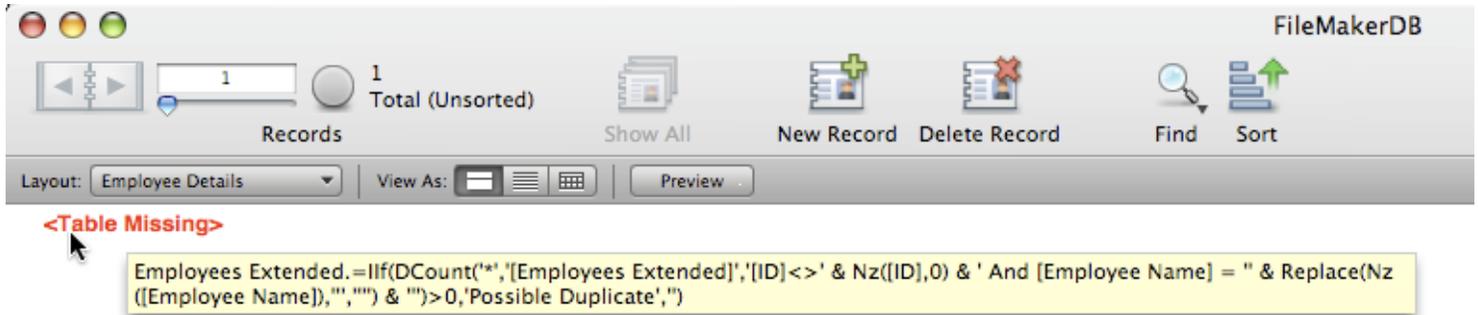
FmPro Migrator automatically links buttons scripts on the original Access forms to scripts with the same names in the new FileMaker Pro database. Form event code is extracted from the Access database, with the VBA code commented to show the original business logic. This functionality will need to be rewritten within FileMaker scripts. The Code Conversion Workbench feature can provide a significant amount of help with this process.

Query Conversion & Multi-Table Joins



Access Queries are converted into TOs on the RelationshipGraph and are also converted into FileMaker scripts. The entire SQL code of the original Access query is available for review. FileMaker TOs, can only reference a single table, so to implement a multi-table join as shown in this SQL code, additional TOs and corresponding relationships would need to be manually added to the FileMaker RelationshipGraph.

Unbound Calculated Form Fields



Access Form/Report fields can be implemented as calculation fields not directly referenced to a field in a database table. These fields can potentially be created as new calculated fields within a related table in the converted FileMaker database file. In some cases, a centrally located global field may be a more appropriate implementation.

Overlapping Layout Objects

There isn't any method to determine the top to bottom stacking order of objects on an Access Form/Report. FmPro Migrator builds objects within the new FileMaker Layout in a specific logical order to minimize issues with overlapping objects. The order of creating layout objects is:

Rectangle

Line

Graphic Image

Text Label

Field

Some cosmetic changes will potentially still need to be performed manually to fine tune the stacking order.