

FmPro Migrator for MacOS X

FileMaker to FileMaker 7 Quickstart Guide

.com Solutions Inc.
www.fmpromigrator.com

Overview

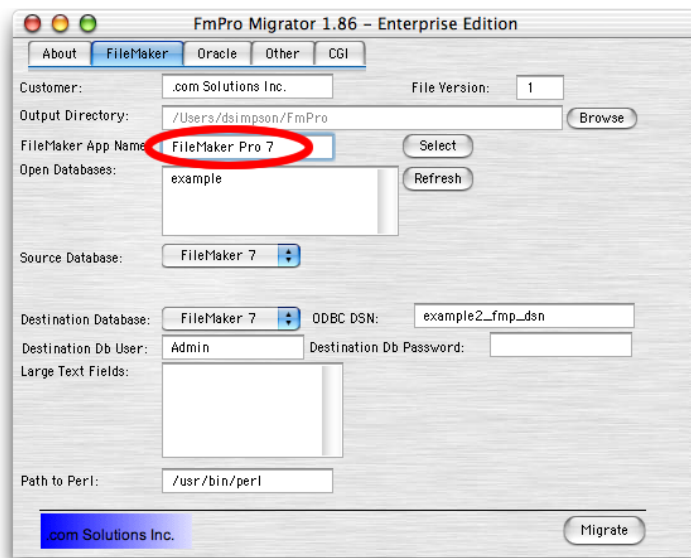
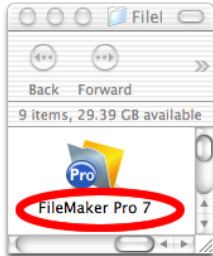
This quickstart guide provides a step by step guide to migrating individual FileMaker databases into a FileMaker 7 multi-table database structure. This process involves three phases (1) the generation of migration scripts on MacOS X, (2) the creation of new FileMaker 7 database tables on Windows and (3) the import of existing data into the new database tables. [This procedure makes use of the Windows FileMaker ODBC driver due to the lack of this driver for MacOS X.]



Step 1

[MacOS X]

Open one or more FileMaker database files within FileMaker. Change the name of any FileMaker database files which contain spaces or special characters, because the database name will become the name of a database table within FileMaker 7. Use the Select button or manually type the name of the FileMaker application name into the **FileMaker App Name** field. FmPro Migrator uses the information within this field to send AppleScript commands to the FileMaker database to obtain database structure information. If multiple versions of FileMaker are installed on your computer, it may be necessary to use the Finder to uniquely rename each application in order for the AppleScript commands to address the correct version of the FileMaker application. Then type the name of the application into the **FileMaker App Name** field.



Step 2

[MacOS X]

Select FileMaker 3,4,5,6 or 7 as the source database in FmPro Migrator.

Note: If FileMaker 7 is selected as the source database, migration files will be generated for every FileMaker 7 table (up to 1,000,000 tables) within the first database opened by FileMaker 7. When any other version of FileMaker is selected, migration scripts are generated for up to 50 open database files. This behavior prevents accidentally overwriting migration files if the same database table name appears within multiple FileMaker 7 databases.

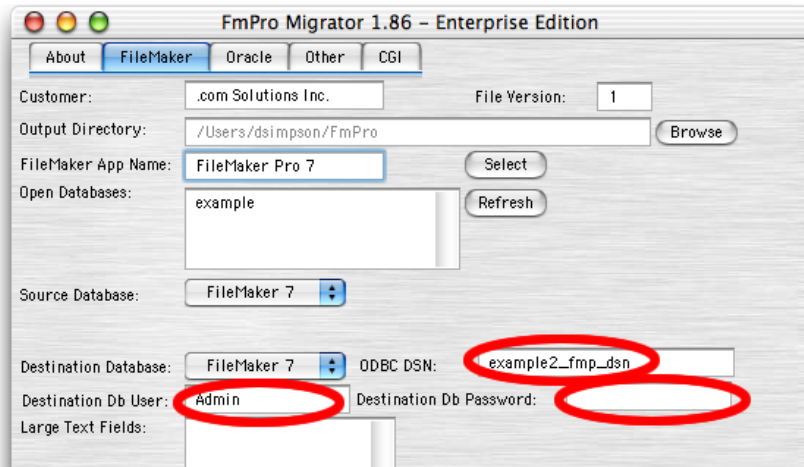
FmPro Migrator for MacOS X will attempt to automatically determine which version of FileMaker you are running, regardless of the selection you make within the Source Database menu.

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Step 3 [MacOS X]

You may optionally enter the name which will be used for the destination FileMaker 7 ODBC DSN, username, and password on the FileMaker tab. These items are optional, because the default values within these fields can generally be used. The ODBC DSN will be used to communicate with the FileMaker 7 database on the Windows computer in order to create the new FileMaker 7 database table(s).

Note: The default “Admin” account created for a new FileMaker 7 database is already configured with ODBC/JDBC access privileges. If you use a different FileMaker 7 user account, make sure that ODBC/JDBC access privileges have been granted to the account.



Step 4 [MacOS X]

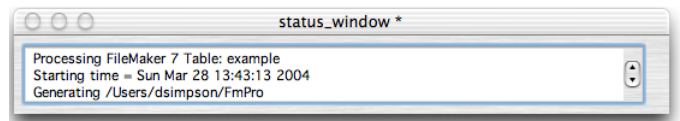
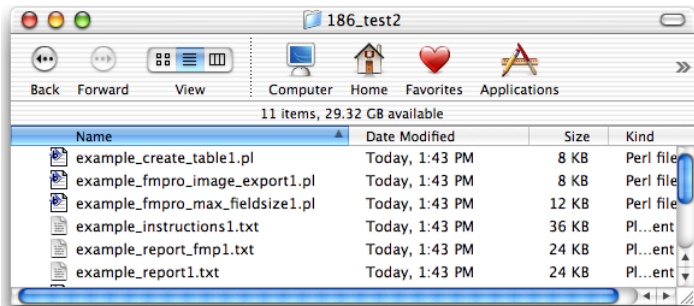
Select or create the destination directory for the migration files which will be generated by FmPro Migrator.

Step 5 [MacOS X]

Save the configuration information by selecting Save As from the File menu within FmPro Migrator.

Step 6 [MacOS X]

Press the Migrate button in FmPro Migrator to generate migration scripts and database documentation files. Scripts named after the original FileMaker database file(s) should then be created within the output directory as shown below. If these scripts are not created, select the Status Window menu item from the File menu of FmPro Migrator. The status window will display info about any problems which occurred during the script generation process.



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Step 7

[MacOS X and Windows]

Copy the generated migration files to a Windows PC (or a directory which can be accessed by Virtual PC on MacOS X). There are a number of methods which can be used to copy the files to a Windows computer. Windows File Sharing may be enabled within MacOS X, the files can be copied to a CD which can be transferred to the PC, or the PC can log into MacOS X using an FTP connection if FTP Access is enabled within the MacOS X Sharing Panel.

Step 8

[Windows]

The table creation script generated by FmPro Migrator is a Perl script which must run on Windows in order to use the FileMaker 7 ODBC driver. ActiveState Perl needs to be installed on the Windows computer before this script can be run. Download and install the latest version of ActiveState Perl from www.activestate.com.

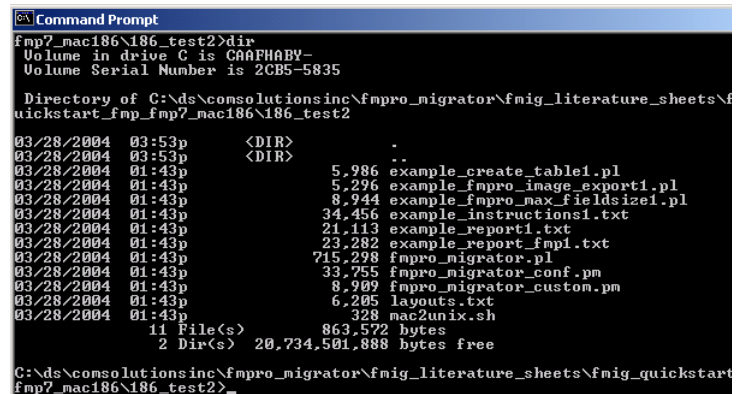
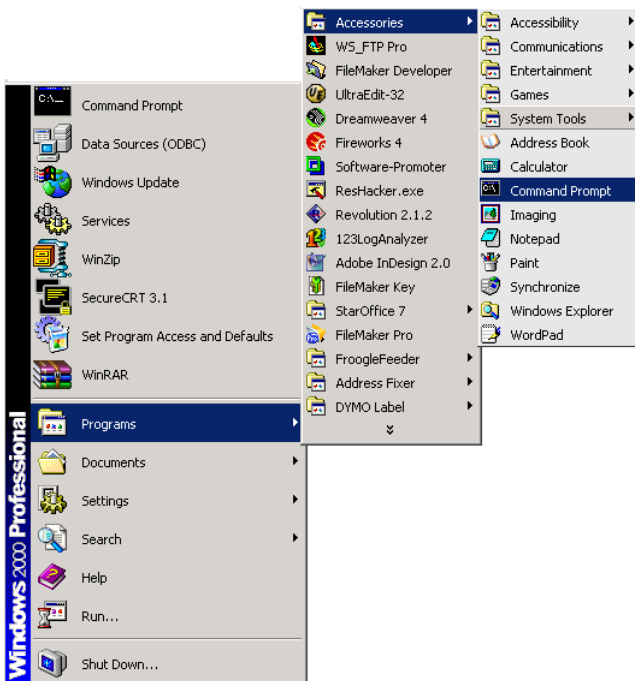
Step 9

[Windows]

Open the Windows Command Prompt by selecting Start > Programs > Accessories > Command Prompt. (You can drag the Command Prompt menu item over to the top of the Start menu in order to make it easier to access in the future.)

Use the `cd` command to navigate into the folder of scripts which you copied to the PC.

Note: Sometimes it is easier to put the migration scripts folder at the top level of the PC's hard drive in order to make it easier to find. Using the `cd ..` command allows you to navigate up one level in the directory structure. Typing the `dir` command displays a list of files/folders.



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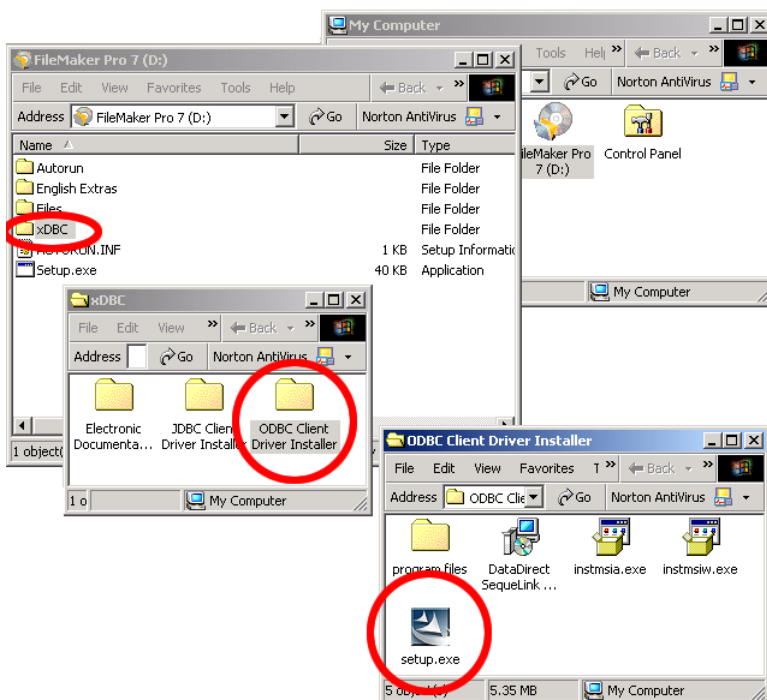
Step 10 [Windows]

Enter the following commands within the command prompt window to install the Perl DBI and DBD-ODBC modules using the ActiveState Perl Package Manager (PPM). PPM will download and install these modules from the ActiveState website automatically with the following commands.

```
ppm
install DBI
install DBD-ODBC
quit
```

Step 11 [Windows]

Install FileMaker 7 and the FileMaker 7 ODBC driver on the PC. The FileMaker MacOS X CD includes both the MacOS X and Windows versions of FileMaker. The FileMaker license agreement and license key permit you to run FileMaker on one computer at a time. The FileMaker application checks its license key across the network to make certain that only one copy is running at a time. Unlike previous versions of FileMaker for Windows, the ODBC driver is not installed automatically during the installation of FileMaker 7. Launch the DataDirect installer from the xDBC folder on the FileMaker 7 installation CD. You may use the default installation options during the install process.



Step 12 [Windows]

Due to a problem with the ODBC installer, the DataDirect SequeLink software needs to be installed twice in order to work correctly on Windows.

Double-click the setup.exe installer again to remove the DataDirect SequeLink software. Use the default options to de-install the software.

Double-click the setup.exe installer again to install the DataDirect SequeLink software for the 2nd time.

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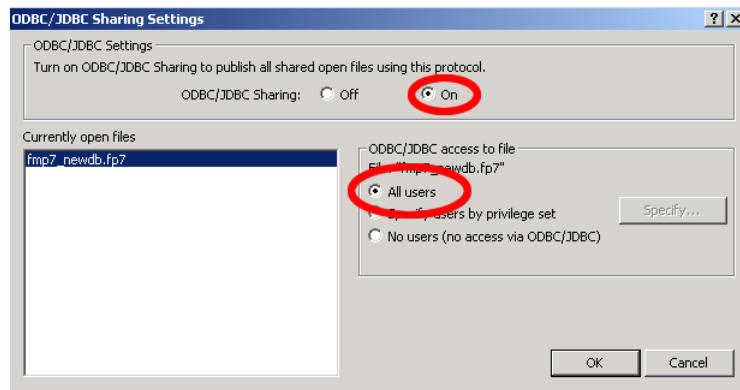
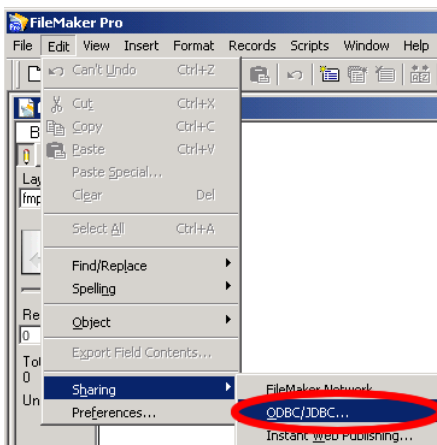
Step 13 [Windows]

Create a new database in FileMaker 7 on Windows or open an existing database file. Your migrated FileMaker 7 tables will be created within this new FileMaker 7 database file. For this Quickstart Guide, a new FileMaker 7 database named **fmp7_newdb** has been created.

Step 14 [Windows]

Enable the ODBC/JDBC Sharing Companion for all users of this new FileMaker 7 database, after making sure that the Remote/Local Data Access Companions are disabled within any older versions of FileMaker running on the same computer.

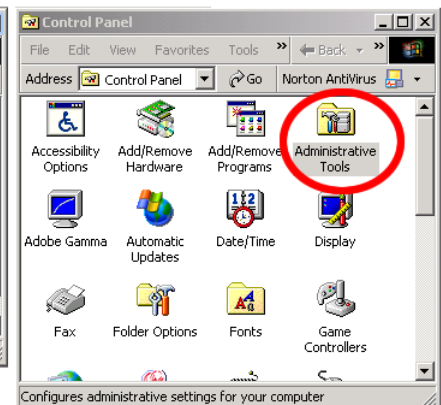
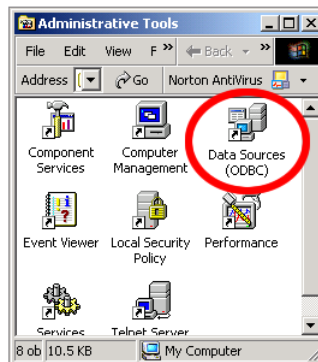
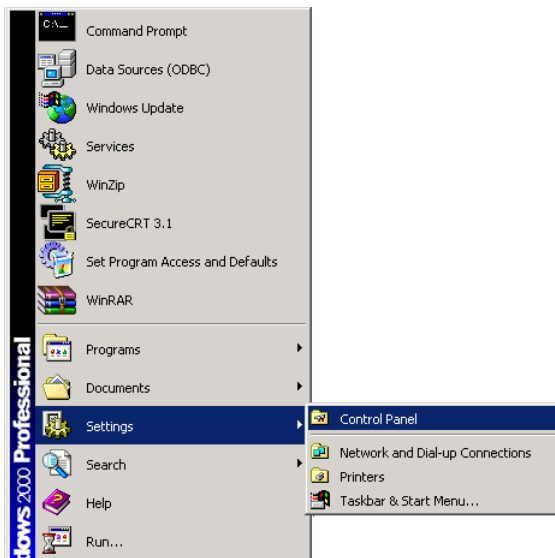
Note: If an ODBC sharing conflict occurs between an older version of FileMaker and FileMaker 7 running on the same computer - it may be necessary to exit from both FileMaker applications. Then re-launch only the FileMaker 7 database with the ODBC/JDBC Sharing Companion enabled.



Step 15 [Windows]

Open the Windows Data Sources (ODBC) Control Panel to create a new FileMaker 7 System DSN to match the default ODBC DSN name used by FmPro Migrator. The Data Sources (ODBC) control panel is located within the Administrative Tools folder of the Windows Control Panel.

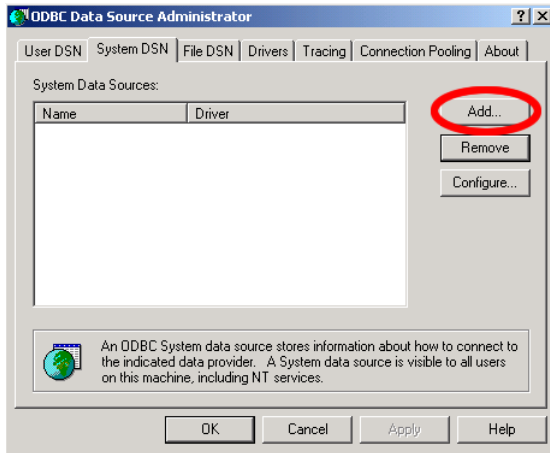
Note: With Windows XP, it may be necessary to select the Classic View of the Control Panel in order to see the Administrative Tools folder.



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Step 16 [Windows]

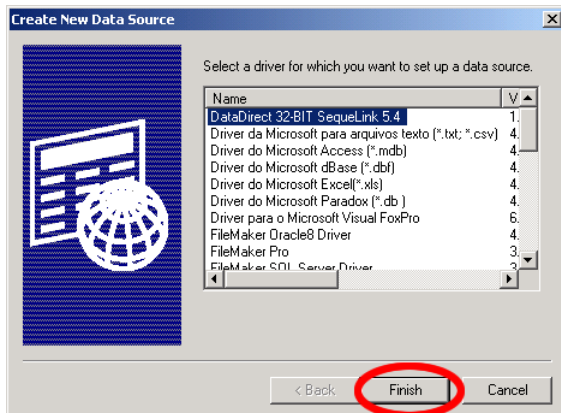
Click the System DSN tab, then click the Add button.



Step 17 [Windows]

Select **DataDirect 32-BIT SequeLink 5.4** as the driver for the new FileMaker 7 data source, then click the Finish button.

Note: Do not select FileMaker Pro as the driver, because the FileMaker Pro driver is only used for the older versions of the FileMaker database.

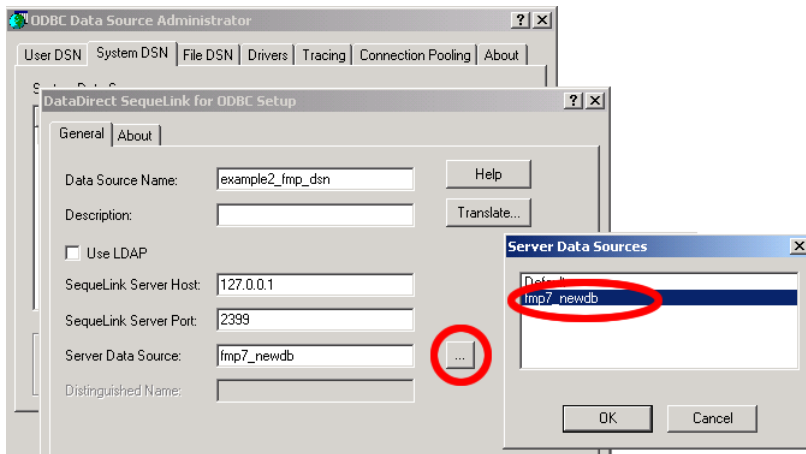


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Step 18 [Windows]

Enter the name of the ODBC DSN in the first field. This name should exactly match the ODBC DSN name which was entered into the ODBC DSN field for the Destination Database within FmPro Migrator. Fill in the SequeLink Server Host (127.0.0.1), and SequeLink Server Port (2399) fields as shown in the image below.

Click the “...” button to the right of the Server Data Source field, then select the name of the new FileMaker 7 database (fmp7_newdb). Click the Ok button.



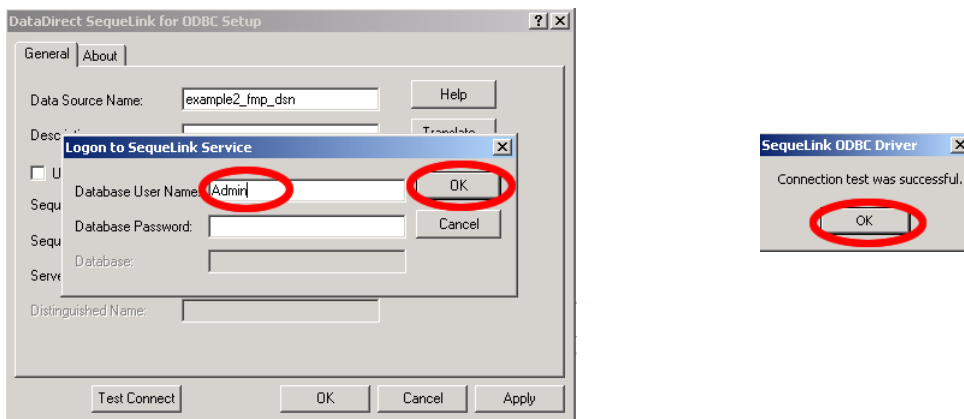
Step 19 [Windows]

Click the Test Connect button to verify that a connection can be made to the new FileMaker 7 database.

Enter Admin as the username, with no password, then click the Ok button.

Click the Ok button to close the test results dialog box.

Note: If the connection test fails, verify that ODBC/JDBC sharing is turned on and that an older version of FileMaker is **not** running with the Local or Remote Data Access Companion plug-ins enabled.



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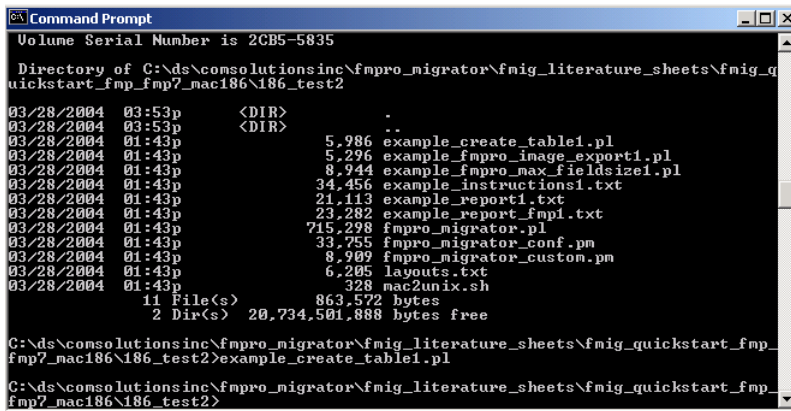
Step 20

[Windows]

Type the following command in the Command Prompt window to run the `example_create_table1.pl` Perl script to create the new database table in the new FileMaker 7 database.

```
example_create_table1.pl
```

If the program ran successfully, no message will be printed on the screen and the new table will be created within the FileMaker 7 database.



```
Volume Serial Number is 2CB5-5835

Directory of C:\ds\consolutionsinc\fmpro_migrator\fmig_literature_sheets\fmig_quickstart_fmp_fmp7_mac186\186_test2

03/28/2004 03:53p <DIR>      -
03/28/2004 03:53p <DIR>      -
03/28/2004 01:43p             5,986 example_create_table1.pl
03/28/2004 01:43p             5,296 example_fmpro_image_export1.pl
03/28/2004 01:43p             8,944 example_fmpro_max_fieldsize1.pl
03/28/2004 01:43p            34,456 example_instructions1.txt
03/28/2004 01:43p             21,113 example_report1.txt
03/28/2004 01:43p            23,282 example_report_fm1.txt
03/28/2004 01:43p            715,298 fmpro_migrator.pl
03/28/2004 01:43p            33,755 fmpro_migrator_conf.pm
03/28/2004 01:43p             8,909 fmpro_migrator_custon.pm
03/28/2004 01:43p             6,205 layouts.txt
03/28/2004 01:43p             328 mac2unix.sh
11 File(s)      863,572 bytes
 2 Dir(s)      20,734,501,888 bytes free

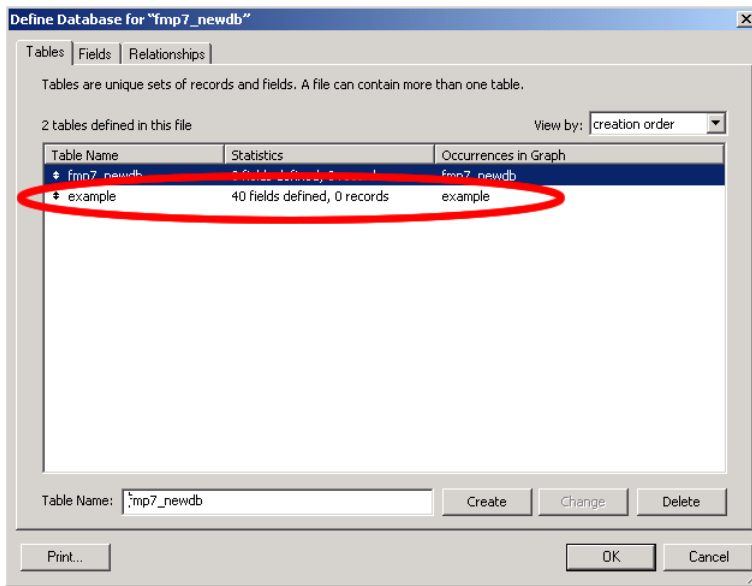
C:\ds\consolutionsinc\fmpro_migrator\fmig_literature_sheets\fmig_quickstart_fmp_fmp7_mac186\186_test2>example_create_table1.pl

C:\ds\consolutionsinc\fmpro_migrator\fmig_literature_sheets\fmig_quickstart_fmp_fmp7_mac186\186_test2>
```

Step 21

[Windows]

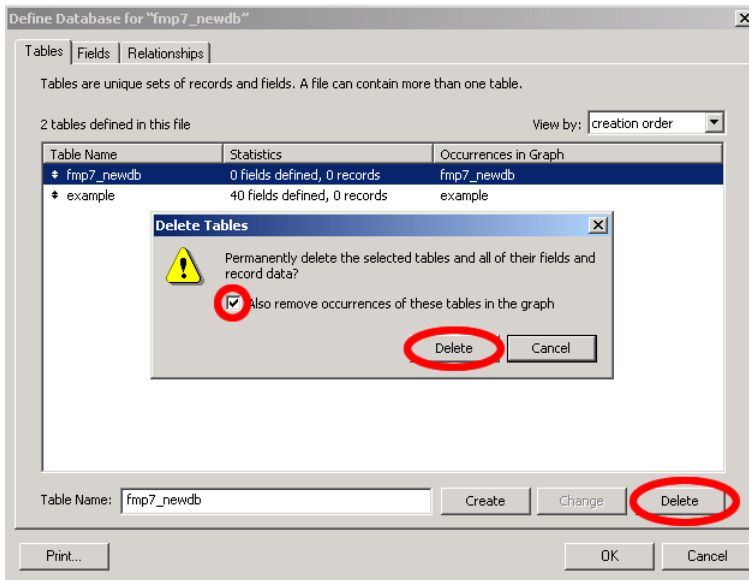
Verify that the new table has been created within the FileMaker 7 database by looking for the new table within the Tables tab of the Define Databases window. The new table will be displayed within this window in addition to the empty table named `fmp7_newdb`.



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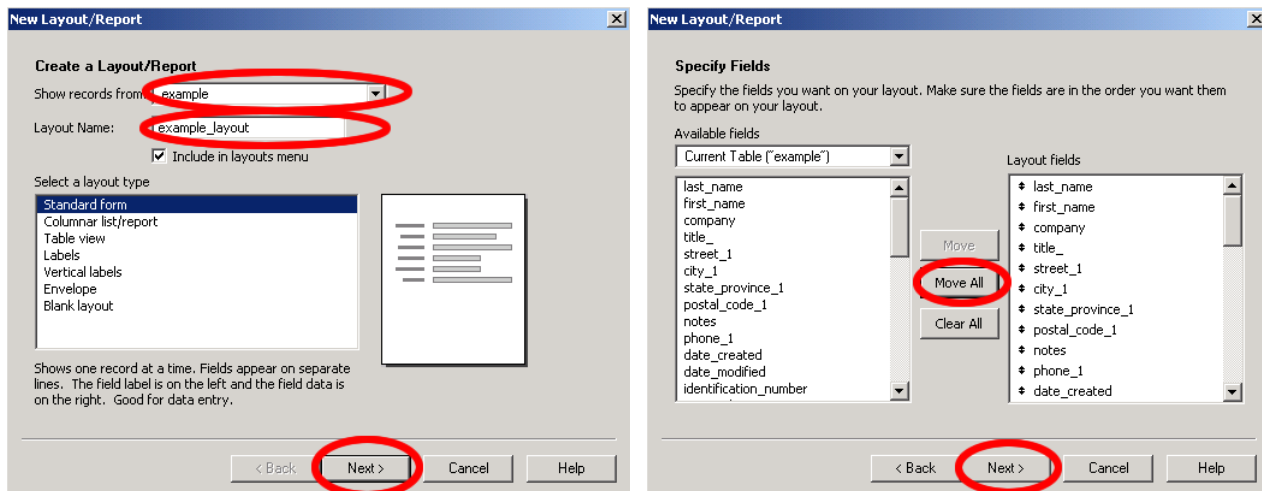
Step 22 [MacOS X or Windows]

Delete the empty **fmp7_newdb** table within the Define Database window along with its associated occurrence within the relationships graph.



Step 23 [MacOS X or Windows]

Create a new layout for the new FileMaker 7 database table containing all of the fields within the table. This new layout will be used for importing records from the original FileMaker database file.



Step 24 [MacOS X or Windows]

If you have not yet done so, convert the original FileMaker database file into a FileMaker 7 database file.

Step 25 [MacOS X or Windows]

Verify that the field validation parameters are configured as you intend for the new FileMaker 7 table. You may also add field calculation formulas at this time. FmPro Migrator for MacOS X uses AppleScript to obtain the calculation formulas from the original database, and writes this info into the database report file. You may copy the calculation formulas from the report file or from the converted FileMaker 7 database file. You may also copy layouts between databases too.

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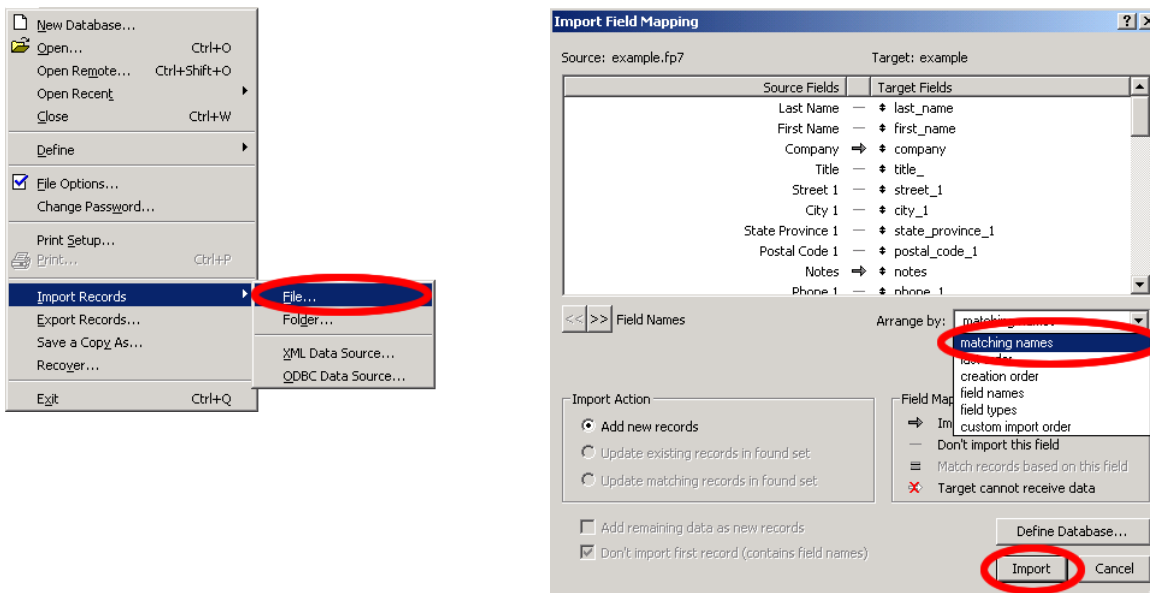
Step 26

[MacOS X or Windows]

Select Import Records from the FileMaker File menu to import all of the records from the original or converted FileMaker file into the new FileMaker 7 database table.

Note: Make certain that you are using the newly created layout for the new database table when importing these records.

Note: Selecting the matching names option makes it easier to match up the old and new field names.



Troubleshooting

[Windows]

The following errors may occur while creating the new database table:

Error: Can't call method "execute" on an undefined value at example_create_table1.pl line 100.

Solution: There are multiple reasons why this error may occur. One reason is that there is a FileMaker reserved word or illegal name being used as a column name. FmPro Migrator contains a pre-defined list of FileMaker SQL reserved words. Column names which are found to consist of these words are renamed by FmPro Migrator by appending the "_" character at the end of the column name. If additional reserved words need to be added to this list, please send an email to .com Solutions Inc. with your additions so that they may be added to future revisions of FmPro Migrator. This error may also occur due to almost any type of SQL syntax error within the CREATE TABLE SQL statement. Using incorrectly spelled column types, omitting a comma at the end of each statement line or having a comma at the end of the very last line of the SQL code will cause these errors. These types of errors generally occur after manually editing the CREATE TABLE SQL statements. If the number of edits have been minimal, it may be easier to regenerate the script again with FmPro Migrator, then manually re-edit the file.

FileMaker 7 column names created via an ODBC connection to the database cannot start with a number or an underscore "_" character, and these conditions will also result in this error being displayed.

Troubleshooting continued

[Windows]

```
Error: DataDirect][ODBC SequeLink driver][ODBC Socket][DataDirect][ODBC  
FileMaker driver][FileMaker]Cannot Create Table (SQL-HY000)  
[DataDirect][ODBC SequeLink driver][ODBC Socket][DataDirect][ODBC  
FileMaker driver][FileMaker]Query Failed (SQL-HY000) (DBD:st_execute/  
SQLExecute err=-1) at example_create_table1.pl line 832.
```

Solution: This error message is displayed whenever an attempt is made to create a duplicate column name within the FileMaker database through an ODBC connection. During the generation of the list of column names, FmPro Migrator removes illegal SQL characters and replaces spaces with underscore characters. This renaming process guarantees that column names will be valid within any SQL statements, compatible with web publishing and when sharing data with other applications. However duplicate column names may occur as a result of this renaming process. FileMaker 7 and its associated ODBC driver do not report the name of the duplicate column name which is contained within the CREATE TABLE SQL statement. Generally it will be necessary to look through the column names listed in the CREATE TABLE SQL statement in order to determine which column has been duplicated. Another option is to look through the list of columns within the original FileMaker database, make changes to field names within the original database, then regenerate the **example_create_table1.pl** file with FmPro Migrator.

For additional troubleshooting tips, please see the instructions file which is created along with the migration scripts.