

# 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

### *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 5 Trial folder.
2. Open the Sample Files folder.

You should be here: FileMaker Pro 5 Trial\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.

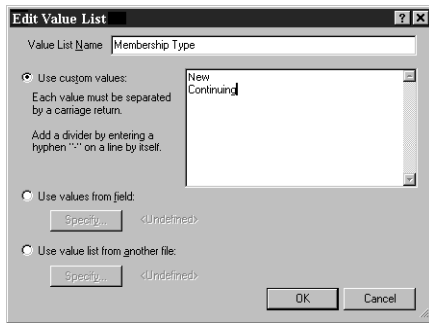
A value list with predefined values, displayed as radio buttons

Membership Type ☒ New ☐ Continuing

#### *Define a value list*

1. Open the Tutorial folder in the FileMaker Pro 5 Trial folder.
2. Open the Working Files folder.  
You should be here: FileMaker Pro 5 Trial\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.

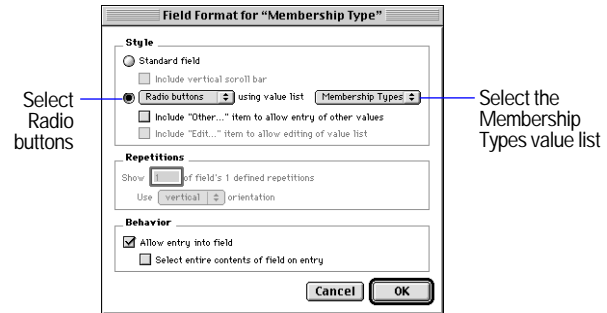
2. Select the Membership Type field.



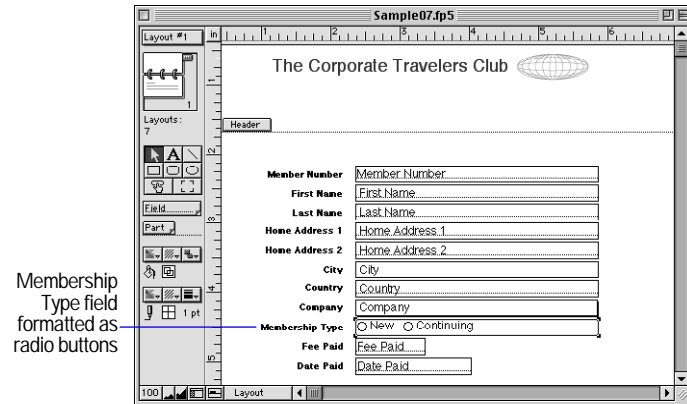
3. Choose Format menu > Field Format.

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.

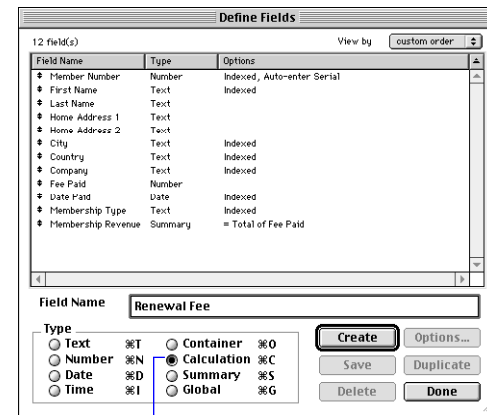
The following steps show the calculation you are going to build. The calculation returns a membership renewal fee based on membership type.

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.



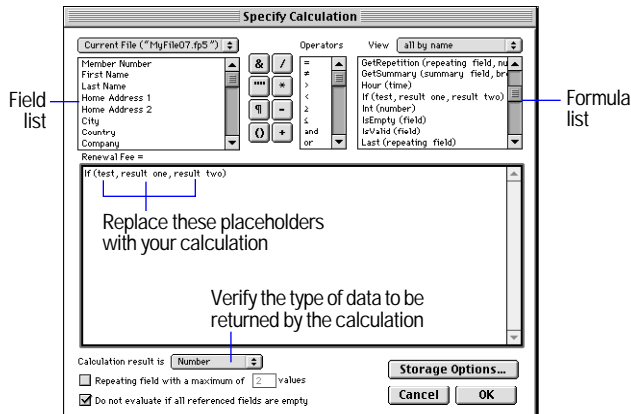
Click Calculation

5. Click Create.

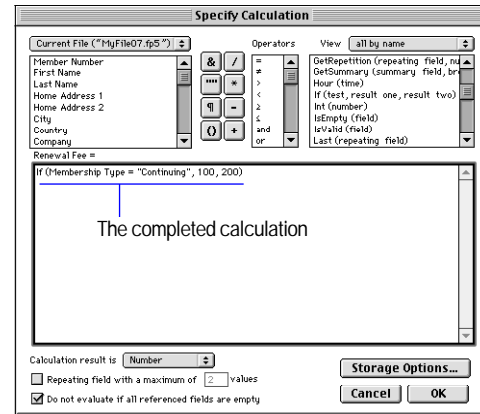
The Specify Calculation dialog box appears.

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

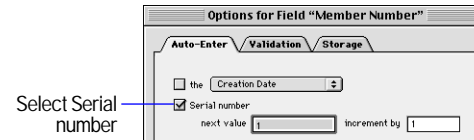
1. Choose Window menu > Sample07.fp5.
2. Go to the last record in the database.
3. Locate the Member Number field, and note the current number of this record.
4. Create a new record by choosing Records menu > New Record.

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.

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