

ACCESS <<<<<<<

By Patricia Cox

Master Budget Project: A Nested Query

Over the past two months, we've constructed the main report and the first subreport for the Production Report. This month we add the second subreport to complete it. The second subreport shows the Production Units needed each period for both Basic and Deluxe Bikes. The record source for this subreport involves a nested query, which is a query that references another query.

Nested Queries

The second subreport needs a record source that will summarize the Total Production Units by quarter and give it a row heading "Production Units." For that, we first need to create a query similar to the others we've created for the Production Report. Begin by opening the Crosstab Inventory Values Production SubReport query in Design view and sav-

ing it as "Total Production Units." Set the fields so the query contains Budget Year, Budget Quarter, Production Units: "Production Units," Budget Item, Count, and Budget Type. The criteria for Budget Type should be: "Beginning Inventory" Or "Ending Inventory" Or "Sales" (see Figure 1). Because we added a calculation last month that made Beginning Inventory a negative number, summarizing Sales, Ending Inventory, and Beginning Inventory will provide the needed Production Units total.

The second query we need, which we'll name "Production Units for Report," uses the Total Production Units query as a data source and contains the following fields: Budget Item, Production Units, Expr1: [Budget Year] & "-" & [Budget Quarter], and SumOfCount. The Column Headings field in the Property

Sheet should match up with the columns from the main report and first subreport: "2012-1", "2012-2", "2012-3", "2012-4", "2013-1", "2013-2", "2013-3", "2013-4" (see Figure 2). If you want, you can copy this property from the Crosstab Inventory Values Production SubReport query or just type it. A best practice is to use copy and paste whenever possible. This ensures that a lengthy property setting is exactly the same wherever it is used. Be sure to save the query when you are done designing it. Check the query result to make sure it includes the total numbers you expect.

Multiple Subreports

The second subreport can be created by opening the Production SubReport and saving it as "Production SubReport2." Change the record sources property to

Figure 1. Total Production Units Query

Total Production Units						
Field:	Budget Year	Budget Quarter	Production Units: 'Production Units'	Budget Item	Count	Budget Type
Table:	Budget	Budget		Budget	Budget	Budget
Total:	Group By	Group By	Group By	Group By	Sum	Where
Sort:						
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Criteria:						"Beginning Inventory" Or "Ending Inventory" Or "Sales"
or:						

the Production Units for Report query. Save and close the second subreport.

Open the main Production Report in Design view and

drag the Production SubReport2 from the Object list onto the report, placing it below the first subreport (which we added last month). Preview the report and make sure that the second data columns are lined up with the rest.

Reports Menu

Now we can add the Production Report to the Reports Menu form. Open the form in Design view. Use the Button control from the Form Design ribbon to draw the button and begin the Command Button Wizard. In the first step, the category should be Report Operations, and the action should be Preview Report. In the next step, choose Production Report. In the third step, enter "Production Report" as the text to display. Click Finish. Resize and align the button to match the others on the form. Use the Format Painter on the Home rib-

bon to copy the text format from one of the other buttons: With one of the existing buttons selected, click first on the Format Painter icon, then on the new button. Save the form, then change to Form view to test the button.

Best Practice

Access reports generally have a details, subtotals, and totals layout. Reports that involve arranging data in a way that varies from this may require the use of subreports.

Access queries can help with transforming the data, but it sometimes takes multiple queries to get the data arranged exactly as you need. Nesting a query or multiple queries within a query can help achieve the desired result.

In the coming months, we will use some of the same best practices and build on them as we create other reports

for the Master Budget Project. Since we're in the month of Thanksgiving, I want to again express my thanks to Teresa Stephenson and Jason Porter for their Excel-based series that we're working from, and I thank you all for following our process to develop a budgeting system in Access. As we move into 2013, we will also convert our MDB file into an Access 2007/2010 database with an ACCDB extension. **SF**

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Figure 2. Production Units for Report Query

