



Making the Move from Excel to Access

BY PATRICIA COX

You asked. We listened. Here, by popular demand, is *Strategic Finance's* new column that offers tips and techniques on using Microsoft Access 2007.

Excel is an excellent software product that's both powerful and easy to learn. While it can be used to perform much of the data analysis management accountants require on a regular basis, there are times when their data and analysis needs outgrow Excel and require the features of a database. That's when you may want to consider Access. But how can you tell when it's time to move from using spreadsheets (Excel) to a database tool (Access)? Here are some clues to look for:

- ◆ Many of the cells in your spreadsheets use functions such as VLOOKUP or features such as Conditional Formatting or Data Validation.
- ◆ Your files become so large that you're unable to work with them efficiently.
- ◆ You find yourself entering similar or related data in multiple places and are struggling to keep various files consistent.

◆ You want to organize your reports in a way so that all the information can be brought together as one connected system.

◆ Your data is already in a database tool, and you want to connect to it and create a reporting system.

When one or several of these situations occurs, it's time to consider moving to a database. If so, you first need a sense of what a database is and how to work with one.

Access: A Database Management Tool

A database is a tool for collecting data, and a database management system allows you to not only store the data, but to make data inquiries and report the results. **Tables** are used to store data. **Relationships** connect the tables so that data storage can be efficient. **Queries** allow you to select subsets of the data for reporting. **Reports** provide professional layouts of data and informa-

tion, such as titles, dates, subtotals, and totals. **Forms** have two basic functions: They allow for easy data entry into tables and easy navigation around your system. Finally, **macros** allow you to automate repetitive processes in your system.

Getting Ready for the Move

The first thing to consider when converting from Excel to Access is moving the data from one format to the other. When getting started, it's important to understand the difference between storing data in a spreadsheet and in a database table. A database table is a matrix similar to an Excel worksheet, but each column in a table is named as a field and is assigned—and will only accept—a particular type of data, such as text, currency, or dates. This helps prevent bad data from getting entered into the table and increases accuracy and consistency. Tables can be related to each other in a one-to-many relationship, and, thus, the data only needs to be stored once. This eliminates the problem typical in spreadsheet use where the same or similar data needs to be entered and stored in multiple locations or files.



Figure 1. Sample Spreadsheet Layout

	A	B	C	D	E	F	G
1	Alphabetical Listing of Classifications						
2	Current as of August 4, 2006						
3							
4	NOTE: Revised Minimum Rates (RM/Rs) are not reflected in this listing						
5							
6		Class	Pay				Appt.
7		Code	Sched	Range	Minimum	PSION	Max. I
8	9	ACADEMIC DEPARTMENT ASSOCIATE (A)	23640	2	30	\$12,684	
9	9	ACADEMIC DEPARTMENT ASSOCIATE (B)	23770	2	31	\$14,889	
10	10	ACADEMIC DEPARTMENT MANAGER	36720	31	3	\$21,384	\$15,630
11	11	ACADEMIC DEPARTMENT SPECIALIST(A)	23700	2	31	\$14,889	
12	12	ACADEMIC DEPARTMENT SPECIALIST(B)	23770	2	32	\$16,837	
13	13	ACADEMIC DEPARTMENT SUPERVISOR	36824	31	4	\$16,578	\$27,296
14	14	ACCOUNTANT	36340	7	4	\$16,578	\$27,296
15	15	ACCOUNTANT (DCA GAAP) MFT	36420	31	2	\$25,237	\$41,679
16	16	ACCOUNTANT (ITE SYSTEMS)	36960	7	2	\$25,237	\$41,679
17	17	ACCOUNTANT-ADV	36360	7	2	\$25,237	\$41,679
18	18	ACCOUNTANT-ADV MFT	36340	31	2	\$21,384	\$15,630

It's often possible to import your data directly from Excel into Access. The first step is to make some alterations to the Excel file to ensure that its structure resembles an Access table. (See Figures 1 and 2 for a before and after comparison.) This will give Access the information it needs to assign field names and data types during the import process. Report titles, dates, and cell formats should be removed. Column names should be changed into one-word descriptions, if possible. See Figure 1 and Figure 2 for examples of how to change the column names. The first row of data shouldn't have any blank cells and should contain data that is representative of the appropriate types for each column—a date, a number, text, etc. (Compare cells F8 and G8 in Figure 1 to cells F2 and G2, respectively, in Figure 2.) If there

are multiple sets of data in one sheet to import, then select the range of cells you want to import and name them using Excel's name box.

Once your data is structured, it's ready to be imported into Access. After that's complete, the table design can be edited to make any corrections to data types and sizes that Access didn't interpret accurately. Sometimes it takes a couple of passes to get the data into Access the way you want.

Now that your data is in a database format, it can be analyzed and reported in ways that go beyond the capabilities of spreadsheet software. You can pull out subsets of the data and create professional-looking reports. You can automate processes and create a system for collecting and reporting monthly data as time passes. You can create forms that let you

Figure 2. Sample Layout Ready to be Imported

	A	B	C	D	E	F	G
1	Classifications	ClassCode	PaySched	Range	Minimum	PSION	ApptMax I
2	ACADEMIC DEPARTMENT ASSOCIATE (A)	23640	2	30	\$12,684		
3	ACADEMIC DEPARTMENT ASSOCIATE (B)	23770	2	31	\$14,889		
4	ACADEMIC DEPARTMENT MANAGER	36720	31	3	\$21,384	\$15,630	
5	ACADEMIC DEPARTMENT SPECIALIST(A)	23700	2	31	\$14,889		
6	ACADEMIC DEPARTMENT SPECIALIST(B)	23770	2	32	\$16,837		
7	ACADEMIC DEPARTMENT SUPERVISOR	36824	31	4	\$16,578	\$27,296	
8	ACCOUNTANT	36340	7	4	\$16,578	\$27,296	
9	ACCOUNTANT (DCA GAAP) MFT	36420	31	2	\$25,237	\$41,679	
10	ACCOUNTANT (ITE SYSTEMS)	36960	7	2	\$25,237	\$41,679	
11	ACCOUNTANT-ADV	36360	7	2	\$25,237	\$41,679	
12	ACCOUNTANT-ADV MFT	36340	31	2	\$21,384	\$15,630	
13	ACCOUNTANT-CORP	3110	31	3	\$21,894	\$36,831	
14	ACCOUNTANT-JOURNEY	3620	7	3	\$21,894	\$36,831	
15	ACCOUNTANT-SENIOR	3111	31	3	\$21,894	\$36,831	
16	ACCOUNTANT-SENIOR CORP	364	7	3	\$21,894	\$36,831	
17	ACCOUNTANT-SENIOR CONE	3112	31	3	\$21,894	\$36,831	
18	ACCOUNTANT-SENIOR MFT	3611	31	3	\$21,894	\$36,831	

easily run the processes you create.

In the coming year, this column will address various features and tools of Access 2007, including tables, importing, relationships, queries, reports, forms, and macros. Each month will cover basic step-by-step instructions, and further details will be available online at <http://faculty/hartmap/IMA>. By this time next year, you should have a basic understanding of Access and enough instruction to create a simple, effective system. ■

Patricia Cox teaches Excel and Access to management accounting students at Alverno College in Milwaukee, Wisc., and has consulted with local area businesses to create database reporting systems since 1998. To send her a question to address in the Access column, e-mail her at kathrynmann@tds.net.