ACCESS ‹‹‹‹‹‹

By Patricia Cox

Project: Concrete Application of Access Concepts

Since this column began, I have covered the basic concepts of using Access as well as some intermediate-level functionality. When learning software, however, people often benefit from a concrete example to apply what they're taught. Over the last year, I have been trying to find a common concrete example that readers would be able to apply effectively. Then in the February 2010 issue of *Strategic Finance*, it appeared! For the last six months, *Strategic Finance* has been running a series of articles about how to use Excel to create a Master Budget. I read the articles with great interest to see if this might be a good jumping-off point for our concrete work. I contacted the authors, Jason Porter and Teresa Stephenson. I held my breath as I wrote an e-mail asking to use their example for our discussions. Then I continued to hold it as I wrote the *Strategic Finance* editors to see if they thought the idea might work. Luckily all parties wrote me back in the affirmative, giving the okay to write this series over the next year. Please join me in thanking the authors for their generosity in allowing us to use their example to expand our work

in Access. This represents a great opportunity to see the respective strengths of the tools in both Excel and Access and to contrast how the same project might be completed in each program.

We'll begin the project next month. Before that, however, we need to construct a framework and plan for our work.
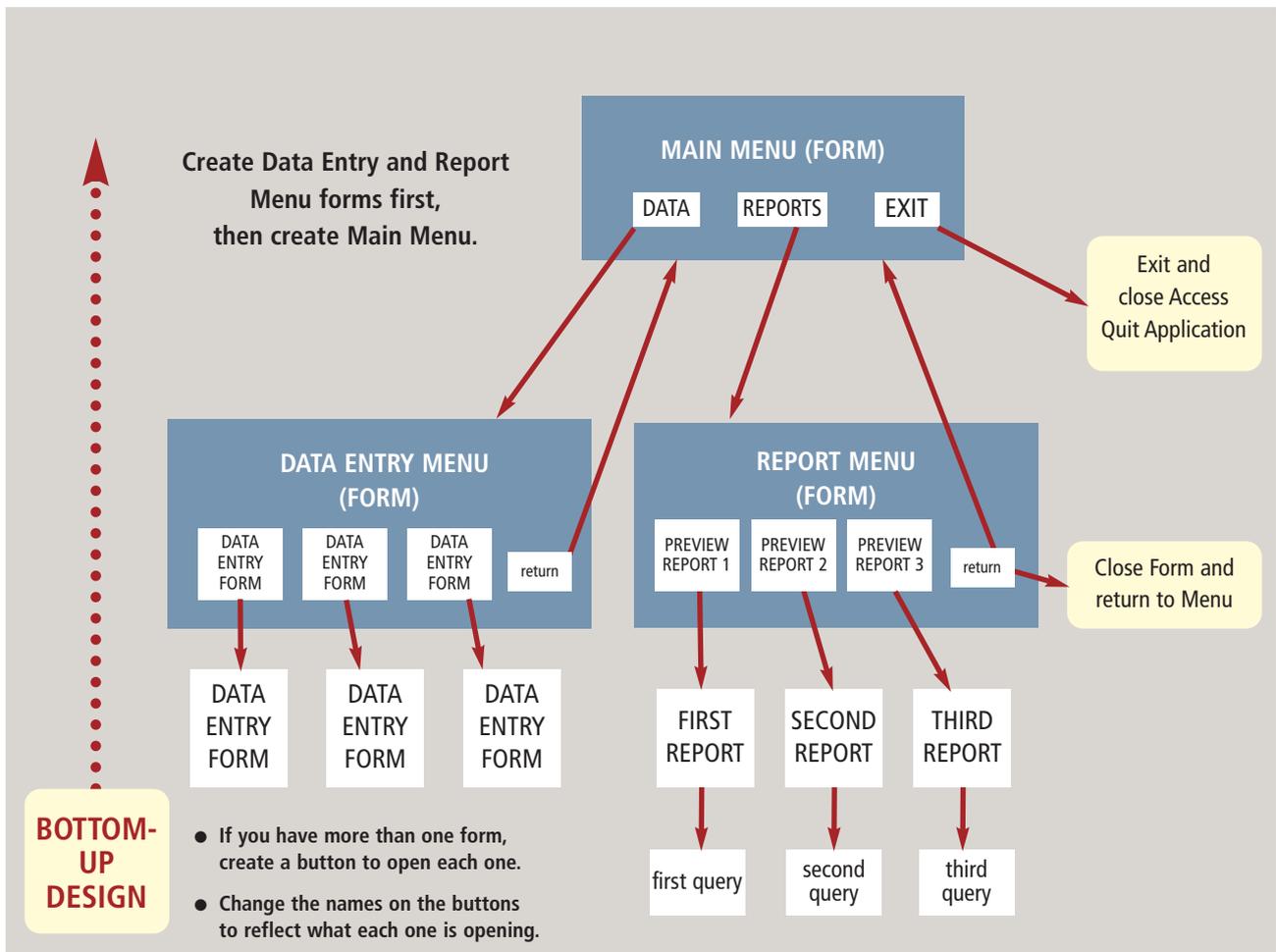
The Framework

In order to prepare for our work together, I requested the Excel file that the authors so generously shared with the *SF* readers, and I have read through the Excel series as well as the Access columns from the beginning. We will use the topics covered in the columns in somewhat the same order as they were published. As we proceed with this project, it may be helpful to have all the columns collected in one place, so a section has been created within the IMA Publications Discussion Group in *LinkUp IMA* (http://linkupima.com) that will list the links to each of the monthly Access columns. Members will be able to use that page to browse through all the Access columns from one place.

Bottom-up Design

The idea of a bottom-up design for an Access database file was introduced in the August 2009 column. Figure 1 shows that structure again so that we might discuss it a little further. You can work very freely in Excel. Any cell can be related to any other cell using a formula. Access, however, is a highly structured tool. When we develop a project in Access, it's beneficial to do so in a specific order. In the material covered in the Access columns, I've tried to follow this order. Notice how the overall development arrow in Figure 1 goes from the bottom to the top, yet the arrows that show how the file is used mostly go from the top down. My experience with users is that they think from top down because that's the way applications are used. When designing the applications, however, we have to begin with the final result in mind. We first want to understand what it is that we want. Having a concrete example with specific outputs (reports) to work from gives us a great vantage point. As we review reports, we're looking for context, inputs, and processes. Context is the time frames or heading informa-

Figure 1. Bottom-up Design

tion on a report. Inputs are the raw data that we want to store in tables. Processes are the calculations that we perform against the raw data to get our outputs.

Table Design

Next month the column will cover table design and relationship. We will analyze the reports covered in the Excel Master Budget series and use the April and May 2009 Access columns to create a table design for our budget database. If you have time and interest, you can do some preliminary work and compare your design to the one that I create. There isn't a single correct answer here—just some designs that will work more effectively.

I look forward to our work together. Again, thank you for all your questions over the last two years. **SF**

Patricia Cox has taught Excel and Access to management accounting students and other college majors and has consulted with local area businesses to create database reporting systems since 1998. She is also a member of IMA's Greater Milwaukee Chapter. To send Patricia a question to address in the Access column, e-mail her at kathrynmann@tds.net.