

Sage Summit 2012 Conference

Database Fundamentals – Part 2

Applying Table Relationships in Sage 300 Construction and Real Estate to Create Meaningful Reports

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Description

This hands-on session will build on the knowledge and experience you gained in 'Database Fundamentals: Understanding the Sage 300 Construction and Real Estate Core Accounting Module Database (Part 1)' session and/or your own database expertise. During this session, we will delve into more specific examples of challenging reporting requirements and how to combine database elements efficiently to get the information you need. We'll have some specific examples to work through but encourage participants to bring your own examples where you need help determining the structural relationships that will get you the reporting results you're looking for. Due to the lab requirements, space is limited, so register early to ensure your spot in this valuable hands-on session!

Learning Objectives

At the end of today's session, you will be able to:

- Determine which database table elements can be combined on a report or template.
- Structure reports for optimized performance.
- Address at least one reporting challenge from your To Do list.

To Do After the Conference



Notes

Exercise #1 – Identify a Table Relationship

Part 1 – Print Available Fields for AP Distribution

1. Start Report Designer
2. In the **Select Company** window, choose **Timberline Construction** and click **OK**
3. Click the **Tools** menu and click **Available Fields**
4. Scroll down to the **Accounts Payable** section in the list, and click on **AP Distribution**
5. Click **OK**
6. Mark the **Include information for ODBC reporting** box
7. Click **Print Preview**
8. Answer the following questions:
 - a. What columns make up the primary key for the AP Distribution table?

- b. What are the Codes for the primary key columns?

Part 2 – Print Available Fields for GL Transaction

Repeat steps 2 – 7 of Part 1, except select **GL Transaction** (under **General Ledger**) in step 4.

Part 3 – Find the Relationship

Answer the following questions:

Can you find a field in this list for each of the Codes you identified in Part 2, step 8(a)?

What are the field names and internal names of these fields?

Part 4 – (Optional)

Does it appear that the following additional tables are related to **GL Transaction**? If so, how?

GL Account	
AP Invoice	
JC Extra	

What other tables might be related to **AP Distribution**, and how?

Exercise #2 – Report Groundwork

In this exercise, you will perform the groundwork needed in order to build a *Job Cash Flow Summary* report. This exercise does not include the actual creation of the report design. You will examine a mock-up of the desired report, identify the tables that would be utilized, identify how they are related, identify the specific table columns that would be used in each column of the report, and how they would be used to produce the desired results.

By following a process such as this for any reporting need, you are in a position to know up-front where a given report needs to obtain its data before you start down the design process.

At the end of this exercise, we will review two versions of this report and how they utilize the tables, columns, and relationships that you identified.

Example Report

Company	Company Name	Job	Description	Cash Receipts	Dollars Paid	Other Costs	Net Cash Flow
10	Timberline Construction, Inc	03-U06	PGE Line WC#345	.00 .00*	.00 .00*	5,239.11 5,239.11*	5,239.11- 5,239.11-*
21	General Construction	03-001 03-002 03-003 03-015	NW Food Warehouse Clackamas Office Park #4 Port Wayne Officer's Club Beaverton Office Park	200,000.00 80,000.00 10,000.00 .00 270,000.00*	48,004.61 11,318.75 1,306.81 .00 61,620.20*	67,096.16 14,052.10 21,079.77 .00 102,228.03*	83,099.23 34,629.15 12,476.61- .00 106,205.09*
Report Totals:				270,000.00*	61,620.20*	102,228.03*	106,205.09*

You will use the worksheet on the next page to document the database elements (tables and columns) that would be needed to construct this report.

Notes-

- Cash Receipts are customer payments received through Accounts Receivable and posted to Job Cost.
- Dollars Paid are checks written through Accounts Payable and posted to Job Cost.
- Other Costs would be all costs charged to jobs except for costs entered through Accounts Payable (because those costs are accounted for in the Dollars Paid amount).
- Net Cash Flow is simply a formula = Cash Receipts – Dollars Paid – Other Costs

Report Data Worksheet (used in Parts 1 – 4 that follow)

#	Caption	Table	Column Definition
			Database Field + Condition (if any)
A	Company		Database Field
			Condition
B	Company Name		Database Field
			Condition
C	Job		Database Field
			Condition
D	Description		Database Field
			Condition
E	Cash Receipts		Database Field
			Condition
F	Dollars Paid		Database Field
			Condition
G	Other Costs		Database Field
			Condition

Part 1 – Find Job-Related Fields

1. Start Job Cost
2. Select the **Timberline Construction** database and click **OK**.
3. Click the **Setup** menu and click **Jobs**.
4. Click **Next** to bring up the first job.
5. Explore the screens to locate the following fields needed by the report
 - (C) Job
 - (D) Description
 - (A) Company



NOTE: In the sample data you are using, GL accounts have one prefix named Company. Each job is assigned a cost account prefix which designates the company that a given job belongs to.


6. Determine the table name and field names for the above columns. If necessary, apply what you know about using **Report Designer – Print Available Fields** and your ability to create simple ad-hoc reports to view the data in a table.
7. Document your findings in the worksheet for columns A, C, and D.

Part 2 – Find the GL Company Name

1. Start Report Designer
2. Select the **Timberline Construction** database and click **OK**.
3. Click the **Tools** menu and click **Available Fields**.
4. Select the General Ledger record(s) (table) that you believe might contain the name for each GL Company.
5. Use **Print Available Fields** and ad-hoc reports (if needed) to confirm that you have identified the correct table and column that contains the company name.
6. Document your findings in the worksheet for column B.


Part 3 – Find the source for each cash flow amount

For this part, you will use Office Connector to dump data into an Excel worksheet that you can examine in order to determine where the cash flow amounts would come from.

1. Start Microsoft Excel
2. Click the **Add-Ins** tab of the ribbon.
3. Click  **Query Wizard** on the Office Connector toolbar.
4. In the **Select Sage Timberline Office Company** window, select **Timberline Construction** and click **OK**.

5. Press  +  to and type: jc tran

After clicking **OK**, the current selection will move automatically to the **JC Transaction (CURRENT.JCT)** table.

6. Click **Next**
7. In the **JC Transaction fields** list, press the  to check the box for each field and then click **Next**.



TIP: You can hold the spacebar down and it will repeat in order to select all of the fields in the list very quickly.

8. Add a condition for the starting date.
 - a. Click **Add Condition**
 - b. In the **Field list**, select **Accounting Date**
 - c. In the **Comparison** box, select **Greater or equal**
 - d. In the **Compare to** box, select **Literal Value** for **Value Type**.
 - e. In the **Value** box, type: 5/1/2011
 - f. Click **OK**
9. Add a condition for the ending date.
 - a. Click **Add Condition**
 - b. In the **Field list**, select **Accounting Date**
 - c. In the **Comparison** box, select **Less or equal**
 - d. In the **Compare to** box, select **Literal Value** for **Value Type**.
 - e. In the **Value** box, type: 5/31/2011
 - f. Click **OK**
10. Click **Finish**



NOTE: At this point, you should see a listing of all the JC Transactions from May 2011.

11. Click the **Data** tab on the ribbon and then click **Filter**
12. Click in cell **M1** (Amount)
13. Press **End** + **↓** to move the selection to the last row of data.
14. Press **↓** twice so that your current selection is two rows below the last row of data.
15. Click the **Home** tab on the ribbon and then click **Σ AutoSum** and press **Enter**
16. Click the cell containing the SUM function that was just added and press **F2** to edit it. Change the beginning part of the formula:

From: =SUM(...

To: =SUBTOTAL(9, ...



NOTE: The SUBTOTAL function works very much like the SUM function except that it will not include the values from rows that are hidden by a filter.

17. Press **Ctrl** + **Home** to move back up to the top of the worksheet.
18. Explore the data to determine which transactions and fields would be utilized to determine the amounts for the cash flow values. You can use the AutoFilter (the drop-down buttons above each column) to quickly filter the data in order to isolate specific subsets of transactions. This will help you identify any conditions that would need to be applied in order to derive the value for the specific cash flow column.



TIP: Try filtering on the Transaction Type and Application Of Origin columns.

19. Document your findings in the worksheet for columns E, F, and G.

Part 4 – Identify the Driving Table and Table Relationships

1. The report should list all jobs that have transactions in the reporting period but does not need to show jobs that do not have transactions in the reporting period. Which of the tables that you have identified in the worksheet should be used as the Driving Table?

2. How are the other tables (that were identified in the worksheet as required) related to the Driving Table?

Related Table	Related Columns

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