

# ACCESS <<<<<<<

By Patricia Cox

## Master Budget Project: Available Cash

As we near the end of the complex Cash Budget report, this month we will create three queries and three subreports that calculate and display the available cash amounts. The work is very similar to the queries and subreports we have been creating these past few months.

### The Queries

All three queries use the Cash Budget and Cash Outflows from Operations tables as the record sources. They also use the Total line, so be sure to toggle that on from the Query Tools Design tab. And the design is similar for all three queries. The first field creates the line heading, the next four fields calculate the values for each respective quarter, and the fifth field adds up the total.

Table 1 shows the fields for the “Cash Available from Normal Operations” query, while Table 2 shows the fields for the “Cash Available After Investments” query. The difference between the two queries is that the Cash Available After Investments query uses a value from the Reports Menu form for the investments each quarter. PEEQ1 refers to the first quarter investment, PEEQ2 is the second, and so on. Create both of these queries,

test and save them, and then close them.

The third query is “Cash Available Before Line of Credit.” As I said, it has the same record source and follows the same structure as the first two queries. The first field—**Headline: “Cash Available Before Line of Credit”**—creates the headline. The next four fields are for quarters 1-4. For quarter 1, it is **1QTR: Sum([Q1])+Sum([QTR1])/2-[Forms]![Reports Menu]![PEEQ1]-([Forms]![Reports Menu]![Taxes]+[Forms]![Reports Menu]![BondInterest]+[Forms]![Reports Menu]![Dividends])/4**. Repeat this for quarters 2 through 4, updating the quarter references as well as the investment

(PEEQ1) reference. The final field totals the quarter: **Total:[1QTR]+[2QTR]+[3QTR]+[4QTR]**. Be sure to enter the fields for quarters before you enter the total field. The query needs them first in order to calculate the total. Save the query, test it, and then close it.

### The Subreports

Create separate subreports for each of the three queries. Name them “Cash Available from Normal Operations Subreport,” “Cash Available After Investments Subreport,” and “Cash Available Before Line of Credit Subreport,” respectively.

Once they’re created, open the Cash Budget report in Design view and drag

**Table 1. Cash Available from Normal Operations Query**

Field	Total
Headline: “Cash Available from Normal Operations”	Group by
1QTR:Sum([Q1])+Sum([QTR1])/2	Expression
2QTR:Sum([Q2])+Sum([QTR2])/2	Expression
3QTR:Sum([Q3])+Sum([QTR3])/2	Expression
4QTR:Sum([Q4])+Sum([QTR4])/2	Expression
Total:[1QTR]+[2QTR]+[3QTR]+[4QTR]	Expression

the subreports into the appropriate locations. Make sure to remove the label at the top of the report and to line up each subreport. Print Preview the main report until all three subreports are displayed where you want them.

## Validation

As we have worked through this complex report over the last few months, we have tested the values at every step. This becomes especially important now that we are close to finishing the report. If you haven't done so already, print out the Cash Budget report with all the subreports and check the values and calculations manually. Correct items as needed if you have any typos or missed any of the details.

Because we don't have a Beginning Cash Balance for Q2 to Q4, the cash available amounts are only correct for the first quarter. Next month we will create a process to update the Beginning Cash Balance values so that the entire report is complete. To do this, we will create queries to do the updates and macros to run the process. We'll also add a button to the form to run the macro and preview the report. This re-

**Table 2. Cash Available After Investments Query**

Field	Total
Headline: "Cash Available After Investments"	Group by
1QTR:Sum([Q1])+Sum([QTR1])/2-[Forms]![Reports Menu]![PEEQ1]	Expression
2QTR:Sum([Q2])+Sum([QTR2])/2-[Forms]![Reports Menu]![PEEQ2]	Expression
3QTR:Sum([Q3])+Sum([QTR3])/2-[Forms]![Reports Menu]![PEEQ3]	Expression
4QTR:Sum([Q4])+Sum([QTR4])/2-[Forms]![Reports Menu]![PEEQ4]	Expression
Total:[1QTR]+[2QTR]+[3QTR]+[4QTR]	Expression

port is the most complex report I have created in Access. The same processes we have been using here can be used to create other complex reports you may want.

## Best Practice

When you're building a database, it's helpful to compare it to a working database—particularly one that is similar in purpose or functionality. Go into the example database and view the various objects, such as queries and reports, in Design view. This will give you an idea of all the details you'll need to make the objects in your database function properly.

For the queries, subreports, and the

main Cash Budget report we've been working on, you can compare yours to this month's database in LinkUp IMA. It can be found in the 2014 Database Files post in the Publications Article Reference Library. **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 also is a member of IMA's Madison Chapter. To send Patricia a question to address in the Access column, e-mail her at [kathrynmann@tds.net](mailto:kathrynmann@tds.net).*