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

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 theFileMaker Pro 5 Trial folder.

2. Open the Sample Files folder.

You should be here:FileMaker Pro 5 Trial\Tutorial\Sample Files.

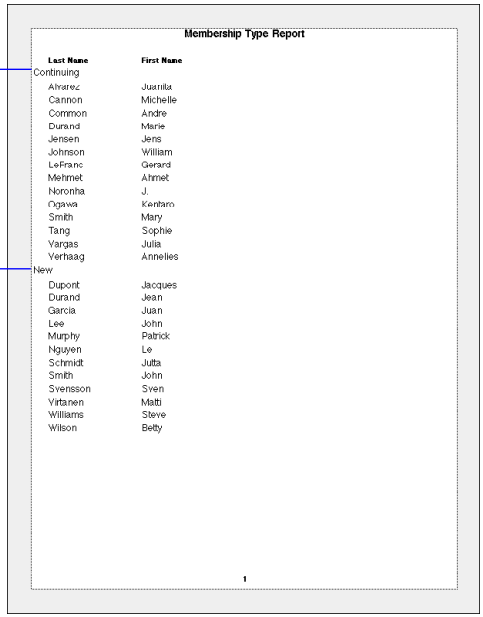
3. Open Sample09.fp5.

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



Membership Type Report

Last Name	First Name
Continuing	
Alvarez	Juanita
Cannon	Michelle
Common	Andre
Durand	Marie
Jensen	Jens
Johnson	William
LeFranc	Gerard
Mehmet	Ahmet
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
Schmidt	Julta
Smith	John
Svensson	Sven
Virtanen	Matti
Williams	Steve
Wilson	Betty

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 theFileMaker Pro 5 Trial folder.

2. Open the Working Files folder.

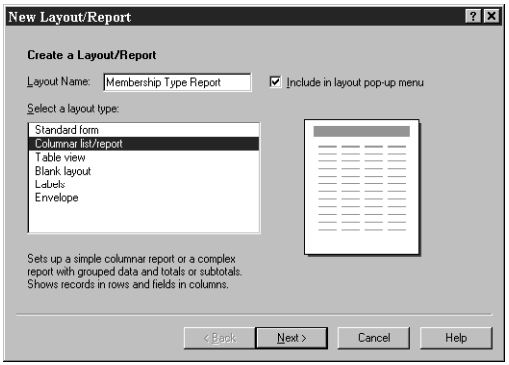
You should be here:FileMaker Pro 5 Trial\Tutorial\Working Files.

3. Open MyFile09.fp5.

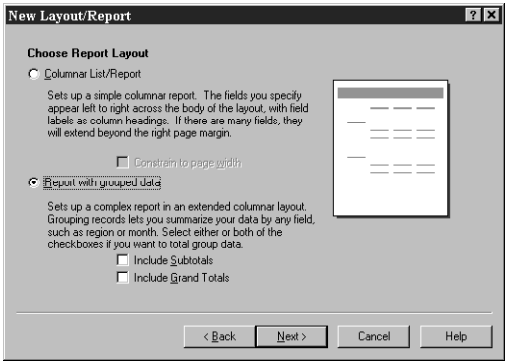
4. In Layout mode, choose Layouts menu > New Layout/Report.

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.

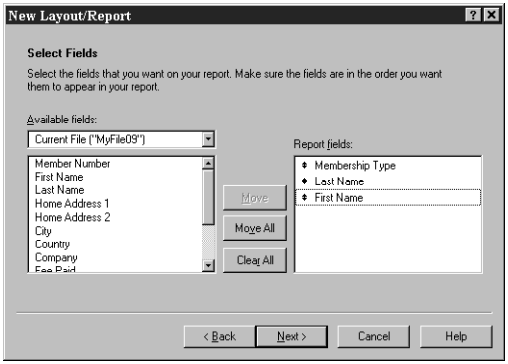


Select the fields used in this report

1. Double-click Membership Type, the first field to be used in this report, to move it to the Layout fields list.

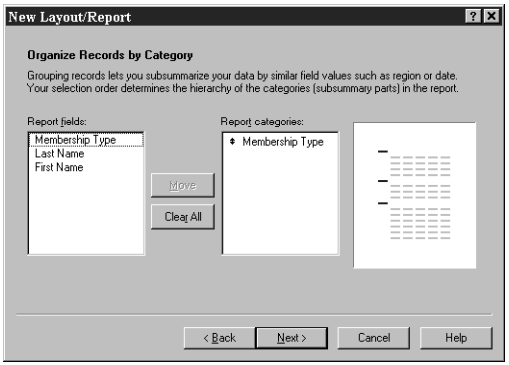
2. Select and move the Last Name field.

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.

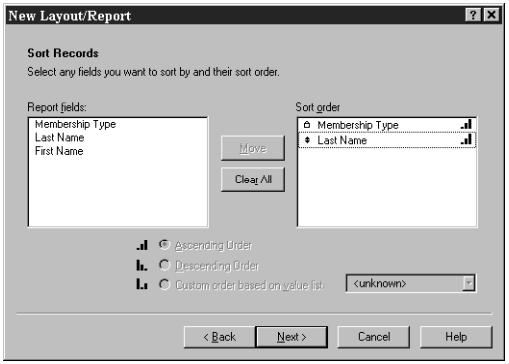


Membership Type is referred to as a break field because you are using the contents of this field to break the records into categories for your report.

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

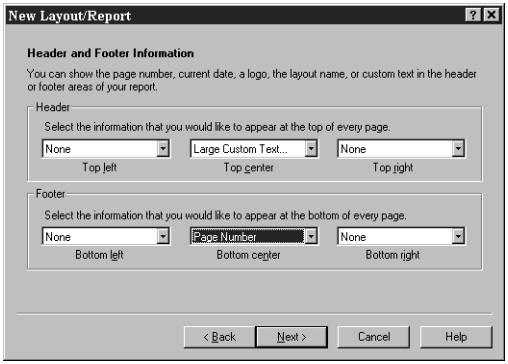
1. Select the Standard theme to set the text size, color, and style of the finished report.

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 9-1.

Generate a report with grouped data and totals

Look at a sample report

This subsummary report:

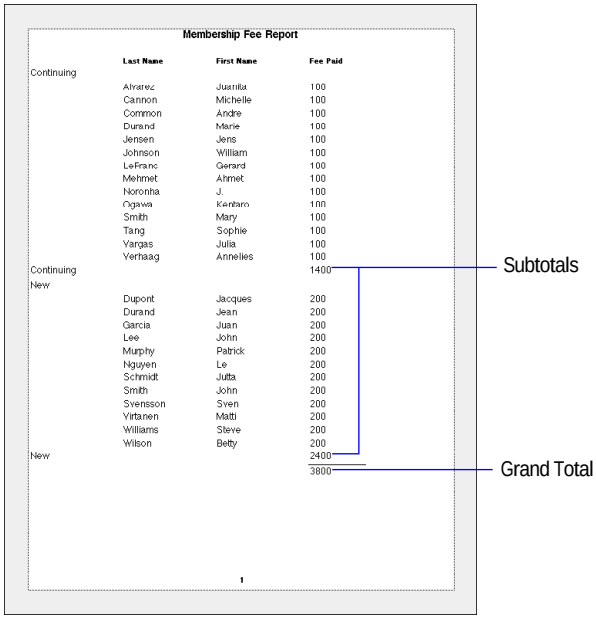
- groups the members by membership type
- subtotals the fees collected for each membership type
- provides a grand total of these fees

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.



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:

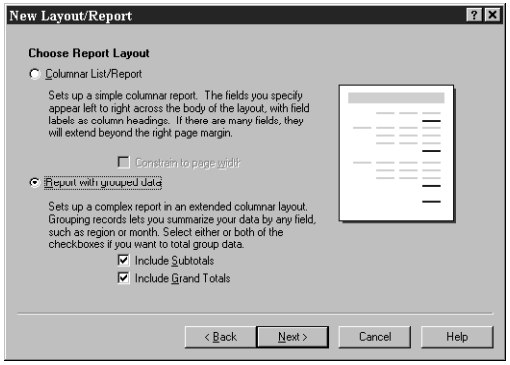
1. Choose Window menu > MyFile09.fp5.

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

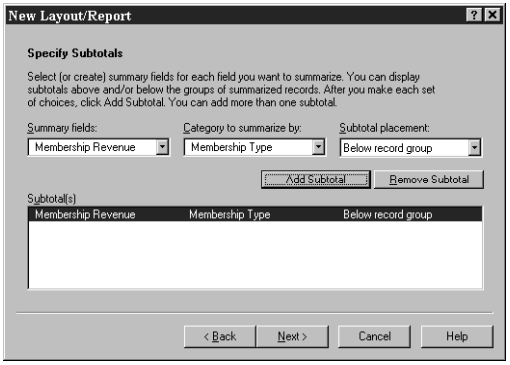
A *summary field* is a type of field you can specify when you define fields. Summary fields allow calculations across all of the records in your found set. In general, when you need to total data across a number of records, you must use a summary field.

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.

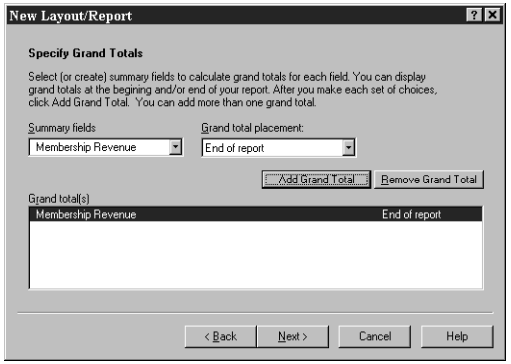
The summary field you will use is Membership Revenue, which has already been defined for you. Membership Revenue totals the fees entered in the Fee Paid field.

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 9-4.

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