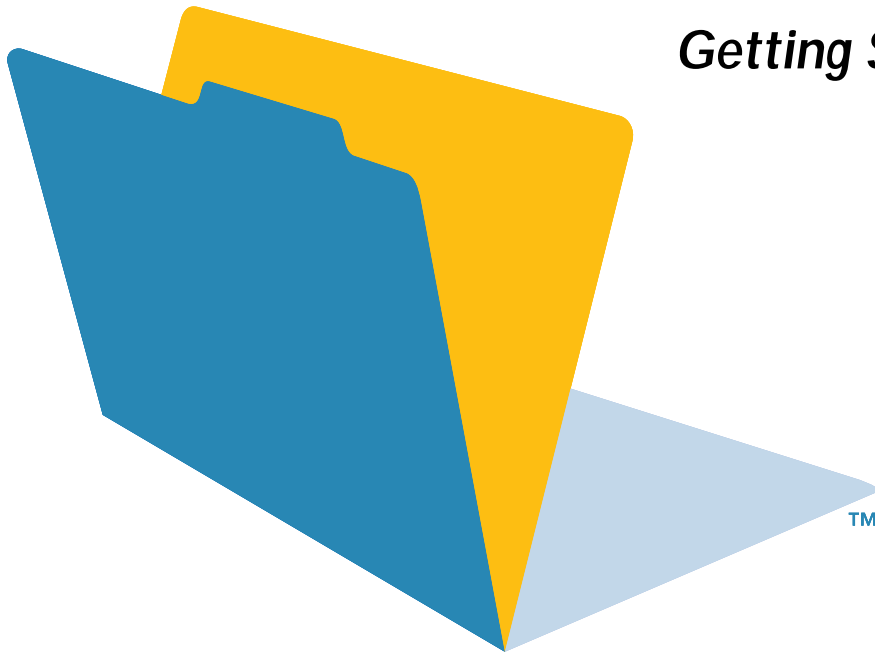


For Windows and Mac

FileMaker Pro 5

Getting Started Guide



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Chapter 1

Welcome to FileMaker Pro

Welcome to the FileMaker® Pro 5 application. FileMaker Pro is designed to help you manage information easily and effectively.

About this guide

The first section of the *FileMaker Pro Getting Started Guide* tells you how to install the application on your Windows or Mac OS computer. The second section identifies the new features in this version of the FileMaker Pro software. The third section is a tutorial intended to show you how to use the major features of FileMaker Pro.

Note When a feature or procedure is specific to a particular platform, you see instructions and illustrations that are also specific to that platform. For features or procedures that are similar on both platforms, you may see illustrations for either Windows or the Mac OS.

- Chapter 1, “Welcome to FileMaker Pro,” explains system requirements and what you have to do before using FileMaker Pro.
- Chapter 2, “Installing FileMaker Pro in Windows,” provides instructions for installing the application on a Windows-based computer.
- Chapter 3, “Installing FileMaker Pro in the Mac OS,” provides instructions for installing the application on a Mac OS-based computer.
- Chapter 4, “New features in FileMaker Pro,” provides an overview of the new features in FileMaker Pro 5. This chapter is especially helpful for users upgrading from previous versions of FileMaker Pro.
- Tutorial Lesson 1, “FileMaker Pro basics,” provides an overview of how to use the tutorial and accompanying sample files, while also explaining some terms and fundamental concepts.
- Tutorial Lesson 2, “Browsing information,” explains how to view the information in a FileMaker Pro database.
- Tutorial Lesson 3, “Finding and sorting records,” shows how to find and sort records based on different criteria.
- Tutorial Lesson 4, “Creating a database and entering records,” provides instruction in building and adding data to a FileMaker Pro database.
- Tutorial Lesson 5, “Customizing what you see,” explains how to use the layout tools in FileMaker Pro to change the look of your databases.
- Tutorial Lesson 6, “Creating lists, mailing labels, and form letters,” demonstrates the methods for producing these in FileMaker Pro.
- Tutorial Lesson 7, “Simplifying data entry,” explains how to use value lists, calculation fields, and field auto-entry options to improve the speed and accuracy of data entry in FileMaker Pro.
- Tutorial Lesson 8, “Automating tasks with buttons and scripts,” shows how to use these features to ease the completion of many repetitive tasks in FileMaker Pro.
- Tutorial Lesson 9, “Creating and running reports,” explains how to build reports using the New Layout/Report assistant.
- Tutorial Lesson 10, “Making databases relational,” demonstrates how to use the relational capabilities of FileMaker Pro to improve accuracy and reduce database overhead.
- Tutorial Lesson 11, “Keeping your data safe,” explains some strategies for backing up your databases.

Registration and customer support

Please take the time to complete and mail the registration card for your product, or register online at www.filemaker.com/register or by choosing Help menu > FileMaker on the Web in FileMaker Pro.

For information about technical support and customer service, see:

www.filemaker.com (North American customers)

www.filemaker.com/intl (customers outside North America)

or choose Help menu > FileMaker on the Web. At the web site, you will find the FileMaker, Inc. Service Directory, which details the service options available to North American customers, as well as links to FileMaker, Inc. international sites, answers to frequently asked questions, and access to extensive software libraries used by technical support staff. If you do not have access to the Web, please refer to the Technical Support and Customer Service sheet included in the software box. North America customers can also call 1-800-965-9090 to learn about the service options available.

What you need to install FileMaker Pro

This guide gives instructions for installing the FileMaker Pro application and associated files on your Windows or Mac OS computer. Before you begin installing, you must know how you plan to use FileMaker Pro.

- On a stand-alone computer—you want to use FileMaker Pro on your computer, and you don't plan to share files with other users over a network.
- With networking—you want to use FileMaker Pro on your computer, and you plan to share FileMaker Pro files with other computers using either TCP/IP or IPX/SPX networking software (Windows) or TCP/IP or AppleTalk networking software (Mac OS).

If you're on a network You need to know which type of network you're using. If you're not sure which network option to choose, check with your network administrator before you begin installation.

Installation code

The installation code is a seventeen-digit number located on a multi-part sticker on a separate paper sheet within the box.

Important You must enter the installation code during installation or the software will not install.

The installation code ensures adherence to the single user license agreement, which allows for use of one (1) copy of the Software on a single computer at a time (refer to your Software License). If the code is invalid or if another copy of the application installed with that same code is running on the network, the FileMaker Pro application displays this error message: "The maximum number of licensed users are currently using this copy of FileMaker Pro. Please refer to the installation code section of your Installation and New Features Guide for further instructions."

If you receive this error message, you have entered a duplicate installation code. To install FileMaker Pro on multiple computers, you must have a unique installation code for each user, or obtain a volume license. You must license one copy of FileMaker Pro for each computer.

Installation of the specially packaged, competitive upgrade version of FileMaker Pro 5

A specially packaged "competitive upgrade" release of FileMaker Pro 5 is available to encourage users to switch to FileMaker Pro 5. To successfully install FileMaker Pro 5 as a competitive upgrade, one of the qualifying applications listed on the box or on www.filemaker.com must be installed on your machine at the time the installation code is entered.

Minimum hardware and software requirements

To install and use FileMaker Pro, you need the CD-ROM in the FileMaker Pro package and the following minimum equipment and software:

Windows:

- an Intel compatible 486/33 PC or higher
- at least 16 MB of RAM
- a hard disk with at least 20 MB of free space (for a Typical installation)
- a CD-ROM drive
- Windows 98, Windows 95, Windows NT 4.0 (with Service Pack 3 or later)

Mac OS:

- a Power Macintosh or Mac OS computer with a PPC 601 processor or higher
- at least 16 MB of RAM
- a hard disk with at least 24 MB of free space (for an Easy Install)
- a CD-ROM drive
- System 7.6.1 or later

Networking requirements

We recommend using the TCP/IP protocol for networking the FileMaker Pro application on both Windows and Mac OS networks.

Windows:

To share files among users on a network, you need to have the following additional software and hardware installed on your PC:

- a Windows-compatible network card
- the software driver for your network card
- the appropriate TCP/IP network protocol or IPX/SPX network protocol for Windows 98, Windows 95, or Windows NT

Mac OS:

- To share files among users on a network, you can use TCP/IP or AppleTalk networking software.
- You must use the TCP/IP protocol to share files on a mixed Windows and Mac OS network.

Web publishing requirements

To publish a database on the Web using the FileMaker Pro Web Companion, you need a host computer with access to the Internet or an intranet via TCP/IP.

Important Access to the Internet requires an Internet service provider (ISP). FileMaker Pro does not provide an Internet account for you.

Requirements for advanced features (Windows)

Some of the advanced features of FileMaker Pro require additional software.

FileMaker Pro advanced feature	Software requirement
URL support	URL.DLL
Open URL script step	URL.DLL
Send Mail script step	MAPI (Mail API) enabled email client software
Phone dialing	Phone dialer or other TAPI (Telephony API) compliant software
IntelliMouse support	IntelliPoint software (included with the IntelliMouse)

The DLL and the API files are installed with a Typical installation of Windows 98, Windows 95, and Windows NT 4.0.

Note ODBC components can only be installed as part of a Typical installation; all software necessary to support ODBC is installed at that time.

Requirements for advanced features (Mac OS)

FileMaker Pro advanced feature	Software requirement
URL support	Internet Config 1.1 or later
Open URL script step	Internet Config 1.1 or later
Send Mail script step	Internet Config 1.1 or later and email client software
Send Apple event script step	AppleScript system software

AppleScript is installed with a normal Mac OS software installation. The Internet Config application and extension are installed with some versions of System software. If you don't have this software, refer to the Apple Computer, Inc. Web site at www.apple.com for further information.

Note ODBC components can only be installed as part of an Easy Install; all software necessary to support ODBC is installed at that time.

Before you begin

Before you begin the installation process, exit or quit other open programs and save your work, and turn off virus protection utilities.

For instructions on installing FileMaker Pro on a computer using the Windows operating system, see chapter 2, "Installing FileMaker Pro in Windows."

For instructions on installing FileMaker Pro on a computer using the Mac OS, see chapter 3, "Installing FileMaker Pro in the Mac OS."

After you install

After you install, you might need to turn on any utilities you turned off during installation. You will also need to update the FileMaker Pro 5 spelling dictionary with any words you've added to your FileMaker, Inc. dictionaries. If you're upgrading from an earlier version of FileMaker Pro, you will also need to convert your database files to FileMaker Pro 5.

Updating your User Dictionary

User dictionaries created in FileMaker Pro 4.x are compatible with FileMaker Pro 5. If you have added words to your User Dictionary in either a version of FileMaker Pro prior to FileMaker Pro 4.x or another FileMaker, Inc. (or Claris) product, then you must export that User Dictionary to a text file. Then import it into the User Dictionary in FileMaker Pro 5.

To export the User Dictionary from FileMaker Pro 2.x and later:

1. In your previous version of FileMaker Pro, choose Edit menu > Spelling > Edit User Dictionary.
2. Click Text File (or the Text flag in FileMaker Pro 2.x) to show the Import and Export buttons.
3. Click Export and export the text file containing the words from your previous User Dictionary.

To import this file into the User Dictionary in FileMaker Pro 5:

1. Open a database in FileMaker Pro 5, then choose Edit menu > Spelling > Edit User Dictionary.
2. Click Text File to show the Import and Export buttons.
3. Click Import and import the text file containing the words from your previous User Dictionary.

Opening files from previous versions

FileMaker Pro 5 can open files created in FileMaker Pro 1.x or later.

Important There may be date considerations when converting a database from an earlier version of FileMaker Pro. For more information about how FileMaker Pro 5 handles Year 2000 issues, see www.filemaker.com.

FileMaker Pro 4.x/3.x/2.x/1.x databases

When you convert a FileMaker Pro 4.x/3.x/2.x/1.x file, FileMaker Pro 5 software saves your original FileMaker Pro 4.x/3.x/2.x/1.x file and creates a copy that has been converted to the FileMaker Pro 5 format. The original file is not modified and you can open it in the previous version of FileMaker Pro. The converted file can only be opened in FileMaker Pro 5.

To convert and open a FileMaker Pro 4.x/3.x/2.x/1.x file:

1. Start FileMaker Pro 5.
2. Choose File menu > Open and select the file to convert.
3. Click Open.
4. Click OK to append “Old” to the name of the original FileMaker Pro 4.x/3.x/2.x/1.x file.



5. Click Save to start the conversion.

By default, this converted file will have the original file’s name. Preserving this name is important if you have existing lookups or scripts, which might not function correctly if it is changed.

FileMaker Pro converts the file and opens it.

Note FileMaker Pro 1.x databases cannot be converted directly on a Windows-based system. To use a database created by FileMaker Pro 1.x, you must convert it on a Mac OS computer using FileMaker Pro 2.x or later. Then follow the instructions in this section to convert your file to FileMaker Pro 5.

Cross-platform considerations

To convert a FileMaker Pro 4.x/3.x/2.x file created on another platform, drag the older file on top of the FileMaker Pro 5 application icon.

Note If you add or remove the .FP5 filename extension, you must re-specify file locations for related or external files when the database is first opened.

Chapter 2

Installing FileMaker Pro in Windows

Before you begin the installation process, exit other open programs and save your work, and turn off virus protection utilities.

Note For instructions on installing FileMaker Pro on a Mac OS–based computer, see chapter 3, “Installing FileMaker Pro in the Mac OS.”

Installing with Windows 98, Windows 95, or Windows NT 4.0

You must use the installation program to install FileMaker Pro—you can’t install FileMaker Pro by dragging files to your hard disk.

To install FileMaker Pro on your hard disk:

1. Insert the CD-ROM into your CD-ROM drive.

You see the FileMaker Pro screen.



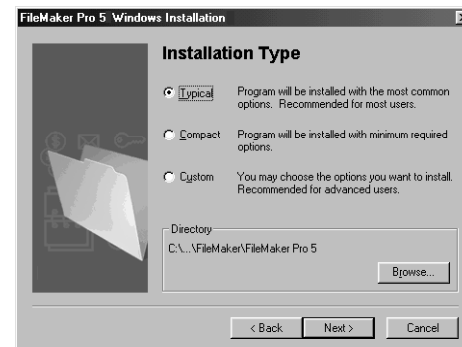
2. For late-breaking information about FileMaker Pro, view the Read Me file or visit www.filemaker.com. You can also browse the contents of the CD, if you wish.

3. Click the Install FileMaker Pro 5 button.

4. Click Yes if you accept the terms of the license agreement.

5. In the Welcome screen, click Next.

You see the FileMaker Pro 5 Windows Installation dialog box.



Follow the steps described in one of the following sections:

- If you want to install all the available files, continue with Typical installation.
- If you want to install a subset of the FileMaker Pro files, skip to “Compact installation or Custom installation” on page 9.

With a Compact installation, the following files are *not* installed:

- Web support files (Web Companion and Web publishing files)

- Tutorial
- Example files
- Templates
- ODBC files

With a Custom installation, you can install just the files you want.

Typical installation

Follow these steps to install the complete FileMaker Pro package on your Windows 98, Windows 95, or Windows NT 4.0 system.

To install all the FileMaker Pro files on your hard disk:

1. If you have not already done so, insert the CD-ROM.

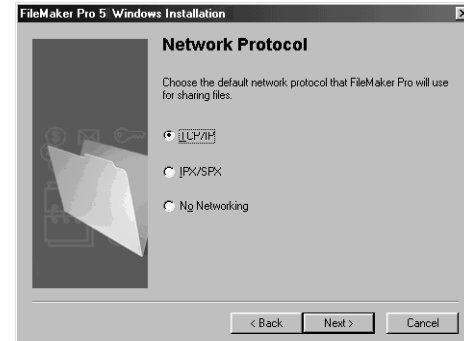
Follow the instructions on the previous page.

2. In the FileMaker Pro Installation dialog box, choose Typical.

If you want to install FileMaker Pro in another folder or on another drive, click the Browse button. If the selected disk doesn't have enough space for the files you select, you can leave the installer and delete existing files to make more room on the disk. If the disk is write-protected, or isn't a hard disk, you can choose another drive.

3. Click Next.

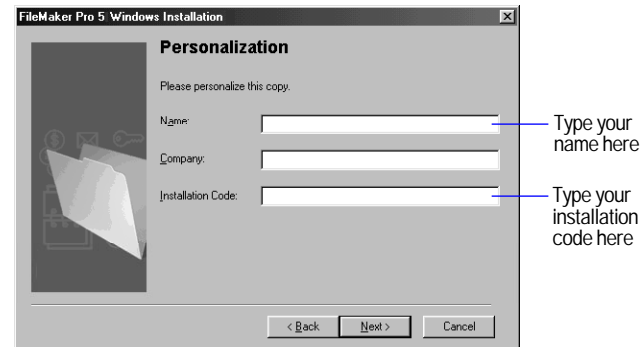
The installer tells you if the selected drive doesn't have enough space for the components you have chosen to install. If there is enough space, you see the Network Protocol dialog box.



If you want to share your files over a network, select a protocol. You can change the network protocol later, without reinstalling the program. For help in deciding which network protocol to select, see your network administrator.

4. Click Next.

You see the Personalization dialog box.



5. In the Name box, type your name and press the Tab key.

6. Type your company name, if applicable, and press Tab.

If you don't have a company name, you can put other information (like your address) in the box or leave it blank.

7. In the Installation Code box, type your FileMaker Pro installation code.

The installation code is a seventeen-digit number located on a multi-part sticker on a separate paper sheet within the box.

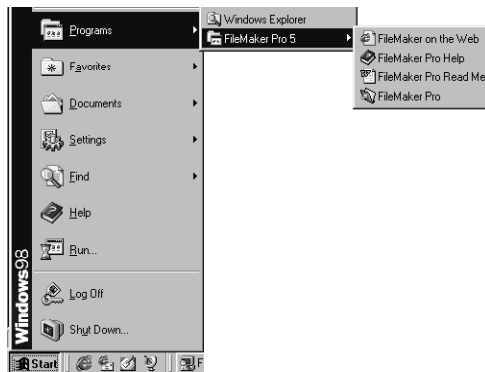
Important You must enter the installation code during installation or the software will not install. See “Installation code” on page 2 for more information.

8. Click Next.

9. Click Yes if the registration information is correct.

10. Click Finish, then Restart to restart your computer.

After the installation program copies all the files, it creates a menu item for FileMaker Pro in the Start menu.



Compact installation or Custom installation

To install a subset of FileMaker Pro files on your hard disk:

1. If you have not already done so, insert the CD-ROM.

Follow the instructions on page 7.

2. In the FileMaker Pro Installation dialog box, choose Compact or Custom.



If you want to install FileMaker Pro in another folder or on another drive, click the Browse button. If the selected disk doesn't have enough space for the files you select, or is write-protected, you can leave the installer and delete existing files to make more room on the disk. If the disk is locked, or isn't a hard disk, you can choose another drive.

If you've selected Custom, the dialog box lists the components you can install.



Components you can install

3. For a Custom installation, click to the left of an item to select the files you want to install.

Any component with a checkmark will be installed.

Note You can't use custom installation to install the ODBC component of FileMaker Pro. To install the required ODBC files, you must choose the Typical installation option. For more information, see page 8.

4. Click Next.

The installer tells you if the selected drive doesn't have enough space for the components you have chosen to install. If there is enough space, you see the Network Protocol dialog box.

5. If you want to share your files over a network, select a protocol. You can change the network protocol later, without reinstalling the program. For help in deciding which network protocol to select, see your network administrator.

You see the Personalization dialog box.

6. In the Name box, type your name and press Tab.

7. Type your company name, if applicable, and press Tab.

If you don't have a company name, you can put other information (like your address) in the box or leave it blank.

8. In the Installation Code box, type your FileMaker Pro installation code.

The installation code is a seventeen-digit number located on a multi-part sticker on a separate paper sheet within the box.

Important You must enter the installation code during installation or the software will not install. See "Installation code" on page 2 for more information.

9. Click Next.

10. Click Yes if the registration information is correct.

The Installer begins copying files. A progress bar tells you what the Installer is doing.

After the selected files are installed, a final dialog box tells you the installation on your hard drive was successful.

If you've installed the FileMaker Pro application, the installation program creates a menu item for FileMaker Pro in the Start menu. Restart your computer to use your new copy of FileMaker Pro.

Uninstalling FileMaker Pro

1. Open the Add/Remove Programs control panel.

2. Click the Install/Uninstall tab and select FileMaker Pro 5 from the list.

3. Click Add/Remove.

Earlier versions of FileMaker Pro can be removed the same way.

Note Uninstalling doesn't delete files that you've created, as long as they are named differently than the sample and template files that are installed with FileMaker Pro.

Where files are stored on your hard disk

The following tables show the files and folders you can install, and the preferred location for them on your hard disk. With a Typical installation, the FileMaker Pro Installer installs all the files you need in their preferred locations.

Location of the FileMaker Pro 5 folder

The FileMaker Pro 5 folder is installed by default in the FileMaker folder in the Program Files folder (C:\Program Files\FileMaker\FileMaker Pro 5).

Contents of the FileMaker Pro 5 folder

This table shows the location and contents of items installed in a Typical installation.

Folder location	File or folder	Description
C:\Program Files\FileMaker\ FileMaker Pro 5	FILEMAKER PRO.EXE	Application file
	README.DOC	Text document about FileMaker Pro
	CLLNGENU.DLL	Spelling engine
	CLPROOF.DLL	
	FMENG10.DLL	FileMaker application module
	FMCOMM32.DLL	FileMaker application module
	FMCON10.DLL	FileMaker application module
	FMCOR10.DLL	FileMaker application module
	FMFC10.DLL	FileMaker application module
	FMGFX10.DLL	FileMaker application module
	FMINT10.DLL	FileMaker application module
	FMML10.DLL	FileMaker application module
	FMNSV14.DLL	FileMaker application module
	FMQTE10.DLL	FileMaker application module
	FMWFC10.DLL	FileMaker application module
	FML10.DLL	Layout markup language engine
	FMOLE10.DLL	FileMaker application module
	FMRSRC.DLL	FileMaker application module
	FMATM32.DLL	Support for Adobe Type Manager
	FMATM16.DLL	Support for Adobe Type Manager (installed on Windows 98 and Windows 95 only)
	MFC42.DLL	MFC libraries
	MSVCRT.DLL	
	CTL3D32.DLL	
	FMPRO50.HLP	FileMaker Pro online help documents
	FMPRO50.CNT	FileMaker Pro online help documents

Folder location	File or folder	Description
C:\Program Files\FileMaker\ FileMaker Pro 5\System	UKENGLISH.MPR	Spelling dictionary
	USENGLSH.MPR	Spelling dictionary
	CLADDON.CLR	An additional dictionary that contains computer terminology
	LANGUAGE MODULES	Language module folder for Web Companion
	DELSL1.ISU	A log file, used by the uninstaller
	FMIPX32.NET	IPX/SPX network plug-in
	FMTCP32.NET	TCP/IP network plug-in
	CWORKS.IMP	ClarisWorks database translation filter
	DBF.IMP	DBF database translation filter
	EXCEL.IMP	Microsoft Excel translation filter
	ODBC.IMP	ODBC database translation filter
	FMBMP32.FLT	BMP graphic filter
	FMCGM32.FLT	CGM graphic filter
	FMDRW32.FLT	DRW graphic filter
	FMMAC32.FLT	MacPaint graphic filter
	FMPCX32.FLT	PCX graphic filter
	FMPIC32.FLT	PIC graphic filter
	FMSLD32.FLT	Lotus SLD graphic filter
	FMTIFF32.FLT	TIFF graphic filter
	FMWMF32.FLT	Metafile graphic filter
	USER.UPR	User spelling dictionary
	WEBCOMP.N.FMX	The FileMaker Web Companion plug-in that enables Web publishing from FileMaker Pro
	FMLDAC.FMX	Companion plug-in that enables local ODBC access to FileMaker Pro
	FMRDAC.FMX	Companion plug-in that enables remote ODBC access to FileMaker Pro

Folder location	File or folder	Description
C:\Program Files\FileMaker\ FileMaker Pro 5\Templates	TEMPLATE INFORMATION.FP5	Database containing descriptions of the template folder contents
	TEMPLATES	Folder containing predesigned templates that help you use FileMaker Pro right away
	TIPS FROM TECH SUPPORT	Folder containing database of common scripted tasks and calculations.
C:\Program Files\FileMaker\ FileMaker Pro 5\Examples	ODBC EXAMPLE	Folder containing database examples that use the ODBC capabilities of FileMaker Pro 5
C:\Program Files\FileMaker\ FileMaker Pro 5\Tutorial	TUTORIAL README.TXT	Text document containing last minute information about the tutorial.
	SAMPLE FILES	Folder containing sample files to be used in conjunction with the FileMaker Pro 5 tutorial
	WORKING FILES	Folder containing lesson files to be used in conjunction with the FileMaker Pro 5 tutorial
C:\Program Files\FileMaker\ FileMaker Pro 5\Web	WEB README.TXT	Text document with information about Web publishing with FileMaker Pro 5
C:\Program Files\FileMaker\ FileMaker Pro 5\Web Security	DATABASES SECURITY	Folders containing the FileMaker databases and HTML files required to use Web Security Database safeguards
C:\Program Files\FileMaker\ FileMaker Pro 5\Themes	BLUE_GOLD.FTH	FileMaker Pro 5 layout theme
	CITRUS.FTH	FileMaker Pro 5 layout theme
	OCEAN_BLUE.FTH	FileMaker Pro 5 layout theme
	FERN_GREEN.FTH	FileMaker Pro 5 layout theme
	BRICK.FTH	FileMaker Pro 5 layout theme
	LAVENDER.FTH	FileMaker Pro 5 layout theme
	SOFTGRAY.FTH	FileMaker Pro 5 layout theme
	WHEAT.FTH	FileMaker Pro 5 layout theme
	TEAL.FTH	FileMaker Pro 5 layout theme
C:\Program Files\FileMaker\ FileMaker Pro 5\Labels	LABELSUS.FLB	FileMaker Pro 5 labels module
	LABELSAUS.FLB	FileMaker Pro 5 labels module
	LABELSUK.FLB	FileMaker Pro 5 labels module

Folder location	File or folder	Description
C:\Program Files\FileMaker\FileMaker Pro 5\FMI	GO_FILEMAKER.HTML	HTML file points Web browser to the FileMaker, Inc. web site (Internet connection and Web browser software required)
	FMI LOGO.GIF	FileMaker, Inc. logo

Contents of the Common Files folder

**Folder location in Windows 98,
Windows 95, Windows NT 4.0**

	File or folder	Description
C:\Program Files\Common Files\System\OLE DB	MSDADC.DLL	OLE DB for ODBC drivers
	MSDAENUM.DLL	OLE DB for ODBC drivers
	MSDAER.DLL	OLE DB for ODBC drivers
	MSDAERR.DLL	OLE DB for ODBC drivers
	MSDAPS.DLL	OLE DB for ODBC drivers
	MSDASQL.DLL	OLE DB for ODBC drivers
	MSDASQLR.DLL	OLE DB for ODBC drivers
	MSDATL.DLL	OLE DB for ODBC drivers
	MSDATT.DLL	OLE DB for ODBC drivers

Contents of the Windows System folder

**Folder location in Windows 98,
Windows 95, Windows NT 4.0**

	File or folder	Description
C:\Windows\System	ODBCAD32.EXE	ODBC Control Panel and support files
C:\Winnt\System32 (Windows NT 4.0)	DS16GT.DLL	ODBC Control Panel and support files
	DS32GT.DLL	ODBC Control Panel and support files
	MTXDM.DLL	ODBC Control Panel and support files
	ODBC16GT.DLL	ODBC Control Panel and support files

**Folder location in Windows 98,
Windows 95, Windows NT 4.0**

File or folder	Description
ODBC32.DLL	ODBC Control Panel and support files
ODBC32GT.DLL	ODBC Control Panel and support files
ODBCCP32.CPL	ODBC Control Panel and support files
ODBCCP32.DLL	ODBC Control Panel and support files
ODBCCR32.DLL	ODBC Control Panel and support files
ODBCCU32.DLL	ODBC Control Panel and support files
ODBCINT.DLL	ODBC Control Panel and support files
ODBCTRAC.DLL	ODBC Control Panel and support files
ODBCINST.CNT	ODBC Control Panel and support files
ODBCINST.HLP	ODBC Control Panel and support files
MSVCRT.DLL	ODBC Control Panel and support files
EULAMDAC2.DOC	Microsoft ODBC End-User License Agreement.
12520437.CPX	ODBC Control Panel and support files
12520850.CPX	ODBC Control Panel and support files
IVTRN13.DLL	ODBC Control Panel and support files
MSCPXL32.DLL	ODBC Control Panel and support files
FMFLT50.DLL	FileMaker ODBC Driver and support files
FMFMP50.HLP	FileMaker ODBC Driver and support files
FMBAS50.DLL	FileMaker ODBC Driver and support files
FMFMP50.DLL	FileMaker ODBC Driver and support files
FMUTL50.DLL	FileMaker ODBC Driver and support files
FDBAS14.DLL	Support file for branded ODBC drivers
FDBAS14R.DLL	Support file for branded ODBC drivers

**Folder location in Windows 98,
Windows 95, Windows NT 4.0**

	File or folder	Description
	FDFLT14.DLL	Support file for branded ODBC drivers
	FDFLT14R.DLL	Support file for branded ODBC drivers
	FDUTL14.DLL	Support file for branded ODBC drivers
	FDUTL14R.DLL	Support file for branded ODBC drivers
	IVFD.LIC	License file for branded ODBC drivers.
	FDOR714.DLL	Branded ODBC Drivers for Oracle8, SQL 7.0, and text
	FDOR714.HLP	Branded ODBC Drivers for Oracle8, SQL 7.0, and text
	FDOR714F.DLL	Branded ODBC Drivers for Oracle8, SQL 7.0, and text
	FDOR714S.DLL	Branded ODBC Drivers for Oracle8, SQL 7.0, and text
	FDOR814.DLL	Branded ODBC Drivers for Oracle8, SQL 7.0, and text
	FDOR814.HLP	Branded ODBC Drivers for Oracle8, SQL 7.0, and text
	FDOR814R.DLL	Branded ODBC Drivers for Oracle8, SQL 7.0, and text
	FDOR814S.DLL	Branded ODBC Drivers for Oracle8, SQL 7.0, and text
	FDOR8DTC14.DLL	Branded ODBC Drivers for Oracle8, SQL 7.0, and text
	FDMSS14.DLL	Branded ODBC Drivers for Oracle8, SQL 7.0, and text
	FDTXT14.DLL	Branded ODBC Drivers for Oracle8, SQL 7.0, and text
	FDTXT14.HLP	Branded ODBC Drivers for Oracle8, SQL 7.0, and text
	FDTXT14R.DLL	Branded ODBC Drivers for Oracle8, SQL 7.0, and text
	COMCTL32.DLL	Provides user interface elements needed by FileMaker Pro
	SHFOLDER.DLL	Helps FileMaker Pro determine the location of certain necessary folders
C:\Windows\Application Data\FileMaker\ FileMaker Pro\5.0 (Windows 98, Windows 95)	FILEMAKER PRO FONTS.FMF	FileMaker font file
C:\Winnt\Profiles\Administrator\Application Data\FileMaker\FileMaker Pro\5.0 (Windows NT 4.0)	FMHOSTS.TXT	Network host file

Adjusting the FileMaker Pro cache

FileMaker Pro maintains an internal cache of portions of your database. Depending on your computer's memory configuration, you may want to adjust the cache size to improve performance.

You may want to consider increasing the cache size if you plan to:

- work on a large database file
- work on several database files at once
- host database files
- use a database file that contains many graphics
- insert a large graphic into a database file

Consider decreasing the cache size if you plan to run several applications at the same time and you have a limited amount of memory (RAM) installed.

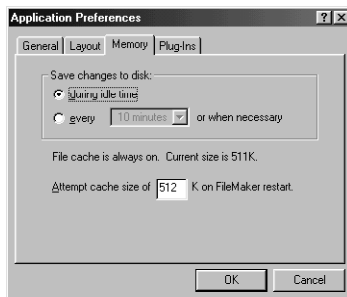
Note By changing the FileMaker Pro cache size, you also affect the amount of memory needed to run FileMaker Pro.

For more information on managing memory, see the documentation that came with your computer.

Changing the cache size

To change the cache size that FileMaker Pro uses:

1. In FileMaker Pro, choose Edit menu > Preferences > Application.



2. Click the Memory tab.
3. Type a number in the Attempt cache size of box.
4. Click OK.

The next time you start FileMaker Pro, the new cache size is used.

Adjusting network software

Depending on the networking protocol you're using, you may have to modify settings on the host and/or guest computers.

Changing the network protocol

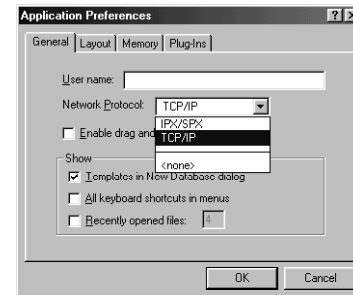
During installation, you select a network protocol (or No Networking) for FileMaker Pro. You can change the network protocol at any time.

You must choose a network protocol if you want to share FileMaker Pro files over a network, either as a guest or as a host. For more information about your network configuration, consult your network administrator.

Important The network protocol setting in FileMaker Pro must be the same on the host and guest computers.

To change the network protocol:

1. In FileMaker Pro, choose Edit menu > Preferences > Application.
2. In the General tab, choose a network protocol from the Network Protocol drop-down list.



3. Click OK.

Changes to this setting don't take effect until you restart FileMaker Pro.

IPX/SPX considerations

Windows 98, Windows 95 or Windows NT To allow the maximum recommended number of guests (10), your IPX/SPX connections must be set to 90 or greater. Consider increasing the SPX connections to 90 in the Network control panel if you cannot connect the desired number of guests. You do not need to modify settings in Windows NT.

Changing the frame type

After you select IPX/SPX as the network protocol, you must select a frame type. A frame encapsulates packets of information in a recognizable format; all computers communicating with each other on a network must use the same frame type. For help in deciding which frame type to select, see your network administrator.

Note If you are using TCP/IP networking, you do not need to change the frame type.

Changing the frame type in Windows 98 and Windows 95

To change the frame type with IPX/SPX networking:

1. Open the Network control panel and click the Configuration tab.
2. Open IPX/SPX Compatible Protocol and click Properties.
3. Click the Advanced tab.
4. Click the frame type in the Property dialog box.
5. Make a selection from the Value drop-down list.
6. Click OK.

Both Windows 98 and Windows 95 prompt you to restart your computer for these new changes to take effect.

Changing the frame type in Windows NT

To change the frame type with IPX/SPX networking:

1. Right-click Network Neighborhood.
2. Select Properties from the menu.
You see the Network dialog box.
3. Click the Protocols tab.
4. Click NWLink IPX/SPX.
5. Click Properties.
6. Select a frame type from the drop-down list.
7. Click OK to apply the frame type.
8. Click OK to close the Network dialog box.

Windows NT prompts you to restart your computer for these new changes to take effect.

Where to go from here

After you install FileMaker Pro, you can immediately begin working with the application. Here are some suggestions on where to go in the documentation to get started:

- If you're new to databases, read chapter 1, "FileMaker Pro basics," in the *FileMaker Pro User's Guide* to learn basic database concepts.
- If you're new to FileMaker Pro, work through the tutorial. The tutorial lesson files are automatically installed when you do a Typical installation. The text of the tutorial begins on page 33 of this guide.
- If you've used FileMaker Pro before, read chapter 4 of this guide to learn about new features available in FileMaker Pro 5.

Chapter 3

Installing FileMaker Pro in the Mac OS

Before you begin the installation process, quit other open programs and save your work, and turn off virus protection utilities.

Note For instructions on installing FileMaker Pro on a Windows-based computer, see chapter 2, “Installing FileMaker Pro in Windows.”

Installing FileMaker Pro

You must use the installation program to install FileMaker Pro—you can’t install the application by dragging files to your hard disk.

Starting the Installer

To start the FileMaker Pro Installer:

1. Insert the CD-ROM into your CD-ROM drive.

You see the disc’s window on your screen. If you see only the disc icon, double-click the icon to open its window.

2. Double-click the file named Start Here.

You see the software license agreement.

3. Click Accept if you accept the terms of the license agreement.

You see the FileMaker Pro Installer dialog box.

4. Follow the steps described in one of the following sections:

- If you want to install all the available files, continue with “Easy installation.”
- If you want to install a subset of the FileMaker Pro files, skip to “Custom installation” on page 20.

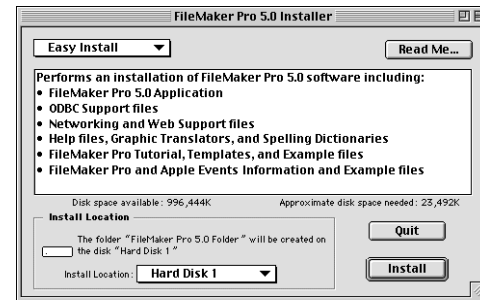
Easy installation

Follow these steps to install the complete FileMaker Pro package on your hard disk.

To install FileMaker Pro on your hard disk:

1. If you have not done so already, start the Installer.

You see the FileMaker Pro 5 Installer dialog box.



2. By default, FileMaker Pro is installed at the root level of your startup disk, as indicated in the Install Location area of the Installer dialog box.

- If you want to install FileMaker Pro on a disk or mounted volume other than the default, click on the Install Location popup menu and choose from the list of available drives and volumes.
- If you choose a disk or volume that doesn’t have enough free disk space or is locked, the Install button is dimmed and the dialog box tells you why you can’t install onto that disk.

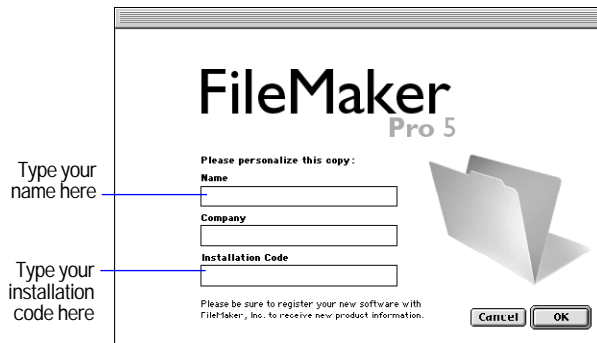
- If you wish to install FileMaker Pro in a folder other than the default root folder, choose Select Folder from the bottom of the pop-up menu and select the desired folder.



- If the selected disk doesn't have enough space for the files you select, you see a message. If you switch to the Finder software, you can delete existing files to make more room on the disk. You can also choose not to install some files (like the tutorial or template files) by selecting Custom Install from the pop-up menu. For more information, see the next section.

3. Click Install.

You see the personalization dialog box.



4. In the Name box, type your name and press the Tab key.
5. Type your company name, if applicable, and press Tab.

If you don't have a company name, you can put other information (like your address) in the box or leave it blank.

6. Type your FileMaker Pro installation code.

The installation code is a seventeen-digit number located on a multi-part sticker on a separate paper sheet within the box.

Important You must enter the installation code during installation or the software will not install. See “Installation code” on page 2 for more information.

Check your typing carefully. After you click OK, you can't change the name, company, or installation code unless you reinstall FileMaker Pro.

7. Click OK.

The Installer begins copying files. After all the files are installed, a final dialog box tells you the installation on your hard disk was successful.

8. Click Quit to leave the Installer.

9. If you turned off virus protection and file sharing before installing, turn them back on now.

Custom installation

To install a subset of FileMaker Pro files on your hard disk:

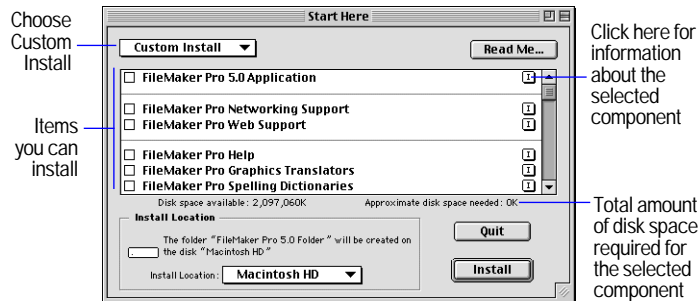
1. If you have not already done so, start the Installer, as described on page 19.

You see the FileMaker Pro Installer dialog box.

2. Choose Custom Install from the pop-up menu.



The dialog box lists the components you can install.



3. Select the components you want to install by selecting the checkboxes.

Note You can't use custom installation to install the ODBC component of FileMaker Pro. To install the required ODBC files, you must choose the Easy installation option. For more information, see page 19.

4. Specify the installation location, or use the default location.

- If you switch to a disk that isn't a hard disk or is locked, the Install button is dimmed and the dialog box tells you why you can't install onto that disk.
- To select the folder in which you want to install the FileMaker Pro 5 Folder or the specified files, choose Select Folder from the pop-up menu and select the desired folder.
- If the selected disk doesn't have enough space for the files you select, you see a message. In the Finder software, you can delete existing files to make more room on the disk. You can also choose not to install some files (like the tutorial or template files) by deselecting those files in the scrolling list.

5. Click Install.

If you've selected the application, you see the Personalize dialog box.

6. In the Name box, type your name and press the Tab key.

7. Type your company name, if applicable, and press Tab.

If you don't have a company name, you can put other information (like your address) in the box or leave it blank.

8. Type your FileMaker Pro installation code.

The installation code is a seventeen-digit number located on a multi-part sticker on a separate paper sheet within the box.

Important You must enter the installation code during installation or the software will not install. See "Installation code" on page 2 for more information.

Check your typing carefully. After you click OK, you can't change the name, company, or installation code unless you reinstall FileMaker Pro.

9. Click OK.

The Installer begins copying files. After the selected files are installed, a final dialog box tells you the installation on your hard disk was successful.

10. Click Quit to leave the Installer.

11. If you turned off virus protection and file sharing before installing, turn them back on now.

Where files are stored on your hard disk

The following table shows the files and folders you can install, and the preferred location for them on your hard disk. If you install onto the current system disk, the FileMaker Pro Installer places all the files you need in their preferred locations.

FileMaker Pro 5 Folder

This table shows the files and folders installed in the FileMaker Pro Folder.

FileMaker Pro 5 Folder	File or folder	Description
	FileMaker Pro	The FileMaker Pro 5 application
	Read Me	Late breaking news about FileMaker Pro
	FileMaker on the Web	An HTML file that points the Web browser to the FileMaker, Inc. web site (Internet connection and web browser software required).
FileMaker Extensions	AppleTalk Network TCP/IP Network FileMaker Hosts	Modules that support AppleTalk and TCP/IP networks
	ClarisWorks DBF Excel ODBC	Filters for translating ClarisWorks database, DBF, Microsoft Excel, and ODBC files
	Web Companion	The FileMaker Web Companion plug-in that enables Web publishing from FileMaker Pro
	Local Data Access Companion	Companion plug-in that enables local ODBC access to FileMaker Pro
	Remote Data Access Companion	Companion plug-in that enables remote ODBC access to FileMaker Pro
	Language Modules	Language Module folder for Web Companion
	claddon.clr	An additional dictionary that contains computer terminology
	UKENGLSH.MPR	Spelling dictionary
	USEENGLSH.MPR	Spelling dictionary
	USER.UPR	Spelling user dictionary
FileMaker Help	QuickHelp Viewer	FileMaker Pro help engine
	FileMaker Pro Help	FileMaker Pro help file
FileMaker and Apple Events	Apple Events Reference.fp5	Apple events reference database
	Syntax Examples	Syntax Examples folder
	Sample Applications	Sample Applications folder

FileMaker Pro 5 Folder	File or folder	Description
FileMaker Templates	Template Information.fp5	Database containing descriptions of the template folder contents
	Templates	Folder containing predesigned templates that help you use FileMaker Pro right away
	Tips from Tech Support	Folder containing database of common scripted tasks and calculations.
FileMaker Examples	ODBC Example	Folder containing database examples that use the ODBC capabilities of FileMaker Pro 5
FileMaker Tutorial	Tutorial ReadMe	Text document containing last minute information about the tutorial.
	Sample Files	Folder containing sample files to use with the FileMaker Pro 5 tutorial
	Working Files	Folder containing lesson files to use with the FileMaker Pro 5 tutorial
Web	Web ReadMe	Text document with information about Web publishing with FileMaker Pro 5
Web Security	Databases folder Security folder	A folder containing the FileMaker databases and HTML files required to use Web Security Database safeguards
Themes	Blue_gold.fth	FileMaker Pro 5 layout theme
	Citrus.fth	FileMaker Pro 5 layout theme
	Ocean_blue.fth	FileMaker Pro 5 layout theme
	Fern_green.fth	FileMaker Pro 5 layout theme
	Brick.fth	FileMaker Pro 5 layout theme
	Lavender.fth	FileMaker Pro 5 layout theme
	Softgray.fth	FileMaker Pro 5 layout theme
	Wheat.fth	FileMaker Pro 5 layout theme
	Teal.fth	FileMaker Pro 5 layout theme
Labels	LabelsUS.flb	FileMaker Pro 5 labels module
	LabelsAUS.flb	FileMaker Pro 5 labels module
	LabelsUK.flb	FileMaker Pro 5 labels module
FMI	Go_FileMaker.html	HTML file points web browser to the FileMaker, Inc. web site (Internet connection and web browser software required.)
	FMI Logo.gif	FileMaker, Inc. logo

System Folder

This table shows the files and folders placed in your System Folder.

System Folder	File or folder	Description
Clariss	Clariss XTND System	Translation engine
	Graphics Translators folder	Translators that FileMaker Pro uses to read graphics files created in other applications
Control Panels	ODBC Setup PPC	Control panel for configuring Intersolv ODBC driver
Extensions	Microsoft OLE Extension	Microsoft Extension needed to support Microsoft Excel import
	Microsoft OLE Library	Microsoft Extension needed to support Microsoft Excel import
	Microsoft OLE Automation	Microsoft Extension needed to support Microsoft Excel import
	Text Encoding Converter	Apple Unicode converter extension needed for Microsoft Excel import
	XTND Power Enabler	Extension that enhances the XTND graphics importing capabilities of FileMaker Pro on Power PC computers
	ODBC 2.x Bridge PPC	Intersolv ODBC Driver Manager and support files
	ODBC Configuration Manager PPC	Intersolv ODBC Driver Manager and support files
	ODBC Cursor Library PPC	Intersolv ODBC Driver Manager and support files
	ODBC Driver Manager PPC	Intersolv ODBC Driver Manager and support files
	ODBC Trace Library PPC	Intersolv ODBC Driver Manager and support files
Extensions/ODBC	FileMaker 3.11 Base Lib	Support file for FileMaker ODBC driver
	FileMaker 3.11 Flat Lib	Support file for FileMaker ODBC driver
	FileMaker 3.11 Oracle Driver	Branded Oracle driver
	FileMaker 3.11 Text Driver	Branded text driver
	FileMaker 3.11 Utilities Lib	Support file for FileMaker ODBC driver
	FileMaker Pro ODBC Driver	ODBC driver
Preferences	FDODBC.LIC	MERANT branded ODBC license
Preferences/FileMaker Preferences	FileMaker Pro 5.0 Preferences	FileMaker Pro preferences file
	FM Pro Fonts	FileMaker Pro font file (created at application launch)
Text Encodings	Arabic Encodings	Text encoding file

System Folder	File or folder	Description
	Central European Encodings	Text encoding file
	Chinese Encodings	Text encoding file
	Cyrillic Encodings	Text encoding file
	Greek Encodings	Text encoding file
	Hebrew Encodings	Text encoding file
	Indic Encodings	Text encoding file
	Japanese Encodings	Text encoding file
	Korean Encodings	Text encoding file
	Symbol Encodings	Text encoding file
	Thai Encodings	Text encoding file
	Turkish Encodings	Text encoding file
	Unicode Encodings	Text encoding file
	Western Language Encodings	Text encoding file
	Chinese Encodings Supplement	Text encoding file

Adjusting memory

The Mac OS sets aside a certain amount of memory for FileMaker Pro. However, you might need to change the amount of memory reserved for FileMaker Pro if you plan to:

- work on a large database file
- work on several database files at once
- host database files
- use a database file that contains many graphics
- insert a large graphic into a database file
- run several applications at the same time, and you have a limited amount of memory (RAM) installed

Changing the amount of memory used

If you want to change the amount of memory reserved for FileMaker Pro, keep the following points in mind:

- The amount of memory you give to FileMaker Pro affects your ability to run other applications. If the Mac OS and FileMaker Pro take up all the available memory, you won't be able to open other applications.
- Avoid specifying less memory than the Suggested size in the FileMaker Pro Info dialog box.

To change the amount of memory FileMaker Pro uses:

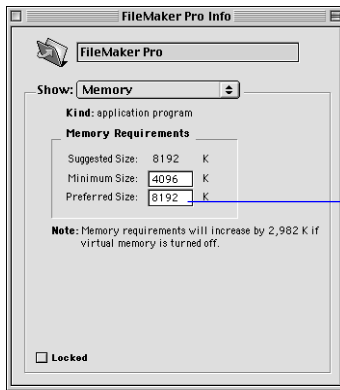
1. If FileMaker Pro is open, quit the application by choosing File menu > Quit.

2. In the Finder software, open the FileMaker Pro 5 folder. Select the FileMaker Pro application icon by clicking it once.

Note If you click the application icon twice, you will start FileMaker Pro. If that happens, choose File menu > Quit and try again.

3. Choose File menu > Get Info > Memory.

For Mac OS versions prior to 8.5, choose File menu > Get Info.



Change the amount of memory FileMaker Pro uses here

4. In the Memory Requirements area, double-click the Preferred size number and type a number to change the memory allocated for FileMaker Pro.

If you can't type in the box, make sure you've quit FileMaker Pro.

5. Click the close box.

The next time you start FileMaker Pro, the amount of memory you specified is available for the application.

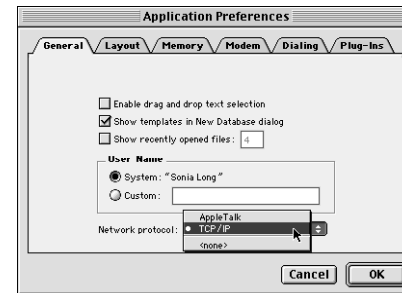
Choosing a network protocol

You must choose a network protocol if you want to use FileMaker Pro over a network, either as a guest or as a host. For more information about your network, consult your network administrator.

Important The network protocol setting in FileMaker Pro must be the same on the host and all guest computers.

To choose a network protocol:

1. Choose Edit menu > Preferences > Application.
2. In the General tab, choose a network protocol from the Network protocol pop-up menu.



3. Click OK.

Changes to this setting don't take effect until you restart FileMaker Pro.

Where to go from here

After you install FileMaker Pro, you can immediately begin working with the application. Here are some suggestions on where to go in the documentation to get started:

- If you're new to databases, read chapter 1, "FileMaker Pro basics," in the *FileMaker Pro User's Guide* to learn basic database concepts.
- If you're new to FileMaker Pro, work through the tutorial. The tutorial lesson files are automatically installed when you do an Easy Install. The text of the tutorial begins on page 33 of this guide.
- If you've used FileMaker Pro before, read chapter 4 of this guide to learn about new features available in FileMaker Pro 5.

Chapter 4

New features in FileMaker Pro

FileMaker Pro 5 brings a wide range of new features and improvements to the application. Responding to feedback from users and developers, much attention has been paid to the ways that users interact with the software. Menus, dialog boxes, and toolbars have all received attention in an effort to make the experience of using FileMaker Pro more productive and enjoyable, while FileMaker Pro software's ODBC and Microsoft Office compatibility have also been enhanced. Some of these changes will make using FileMaker Pro easier for people who are new to the application, while others will please longtime users and developers.

The user interface's new look

The user interface of FileMaker Pro 5 has been redesigned with Microsoft Office users in mind. FileMaker Pro menus now follow the Microsoft Office standard, enabling new users who are familiar with Microsoft Office-compatible products to quickly locate many common menu choices.

Access to menu commands

There are two new ways to access menu commands:

- selecting buttons on a toolbar
- displaying context menus

Toolbars provide quick access to many FileMaker Pro menu commands. Show or hide toolbars by choosing **View menu > Toolbars**, then the name of the toolbar to display.

The standard toolbar in Browse mode



Drag a toolbar by the handle to reposition it

You can also quickly edit an object or data by choosing editing commands directly from a *context menu*. To display a context menu in Windows, hold down the right mouse button while the pointer is over an object or data. In the Mac OS, hold down the Control key, then click the mouse button over an object or data. The type of object you click on and the mode you're in will determine which menu commands you can access.

Important Some menu commands and key equivalents have changed from their previous location. (See appendixes C and D in the *FileMaker Pro User's Guide*.)

Resizable dialog boxes, multiple item list selections

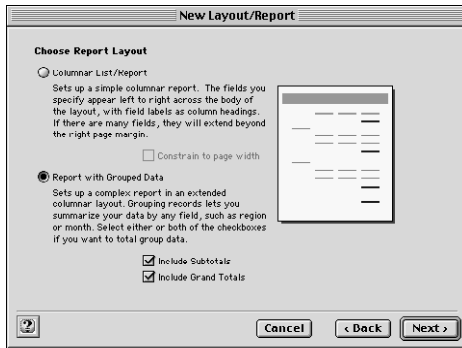
Longtime users will appreciate subtle but much-anticipated improvements, such as resizable Define Fields, Script Definition, Define Relationships, and Define Value Lists dialog boxes. Multiple items in each of these dialog boxes can now be selected and modified at one time. Additionally, the contents of Define Fields, Define Relationships, and Define Value Lists can be easily sorted with a single click of a column heading.

Printing script definitions

Script definitions now print in a style that is more consistent with their appearance in the Define Scripts dialog box. When a script is printed, the steps appear in bold, and data associated with a step appears in square brackets following the step name. Selected script step options are displayed in plain text under the step. The overall effect is that printed scripts are now easier to read and follow.

New Layout/Report assistant

FileMaker Pro 5 now has an assistant to help you with the creation of layouts. (You use layouts to display and print the data in your database.) The New Layout/Report assistant guides you through creating a layout according to options you choose in a series of panels. You can choose to create layouts that are appropriate for viewing your data onscreen, or for printing reports. You can also create layouts that make it easy to print mailing labels or envelopes using the data in your database. Once you have created a layout, you have complete control over modifying it to suit your needs.

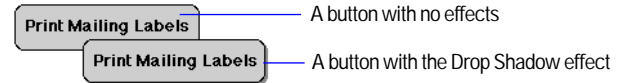


Using the New Layout/Report assistant, you can also now specify a layout *theme* to enhance the appearance of a layout or report and to give all your layouts a consistent look. Choose from a wide array of styles, each with a variation designed specifically for onscreen use or print.

Other layout improvements

Add a 3D look to layout objects

You can apply an effect that adds three-dimensional qualities to a field or object on a layout, including an embossed effect, an engraved effect, and a drop-shadow effect.



Create custom colors and use expanded color palettes

You can now add custom colors to fields, lines, rectangles, body parts, and other layout objects, as well as use standard colors from an expanded choice of color palettes, including an 88 color palette, a “web safe” 215 color palette, and a 256 color palette.

ODBC support in FileMaker Pro

FileMaker Pro 5 also brings some hefty improvements to its ODBC support.

You can use the ODBC support in FileMaker Pro to:

- access FileMaker Pro data from ODBC-compliant applications to create charts, construct ad-hoc queries, or build a front-end with other applications, like Microsoft Visual Basic
- construct SQL queries in FileMaker Pro (as in FileMaker Pro 4.1) to import data from other ODBC data sources like Microsoft Access or Oracle databases

FileMaker Pro shares data via ODBC with the Data Access Companions. The companions respond to SQL queries sent from other ODBC-compliant applications and interface between the FileMaker Pro ODBC driver and your FileMaker Pro database. Use the Local Data Access Companion to receive queries from an ODBC-compliant application on the same computer. The Remote Data Access Companion can receive requests from ODBC-compliant applications over a TCP/IP network.

Microsoft Excel import and file conversion

Converting many versions of Microsoft Excel spreadsheets is now easier than ever. FileMaker Pro can interpret column names as field names and assign an appropriate data type (text, number, date, or time) to fields, based on the data in the column. You can import and convert recent versions on both platforms through Excel 98.

ActiveX Automation support (Windows)

FileMaker Pro 5 adds support for ActiveX Automation on Windows. Using ActiveX Automation, you can automate a task that spans applications — similar to the way Apple Events allows one application to command another on the Mac OS. Typically, this is accomplished by building a custom application in Visual Basic, and using this application to command other applications.

With ActiveX Automation and Visual Basic you can create your own application (with its own interface) and drive multiple applications to accomplish a task. For example you could define a window in Visual Basic that has one button that says, “get today’s sales data”. The procedure for “get today’s sales data” would open a FileMaker file and find all the sales for today; it would then export the data to a file. It would then start up Microsoft Excel and graph the exported data and have Microsoft Excel display the graph.

QuickTime

FileMaker Pro 5 supports Apple QuickTime 3.0 and QuickTime VR 3.0. You can insert any file type supported by QuickTime into a container field. If your database contains QuickTime movies in container fields and you publish the database on the Web using FileMaker Pro Instant Web Publishing, you can also play the QuickTime movies in a web browser.

Web publishing

Changes have been made to the Instant Web Publishing feature in FileMaker Pro to enhance the appearance of published databases and improve their security.

Web styles

FileMaker Pro Instant Web Publishing now includes web styles that determine the appearance of your database in a web browser. For example, you can choose the Lavender style to display titles and buttons in a purple color scheme. You can also choose styles that are specifically designed for searching or creating records. For example, you can create a guest book using the Entry Only style. You can choose a different style for each published database.

Most FileMaker Pro web styles *render* layouts. That is, they display your layouts in a web browser almost as they appear in a FileMaker Pro window. Web styles can render layouts in Form View, New Record, and Edit Record pages. Most FileMaker Pro web styles use cascading style sheets to render layouts.

Note The browser viewing the FileMaker Pro application via the FileMaker Pro Web Companion must support cascading style sheets for this feature to function properly.

New Web Companion options

A new security option is available to limit access to your databases. You can now specify the IP addresses that can request data from the FileMaker Pro Web Companion. For example, you can specify that only IP addresses that start with 1.2.3.* can access your databases. Additionally, the log file format has been changed to comply with the NCSA/CERN compatible Common Log format. Also, there are new options for tracking Web Companion activity in log files.

View as Table

FileMaker Pro has always offered two ways to view your layouts: View as Form, which displays one record on the screen at a time, and View as List, which displays more than one record at a time.

FileMaker Pro 5 now adds a third method of viewing your data onscreen: View as Table. With View as Table, data is displayed in a grid-like arrangement, similar in appearance to a spreadsheet, with each row displaying a record and each column displaying a field.

First Name	Last Name	Home Address 1	Home Address 2	City
Juanita	Alvarez	147 Houston Avenue		New York
Michelle	Cannon	123 4th St. SW		Edmonton
Andre	Common	147 White Avenue		Los Angeles
Jacques	Dupont	Rue des Alpes 14		Lausanne
Marie	Durand	1 rue de la Poste		Paris
Jean	Durand	1001 place du Monde		Montreal
Costanza	Fellini	via dei Marsi 34		Roma
Juan	Garcia	Calle Real Manzana 123	Colonia Aquimero	Mexico Df
Jens	Jensen	Bredgade 127		Copenhagen
William	Johnson	852 Marsh Road		London
Bengt	Larsen	Yogts gate 33		Oslo
John	Lee	123 St. Johns Circle		London
Gerard	LeFranc	Chez Pierre	456 Rue Eiffel	Paris
Ahmet	Mehmet	Bahar Caddesi 50:15	Etiler	Istanbul
Patrick	Murphy	89 Lavenworth Place	Castleknock	Dublin
Ta	Nguyen	123 place de la concorde		Paris
J	Noronha	Rua Ramalho Correia,		Rio De Janeiro
Kentaro	Ogawa	2-23-5 Imachi	Setagaya	Tokyo
A. N.	Other	The Cottage	Maisyflower Lane	Bristol
Vassilis	Papanicolaou	Theianou 43		Athens
Jutta	Schmidt	Grosse Elbstrasse 123		Hamburg
Mary	Smith	123 Elm St.		New York
John	Smith	41 Mary St		Sydney
Sven	Svensson	Klammerdammsgatan 4		Stockholm
Sophie	Tang	126 Deepwater Bay		Kowloon
Julia	Yargas	Avenida Sevilla 87		Madrid
Annelies	Verhaag	Blaauwburgstraat 33		Amsterdam
Matti	Virtanen	Martintie 2		I Helsinki
Steve	Williams	789 Ninth Avenue		New York
Betty	Wilson	456 Fifth Avenue		New York

Columns can easily be resized by dragging an edge of a column's heading, sorted by clicking on a column's heading (if enabled), and reordered by dragging a column to a new position.

Improvements to value lists

Value lists have been improved in FileMaker Pro 5, too.

There are three major improvements to value lists:

- You can now base a list of values on a relationship. This can yield a subset of a field's values, rather than the field's entire contents. The value list will display only values from records that are consistent with the criteria defined in the list's underlying relationship.
- When you are deriving values from one field, but displaying another field's contents, you can now choose whether to sort on the first field (the one whose values are being stored) or the second one (the field whose values are just being displayed).
- It is now possible to specify a value list that is defined in another FileMaker Pro 5 database. This allows you to reduce the repetition of custom or field-based value lists by reusing one central list in multiple files, and to use value lists in portals (where it's necessary to use a value list that must exist in the related file).

Note The external value list (using related values) must be in the same file as the related field in the portal.

The example below shows a value list based on a relationship. The same field is displaying a different list of values because the value in the match field, Category, has changed.



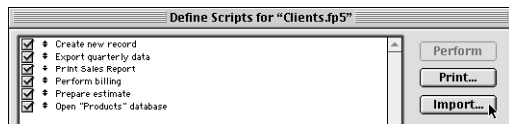
Value list based on key field value "Accessory"



Value list based on key field value "Clothing"

Import script

You can now import scripts from other FileMaker Pro 5 databases into the current database. When you import a script, FileMaker Pro uses a strict protocol to map fields, layouts, scripts, value lists, files, relationships, and script references. Objects that do not map are still imported but are marked as unknown, allowing you to map script steps from the source file to the appropriate references in the destination file.



Import Update

You can now update records or individual fields in one file with information from matching records or fields in another file. You choose the criteria that determine which records “match” and which records and fields will be updated. It’s a great feature for updating the desktop copy of your file in your office with changes you make on the road on your laptop.

This feature is accessible for any file that can be imported.

Multi-User (Hidden)

You now have the ability to easily “hide” databases being shared on a network by choosing the Multi-User (Hidden) option. This feature is especially useful for preventing network users from accidentally opening the “wrong” file, for example opening a related Line Items file when it’s your intention that they open a Data Entry file.

Hands-on, task-oriented tutorial

To get new users up to speed more quickly, FileMaker Pro now features an extensive hands-on tutorial. Tutorial lessons guide you through common database tasks, including finding records, creating databases, calculations, scripts, and reports, and defining relationships.

Lesson 1

FileMaker Pro basics

Welcome to the FileMaker® Pro tutorial. This tutorial shows you how you can manage your information in FileMaker Pro.

You will learn how to use FileMaker Pro software to:

- locate and sort information
- create and enter records in a simple database
- create mailing labels
- create calculations, buttons, and scripts
- create and run reports
- use the relational capabilities of FileMaker Pro

It takes approximately four hours to complete this tutorial, which can be done in one session or several shorter sessions.

How to use this tutorial

These lessons are based on the membership database of a fictitious travel firm, The Corporate Travelers Club. Corporate travelers who are members of this club save their businesses money on travel costs, and the club's expenses are offset by an annual membership fee. FileMaker Pro is used to track the members' names, addresses, and membership status, as well as to generate labels and form letters to contact members.

It's best to complete these lessons sequentially, as the concepts introduced in early lessons are assumed to be understood in later lessons. However, because the lessons are self-contained, it's possible to skip lessons entirely, or to complete them later if desired.

This tutorial assumes that you are familiar with your computer's operating system. Opening files, locating folders, and other activities that require some knowledge of your computer's OS are a necessary part of completing this tutorial.

Note All persons and companies listed in the sample files are purely fictitious, and any resemblance to existing persons and companies is purely coincidental.

Files included with this tutorial are intended to illustrate the features of FileMaker Pro, and as such, might be unsuitable for use as templates for further development.

We begin with a demonstration

To show you the goal of each lesson up front, we guide you through a sample file that illustrates a feature or concept. This way, you will always know a lesson's objectives.

We explain how it works

As we introduce new techniques and concepts, we will explain how to use them in other situations.

You build the structures

Because using FileMaker Pro is the most effective way to learn the application, each lesson features a hands-on activity designed to guide you through menus, screens, and concepts step by step.

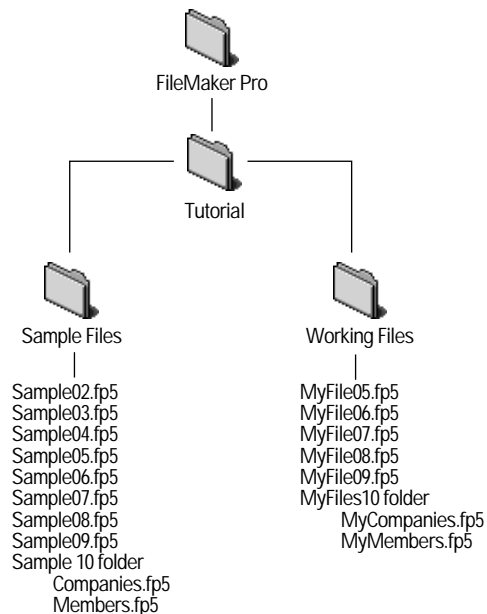
Where to find the lesson files on your hard drive

The files used in this tutorial are installed as part of a typical FileMaker Pro installation set.

The sample files illustrate the concepts explained in the lessons, and let you see how features work before you build them. Refer back to the sample file associated with each lesson if you need to. The tutorial sample files for lessons 2 through 9 are installed in FileMaker Pro\Tutorial\Sample Files. The sample files for lesson 10, which explains relational databases, are installed in FileMaker Pro\Tutorial\Sample Files\Sample10.

The working files mimic the sample files, except the features being taught in particular lessons have been removed. You will add these missing items and structures as you complete each lesson. The working files for lessons 5 through 9 are installed in FileMaker Pro\Tutorial\Working Files. The working files for lesson 10 are installed in FileMaker Pro\Tutorial\Working Files\MyFiles10.

Overview of the FileMaker Pro Tutorial folder structure



If you need to start over

If you make a mistake or need to start over, you can reinstall the tutorial files without having to reinstall the entire FileMaker Pro application. For Windows-based systems, see “Compact installation or Custom installation” on page 9. For Mac OS systems, see “Custom installation” on page 20.

Database concepts

What is a database?

A *database* is a method of organizing and analyzing information. You’ve probably used several databases recently without realizing it. A date book, a parts list, and even your own address book are databases.

Why use a database?

Storing information in a database file has many benefits. A database doesn’t just hold information—it helps you organize and analyze the information in different ways. For example, databases allow you to group information for reports, sort information for mailing labels, count your inventory, or find a particular invoice.

Computerized databases offer many additional advantages over their paper-based counterparts: speed, reliability, precision, and the ability to automate many repetitive tasks.

How is a database organized?

A database file is organized into *records*. Each record is a collection of *fields*.

Imagine your address book is a FileMaker Pro database file. Each listing in your address book is one record. Each record has information, such as name, address, and phone number. Each of these pieces of information—name, address, and phone number—is stored in a separate field.

FileMaker Pro basics

Unlike most word processing or spreadsheet programs, FileMaker Pro saves your work automatically. Consequently, it's important to carefully consider your actions when making sweeping changes to your files, especially when deleting records. Once records are deleted, they are completely removed from your database.

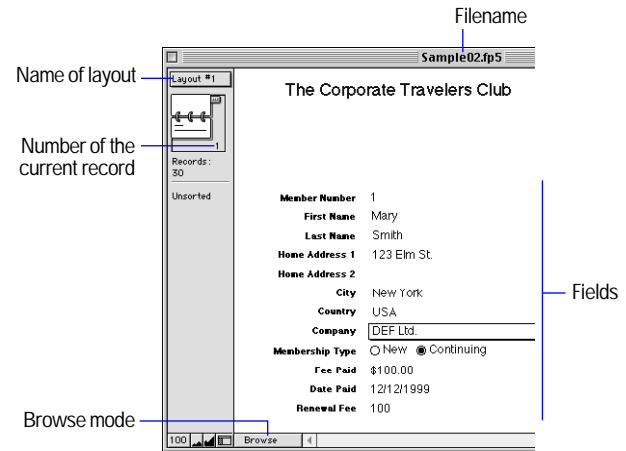
As you will learn in lesson 11, you should back up your files on a regular basis. Backups can save you many hours of unnecessary work and worry in the event that your files become lost or damaged, or records are inadvertently deleted.

About FileMaker Pro modes

When you work in FileMaker Pro, you work in one of four *modes*.

- Use *Browse mode* to enter data and view records.
- Use *Find mode* to locate a record or a group of records quickly.
- Use *Layout mode* to specify how information will appear on the screen or when you print it.
- Use *Preview mode* to see what the pages will look like when you print them.

Once you have opened a database, you can switch from one mode to another using either the View menu or the mode pop-up menu at the bottom of the application window. You can also quickly determine which mode your FileMaker Pro database is using by referring to this pop-up menu.



For more information

For more information on FileMaker Pro basic concepts, see chapter 1 of the *FileMaker Pro User's Guide*.

You can also find specific information about the procedures and concepts introduced in the following chapters in the FileMaker Pro Help.

To access FileMaker Pro Help:

Choose Help menu > FileMaker Pro Help.

To see an overview of the FileMaker Pro Help topics:

Choose Help menu > Contents and Index.

Lesson 2

Browsing information

You view, enter, or change data in Browse mode. This is the simplest way to interact with your database.

In this lesson you will:

- open a database with data already in it
- move between records
- view information in different ways by switching layouts
- see the difference between *form view*, *list view*, and *table view*.

Note You can install a fresh copy of the tutorial files at any time. For Windows-based systems, see “Compact installation or Custom installation” on page 9. For Mac OS systems, see “Custom installation” on page 20.

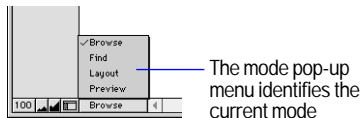
Open a database and move between records

To open the sample database for this lesson:

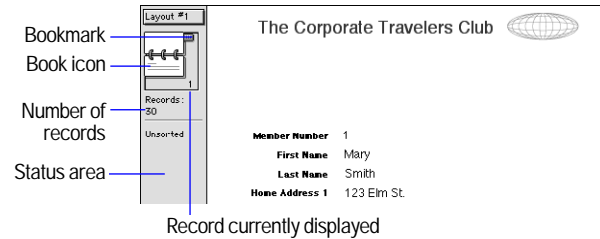
1. Open the Tutorial Folder in the FileMaker Pro folder.
2. Open the Sample Files folder.

You should be here: FileMaker Pro\Tutorial\Sample Files.

3. Open Sample02.fp5.
4. Notice that the database is in Browse mode. FileMaker Pro defaults to Browse mode when a database is opened.



In the status area, notice that there are 30 records and that the first record is displayed.



5. Click the bottom page of the book icon to move forward one record at a time, and click the top page to move back one record at a time.

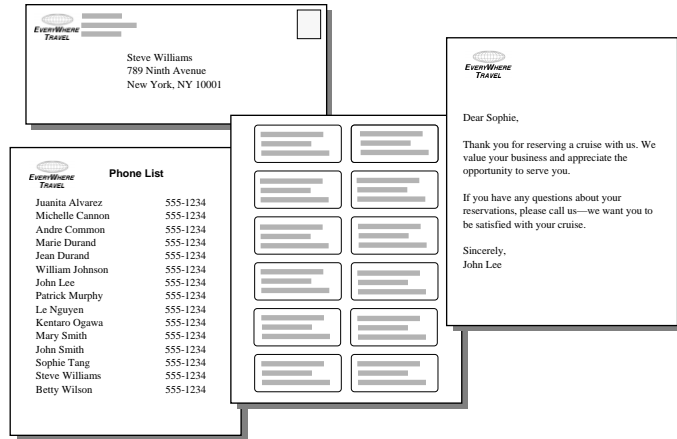
6. Move between records by dragging the bookmark up or down.

You can also type a record number in the area immediately below the book icon to change the current record displayed.

View information in different ways

Even though you enter information only once in FileMaker Pro, you can use that information in many ways. *Layouts* let you view some or all of your fields.

Because it is not necessary to see all of your fields in each layout, layouts are a powerful tool for working with or printing just the information you need to accomplish a particular task.

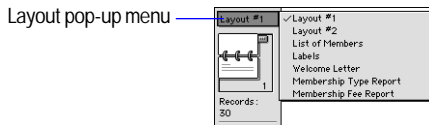


The same data can be arranged differently with multiple layouts

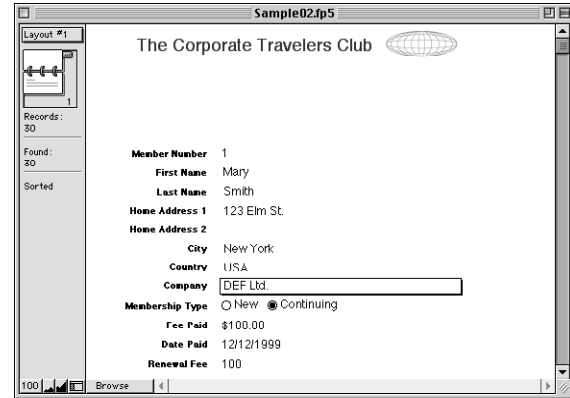
See a different layout

To see some layouts in action, use the Sample02.fp5 sample file you just opened.

1. Click on the layout pop-up menu, located above the book icon. A list appears showing the layouts available in this file.



2. Examine Layout #1. Layout #1 shows all of the fields in the Sample02.fp5 database.



Layout #1 displays all of the fields in the Sample02.fp5 database

3. Go to the layout pop-up menu and choose the List of Members layout.

This layout shows each record as one row in a columnar list. Notice that the List of Members layout contains only four of the fields that were present in Layout #1. No data has been removed from the database. Because fewer fields are present on this layout, some data is simply not displayed.

Last Name	First Name	Company	Membership Type
Smith	Mary	DEF Ltd.	Continuing
Common	Andre	ABC Company	Continuing
Williams	Steve	ABC Company	New
Ogawa	Kentaro	ABC Company	Continuing
Durand	Marie	DEF Ltd.	Continuing
Cannon	Michelle	XYZ Inc.	Continuing
Smith	John	XYZ Inc.	New
Murphy	Patrick	XYZ Inc.	New
Durand	Jean	XYZ Inc.	New
Nguyen	Le	DEF Ltd.	New
Lee	John	XYZ Inc.	New
Tang	Sophie	DEF Ltd.	Continuing
Alvarez	Juanita	DEF Ltd.	Continuing
Wilson	Betty	XYZ Inc.	New

The List of Members layout displays only four of the fields present on Layout #1

4. Go to the layout pop-up menu and return to Layout #1. No data has been lost.

View your layouts as forms, lists, and tables

You can view your layouts in three different ways: as a form, as a list, and as a table.

- Form View displays your current layout one record at a time.
- List View shows your current layout as a list, with one record appearing beneath another.
- Table View shows you many records at one time in a grid.

Generally, layouts can be toggled between form view, list view, and table view while the database is in Browse mode.

The first screenshot shows a single record in form view:

Last Name	First Name	Company	Membership Type
Smith	Mary	DEF Ltd.	Continuing

The second screenshot shows a list view of the same data:

Last Name	First Name	Company	Membership Type
Smith	Mary	DEF Ltd.	Continuing
Common	Andre	ABC Company	Continuing
Williams	Steve	ABC Company	New
Ogawa	Kentaro	ABC Company	Continuing
Durand	Marie	DEF Ltd.	Continuing
Cannon	Michelle	XYZ Inc.	Continuing
Smith	John	XYZ Inc.	New
Murphy	Patrick	XYZ Inc.	New
Durand	Jean	XYZ Inc.	New
Nguyen	Le	DEF Ltd.	New
Lee	John	XYZ Inc.	New
Tang	Sophie	DEF Ltd.	Continuing
Alvarez	Juanita	DEF Ltd.	Continuing
Wilson	Betty	XYZ Inc.	New

The third screenshot shows a table view of the same data:

Last Name	First Name	Company	Membership Type
Smith	Mary	DEF Ltd.	Continuing
Common	Andre	ABC Company	Continuing
Williams	Steve	ABC Company	New
Ogawa	Kentaro	ABC Company	Continuing
Durand	Marie	DEF Ltd.	Continuing
Cannon	Michelle	XYZ Inc.	Continuing
Smith	John	XYZ Inc.	New
Murphy	Patrick	XYZ Inc.	New
Durand	Jean	XYZ Inc.	New
Nguyen	Le	DEF Ltd.	New
Lee	John	XYZ Inc.	New
Tang	Sophie	DEF Ltd.	Continuing
Alvarez	Juanita	DEF Ltd.	Continuing
Wilson	Betty	XYZ Inc.	New
Johnson	William	DEF Ltd.	Continuing
Yargas	Julia	XYZ Inc.	Continuing
Mehmet	Ahmet	XYZ Inc.	Continuing
Verhaag	Annelies	DEF Ltd.	Continuing
Lee	Jocelyn	DEF Ltd.	Continuing

Switch between form view, list view, and table view in the same layout to see how they are different.

1. In Sample02.fp5, switch to the List of Members layout. You see many records, in the form of a list.

2. Choose View menu > View as Form.

You now see a single record, displayed in the same layout. Only the viewing option has changed.

3. Choose View menu > View as Table.

The View as Table feature allows you to view many records at once in a grid.

4. Choose View menu > View as List to return to the original view of the List of Members layout.

First Name	Last Name	Home Address 1	Home Address 2	City
Mary	Smith	123 Elm St.		New York
Andre	Common	147 White Avenue		Los Angeles
Steve	Williams	789 Ninth Avenue		New York
Kentaro	Ogawa	2-23-5 Imachi	Setagaya	Tokyo
Marie	Durand	1 rue de la Poste		Paris
Michelle	Cannon	123 4th St. SW		Edmonton
John	Smith	41 Mary St		Sydney
Patrick	Murphy	89 Lavenworth Place	Castlemock	Dublin
Jean	Durand	1001 place du Monde		Montreal
Le	Nguyen	123 place de la		Paris
John	Lee	123 St. Johns Circle		London
Sophie	Tang	126, Deepwater Bay		Kowloon
Juanita	Alvarez	147 Houston Avenue		New York
Betty	Wilson	496 Fifth Avenue		New York
William	Johnson	862 Marsh Road		London
Julia	Vargas	Avenida Sevilla, 87		Madrid
Ahmet	Mehmet	Bahar Caddesi 50-15	Etiler	Istanbul
Annelies	Verhaag	Blauwburgstraat 33		Amsterdam
Jens	Jensen	Bredgade 127		Copenhagen
Juan	Garcia	Calle Real Manzana	Colonia Aquimero	Mexico DF
Gerard	LeFranc	Chez Pierre	496 Rue Eiffel	Paris
Julia	Schmidt	Grosse Elbstrasse		Hamburg
Sven	Svensson	Klammerdammsgatan		Stockholm
Matti	Virtanen	Matintie 2		Helsinki

5. When you are finished with this lesson, close the file by choosing File menu > Close.

For more information

You have opened a database, browsed through records, switched layouts, and learned the differences between form view, list view, and table view. For more about browsing information in FileMaker Pro, see chapter 2 of the *FileMaker Pro User's Guide*.

Lesson 3

Finding and sorting records

Your database is a collection of records. Sometimes you'll work with all of the records in the database (to mail out an annual catalog for each customer record in the database, for example). Often, however, you'll work with a subset of your database—people who come from a particular city, for example, or records that fall within a particular range of dates.

In FileMaker Pro, this process of searching for records that match particular criteria is called *finding* records. Once you've found the records you want to work with, you can change their order by *sorting* them. Records can be sorted in ascending or descending order.

In this lesson, you will:

- find records matching criteria in a single field and multiple fields
- find records matching a range of data
- narrow your searches by omitting records
- sort records in ascending and descending order

Note You can install a fresh copy of the tutorial files at any time. For Windows-based systems, see “Compact installation or Custom installation” on page 9. For Mac OS systems, see “Custom installation” on page 20.

Find records based on criteria in a single field

In the membership database, find all of the members that are from New York City.

1. Open the Tutorial folder in the FileMaker Pro folder.
2. Open the Sample Files folder.

You should be here: FileMaker Pro\Tutorial\Sample Files.

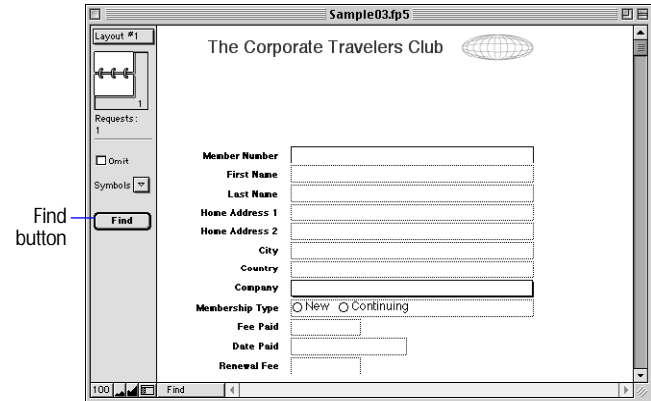
3. Open Sample03.fp5.

4. Choose View menu > Find Mode.

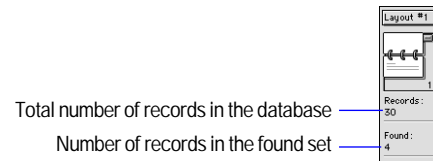
In Find mode, you create a find request using the fields in the layout you see. Type the criteria you want to search for directly into the fields on the request.

5. Type `New York` in the City field.

6. Click the Find button in the status area.



Your find request returns records for four members who live in New York. This is the *found set*.



7. Click the book icon to view each of the four records in the found set.

Find records based on criteria in separate fields

You can find records that match multiple criteria, for example members who are both from the United States and are new members.

This type of search is commonly referred to as an *AND search*. To perform an AND search in FileMaker Pro, type each search criterion directly into the appropriate field in Find mode.

To find all members who live in the United States and are new members:

1. Choose View menu > Find Mode.
2. Type USA in the Country field.
3. Locate the Membership Type field, and select the New radio button.



4. Click Find in the status area.

Your find request returns a found set of two records for the two new members who live in the United States.

5. To find all of the records in your database, choose Records menu > Show All Records.

Note It is not necessary to choose Show All Records before performing a Find, as FileMaker Pro always finds records from the entire database.

Find records that match multiple criteria in the same field

Sometimes you need to find records that match more than one criterion in a single field. For example, you may need to find all members located in either New York or London. This type of search is commonly referred to as an *OR search*, because your found set will consist of records that match any one of the find criteria.

To perform an OR search in FileMaker Pro, you will need to use multiple find requests.

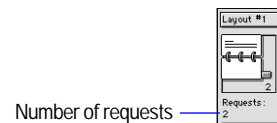
- Type the first search criterion into the appropriate field of the first find request.
- Create a second find request and enter the second search criterion in the same field.

When you click the Find button, FileMaker Pro will retrieve all of the records that match any of the criteria you've entered.

To find all members living in New York or London:

1. Choose View menu > Find Mode.
2. Type New York in the City field.
3. Choose Requests menu > Add New Request.

Notice that the status area shows that there are two requests.



4. Type London in the City field of this second request.
5. Click Find in the status area.

Your find request returns a found set of six records for six members who live in either New York or London.

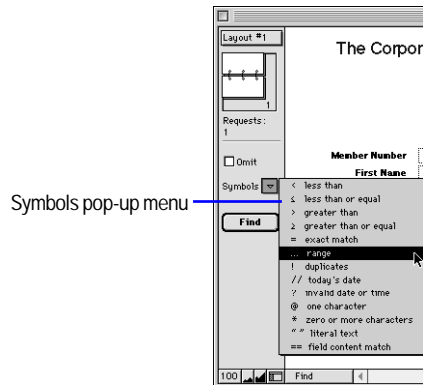
Find records that match a range of criteria in the same field

Sometimes, you might want to find records that match a range of criteria within a single field. For example, you might want to find all of the records that fall within a one-month period, or locate all of the sales invoices numbered between 500 and 1000.

To perform this type of search in FileMaker Pro, you use a special range symbol in your find request to specify the lower and upper limits of your find criteria.

To find the members who paid their membership fees between January 1, 2000 and June 30, 2000:

1. Choose View menu > Find Mode.
2. Type 1/1/2000 in the Date Paid field.
3. In the status area, click the Symbols pop-up menu. Select range from the list.



4. Your find request should now have 1/1/2000 . . . in the Date Paid field. Immediately after the ellipsis (...), type 6/30/2000.

Fee Paid
Date Paid 1/1/2000...6/30/2000
Renewal Fee

5. Click Find.

Your search returns six records, for six members who paid their fees within the first six months of the year 2000.

Narrow your search

Sometimes, you might need to find records that match certain criteria while at the same time excluding others (for example, finding all of the records that were added in a given year except for those added in February, or finding all customers who reside in New York state except for those in New York City). You can perform these types of finds by using a combination of multiple find requests and omitting certain records.

Because FileMaker Pro processes multiple find requests in the order they are created, it is possible to create very specific, layered searches in this manner. Omitting records in a search does not delete them from the database.

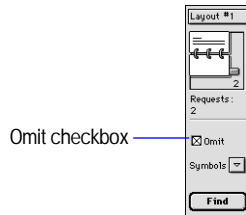
To find the records of members who paid their fees in the first six months of 2000, except for those who paid their fees in February:

1. Choose View menu > Find Mode.
2. Type 1/1/2000 in the Date Paid field.
3. In the status area, click the Symbols pop-up menu. Select range from the list.
4. After the ellipsis, type 6/30/2000.
5. Choose Requests menu > Add New Request. Notice that the status area shows that this is the second request.
6. Type 2/1/2000 in the Date Paid field.

7. In the status area, click the Symbols pop-up menu and select range from the list.

8. After the ellipsis, type 2/29/2000 in the Date Paid field.

9. Click Omit in the status area to select it.



10. Click Find.

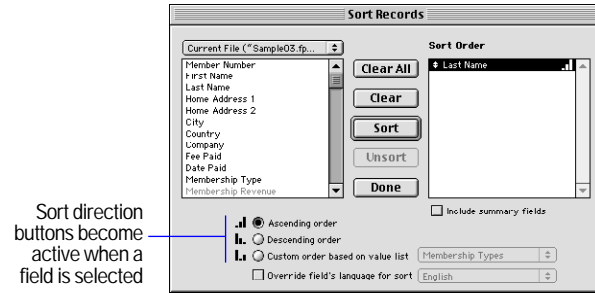
Your search returns five records for five members who paid their fees within the first six months of 2000, except the month of February.

Sort your found set

Once you have a found set of records to work with, you might want to sort those records. For example, you might want to display the records in alphabetical order, or sort them from newest to oldest.

To sort records in alphabetical order by the members' last names:

1. Go to the layout pop-up menu and choose the List of Members layout. This layout will make it easier to see the results of the sorting.
2. Choose Records menu > Sort.
3. If any fields appear in the Sort Order column on the right side of the dialog box, click Clear All.
4. In the list of available fields, select Last Name and click Move.



Notice the sort direction symbol to the right of the Last Name field increases in size from left to right. This indicates that when the database is sorted by this field, the data will be in ascending order (from a to z).

5. Click Sort.

The names in the List of Members are now in alphabetical order by last name.

6. When you are finished with this lesson, close each open file by choosing File menu > Close.

For more information

You have found records based on a variety of criteria, and narrowed your searches by using Omit. You have sorted the results of your searches. For more information on finding and sorting records in FileMaker Pro, see chapter 3 of the *FileMaker Pro User's Guide*.

Lesson 4

Creating a database and entering records

In the previous lessons, you saw how to use a simple database with existing data. Now you will create your own file and add records.

In this lesson you will:

- create a simple database
- define fields to hold different kinds of data
- create records
- enter data
- modify data

If you are not familiar with database basics, you should do the first two lessons in this tutorial before continuing.

Note You can install a fresh copy of the tutorial files at any time. For Windows-based systems, see “Compact installation or Custom installation” on page 9. For Mac OS systems, see “Custom installation” on page 20.

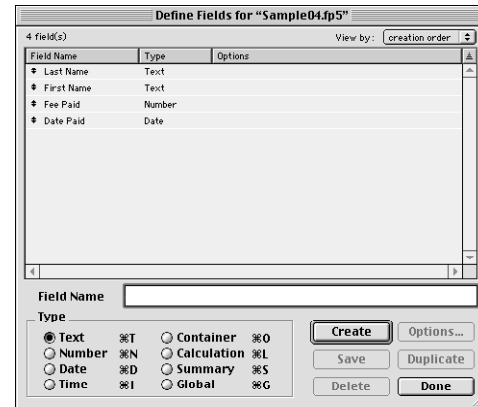
Create a simple database and define fields

Look at the sample file

The sample file is the model for the file you’ll create. It shows you how fields are defined and that different field types hold different types of data.

1. Open the Tutorial folder in the FileMaker Pro folder.
2. Open the Sample Files folder.
You should be here: FileMaker Pro\Tutorial\Sample Files.
3. Open Sample04.fp5.
4. Choose File menu > Define Fields.

You see the Define Fields dialog box showing all of the fields in the database.



5. Notice that the First Name and Last Name fields are of type Text, Fee Paid is of type Number, and Date Paid is of type Date.

6. Click Done.

7. Notice that the data in each field corresponds to the field type.

You will learn how to add text and graphics, like the title and logo, in lesson 5.

About field definitions

You create a field for each category of information you want, such as First Name or City. To find, sort, calculate, and display data correctly, the field type should match the kind of data it contains (text, number, date, and so on). For example, you can’t search for text values in a field of type Number.

You will learn about other field types in later lessons.

Create a database

1. Choose File menu > New Database.
2. If you see the New Database dialog box, choose Create a new empty file, then click OK. If not, go to step 3.
3. Go to the Working Files folder and select it as the location for this file.
4. For File Name, type `MyFile04`.
5. Click Save.

The Define Fields dialog box appears. You will now create fields to store information.

6. To create the first field, type `First Name` in the Field Name box.
7. Notice that the field type is Text.



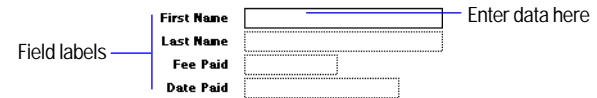
8. Click Create.
9. Type `Last Name` in the Field Name box.
10. Click Create.
11. Type `Fee Paid` in the Field Name box, select Number in the Type area, then click Create.

12. Type `Date Paid` in the Field Name box, select Date in the Type area, then click Create.

Your defined fields should match those in the sample file.

13. Click Done.

You see the empty fields in a new, blank record. *Field labels* identify the fields. Your file is ready for data entry.



FileMaker Pro automatically saves your changes as you work.

Enter data into the database

Now you can begin to enter members' data.

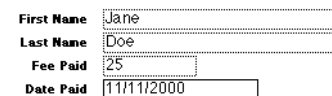
Create the first record

1. If you don't see field boxes, press Tab to begin data entry.
2. Type `Jane` in the the First Name field.
3. Press Tab to move to the next field.
4. Type `Doe` in the Last Name field.
5. Type `25` in Fee Paid.

You will learn how to format number fields to display as currency in the next lesson.

6. Type `11/11/2000` in Date Paid.

The completed record should look like this:



Create another record

1. Choose Records menu > New Record.
2. As you did for Jane Doe's record, enter data for John Smith, who paid 75 dollars on 2/2/2000.

Your database now contains two records. Click the book icon to see each record.

Modify data in a record

Suppose you realize that Jane Doe paid 75 dollars, not 25. You can easily correct the entry.

1. Go to Jane Doe's record.
2. Select the amount in Fee Paid.

First Name	Jane
Last Name	Doe
Fee Paid	25
Date Paid	11/11/2000

3. Type the new amount, 75.
4. Click an empty area outside a field to save the change.
5. When you are finished with this lesson, close each open file by choosing File menu > Close.

For more information

You have created a simple database and defined fields, and added and modified records. For more information, see chapter 5 in the *FileMaker Pro User's Guide*. You can also use or build on the database template files included with FileMaker Pro; see chapter 5. For more information on entering data in different field types and by different methods, including import, see lesson 7 in this tutorial and chapters 2 and 12 in the *FileMaker Pro User's Guide*.

Lesson 5

Customizing what you see

You can enhance the way your data looks by adding graphics and other effects.

In this lesson, you will:

- learn how layouts determine what you see
- add, resize, and move fields
- display values in a number field as currency
- add text to a layout, and change its size and color
- add graphics
- see where to find other ways you can customize a layout

Note You can install a fresh copy of the tutorial files at any time. For Windows-based systems, see “Compact installation or Custom installation” on page 9. For Mac OS systems, see “Custom installation” on page 20.

Customize your view in Layout mode

Look at the sample layouts

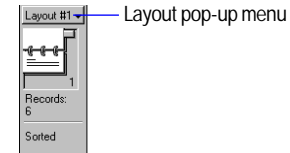
1. Open the Tutorial folder in the FileMaker Pro folder.

2. Open the Sample Files folder.

You should be here: FileMaker Pro\Tutorial\Sample Files.

3. Open Sample05.fp5.

4. Choose Layout #1 from the layout pop-up menu if it is not already selected.



You see a simple layout.

5. Choose Layout #2 from the layout pop-up menu.

6. Notice that although this is the same record, now:

- First Name and Last Name are side by side
- you see the City field
- Fee Paid shows a dollar sign
- the club’s name and logo are at the top of the screen



You will make the above changes in this lesson.

7. Choose View menu > Layout Mode.

Use *Layout mode* to customize the appearance of your data. Notice that although the data is still in the file, you do not see it here.

About customizing layouts

Design layouts in Layout mode. You can include any combination of fields, text, and graphics on a layout. You can change the font and color of fields and text. You can also change the formatting of Number or Date fields.

Changes you make in Layout mode affect only the way data appears. The data itself remains as it was entered.

Leave the sample file open to refer to as you build these features in the working file.

Customize a layout

You will change a simple layout in this lesson's working file to make it look like Layout #2 in the sample file.

1. Open the Tutorial folder in the FileMaker Pro folder.
2. Open the Working Files folder.

You should be here: FileMaker Pro\Tutorial\Working Files.

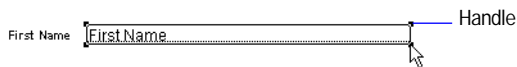
3. Open MyFile05.fp5.
4. Choose View menu > Layout Mode.

You see a plain layout. You will modify this layout in different ways in the following sections.

Resize, move, and add a field

Select and resize a field

1. In Layout mode, click the First Name field to select it.



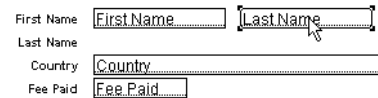
2. Drag the handle at the lower-right corner of the field to the left until the field is smaller, yet large enough to display the longest first name you expect in your file.
3. Choose View menu > Browse Mode to see your field.
4. Flip through the records.

If the field doesn't display all names completely, return to Layout mode and make the field larger.

5. Repeat this process for Last Name.

Move a field

1. Choose View menu > Layout Mode.
2. Click inside the Last Name field and drag it beside the First Name field.

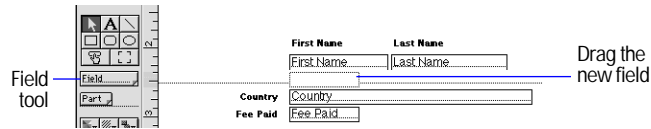


3. Drag the Last Name field label above the Last Name field.
4. Drag the First Name field label above the First Name field.
5. Choose View menu > Browse Mode to see your results.

Add a field

If a field has been defined in Define Fields, you can display it on any layout. In this database, some defined fields are not on this layout. You will add one of these fields now.

1. Choose View menu > Layout Mode.
2. Using the Field tool, drag the field to the layout, and place it below the First Name field.



3. In the Specify Field dialog box, select the City field.
4. Click OK.
5. Choose View menu > Browse Mode to see your field.

You see a city entered in each record. City data was entered previously, and the field holds the data.

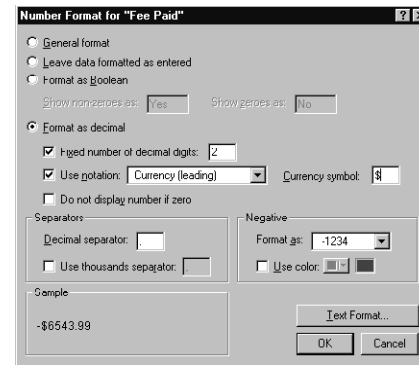
Display a number as currency

You can display a number as currency, even though only the number is typed into the field.

1. Choose Window menu > Sample05.fp5.
2. Choose View menu > Browse Mode.
3. In Layout #2, look at Fee Paid and notice that the number displays as currency.
4. Click the number to see the data actually entered in the field.

Formatting affects only the way data is displayed. It does not change the data.

5. Choose Window menu > MyFile05.fp5.
6. Choose View menu > Layout Mode.
7. Select the Fee Paid field.
8. Choose Format menu > Number.
9. Select options as shown in the following dialog box.



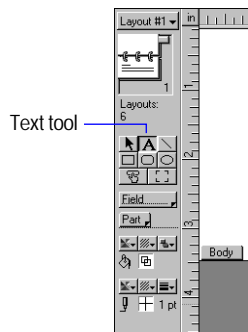
10. Click OK.
11. Choose View menu > Browse Mode to see the formatted data.


Add custom text to a layout

You will add the name of the organization to the top of the layout, then format the text.

Add text

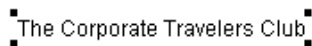
1. Choose Window menu > Sample05.fp5.
 2. Choose View menu > Layout Mode and look at the heading at the top of the layout.
- This is your model.
3. Open MyFile05.fp5 if it is not already open.
 4. Choose View menu > Layout Mode.
 5. Select the text tool.



6. Click the top of the layout where you want to begin the line of text.
7. Type The Corporate Travelers Club
8. Click the selection tool  to end the text entry.

Change text size and color

1. Click the Corporate Travelers Club text to select the text block.



2. Choose Format menu > Text.
3. Choose 18 point from the Size list.
4. For Color, choose any dark blue.
5. Click OK.

Add a graphic to the layout

Add a logo beside the club name.

1. Choose Window menu > Sample05.fp5.
2. In Layout #2, choose View menu > Layout Mode and notice where the logo appears on the layout.
3. Open MyFile05.fp5 if it is not already open.

4. Choose View menu > Layout Mode.
5. Click beside the Corporate Travelers Club text, where you want to place the club logo.
You will see no change onscreen yet.
6. Choose Insert menu > Picture.
7. Open the Working Files folder.
8. Make sure all file types are showing, and select logo.gif.
9. Click Open.
10. Drag the logo to move it if necessary.
11. Choose View menu > Browse Mode to see the finished layout.
12. When you are finished with this lesson, close each open file by choosing File menu > Close.

For more information

You have learned how to enhance the appearance of your data by using graphics, custom text, field formatting, and creative positioning of objects on layouts. There are many other ways to customize the appearance of fields and layouts.

For example, after you've created a layout, you can:

- add effects like embossing or patterns to objects
- use lines or boxes to highlight or separate information
- add scroll bars to individual fields
- change background or field color

When you create a new layout, you can apply color and style using a *theme*.

Chapters 6 and 7 in the *FileMaker Pro User's Guide* explain how to add these enhancements and others. The database templates that come with FileMaker Pro also show ways to enhance layouts. See chapter 5 for information about how to use the templates.

Lesson 6

Creating lists, mailing labels, and form letters

You can easily create layouts to view and print information in many different ways.

In this lesson, you will create:

- a list of your records
- mailing labels
- a form letter

Note You can install a fresh copy of the tutorial files at any time. For Windows-based systems, see “Compact installation or Custom installation” on page 9. For Mac OS systems, see “Custom installation” on page 20.

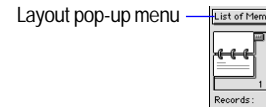
Create a columnar list

A columnar list shows many records simultaneously. Each row is one record. Each column holds one category of data, such as Last Name or Phone Number.

Look at the sample list

You can create a list of records that shows just the information you want to see.

1. Open the Tutorial folder in the FileMaker Pro folder.
2. Open the Sample Files folder.
You should be here: FileMaker Pro\Tutorial\Sample Files.
3. Open Sample06.fp5.
4. Choose the List of Members layout from the layout pop-up menu.



You see a columnar list showing some of your fields.

<u>Last Name</u>	<u>First Name</u>	<u>Company</u>	<u>Membership Type</u>
Smith	Mary	DEF Ltd.	Continuing
Common	Andre	ABC Company	Continuing
Williams	Steve	ABC Company	New
Ogawa	Kentaro	ABC Company	Continuing
Durand	Marie	DEF Ltd.	Continuing

About columnar list layouts

Choose View menu > Layout Mode to view the layout that produces the columnar list you just looked at.

Each field on the layout appears once, but the list displays many records.

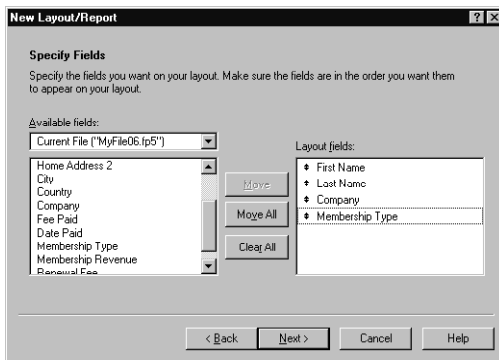
Last Name	First Name	Company	Membership Type
Last Name	First Name	Company	Membership Type

Create a columnar list

1. Open the Tutorial folder in the FileMaker Pro folder.
2. Open the Working Files folder.
You should be here: FileMaker Pro\Tutorial\Working Files.
3. Open MyFile06.fp5.
4. Choose View menu > Layout Mode.

5. Choose Layouts menu > New Layout/Report.
6. For Layout Name, type `List of Members`.
7. Select Columnar list/report for the new layout type and click Next.
8. Select the Columnar list/report layout again, then click Next.
9. Double-click each of the following fields in the order you want it to appear in the list:
 - Last Name
 - First Name
 - Company
 - Membership Type

These fields move to the Layout fields list.



10. Click Next.
11. Click Next on each of the next four panels to accept the defaults.
12. Click Finish.
13. Choose View menu > Browse Mode.

The data in all records for the fields Last Name, First Name, Company, and Membership Type appears in the List of Members layout.

Create mailing labels

Look at the sample labels

1. Choose Window menu > Sample06.fp5.
2. Choose View menu > Browse Mode.
3. Select Labels in the layout pop-up menu.

You see the mailing label for the current record.

4. Choose View menu > Preview Mode.

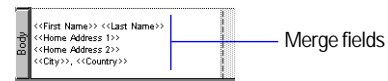
You see a page of labels as it will print.

5. Notice that not all records have the same number of lines of text.

Records with four-line addresses display all lines. In records needing only three lines, the extra line is omitted so there is no blank line in the labels.

6. Choose View menu > Layout Mode.

You see the names of fields that will appear on the labels.



About label layouts

Label layouts use *merge fields*. Merge fields expand or contract to fit the data in the field, and take no space if the field is empty. Merge fields are for display and printing only. You don't enter data into merge fields.

Create a label layout

In this section, you will use the New Layout/Report assistant to:

- create a label layout
- select fields to include on the labels

Create the label

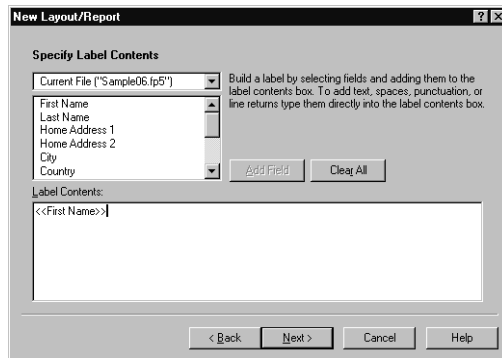
1. Choose Window menu > MyFile06.fp5.
2. Choose View menu > Layout Mode.
3. Choose Layouts menu > New Layout/Report.
4. For Layout Name, type `Labels`.
5. Select Labels for the new layout type.
6. Click Next.
7. Choose Avery 5160 from the Use label measurements for list.
8. Click Next.

Now you're ready to specify the label contents.

Choose the fields that will appear on the labels

1. Double-click First Name in the list.

First Name moves to the Label Contents area. The insertion point flashes.



2. After First Name, type a space.
3. Double-click Last Name in the list.
4. After Last Name, press Enter (Windows) or Return (Mac OS).

5. Double-click Home Address 1 in the list, then press Enter (Windows) or Return (Mac OS).
6. Double-click Home Address 2 in the list, then press Enter (Windows) or Return (Mac OS).
7. Double-click City in the list.
8. Type a comma, then a space.
9. Double-click Country in the list.

Now you have set up the merge fields.

10. Click Next.
11. Click View in Layout mode.
12. Click Finish.

Your label should look like this:



13. When you finish viewing your label layout, choose View menu > Preview Mode.

Your labels should look like those in the sample file.

Create a form letter

Look at the sample letter

1. Choose Window menu > Sample06.fp5.
2. Choose View menu > Browse Mode.
3. Choose Welcome Letter from the layout pop-up menu.
4. Flip through the records and look at the letter. You might need to scroll down to see all of it.
5. Notice the personalized address and salutation for each record.

6. Also notice that the wording in each letter is the same, except that the company name for each record appears in the first paragraph. The text flows around the company name, regardless of its length.

This letter is ready to print, for every record in the database.

About form letter layouts

The letter is simply a layout containing text, merge fields, and a graphic.

1. Choose View menu > Layout Mode.
2. Click anywhere on the text.

You see the handles in the corners of the entire text block. All of the text is in a single text block.

3. Notice that Company is a merge field in the body of the letter.

The address and salutation also use merge fields.

Create a form letter

To create this letter, you will:

- create a blank layout
- create a text block to contain your letter
- add merge fields for the recipient's name and address
- type the letter
- customize the letter with the recipient's company name
- add the closing

Create a one-page blank layout

1. Choose Window menu > MyFile06.fp5.
2. Choose View menu > Layout Mode.
3. Choose Layouts menu > New Layout/Report.
4. For Layout Name, type `Welcome Letter`.
5. Select Blank layout for the new layout type.

6. Click Finish.

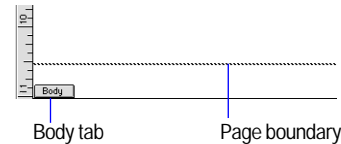
7. On the layout, click the Header tab, then press Backspace (Windows) or Delete (Mac OS).

8. Click the Footer tab, then press Backspace (Windows) or Delete (Mac OS).

This letter will not use a header or footer.

9. Drag the Body tab down to about 11 inches.

When you release the mouse button, you will see the page boundary. If you don't see the page boundary, drag the Body tab down some more.



10. Now drag the Body tab up to just above the page boundary.

The page boundary line will disappear.

11. Use the scroll bar at the bottom of the screen to scroll a few inches to the right.


You see a heavy dotted line along the right side. This is the right-side page boundary. Your letter will be within these boundaries.

12. Scroll back all the way to the left.

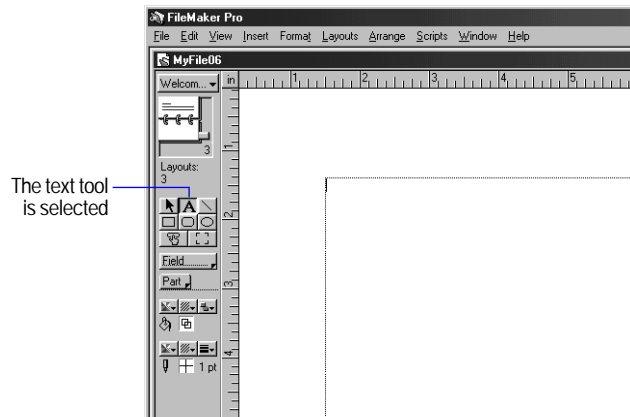
13. Scroll up to the top of the layout.

Create the text block

You will create a text block with a 1.5-inch margin on all sides.

1. Click the text tool .
2. Drag a rectangle starting about 1.5 inches from the top left side of the layout, and ending about 1.5 inches from the bottom right side, as indicated by the page boundary lines.

When you release the mouse, the insertion point flashes in the top left of the text box. You will type the letter inside this box.



Add the address

1. Choose Insert menu > Merge Field.
2. Select First Name in the list and click OK.
3. Type a space.
4. Choose Insert menu > Merge Field.
5. Select Last Name in the list and click OK.
6. Move to the next line (enter a line space):

Windows: Press the Enter key above the Shift key on the keyboard.

Mac OS: Press Return.

7. Add merge fields for the street address, city, and country, with appropriate spaces, new lines, and punctuation.

Type the letter

1. Press Enter (Windows) or Return (Mac OS) twice to create two line spaces at the end of the address.
2. Start the salutation line: type *Dear* and a space.

3. Insert merge fields for the first and last name, separated by a space.

In your own letters, you can use more fields (for example, a title field) for a more elegant salutation.

4. Type a comma and two line spaces.

5. Type the letter:

The Corporate Travelers Club welcomes you and your company to our organization.

We look forward to doing business with you and hope you have many pleasant trips with us!

Customize the letter with the company name

1. Click after the word *company* in the first paragraph.
2. Type a comma and a space.
3. Insert a merge field for the company name.
4. Type another comma.

Add the closing

1. Click at the end of the text and enter two line spaces.
2. Press tab several times to go to the center of the text block.
3. Type *Sincerely*, then enter four line spaces.
4. Press Tab several times to align the insertion point with *Sincerely*, and type *John Jones*.
5. Enter a line space, then press Tab again to align the cursor with the previous lines of text, then type *President*.

Your layout should look like the letter in the sample file.

6. Choose View menu > Browse Mode to see your letter.

It should look like the letter in the sample file. See lesson 5 to learn how to add a logo.

7. When you are finished with this lesson, close each open file by choosing File menu > Close.

For more information

In this lesson, you have created list, label, and form-letter layouts. You can create as many layouts as you like, to organize your information in any way you like. To learn how to create other layouts, see lesson 9 in this tutorial and chapter 6 in the *FileMaker Pro User's Guide*.

Lesson 7

Simplifying data entry

You can simplify the way you enter data in FileMaker Pro and improve accuracy by using value lists, calculation fields, and data auto-entry.

In this lesson, you will:

- see how value lists can aid data entry
- write and test a calculation formula
- use a field's auto-entry options to automatically enter data

Note You can install a fresh copy of the tutorial files at any time. For Windows-based systems, see “Compact installation or Custom installation” on page 9. For Mac OS systems, see “Custom installation” on page 20.

Enter data using value lists

Value lists let you choose the value you want from a scrolling list, a pop-up menu, checkboxes, or radio buttons. These lists can contain predefined values, or can be constructed dynamically based on the values in a particular field. They are an efficient way to enter frequently used values into your database.

Look at the sample value list

1. Open the Tutorial folder in the FileMaker Pro folder.
2. Open the Sample Files folder.

You should be here: FileMaker Pro\Tutorial\Sample Files.

3. Open Sample07.fp5.

4. Choose Layout #1 from the layout pop-up menu if it is not already selected.

5. Locate the Membership Type field on the current record. You see two radio buttons, one for New and one for Continuing. These correspond to the two choices in the Membership Types value list. Click one to enter the corresponding value in the field.

A value list with predefined values, displayed as radio buttons

Membership Type New Continuing

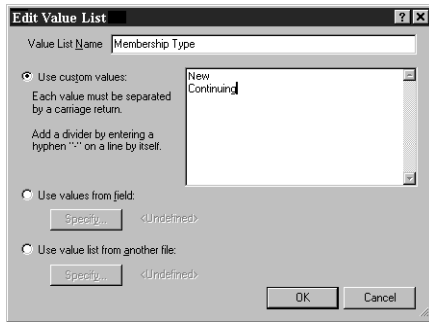
Define a value list

1. Open the Tutorial folder in the FileMaker Pro folder.
2. Open the Working Files folder.

You should be here: FileMaker Pro\Tutorial\Working Files.

3. Open MyFile07.fp5.
4. Choose Layout #1 from the layout pop-up menu if it is not already selected.
5. Choose File menu > Define Value Lists.
6. Click New.
7. Name the new value list by typing Membership Types.

8. Click into the large box and enter the values for this list, New and Continuing, by typing each value on its own line.



9. Click OK.

10. Click Done.

Assign a value list to a field and display it as radio buttons

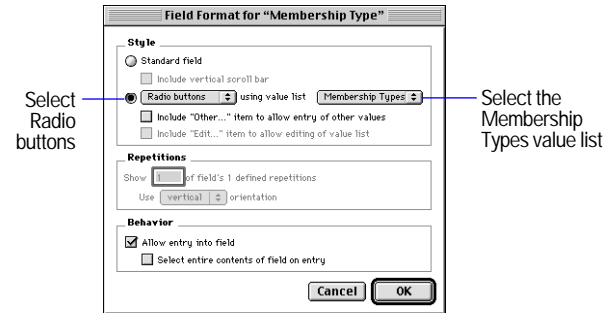
1. Choose View menu > Layout Mode.
2. Select the Membership Type field.



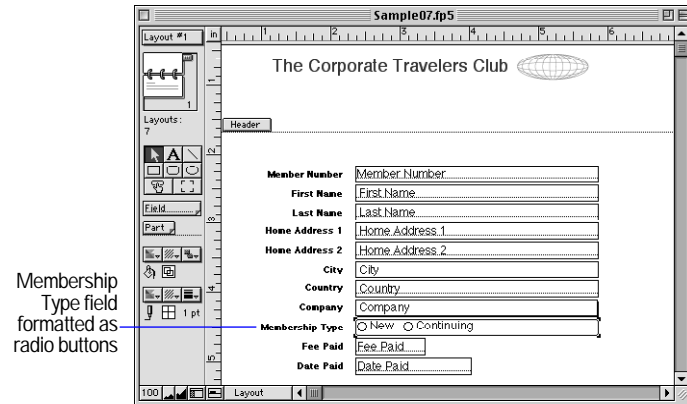
3. Choose Format menu > Field Format.

4. In the Style area, click the triangle next to Pop-up list and select Radio buttons from the list.

5. Click the triangle button to the right of using value list and select Membership Types from the menu.



6. Click OK. Your radio buttons should be visible in Layout mode.



7. In Browse mode, test your value list and buttons by clicking them.

Generate values with a calculation field

When you want FileMaker Pro to perform a calculation for you, for example to determine the amount of tax owed or the proper fee to be paid, you use a *calculation field*. Calculation fields are one of the FileMaker Pro field types. FileMaker Pro can perform simple and complex calculations.

The calculation formula uses values from the current record or related records. The formula can use values from all field types. You can use calculations to return text values (for example, combining the contents of first name and last name fields into a full name field), dates, times, and the contents of container fields.

See how calculations speed data entry

Members of the Corporate Travelers Club pay an annual fee. New members pay a fee of \$200, while continuing members pay \$100.

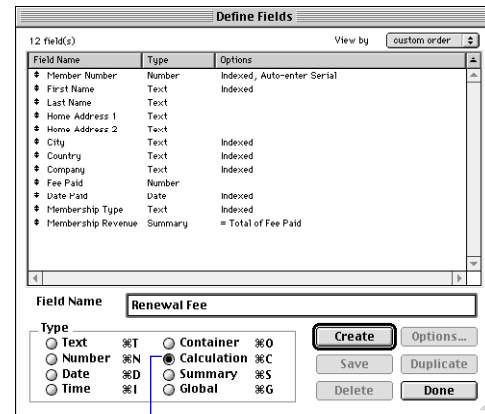
The following steps show the calculation you are going to build. The calculation returns a membership renewal fee based on membership type.

1. Choose Window menu > Sample07.fp5.
 2. Choose Layout #1 from the layout pop-up menu if it is not already selected.
 3. Create a new record by choosing Records menu > New Record. Notice there's no data in the Renewal Fee field.
 4. In the Membership Type field, click New. The Renewal Fee field indicates 200.
- The Renewal Fee field is a calculation field.
5. In the Membership Type field, click Continuing. The value in Renewal Fee changes to 100.
 6. Delete this record by choosing Records menu > Delete Record. Deleting this record is necessary to set up a later part of this lesson.
 7. Click Delete in the confirmation dialog box.

Create a calculation field

There are several different ways of formulating a calculation, each of which can yield the correct result. The following method uses an *If statement* to compare the data entered in the Membership Type field with one of the membership types. The calculation returns one of two results.

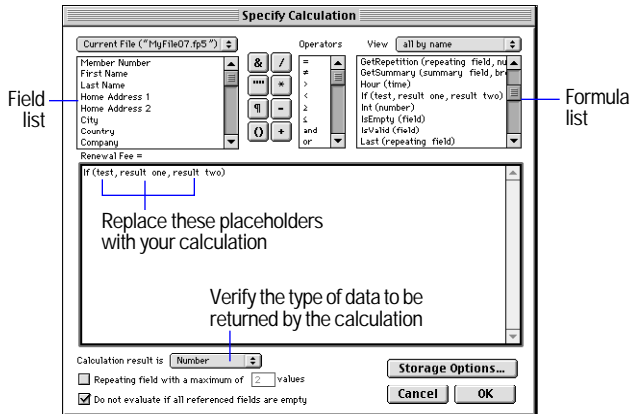
1. Choose MyFile07.fp5 from the Window menu.
2. Choose File menu > Define Fields.
3. For Field Name, type Renewal Fee.
4. For Type, click Calculation to make this a calculation field.



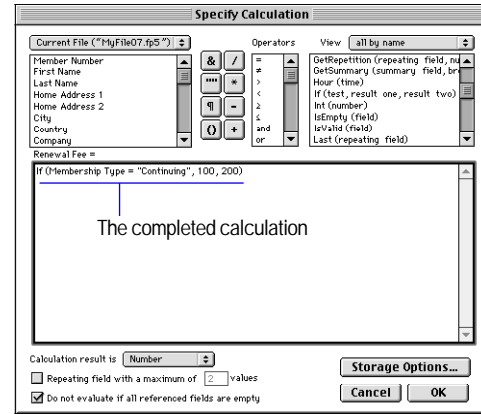
Click Calculation

5. Click Create.
- The Specify Calculation dialog box appears.
6. Scroll through the list of formulas in the upper-right corner of the Specify Calculation dialog box until you locate If (test, result one, result two). Double-click this formula so that it appears in this dialog box.

This formula has three parts: a test, a result if the test evaluates as true (result one), and a result if the test evaluates as false (result two). You will replace the placeholders test, result one, and result two with the actual components of the calculation.



7. Select the placeholder test and type `Membership Type = "Continuing"` exactly as it appears here.
8. Select the placeholder result one, and type `100`.
9. Select the placeholder result two, and type `200`.
10. Make sure the calculation result is set to `Number`.



11. Click **OK**.

If you receive an error message, make sure that all spaces and punctuation are identical to the formula shown above.

12. Click **Done**.

The `Renewal Fee` field appears at the bottom of the layout. Depending on the size of your screen, you may need to scroll down to see it.

Your calculation formula is now complete. When data is entered in the `Membership Type` field, FileMaker Pro will compare it to the word we are testing for, “Continuing.” The test is true if it matches this word, and the calculation will return your first result, 100. If it doesn’t match, the test is false, and the second result is returned.

Test your calculation

To see if your calculation works, try changing the value in the `Membership Type` field to `New`, and notice the result in the `Renewal Fee` field—it should change as the membership type changes.

Automatically enter a serial number

FileMaker Pro lets you automatically enter certain types of data—for example, incremental numbers—when you create a new record.

Look at a serial number example

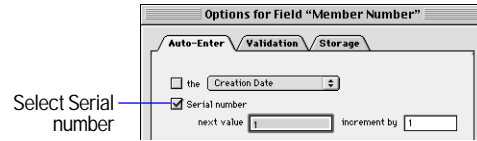
1. Choose Window menu > Sample07.fp5.
2. Go to the last record in the database.
3. Locate the Member Number field, and note the current number of this record.
4. Create a new record by choosing Records menu > New Record.

The value in the Member Number field of the new record is increased by one.

Note If you did the first activity in this chapter, you will notice that the value in Member Number is 32, even though there are now 31 records in the Sample07.fp5 database. FileMaker Pro continues to increment serial numbers even if intervening records have been deleted, such as record 31 in this case.

Create a field for serial numbers

1. Choose Window menu > MyFile07.fp5.
2. Choose File menu > Define Fields.
3. For Field Name, type Member Number.
4. Select Number as the field type.
5. Click Create.
6. Click Options.
7. Select Serial number on the Auto-Enter tab. You don't need to change amounts for next value and increment by for this exercise.



8. Click OK.
9. Click Done.

The new field appears at the bottom of the layout. (You might need to scroll down to see it.)

10. Test your new field entry option by choosing Records menu > New Record. Each time you create a new record, the value in the Member Number field increments by one.

To learn how to change the position of the new field, see lesson 5.

11. When you are finished with this lesson, close each open file by choosing File menu > Close.

For more information

You have learned how to simplify data entry by defining and formatting value lists, calculation fields, and auto-entered serial numbers. For more information on calculation fields and field auto-enter options, see chapter 5 of the *FileMaker Pro User's Guide*. For more information on defining and formatting value lists, see chapter 7 of the *FileMaker Pro User's Guide*.

Lesson 8

Automating tasks with buttons and scripts

FileMaker Pro lets you automate many database tasks with buttons and scripts. These powerful features can save you a lot of time by performing a series of actions with a single click.

In this lesson you will:

- make and use a button to perform a task
- create and run a simple script to perform a multi-step task
- use a button to perform a script

Note You can install a fresh copy of the tutorial files at any time. For Windows-based systems, see “Compact installation or Custom installation” on page 9. For Mac OS systems, see “Custom installation” on page 20.

Perform a task using a button

Look at a sample button

A *button* is an object on a layout that you can click to perform many FileMaker Pro commands. You can use a button to switch layouts in your database.

1. Open the Tutorial folder in the FileMaker Pro folder.
2. Open the Sample Files folder.

You should be here: FileMaker Pro\Tutorial\Sample Files.

3. Open Sample08.fp5.


4. Locate the button labeled Go to List of Members at the top of Layout #1.

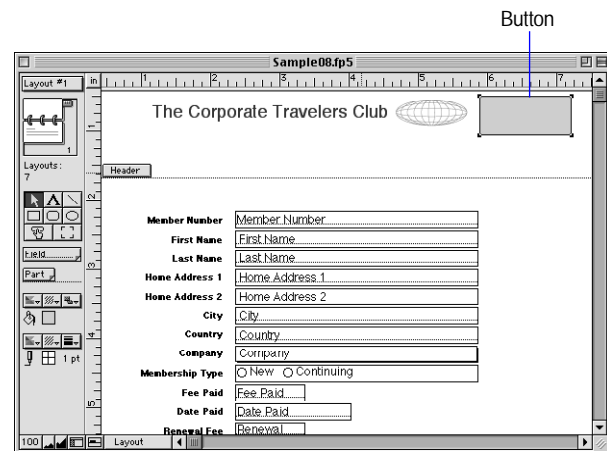
5. Click the button. You should now be viewing the List of Members layout (as indicated by the layout pop-up menu).

Create the button

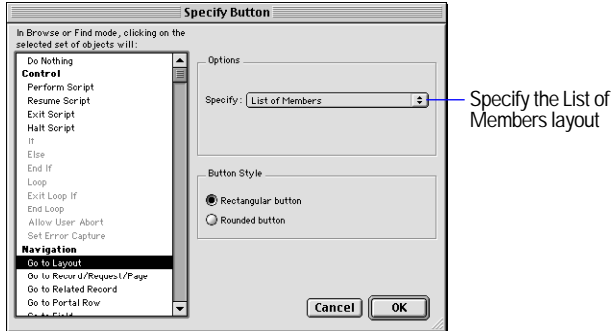
1. Open the Tutorial folder in the FileMaker Pro folder.
2. Open the Working Files folder.

You should be here: FileMaker Pro\Tutorial\Working Files.

3. Open MyFile08.fp5.
4. Choose Layout #1 from the layout pop-up menu if it is not already selected.
5. Select View menu > Layout Mode to switch to layout mode.
6. Click the button tool .
7. Draw the button at the top of the layout.



8. In the Specify Button dialog box, select the Go to Layout command from the list.
9. In the Options area, select the List of Members layout.



10. Click OK.

11. Notice that the insertion point is now in the center of your button. Type `Go to List of Members` in your button to identify it.

12. Click outside the button.

If you need to move the button, select it and drag it to the desired location, as with any other layout element.

To test your button, go to Browse mode and click it. The button takes you to the List of Members layout.

Perform a series of tasks using a script

As you have just seen, you can use a button to perform a single command. To make FileMaker Pro perform a sequence of commands, use a script.

Run a script in the sample file

1. Choose Window menu > Sample08.fp5.
2. Choose Scripts menu > Preview Labels Layout.

You should now see the Labels layout, in Preview mode. This script lets you preview labels before you print.

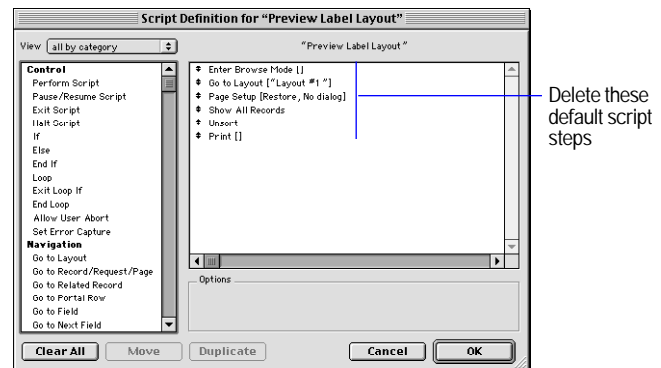
About scripts

A *script* lets you construct a series of instructions for FileMaker Pro to perform. Like buttons, scripts allow you to automate most of the FileMaker Pro menu commands, as well as activate some commands not found in the FileMaker Pro menu structure (such as Send Mail and Dial Phone). Simple scripts can perform a single task, while complex scripts might combine elements (such as user feedback and control) with programming techniques (such as branching and looping) to make powerful, dynamic instruction sets.

Create a script to preview the Labels Layout

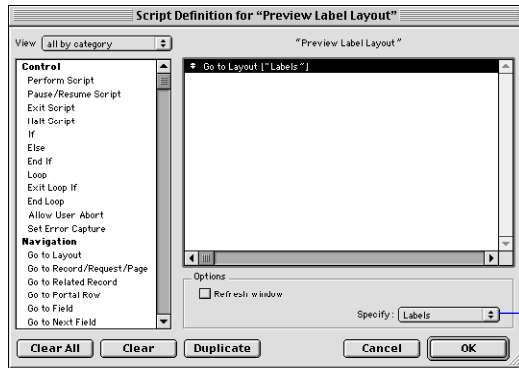
1. Choose Window menu > MyFile08.fp5.
2. Choose Scripts menu > ScriptMaker.
3. In the Script Name text box, type `Preview Labels Layout`.
4. Click Create.

In the resulting Script Definition dialog box, notice that a script has been created, and that it includes some default script steps. All FileMaker Pro scripts are created with these same default script steps present. You will clear these default steps before adding your own steps to the script.



5. Click Clear All.

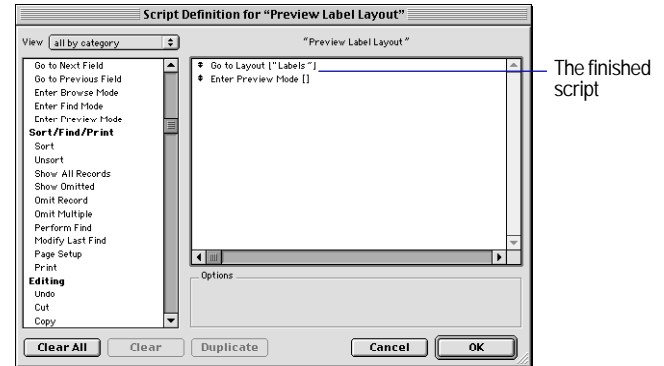
- Select the Go to Layout script step and click the Move button. (You can also select and move script steps by double-clicking them.)
- In the Options area, select the Labels layout from the list of available layouts.



Specify the layout you want the script to go to

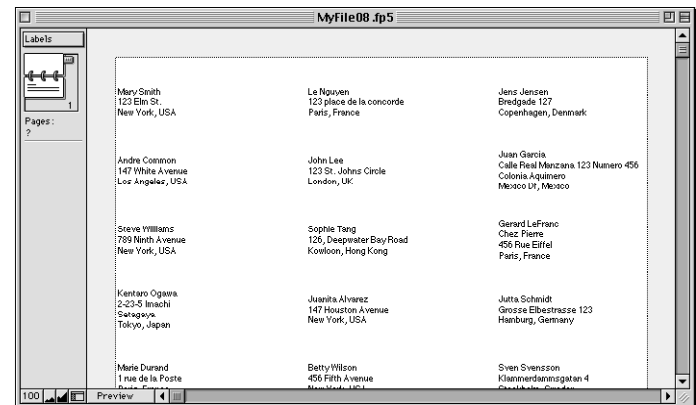
- From the list on the left, scroll down and select the Enter Preview Mode script step, and move it over to your script.
- With this script step selected, deselect the Pause checkbox in the Options area.

When you use a script to change modes, FileMaker Pro gives you the option of pausing the script. This can be useful if you require some input before continuing the script. In this instance, Enter Preview Mode is the last step of the script, so no user input is necessary.



- Click OK, then click Done.

11. To run the script you have just created, choose Scripts menu > Preview Labels Layout. FileMaker Pro displays the Labels layout and switches to Preview mode.



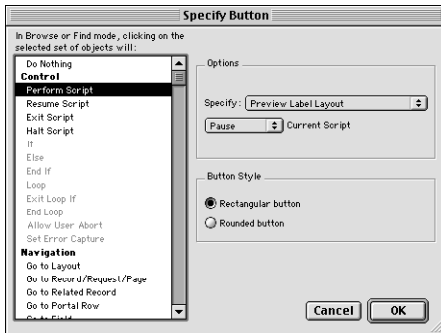
Assign a script to a button

While buttons are generally more convenient for users, scripts are a more powerful feature, allowing you to combine many menu commands into a single executable action. Using a button to run a script gives you the best of both features.

To assign the script you just created to a button:

1. In MyFile.08.fp5, choose Layout #1 from the layout pop-up menu.
2. Choose View menu > Layout Mode.
3. Double-click the button you created earlier in this lesson.
4. In the Specify Button dialog box, select the Perform Script script step from the top of the list on the left.
5. In the Options area, select Preview Labels Layout from the list of available scripts. Leave the rest of the default settings as they are.

If you have not already created this script, follow the steps described in “Create a script to preview the Labels Layout” on page 66.



6. Click OK to save this button.

Rename the button

1. Click the text tool **A**.
2. Click the button once. The text insertion point appears in the button.
3. Type Preview Labels Layout to rename this button.

Test the button

1. In Browse mode, test the button by clicking it.

Clicking this button performs the script, which displays the Labels layout and switches to Preview mode.

2. When you are finished with this lesson, close each open file by choosing File menu > Close.

For more information

In this lesson, you have created buttons and scripts, and used these two features together. For more information on creating buttons and scripts in FileMaker Pro, see chapter 10 of the *FileMaker Pro User's Guide*.

Lesson 9

Creating and running reports

The process of retrieving and organizing data from a database is called *reporting*. *Summary reports* present just the totals of your data; they do not break information into smaller groups. *Subsummary reports*, also referred to as *reports with grouped data*, categorize information by a particular field or fields, allowing you to group information hierarchically. This subsummarized information can then be subtotaled, averaged, or counted.

In this lesson you will:

- generate a report with grouped data
- generate a report with grouped data and totals

Note You can install a fresh copy of the tutorial files at any time. For Windows-based systems, see “Compact installation or Custom installation” on page 9. For Mac OS systems, see “Custom installation” on page 20.

Generate a report with grouped data

Look at a sample report

This example shows a report that groups the members by membership type. The report has been saved to a script.

1. Open the Tutorial folder in the FileMaker Pro folder.
2. Open the Sample Files folder.

You should be here: FileMaker Pro\Tutorial\Sample Files.

3. Open Sample09.fp5.
4. Choose Scripts menu > Membership Type Report to generate the membership type report.

5. Examine the resulting report.

First, notice that you are in Preview mode. Preview mode is necessary to view summarized data on the screen. Second, notice how the members are grouped by the membership type, and further alphabetized by last name within each of these categories.

This report groups data by the Membership Type field, also referred to as the break field

Last Name	First Name
Continuing	
Ahrens	Juarela
Cannon	Michelle
Common	Andre
Durand	Marie
Jensen	Jerie
Johnson	William
LeFranc	Gerard
Mehmet	Almet
Noronha	J.
Ogawa	Kentaro
Smith	Mary
Tang	Sophie
Vargas	Julia
Verhaag	Annelies
New	
Dupont	Jacques
Durand	Jean
Garcia	Juan
Lee	John
Murphy	Patrick
Nguyen	Le
Schmitt	Julia
Smith	John
Svensson	Sven
Virtanen	Matti
Williams	Steve
Wilson	Betsy

6. Click the Continue button in the status area to complete the script and return to Layout #1.

About subsummary reports

A report with grouped data requires a number of elements to work properly.

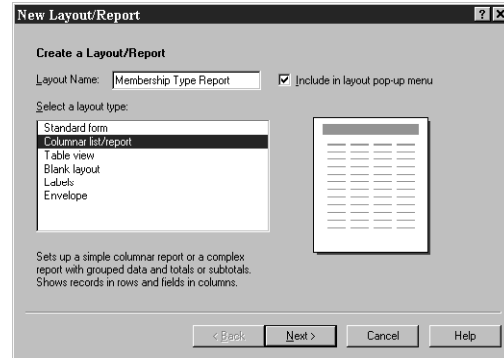
Subsummary reports include:

- a subsummary part in the report layout for each level of detail you want to break out. The New Layout/Report assistant creates these for you.
- a field or fields to group records by. These fields are referred to as *break fields*.
- records sorted by these break fields, in the order the subsummary parts appear on your report layout.

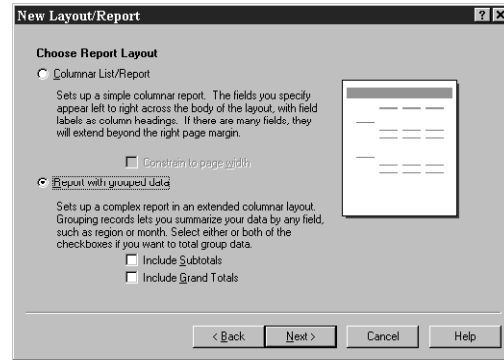
Create a subsummary report

To create the Membership Type Report:

1. Open the Tutorial folder in the FileMaker Pro folder.
 2. Open the Working Files folder.
- You should be here: FileMaker Pro\Tutorial\Working Files.
3. Open MyFile09.fp5.
 4. In Layout mode, choose Layouts menu > New Layout/Report.
 5. For Layout Name type `Membership Type Report`.
 6. Select Columnar list/report for the new layout type and click Next.

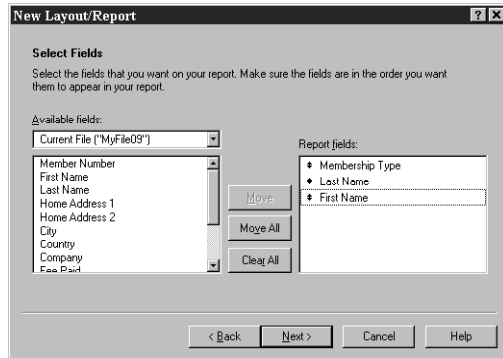


7. Select Report with grouped data, and click Next.



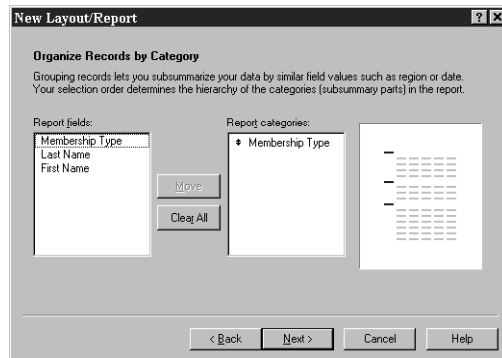
Select the fields used in this report

1. Double-click Membership Type, the first field to be used in this report, to move it to the Layout fields list.
2. Select and move the Last Name field.
3. Select and move the First Name field.



4. Click Next.

5. Move the Membership Type field to the Report categories list to organize the records by membership type.

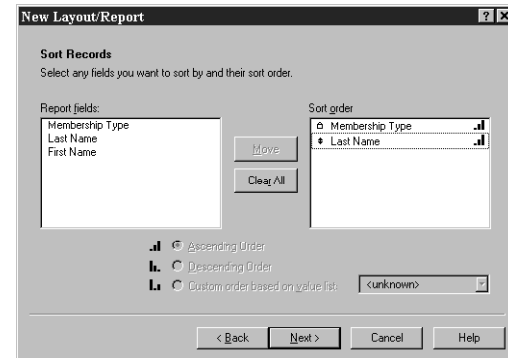


Membership Type is referred to as a break field because you are using the contents of this field to break the records into categories for your report.

6. Click Next.

7. Move the Last Name field to the Sort order list.

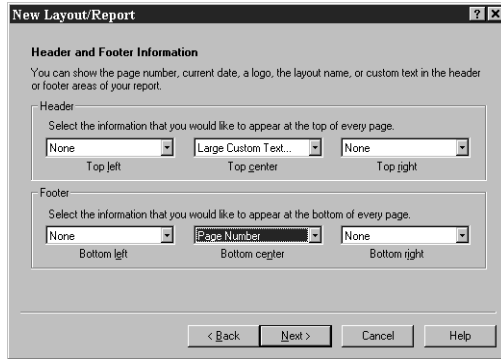
This sorts the records in each group of membership types alphabetically by members' last names. Notice that the break field Membership Type appears automatically at the top of the Sort order list to enable FileMaker Pro to group records by this category.



8. Click Next.

Select a theme and create the header and footer

1. Select the Standard theme to set the text size, color, and style of the finished report.
2. Click Next.
3. Go to the Top center list and select Large Custom Text.
4. Type Membership Type Report for the header of the report and click OK.
5. Go to the Bottom center list and select Page Number to number the pages in the report's footer.



6. Click Next.

Create a script to run this report again

1. Click Create a script.
2. Leave Script Name as it appears. Click Next.
3. Click View the report in Preview mode if it is not already selected.
4. Click Finish.

Your finished report should look like the report pictured on page 69.

Generate a report with grouped data and totals

Look at a sample report

This subsummary report:

- groups the members by membership type
- subtotals the fees collected for each membership type
- provides a grand total of these fees

1. To view the finished sample report, choose Window menu > Sample09.fp5.
2. Choose Scripts menu > Membership Fee Report to generate the membership fee report.

3. Examine the resulting report.

As in the previous example, the members are grouped by membership type. Additionally, the fees collected for each membership type are subtotaled beneath those members' names, and a grand total of all fees appears at the bottom of the report.

Membership Fee Report			
	Last Name	First Name	Fee Paid
Continuing	Abrarez	Juanita	100
	Cannon	Michelle	100
	Common	Andre	100
	Durand	Marie	100
	Jensen	Jens	100
	Johnson	William	100
	LeFranc	Gerard	100
	Mehmet	Ahmet	100
	Noronha	J.	100
	Ogawa	Yasuro	100
	Smith	Mary	100
	Tang	Sophie	100
	Yargas	Julia	100
	Verhaag	Annelies	100
		1400	Subtotals
New	Dupont	Jacques	200
	Durand	Jean	200
	Garcia	Juan	200
	Lee	John	200
	Murphy	Patrick	200
	Nguyen	Le	200
	Schmitt	Julia	200
	Smith	John	200
	Svensson	Sven	200
	Virtanen	Matti	200
Williams	Steve	200	
Wilson	Betsy	200	
		2400	
		3800	Grand Total

4. Click the Continue button to complete the script and return to Layout #1.

A report with grouped data and totals requires the same elements as a report with grouped data: a subsummary part in the report layout for each category, a field or fields to group records by, and a sort of the database by these fields.

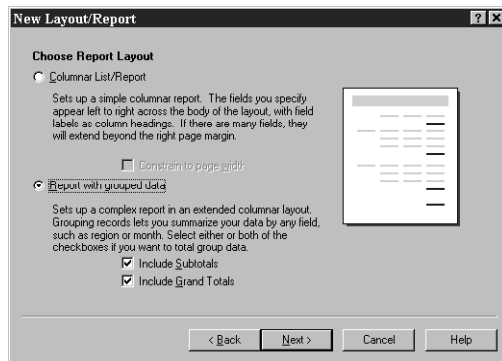
Two additional elements are also required:

- a grand summary layout part
- summary field(s) to display totals, averages, or counts

Create a report with grouped data and totals

To create the Membership Fee Report:

1. Choose Window menu > MyFile09.fp5.
2. In Layout mode, choose Layouts menu > New Layout/Report.
3. For Layout Name, type `Membership Fee Report`.
4. Select Columnar list/report for the new layout type and click Next.
5. Select Report with grouped data and then select Include Subtotals and Include Grand Totals.



6. Click Next.

Select the fields used in this report

1. Select the first field to be used in this report, Membership Type, and move it to the Layout fields list.
2. Select and move the Last Name field.
3. Select and move the First Name field.

4. Select and move the Fee Paid field.

5. Click Next.

6. You want to organize the records by Membership Type. Move this field to the Report categories list.

7. Click Next.

8. Move the Last Name field to the Sort order list to sort the records in each group of membership types alphabetically by members' last names.

9. Click Next.

Specify subtotals and grand totals

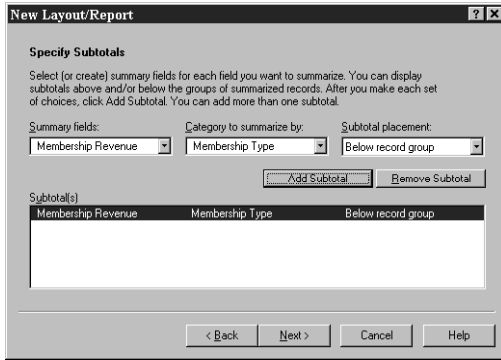
A *summary field* is a type of field you can specify when you define fields. Summary fields allow calculations across all of the records in your found set. In general, when you need to total data across a number of records, you must use a summary field.

In the Membership Fee Report, you want to see subtotals for fees paid by each type of member, New and Continuing, and to see a grand total of both groups' fees at the end of the report. To accomplish this, you will need to specify subtotal and grand total summary fields in the New Layout/Report Assistant.

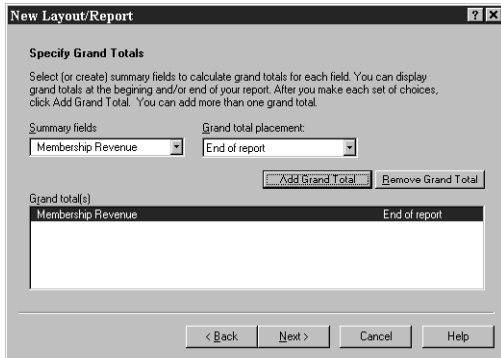
The summary field you will use is Membership Revenue, which has already been defined for you. Membership Revenue totals the fees entered in the Fee Paid field.

1. Click Add Subtotal to add the Membership Revenue field as the subtotal. This tells FileMaker Pro to create a subtotal of membership fees paid beneath each membership category.

2. Click Next.



3. Click Add Grand Total to add the Membership Revenue field as the grand total at the end of the report. This tells FileMaker Pro to create a grand total of membership fees.



4. Click Next.

Select a theme and create the header and footer

1. Select the Standard theme to set the text size, color, and style of the finished report.

2. Click Next.

3. Go to the Top center list and select Large Custom Text.

4. Type `Membership Fee Report` for the header of the report and click OK.

5. Go to the Bottom center list and select Page Number to number the pages in the report's footer.

6. Click Next.

Create a script to run this report again

1. Click Create a script.

2. Leave Script Name as it appears. Click Next.

3. Click View the report in Preview mode if it is not already selected.

4. Click Finish.

Your finished report should look like the report pictured on page 72.

5. When you are finished with this lesson, close each open file by choosing File menu > Close.

For more information

In this lesson, you generated reports with grouped data, and reports with grouped data and totals. For more information on creating reports in FileMaker Pro, see chapters 6 and 7 of the *FileMaker Pro User's Guide*.

Lesson 10

Making databases relational

Relational databases let you easily view relationships between files and streamline data entry. You can enter data once, then view and use that data in related files.

In this lesson, you will:

- see how relational databases work
- define a relationship
- display data from one related record
- display a list of related records

The sample files in this lesson are a Members file with records for individual Corporate Travelers Club members, and a Companies file for companies where these members work. Each company has many members.

Note You can install a fresh copy of the tutorial files at any time. For Windows-based systems, see “Compact installation or Custom installation” on page 9. For Mac OS systems, see “Custom installation” on page 20.

View data from one related record

See how relationships work in the sample files

1. Open the Tutorial folder in the FileMaker Pro folder.
2. Open the Sample Files folder.
3. Open the Sample10 folder.

You should be here:

FileMaker Pro\Tutorial\Sample Files\Sample10.

4. Open Companies10.fp5 and browse through the records.

You see one record for each of the three companies that has members in the Corporate Travelers Club.

5. Open Members10.fp5 and browse through the records.

6. In Members10.fp5, create a new record for Jane Doe.

7. For Company, choose ABC Company.

First Name	Jane
Last Name	Doe
Company	ABC Company

8. Notice that the address for ABC Company automatically appears.

First Name	Jane
Last Name	Doe
Company	ABC Company
Company Address	345 Industrial Park Blvd. Chicago USA

About related files

Companies10.fp5 and Members10.fp5 are related files.

When you enter a company name in a record in the Members file, FileMaker Pro identifies the record for that company in the Companies file. FileMaker Pro then displays the address from this matching company record in the Members file.

How does this happen? The Members file has a *relationship* to the Companies file that is based on matching data in the Company field in both files. The Company field is the *match field*. The Members file displays the company address using *related fields* based on this relationship.

You will learn both parts of this process: how to define the relationship and how to display data using the relationship.

Exit or Quit FileMaker Pro to close both files before continuing.

Display a related record in a file

Define a relationship to another file

1. Open the Tutorial folder in the FileMaker Pro folder.
2. Open the Working Files folder.
3. Open the MyFiles10 folder.

You should be here:

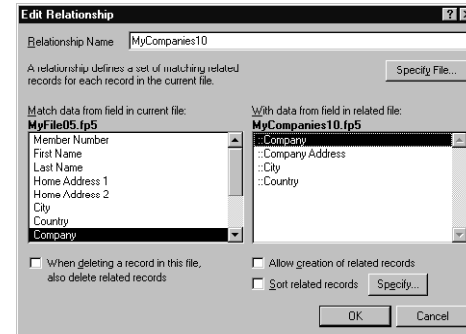
FileMaker Pro\Tutorial\Working Files\MyFiles10.

MyMembers10.fp5 and MyCompanies10.fp5 are the same as the sample files, but without the relational structures. You will build these structures now.

4. Open MyMembers10.fp5.
5. Choose File menu > Define Relationships.
6. Click New, navigate to the MyFiles10 folder in the Working Files folder, and double-click MyCompanies10.fp5.
7. In the Edit Relationship dialog box, select the Company field in the left column, and the ::Company field in the right column.

Fields in the file you are working in (MyMembers10.fp5) are on the left. Fields in the file you want to see data from (MyCompanies10.fp5) are on the right.


8. Notice that the relationship name defaults to the name of the related file: MyCompanies10.



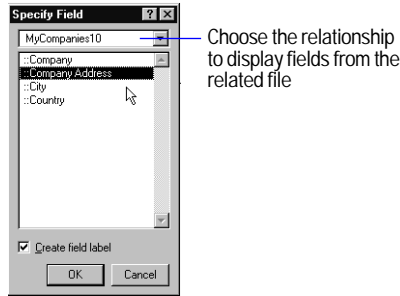
9. Click OK, then click Done.

Display data from a related record

Once you've defined the relationship, set up the layout to display data using that relationship. Here, you want to display the company address.

1. In MyMembers10.fp5, choose View menu > Layout Mode.
2. Using the Field tool , drag a field onto the layout. You see a list of fields in this file.
3. In the Specify Field dialog box, click Current File ("MyMembers10.fp5") and choose the MyCompanies10 relationship from the list.

You now see a list of the fields in the related file MyCompanies10.fp5. The colons (::) before each field name show that these are related fields, not fields defined in the file you are currently working in. These related fields will display data from the related file.



Choose the relationship to display fields from the related file

4. Click ::Company Address, then click OK.
5. Repeat steps 2-4 for City and Country.
6. Move the fields if necessary, and make the fields large enough to display all the data they contain. The fields should look like this:

First Name	<input type="text" value="First Name"/>
Last Name	<input type="text" value="Last Name"/>
Company	<input type="text" value="Company"/>
Company Address	<input type="text" value="::Company Address"/>
City	<input type="text" value="::City"/>
Country	<input type="text" value="::Country"/>

7. Choose View menu > Browse Mode and flip through the records to view company addresses from the MyCompanies file in the MyMembers file.
8. When you are finished, Exit or Quit FileMaker Pro to close all files before continuing.

View data from a list of related records

Suppose you want to show all club members for each company. You also want to add new members to the Members file without entering the company name for each.

Work with related records in the sample files

View a list of related records

1. Open the Tutorial folder in the FileMaker Pro folder.
2. Open the Sample Files folder.
3. Open the Sample10 folder.

You should be here:

FileMaker Pro\Tutorial\Sample Files\Sample10.

4. Open Companies10.fp5.
5. Browse through the records.

You see a list of members at each company. They are all individuals in the Members file.

Add to the list

1. Go to the ABC Company record.
2. Add a new member by clicking the first empty line under First Name.

Company	ABC Company
Company Address	345 Industrial Park Blvd
City	Chicago
Country	USA

First Name	Last Name
Andre	Common
Steve	Williams
Kentaro	Ugawa
Jane	Doe

3. Type Joe, then press Tab and type Williams in the last name field.

View the new record in the related file

1. Open Members10.fp5.
2. In Members10.fp5, go to the last record.

You see Joe Williams' record, with the company information filled in. You automatically created this record when you typed Joe Williams into the list in the Companies file.

Add a new record and view it in the list

1. In Members10.fp5, create a record for a new member who works at ABC Company.
2. Now return to Companies10.fp5 and look at the ABC Company record.

You see the new member in the list (scroll down if necessary).

About working with lists of related records

In the “View data from one related record” on page 75, a relationship in the Members file displays data (company addresses) from the Companies file. Here, a relationship in the Companies file displays data (member names) from the Members file.

Both relationships use the same match field, Company, but this time, there is more than one matching record in the related file because there is more than one member from each company. A *portal* in the Companies file displays the members for each company.

When you added Joe Williams to the list of members who work at ABC Company, the relationship automatically created a record for Joe Williams in the Members file. ABC Company is automatically entered into the match field because the name was added to the portal of the ABC Company record.

A new member added to the Members file automatically appears at the end of the members list in the matching company record in the Companies file.

Exit or Quit FileMaker Pro to close all open files.

Display a list of related records**Create a portal to display matching records**


1. Open the Tutorial folder in the FileMaker Pro folder.
2. Open the Working Files folder.
3. Open the MyFiles10 folder.

You should be here:


FileMaker Pro\Tutorial\Working Files\MyFiles10.

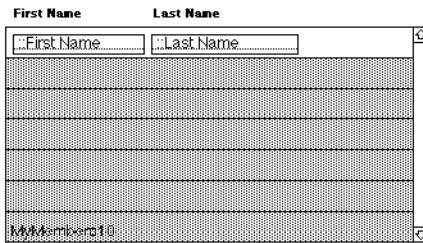
4. Open MyCompanies10.fp5.

A relationship must always be defined before you can display data from related records. The relationship to MyMembers10.fp5 has already been defined for you, using the process described in “Define a relationship to another file” on page 76.

5. To view the relationship, choose File menu > Define Relationships, select the relationship (MyMembers10), and click Edit.
 6. Notice that Allow creation of related records is selected. This lets you add a name to the list.
 7. Click OK, then click Done.
 8. Choose View menu > Layout Mode.
 9. Click the portal tool and draw a box to hold the list of names .
 10. In the Portal Setup dialog box, show records from the MyMembers10 relationship.
 11. Show 7 rows in the portal.
- Each row displays one matching member record.
12. Select Show vertical scroll bar.
 13. Click OK.

Arrange the fields in the portal

1. Make the first portal row (the white part at the top of the portal) tall enough to hold a field.
 2. Using the Field tool , drag a field into the first portal row.
 3. Select the ::First Name field and click OK.
 4. Drag another field beside ::First Name and specify ::Last Name.
 5. Move the First Name and Last Name field labels above the portal, above their respective fields.
- The portal should look like this when you are done.



6. Choose View menu > Browse Mode to view your list of members.
7. Test your new structure: type the name of a new member at ABC Company, then look to see if it appears in MyMembers10.fp5 (it will be the last record).
8. When you are finished with this lesson, Exit or Quit FileMaker Pro to close all open files.

For more information

You have seen how to use and create simple one-to-one and one-to-many relationships. This tutorial covers just the basics; there are many important points to consider when building a relational database system. Be sure you read chapter 8 in the *FileMaker Pro User's Guide* before using relational structures in your own files.

Lesson 11

Keeping your data safe

Power failures, disk problems, and other unexpected computer problems can happen to anyone at any time. To help prevent data loss, regularly back up all important documents on your computer, including your databases.

In this lesson you will learn:

- how and when to back up your database
- where to learn about other ways to protect your files

How to back up your database

There are many ways to back up a file. This is one way.

1. Determine the size of the database.

Windows: Right-click the icon for the file, then choose Properties.

Mac OS: Click the icon for the file, then choose File menu > Get Info.

2. Identify a disk or volume that has enough available space for a copy of the database.

3. Open the database you want to back up.

4. Choose File menu > Save a copy as.

5. Click Save.

Important Next time, back up to a *different* disk or volume. Never back up over the only or most recent copy of your file. You should have several different backups at all times.

When to back up

You should back up:

- as often as necessary to be sure you can restore all of your data in an emergency.
- before you make a major or irreversible change like deleting records, deleting a field from Define Fields, or replacing data using the Import or Replace features.

Remember, it takes far less time to back up a file than it does to recreate a lost or damaged file!

For more information

This lesson has shown you one way to protect a database. For other ways to prevent and overcome difficulties with your files, see appendix B in the *FileMaker Pro User's Guide*.

