

ACCESS <<<<<<<

By Patricia Cox

Make Table Queries

To make a table or not to make a table, that's the question we'll explore this month. A make table query is another type of action query. We previously discussed append, delete, and update action queries (see the July 2009 column). So you might ask the question, "Why would we need an action query to make a table when we can select the data we want with a select query and manipulate the data we store to change values, delete records, or append records and put these changes in order in a macro?"

Use a Make Table Query

There are times when using a make table query is necessary or simplifies a process, such as when:

- ◆ You want to perform multiple complex manipulations, and having a separate area to gather the data could be helpful.
- ◆ You have a particular set of data you use to run several reports, and running the data is time-consuming. In this case, you want to run a process to make a table and then use it for all the reports.
- ◆ You don't have access to the data tables to create more fields for storing additional data.

Balancing Time and Space

When you work in Access, you are always balancing processing time and storage space while keeping in mind that you want to be using accurate data. That brings us to the reason not to create a make table query. Put simply, you don't use a make table query unless the combination of other action queries makes your data processing more inefficient or inaccurate. In other words, a make table query is a last resort when you have exhausted other ways of getting your results effectively. The main reason for this is that a make table creates multiple sets of the same data, and it's easy to lose track of the last time you made the table and whether or not it contains the most current and accurate data.

Using a make table as part of a regular process is more advisable. I use them to make an initial table, and then I create a process that uses a delete query and append query to maintain the data over time. The best way to illustrate using a make table query is to look at an example.

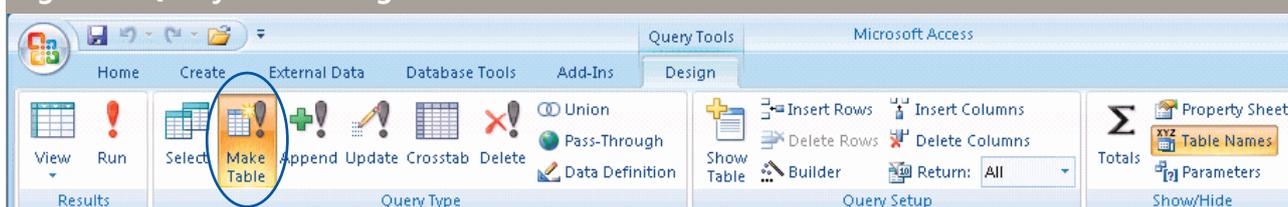
Make Table Example

Recently a reader asked a question about

how to create an aged accounts receivable report. To some extent, the answer to this question relates to how the data is stored and processed, so we will make some assumptions. Let's assume that the data is stored in a variety of related tables, including Order and Payment. The Order table shows the amount of a sale—when it was shipped, the number of items ordered, order quantity, sales price, etc. The Payment table shows payments applied against an order. We want to track the dollar amounts open on an order and the number of days since the order was processed or invoiced.

If we could build into the process an update to the order table that indicates the amount paid on that order, then we could use a select query to pull the data together and sort it out by dates. But let's say we don't have access to the original tables to create the fields in which to store the aging—perhaps we are linked to data tables controlled by someone else, such as a data warehouse. Creating a separate table to make the aged calculations is a good option. You would do this initially to easily make a table with appropriate field names and types. Then add the additional fields for aging and create update queries

Figure 1: Query Tools Design Ribbon



to update the data in the additional fields. Then, as part of a monthly macro, you would process a delete query to clear out the data and an append query to load the new month's data. You can easily change your make table query to instead append the data by clicking the Append button on the Design Ribbon.

Make a Table

The actual process for making a table is to create a select query and then click the Make Table button on the Query Tools Design Ribbon (see Figure 1). When you do this, you'll be able to type in the name of the table you want to create and choose whether to store the table in

this database or another one (see Figure 2). The table you make will use the field names from your query and the data types from the data in the query.

Long-Term Planning

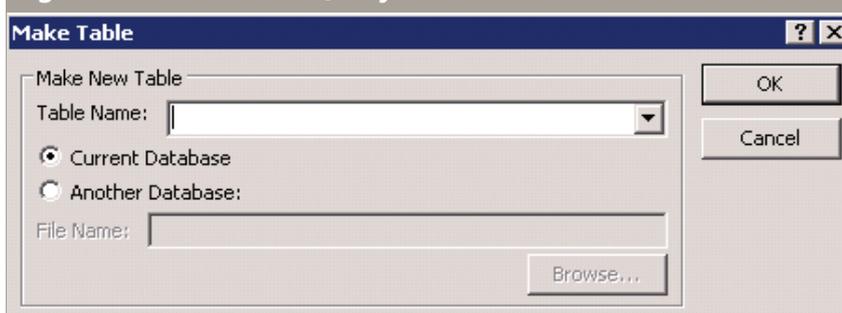
Keep in mind that a make table query duplicates a subset of data. As a result, it will increase the size of the database. This makes it even more important to follow some of the guidelines suggested in earlier columns, such as creating efficient field types and sizes as well as setting database options to Compact on Close. When you are working in a database, you become a system analyst and designer. Thinking through the long-term

issues associated with making duplicate data is recommended.

The benefit of working in Access is that you have the power to manipulate data, create a consistent report, and save a lot of time. The challenge is to spend the upfront analysis time to ensure that reporting will always be accurate. Making a list of steps that you will need for the entire process at the very beginning is helpful in order to avoid going through multiple rounds as you create your process.

Next month we will look at the immediate IF function to further refine your ability to create useful queries and reports. **SF**

Figure 2: Make Table Query



Patricia Cox has taught 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. 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.