

ACCESS <<<<<<<

By Patricia Cox

Master Budget Project: Manufacturing Overhead Budget

>>> The Manufacturing Overhead Budget report is one of those short reports that's easy to do in Excel but is a challenge in Access. As with previous reports, we will create a set of queries to collect data in a table, add some text boxes to the Reports Menu form, create a report, and then string the queries together in a macro. But we'll also need to get creative and use subreports.

Subreports

A subreport lets you view information from more than one table or query on the same report. You create each subreport separately and then drag them into an existing report for a combined view. Before you begin to create a report, it's important to examine the parts of the report and determine how to divide it into separate subreports. When making that determination, keep in mind what Access does well with reports: list details and provide subtotals and grand totals. You can also put headers and footers on a report. But what an Access report doesn't do well is multiply values from two separate lines and display the results on another line. For the Manufacturing Overhead Budget report, we will need to

multiply Budgeted DL Hours and the Variable Overhead Rate. Figure 1 shows the original Excel report and describes how we'll break it up into subreports.

Manufacturing Overhead Budget Table

We'll begin to create the Manufacturing Overhead Budget report by assembling the data for the main report. This involves the process we've been using over the last few months of creating a series of Append queries to add data to a table. When we calculated the Total Direct Labor (DL) Hours Needed on the Direct Labor Budget report, we stored the numbers that we will need for the first line of the Manufacturing Overhead Budget report. Now we will reuse that data.

First, create a table named "Manufacturing Overhead Budget" that has a text field called "MOBCategory" and fields for each of the four quarters in 2012 and 2013. Next, create an Append query that sums the 3Total DL Hours Needed items from the Direct Materials Budget table for each quarter and adds them to the appropriate field in the Manufacturing Overhead Budget table. Save it as "Append Direct Labor Hours to MOB

Table" (see Figure 2).

For the next step, we will multiply the Total DL Hours by 1.75, the Variable Overhead Rate. First open the Reports Menu and add text boxes for Variable Overhead Rate and Fixed Overhead. Be sure to name them so that you can refer to them in the queries. Change their respective default value properties to 1.75 and 250,000. Create an Append query called "Append Total Variable Overhead to MOB Table." Calculate the Total Variable Overhead by multiplying the values in the text boxes we created on the Reports Menu form and append the result to each quarter in the Manufacturing Overhead Budget. Figure 3 shows the first two fields of the query.

Create a similar Append query called "Append Fixed Overhead to MOB Table." To calculate the Fixed Overhead for each period of the table, divide the Fixed Overhead value from the Reports Menu form by 4. Figure 4 shows the first few query fields.

Schedule of Cash Payments for Overhead

Another portion of the Manufacturing Overhead Budget is the Schedule of

Figure 1. Manufacturing Overhead Budget from Excel

Manufacturing Overhead Budget						
2010						
	Q1	Q2	Q3	Q4	Year	
Budgeted DL hours	18,053	18,719	19,409	20,129	76,310	
Variable OH rate	\$1.75	\$1.75	\$1.75	\$1.75	\$1.75	
Total Variable OH	\$31,593	\$32,758	\$33,966	\$35,225	\$133,542	
Fixed OH	\$62,500	\$62,500	\$62,500	\$62,500	\$250,000	
Total OH	\$94,093	\$95,258	\$96,466	\$97,725	\$383,542	
Total Manufacturing OH					\$383,542	
Budgeted DL Hours					76,310	
Predetermined OH for 2007					\$ 5.03	

Schedule of Cash Disbursements for Overhead						
2010						
	Q1	Q2	Q3	Q4	Year	
Total OH	\$94,093	\$95,258	\$96,466	\$97,725	\$383,542	
Less: Depreciation and Amortization	\$15,625	\$15,625	\$15,625	\$15,625	\$62,500	
Cash Disbursements for OH	\$78,468	\$79,633	\$80,841	\$82,100	\$321,042	

Subreport with heading, two lines, and a total

Subreport with two lines and a total

Main report with heading and two lines from the table

Subreport with two lines of data and a calculation

Cash Payments for Overhead. This uses the Total Cash Paid for Materials line from the Schedule of Cash Payments (DM Cash Payments report) and subtracts Depreciation to get the Cash Disbursements for Overhead. To find the calculations for these, see the Data Input Sheet as shown in Figure 1 of Jason Porter and Teresa Stephenson's February 2010 article, "Creating an Excel-based Budget You'll Really Use." That sheet shows many of the default values we've been adding to the Reports Menu form. For the Schedule of Cash Payments for Overhead, we'll add the Fixed Overhead from Depreciation percentage (25%). Add a text box to the Reports Menu form, and set its default value to 0.25 and its format to Percent.

With that value in place, see if you can use the same techniques that we've been applying these past few months and try to create the Schedule of Cash Payments for Overhead table.

Figure 2. Append Direct Labor Hours to MOB Table

Append Direct Labor Hours to MOB Table				
Field:	MOBCategory: "Budgeted Direct Labor Hours"	2012-1: 2012-1	2012-2: 2012-2	2012-3: 2012-3
Table:		Direct Labor Budget	Direct Labor Budget	Direct Labor Budget
Total:	Group By	Sum	Sum	Sum
Sort:				
Append To:	MOBCategory	2012-1	2012-2	2012-3
Criteria:				
or:				

Figure 3. Append Total Variable Overhead to MOB Table

Append Total Variable Overhead to MOB Table				
Field:	MOB Category: "Total Variable Overhead"	2012-Q1: [2012-1]*[Forms]::[Reports Menu]::[VariableOverheadRate]		
Table:				
Sort:				
Append To:	MOBCategory	2012-1		
Criteria:				
or:				

Figure 4. Append Fixed Overhead to MOB Table

Append Fixed Overhead to MOB Table				
Field:	MOBCategory: "Fixed Overhead"	2012-1: [Forms]::[Reports Menu]::[FixedOverhead]/4	2012-2: [Forms]::[Rep	
Table:				
Sort:				
Append To:	MOBCategory	2012-1	2012-2	
Criteria:				
or:				

Best Practice

When planning a complex report that does more than just list details and their totals, take the time to determine how it can be broken down into subreports.

Next month we will work on the sub-reports and add them to the Manufacturing Overhead Budget report. **SF**

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