Module 7

Macros

Materials Required for Module 7

r Microsoft Access Getting Started

r Microsoft Access User's Guide

r Address Book database

Module Objectives

Lesson 1- Customizing and Automating

Upon completion of this lesson, you will be able to:

r Create a macro and attach it to a button.

r Explain what a "macro action" is and locate the definition and arguments of any given action in On-Line Help.

Lesson 2 - Macro Basics

Upon completion of this lesson, you will be able to:

r Create macros which run a series of actions only if a condition is met.

r Correctly refer to controls and properties on forms.

Lesson 3 - Using Macros With Forms

Upon completion of this lesson, you will be able to:

r Respond to events on a form.

r Synchronize forms.

r Create macros to filter and find records.

Lesson 1

Customizing and Automating

Reading Assignment

r *Microsoft Access Getting Started*
Chapter 10: *Customizing and Automating*

As You Read

r By creating macros you can create customized applications for your users that will make them more productive. With macros you can prevent users from forgetting to enter important data, enforce the rules that your user's company has established for accessing and modifying data, and automate monthly reporting.

Exercises

1) Define the terms:

   Macro:

   Macro Action:

2) When you drag a form from the Database Window to an open Macro what action does Microsoft Access record in the Macro?

3) What does the Data Mode property control?
   Hint: Help on OpenForm

4) Is the Data Mode property required?
   Hint: Help on OpenForm

5) Which argument of the OpenForm macro action do you use to add a criteria to the records which are displayed when the form is opened?

6) What control is created when you drag a macro to an open form?

Lesson 2

Macro Basics

Reading Assignment

r *Microsoft Access User's Guide*
Chapter 21: *Macro Basics*

As You Read

r Most of the macros that you create will be designed to respond to some action taken by the user. Because they are responding to a specific action you will have some information about the current state of Microsoft Access but you may not know enough. In this chapter you will learn to design macros which can take different actions depending upon the value of a field in the current record, the value of fields in another form or table, or input from the user. If you were designing a macro that would run each time the user entered a new record what are some things you might check for?

Hint: Is this new record a duplicate?

Exercises

1) What is the shortcut action you can use to set the ObjectType argument for the Close action? *Hint: use Help*

2) What happens if you select a macro group in the Database Window and choose run?

3) You are creating a macro that will be used by your regional managers to calculate sales tax. Each manager will run the macro from a form which contains the field Local Sales Tax Rate. How would you refer to this field so that your macro will work for all of the managers even if they change the name of their form?

4) Can you print macros?

Try This

1) How many beeps will you hear while running the following macro:

Name	Condition	Action
A	1=2	Beep
B	3=3	Beep
	...	Beep
C	2=2	Beep

Lesson 3

Using Macros With Forms

Reading Assignment

r *Microsoft Access User's Guide*
Chapter 22: *Using Macros With Forms*

As You Read

r It is important that you design your macros so that when something goes wrong the user understands what has happened. Suppose a user clicks on a button on a form that you have designed, expecting another form to open as a result. Nothing happens. What are the troubleshooting steps that another product support technician might suggest based on their experience with Windows and the fact that they might not be familiar with the macro you attached to that button?

Hint: Close other applications to free memory

If a customer saw the message "You may not access that form until you have entered your employee number," would that lessen the chance of the customer calling Microsoft Product Support Services?

Exercises

1) In the example of synchronizing forms on page 535 of Chapter 22, what would happen if you changed the Where Condition to: [Supplier ID]=4?

2) Which property would you attach a macro to if you wanted to run it each time the focus of the form moved to the next record of the second form?

3) If you create a macro to bring up a second form, what action would you add to move the focus automatically to the last record.

4) The example on page 536 "A Phone Book Filter" brings up the suppliers form and applies a filter so you only see those whose Company Name begins with the letter of the alphabet that you specified. How would you change this macro so that when the form opens the names are sorted alphabetically?

5) What is the difference between the display and functionality of a message box that is of type *critical* and one that is of type *information*?

6) If you attach macros to the form's BeforeUpdate, AfterUpdate, and OnInsert properties which will run first?
   Hint: Help

Exercises

Try This

1) Open the NWIND database and create a new macro with one action: Cancel Event.
2) Save the new macro as Cancel.
3) Open the Form Categories.
4) Add a new Category:

   Category ID - JUNK

   Category - Junk Food.

   Description - Food generally purchased from a vending machine in the afternoon.
5) After entering your new record, switch to Design View.
6) Open the Properties sheet and add the macro Cancel to the form action On Insert.
7) Switch to Form View and try to enter a new Category. What happens?
8) Switch back to Design View and specify the Cancel Event property for the form action On Open.
9) Close the form and try to Open it from the Database Window. What happens?

Points to Ponder

This exercise demonstrates the type of automation that could make Microsoft Access difficult to troubleshoot. You will have the opportunity to educate customers on how to make their Microsoft Access applications more robust and user-friendly. For example: if the Cancel Event macro contained a message box that popped up and said "The previous event was canceled by the macro you attached...," the user would have understood what was wrong.

On-Your-Own

In this lab you are going to create a macro group that will help automate data entry in your Address Book database. You will create a new form for entering information about Pets and Hobbies. Then you will place a button on the New Record Entry form that you created in the Forms lab. This button will run a macro that will automatically open the new form and place the focus on the record you just entered.

1) Create a new form based on the Main Contacts table and save it as "More Info".

2) Add the fields last name, first name, and contact id.

3) Create a new tabular form based on the Pets table.

4) Create another tabular form based on the Hobbies Assignments table. (Note: The Hobby ID field should be a bound Combo box that allows the user to choose hobbies that are available in the Hobbies table, but stores the Hobby ID value.)

5) Embed the Pets and Hobbies forms on the More Info form. If you set the relationships suggested in the table design lab, the Join To and Join From properties will automatically be set to Main Contact ID (and Owner ID for the pets table). Verify that as you move to different records in the main table, the data in the subforms updates to match.

6) Open a new macro and save it as "Automate Data Entry".

7) Drag the More Info Form into the Automate Data Entry macro to add the action OpenForm.

8) Drag the Automate Data Entry macro from the Database Container onto the New Record Entry form (you need to be in Design View) to create a command button that will run the macro. Change the button's Caption to "Pets and Hobbies", and resize appropriately.

9) Verify that the button starts the macro and the macro runs.

10) Now add a Where clause to the OpenForm form action so that the information displayed, when the More Info form is opened, is about the current record being displayed in the New Record Entry form.

PSS Challenge

Microsoft Access enforces Referential Integrity when you create a relationship and specify that Referential Integrity should be enforced. Name some ways to enforce Data Integrity?

By attaching macros which contain MsgBox actions to the OnFormat and OnPrint properties of the Sales Summaries report determine which property is executed first.

Can a macro call itself?

Instructor-Led Module Review