



# FileMaker Pro 5: Basics

## Learning Guide

### Database Basics

A database, at its very core, is simply a structured collection of data. Access sees your data in the form of a **table** that is composed of rows and columns. Each of these rows is a **record** in your database, containing all of the data captured in your database about a single object, person, or concept.

The sample table below captures information about CDs in an individual's music collection. The record displayed in the second row contains information about *Blue Moon Swamp*, a CD released in 1997 by John Fogerty.

Tracking	Artist	Album Name	Released	Location
1	Farm Dogs	Immigrant Sons	1998	Home
2	John Fogerty	Blue Moon Swamp	1997	Car
3	Barenaked Ladies	Stunt	1998	Office
4	CPR	CPR	1998	Home
5	Elton John	Tumbleweed Connection	1971	Home
6	Sting	Bring on the Night	1985	Car
7	Fleetwood Mac	Rumours	1977	Home

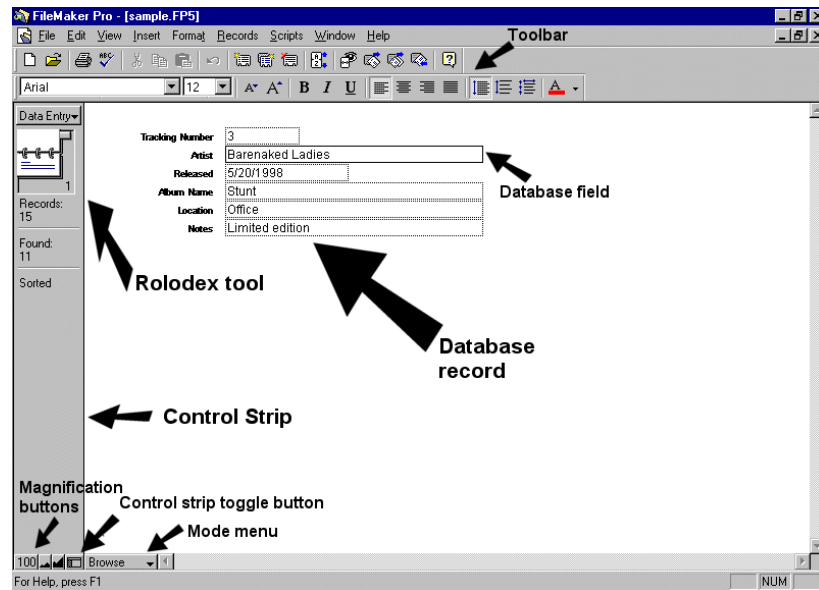
Every record is composed of **fields**, each of which contains a specific piece of data of a certain type (numbers, text, currency, dates, etc.). Each field is represented as a column in a data table, because the field is present in each record in the database. In this case, the **Album Name** field (shaded below) is a text field.

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1	Farm Dogs	Immigrant Sons	1998	Home
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3	Barenaked Ladies	Stunt	1998	Office
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5	Elton John	Tumbleweed Connection	1971	Home
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Once this structure is in place, you can access your data using different layouts to provide a greater level of flexibility in the display and organization of your data. For example, you can enter data using forms, or create reports to present your data.

## Exploring the FileMaker interface

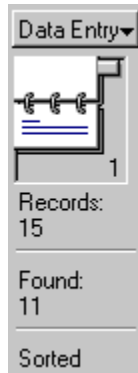
The image below identifies the basic elements of FileMaker's interface. Each will be described in detail on the pages to follow.



## Elements of the FileMaker window

In addition to the standard window elements in Windows 95/98, FileMaker uses several graphic elements to provide its users with access to the data in a database as well as some basic commands.

- **Control strip**



The control strip, located at the left edge of the FileMaker window, provides the capability to browse database records and select layouts with which to display data.

- **The Rolodex tool**



This tool, located at the top of the control strip, provides browsing access to the records within a database. The number at the lower right of the Rolodex icon shows the number of the record currently displayed in the FileMaker window. The lines that may be displaying on the upper or lower Rolodex card indicate that records exist prior to or after the record that is currently displayed. To display the **next record** in the database, click on the lower card on the Rolodex icon. To display the **previous record**, click on the upper card.

- **The layout drop menu**



This menu, displayed above the Rolodex icon, provides access to the various **layouts** that may have been created for your database. Each layout displays all of part of your data using a different graphic design that has been developed for easy data retrieval. The name of the currently active layout is displayed above the Rolodex icon, and is marked with a checkmark in the layout menu. To switch layouts, simply click on the name of the current layout to display the menu, then click on the name of the desired layout in the layout menu.

- **The mode pop-up menu**










This menu, displayed at the bottom left of the FileMaker window, makes it easy to switch between FileMaker's modes:

- **Browse:** this mode permits entry and retrieval of data
- **Find:** this mode permits searching of a database
- **Layout:** this mode provides tools for creating custom layouts
- **Preview:** this mode serves as a Page Preview function.

- **The toolbar**



This window element, a new feature in FileMaker 5.0, provides easy access to many of the basic commands for working with databases:

	<b>New database</b>	Create a new database file
	<b>Open database</b>	Open an existing database
	<b>Print records</b>	Print some or all records in the database
	<b>Add record</b>	Add a new record to the database
	<b>Duplicate records</b>	Create a copy of the record displaying on the screen
	<b>Delete record</b>	Delete the record displaying on the screen
	<b>Sort records</b>	Sort records in the database

- **Magnification buttons**



These buttons, located at the bottom of the grey control strip at the left of the FileMaker window, allow you to view your database at greater or lesser magnification. To zoom in on your data layout, click on the right-hand button; to zoom out, click on the middle button. Clicking on the button labeled 100 will return the layout to normal magnification.

- **Control strip toggle button**



Clicking on this button, located at the bottom right of the control strip, will hide the control strip. Clicking again on this button will restore the control strip to view.

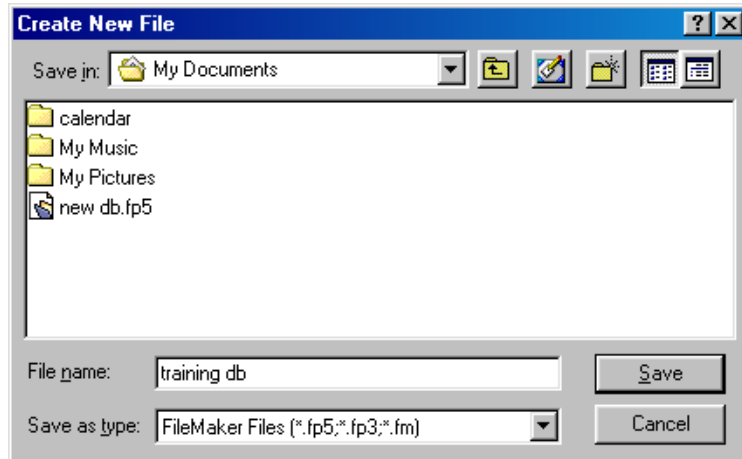
## FileMaker Views

FileMaker offers 3 different ways to view the data in your database. You can toggle between views at will by selecting your desired view from the View menu. Bear in mind that these views are merely different ways of displaying data – the data in your database will not be changed when it is displayed in a different view.

- **View as form:** This command displays a single record on the screen at a time, using the selected layout.
- **View as list:** This command displays multiple records on the screen at a time, using the selected layout. Note that the length of your layout will determine how many records will display on the screen at the time; shorter layouts will permit the display of more records at once.
- **View as table:** This command displays your data in a table format, using one row to represent each record. Each field is represented as a column in the table.

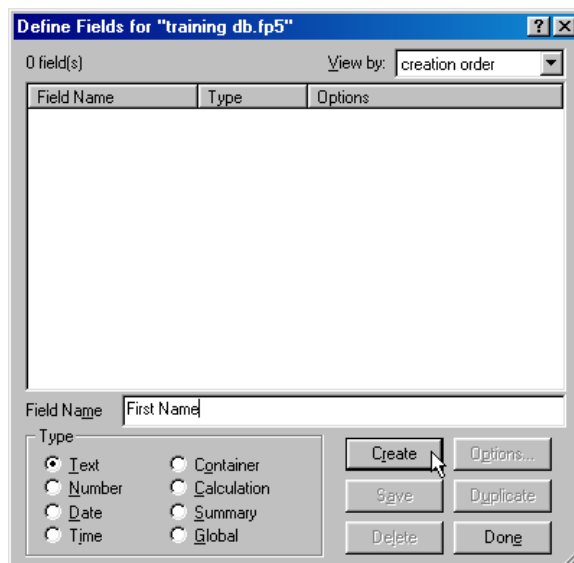
## Creating a new database

- From the **File** menu, choose **New Database**.
- Using the **Create New File** window, navigate to the folder in which you want to save your new database. In the **File name** box, type a name for the database. Click on **Save**.

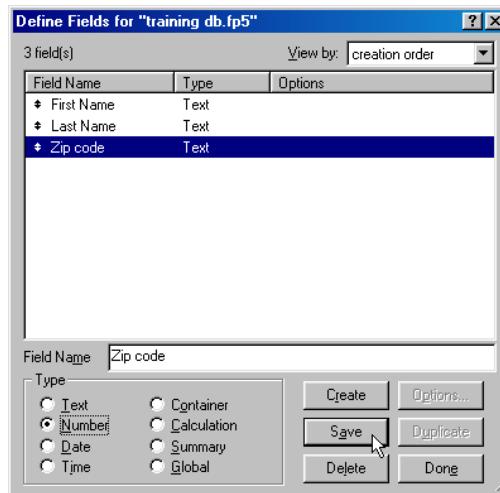


## Defining fields for your database

- After creating a database, define the fields that will capture your data.
  - In the **Define Fields** window, type the name of the new field in the **Field Name** box.
  - Click on the radio button next to the type of data that you wish to store in this field.
  - Click on **Create** to add the new field to the database.



- To define a second field, **first delete the name of your first field** by typing **delete**. Next, type the name of the new field, select its type, and click on **Create**.
- Define additional fields using these steps.
- To change the name or data type of an existing field before entering data:
  - Click on the field's name in the **field list** in the middle of the **Define Fields** window.
  - Once the field name is highlighted in blue, make changes to the field name or type.
  - Click **Save** to finalize the changes to the field.



- When you have finished defining your fields, click **Done**.
- FileMaker will automatically create an initial blank record in your database and make the first field in the record active for data entry.

Field Type	Field Content	Restrictions
Text	Text of any kind	Limited to 64,000 characters
Number	Numeric content	Limited to 255 characters; must be on one line
Date	Full date in various formats	Single date between year 1 and year 5000; limited to 8 characters (month, day, year, separators)
Time	Clock time	One time; limited to 8 characters
Container	Image, movie, sound, or linked object	Limited to one item per container field
Calculation	Result of a formula-based calculation	Limited to one formula with a text, numeric, date, time, or container result
Summary	Summation of fields in several records	Result of a single summary function

## Managing an existing database

### Adding new records

To add a new record to the database, click on the **New Record** button on the toolbar or choose **New Record** from the **Records** menu.



FileMaker will add a new record to your database immediately following the record that was previously displaying; this new record will be displayed on the screen for data entry.

### Entering data in a new record

- Enter data in the record's first field, then type the **Tab** key to move the flashing insertion point to the next field.

First Name	Josh
Last Name	
Zip code	

- Use the **Tab** key to move from one field to the next until you have entered data in all of the appropriate fields in the record.

### Editing an existing record

To edit a record that already exists in your database, use the Rolodex tool to display that record on the screen. Select the field to be edited by clicking on it.

- Once the field is selected, a black border will appear around the text in that field and a flashing cursor will appear inside the field. The fields that are not active will display gray borders.

Tracking Number	13
Artist	Elton John

- After the field has been selected, text inside that field can be edited as if it were in a Word document.
- To edit another field within the same record, use the tab key to move forward to another field. The shift-tab key combination can be used to move back to a previous field.

### Duplicating records

At times, a new record in a database will be similar in many respects to an existing record. In this situation, the easiest way to add the new record is to duplicate the existing similar record and then make the necessary changes to the duplicate. To create an exact copy of a record, first make sure that the record you wish to duplicate is being displayed in the FileMaker window. Next, click on the **Duplicate records** button on the toolbar or choose **Duplicate records** from the **Records** menu.



The duplicate record will be added to the database and displayed in the FileMaker window.

### Deleting individual records

To delete a single record from your database, first display the record to be deleted in the FileMaker window. To delete the record, click on the **Delete records** button on the toolbar or choose **Delete records** from the **Records** menu.



### Deleting every record in your database

To delete all the records in the database, choose **Delete all records** from the **Records** menu. **Note:** *when a record is deleted from your database, it cannot be retrieved except from a backup copy of your database. The delete command cannot be undone, so use it with care.*

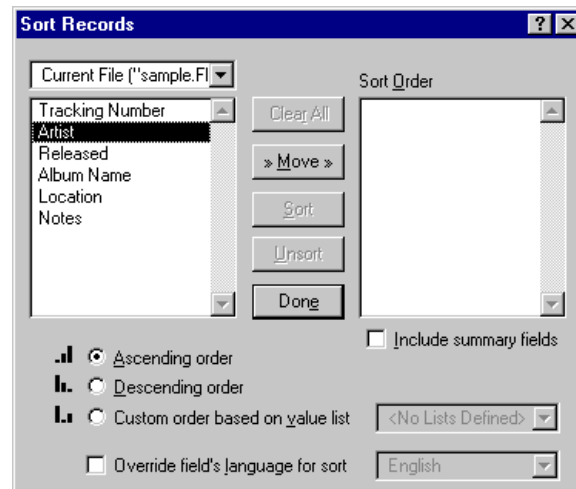
## Sorting records

When retrieving data from your database, it is often useful to sort that data. For example, a personnel database might be most useful when all of the records are sorted by employee last name. Without such a sort order, FileMaker would display personnel records in the order in which they were created. To sort the records in your database, click on the **Sort** button on the toolbar or choose **Sort** from the **Records** menu.



Next, FileMaker will display a dialog box that allows a custom sort order to be created. This dialog box contains two lists of fields:

- all of the fields in your database (**on the left**)
- the fields to use for sorting (**on the right**)



To sort the records in your database using the contents of one field (for example, to sort your CD database by Artist), click on the name of that field in the left-hand field list and click on the Move button. FileMaker will display the field's name in the Sort Order box on the right side of the **Sort Records** dialog box. Next, you can elect to sort your database in the following ways:

- **Ascending order;** with this order, the first record in the database will be the one with the smallest value in the selected field. When sorting using a text field, ascending order is alphabetical order.

**Descending order;** with this order, the first record in the database will be the one with the largest value in the selected field. When sorting using a text field, descending order is reverse alphabetical order.

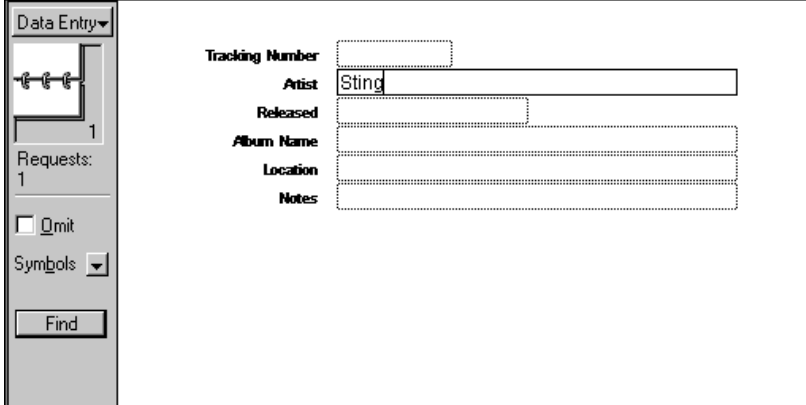
## Finding Records

FileMaker's Find mode makes it easy to search for records in your database. To switch to the Find mode, use the **Mode** pop-up menu at the bottom of the FileMaker window or select **Find mode** from the **View** menu. FileMaker will then display an empty record, using the most recent layout. (To switch to a different layout, simply choose the layout by name using the **Layout** drop-down menu above the Rolodex tool.)

### Simple Search

To find records that match a single criterion (data found in a single field, for example):

- Type your criterion in the appropriate field.
- Click Find.



The screenshot shows the FileMaker Find mode interface. On the left is a vertical toolbar with a 'Data Entry' dropdown menu, a Rolodex tool, 'Requests: 1', a 'Quit' checkbox, a 'Symbols' dropdown menu, and a 'Find' button. The main area displays search criteria for a record:

Tracking Number	
Artist	Sting
Released	
Album Name	
Location	
Notes	

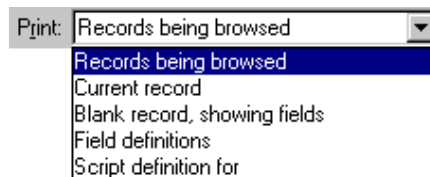
## Printing Records

FileMaker permits you to print a single record or multiple records, using any layout. To print a single record:

- Use the Rolodex tool to display that record on the screen.
- Next, click on the **Print** button on the toolbar or choose **Print** from the **File menu**.
- Finally, in the Print dialog box, click on the **Print** button.

To print multiple records:

- Search for the records that you wish to print, and display one of those records on the screen.
- Next, click on the **Print** button on the toolbar or choose **Print** from the **File menu**.
- From the drop-down menu at the top of the Print dialog box, select **records being browsed**, and click **Print**.



## Planning a database

A little planning goes a long way in creating a database that will be a useful and powerful tool for accomplishing your professional and organizational goals. Be certain to take plenty of time to plan and test your database before you implement it and put it to work.

Below are some ideas to consider in your planning process:

- What is the goal of your project?
- What is the goal of your database? (Is it the same as the goal of your project?)
- Who will use the database?
- What kinds of information must be captured and made accessible?
- What specific data do you want to track and manage?
- How will you need to retrieve and output your data?
- What fields will be necessary to capture the data?

**Tip:** Consider creating a prototype of your database to be tested with a subset of your data. This prototype will allow you to actually work with your database and your data so that you can make necessary revisions before implementing your database in a mission-critical situation.