

Top Audit Tests Using ActiveData for Excel

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Purpose of the Publication

The purpose of this document is to assist auditors, fraud examiners, and management in implementing data analysis routines using ActiveData for Microsoft Excel. It is hoped that through the dissemination of this new information that more analysis will be done using audit software to prevent and proactively detect organizational inefficiency, ineffectiveness, and fraud.

This document is not expected to explain ActiveData or Microsoft Excel concepts at length but rather to provide guidance as to which of the product's features can be used in an audit setting. It walks through 16 common audit tests between the accounts payable, accounts receivable, and general ledger audit areas. For more extensive documentation on the use of ActiveData for Excel or Microsoft Excel, please see the respective Help features in these products.

With this document, users can no longer say that audit software is difficult. For now, even a tool as simple as a spreadsheet can and should be used as an audit software. With the "curtain exposed" users can now focus their time on the more critical activities of creatively dreaming up new tests and improving their business intelligence.

For more information on the use of audit software, and countless ways of applying it to your business, please see www.auditsoftware.net.

If you would like to provide feedback on the document, we welcome and encourage it as we plan to complete later versions. Please provide your feedback via Email at questions@richlanza.com or pr1or1ty@optonline.net.

About The Authors

Michelle Shein is a highly-skilled instructor with over twenty years of technical training experience. With her proficiency in both teaching and the use of desktop PC products she has taught Auditors discovery skills to uncover fraud using the technology of Microsoft Access and Excel.

Ms. Shein is the President of *PRIORITY Computer Training & Services, Inc.* Since 1990 the training corporation has been providing training services and PC consulting to corporate clients helping to build the PC skills of many corporate teams. With over twenty years of professional training experience Ms. Shein has taught for numerous clients including: Morgan Stanley, Merrill Lynch, AICPA, Chubb, Kraft, Nabisco, Comcast, Toys R Us, AIG, AT&T, Bank of New York, Johnson & Johnson, Ciba Gigy, Sandoz, Barr Labs, Dress Barn, Bell Core, Telcordia and Avon.

As a professional PC trainer for numerous years, Ms. Shein has taught classes in many of the popular PC desktop products. Ms. Shein has specialized in teaching Microsoft Project, Microsoft Excel and Microsoft Access users as well specializing in developing Access applications for her client's data storage and analysis needs.

Ms. Shein earned a Bachelor and Master's degree in education from the State University of New York in Fredonia, New York. She has used her educational and psychology background in developing rewarding training sessions for both the advanced learner and PC user as well as for the reluctant learner and novice PC user.

Another product Ms. Shein and Mr. Lanza have co-authored is the ACFE Access Training – Auditing Payables for Fraud CD series.

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Why Audit Accounts Payable?

While deceptively simple from the outside, accounts payable is perhaps one of the most complex areas on the inside given that there are many different purchasing arrangements with many different vendors. It is difficult to stay on top of the purchase order limits, invoice approval limits, payment patterns, and so on, given the high variability. Further, accounts payable is usually the largest outlay of cash in the organization. Yes, cash—the most liquid of all assets and the most vulnerable to misappropriation. Below are five major reasons to review accounts payable:

Fraud

Auditors cannot help but be aware how widespread fraud is. Surveys have established that the majority of companies experience a significant fraud every year. But it still may surprise you to hear that, per the 2002 Report to the Nation on Occupational Fraud and Abuse by the Association of Certified Fraud Examiners, losses to fraud in the average company amount to a staggering 6 percent of gross sales. Roughly 45 percent of all fraud involves asset misappropriations of cash in an accounts payable related transaction with an additional 13 percent related to bribery or corruption. This means that 58 percent of 6 percent, or as much as 3.5 percent of gross sales, are lost in this one functional area. Many companies struggle along with profit rates much lower than 3.5 percent! Furthermore, a majority of these misappropriations represent fraudulent vendors, check tampering, and fraudulent expense reimbursements—items that proper controls ought to deal with. It has also been found that companies completing internal or external audits can reduce their median losses from \$153,000 to \$87,000 or over 40 percent.

Based on these statistics, if a company earns \$250 million in sales, they lose an average of 6 percent to fraud from all causes (\$15 million) of which roughly 45 percent involves misappropriation of accounts payable (\$6.8 million). Of this sum, 40 percent might be saved through internal auditing (\$2.7 million). Bottom line, if you can clean up fraud within your accounts payable area, you can make an enormous difference.

Duplicate Payments

Aside from mitigating fraud risk, accounts payable audits can also yield greater efficiency and effectiveness. Given the state of the current economy, there is no better time for internal auditors to add value to their organization—not controls for controls' sake, but the pursuit of real cash savings. Duplicate payment audits provide a superb opportunity to achieve savings. Industry statistics found 0.05 to 0.1 percent of the annual invoice payments are recoverable as duplicate payments. This may seem small. Yet if your organization makes \$250 million in annual invoice payments and the analysis were focused on the past two years, this would amount to between \$250,000 and \$500,000.

Unnecessary Charges

There is an entire community of specialized audit consultants who make their living by telling the rest of us when we have been overcharged for goods and services—when, for example, we could have obtained a lower freight rate by submitting two shipping requests to the same destination at the same time. While this specialized work normally requires specialized knowledge, the clues are there already and can be identified through systematic analysis. For example, by simply ranking the top 10 or top 100 vendors by volume and looking at the number of transactions for each can raise questions worth getting answers to.

Erroneous Payments / Improper Accounting

Any system that is managed by humans is prone to error. In any market, and especially today's, any restatement can lead to the questioning of the organization which can ensue to a reduced valuation of the company. This is especially true in the capital marketplace where the hint of financial restatement can be disastrous. It is hoped that through appropriate internal control, such errors will be prevented. But, given that any internal control can be circumvented, verification of their appropriate processing is critical to the

organization's success. Tests of the input controls, mathematical accuracy tests, and overall processing analysis are key tests. Further, analytical tests to prove out the validity of the balances should be a part of every auditor's toolkit.

Inefficient Payment Processing

Anyone who has audited several accounts payable departments has seen cases where setting better priorities would save money. Discounts not taken, excessive interest charges for late payments, multiple invoice payments when a monthly billing would save time, etc. Efficiency has become commonplace in the wake of right-sizing and outright downsizing of employees. Companies need to do more with less to stay competitive. If you don't, "someone else will".

3. Above Average Payments To A Vendor

Why Are We Running This Test and What To Do With The Results?

Unusually large payments to a vendor in relation to the average is a sign of error (i.e., key punch error) or fraud (i.e., kickback scheme where vendor is paid additional amounts that are kicked-back to the employee entering the payment into the system).

For vendors with unusual payments above the average, a sample of the “average” payment invoices, as well as, the unusual payment invoice should be reviewed. The reasonableness of the purchase should be assessed based on the documentation reviewed. The auditor should be keenly aware of the potential for a key punch error regarding the unusual payment and/or the possibility of the vendor purposely overcharging the organization.

Key Note:

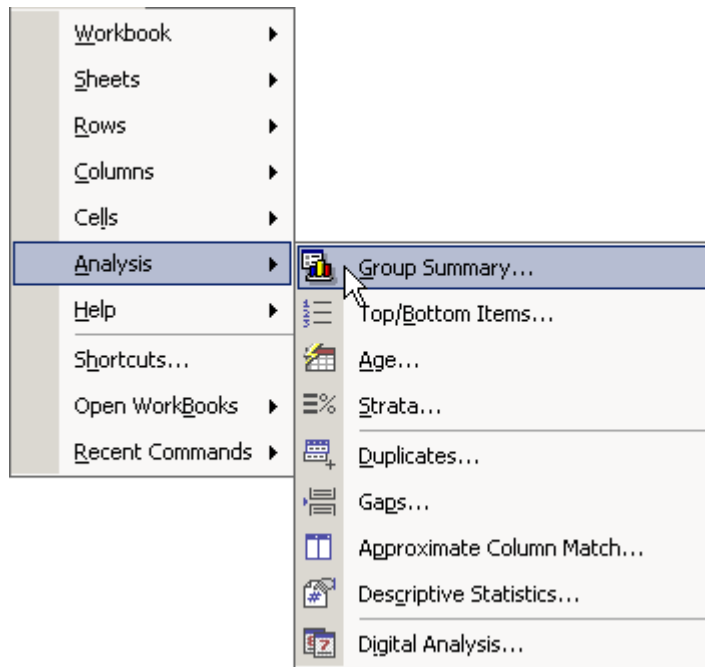
The Group Summary dialog box allows up to three fields to sort by. ActiveData for Excel can also include totals for all numeric columns as well when Include Grand Totals Row is selected.

The Append Output To Existing Worksheet option which is found in most of the ActiveData for Excel functions dialog boxes, allows the user to choose an existing sheet to add the new records to. If this option isn’t selected ActiveData for Excel will build a new worksheet with the output.

Calculate vendor invoice averages, to locate all invoice amounts exceeding more than twice the vendor’s average.

How To Run The Report

Step One: Open the provided Excel workbook file; **ActiveData Payables Data** and the worksheet **Invoices Paid**. Then, select from the **ActiveData** menu: **Analysis-Group Summary...**

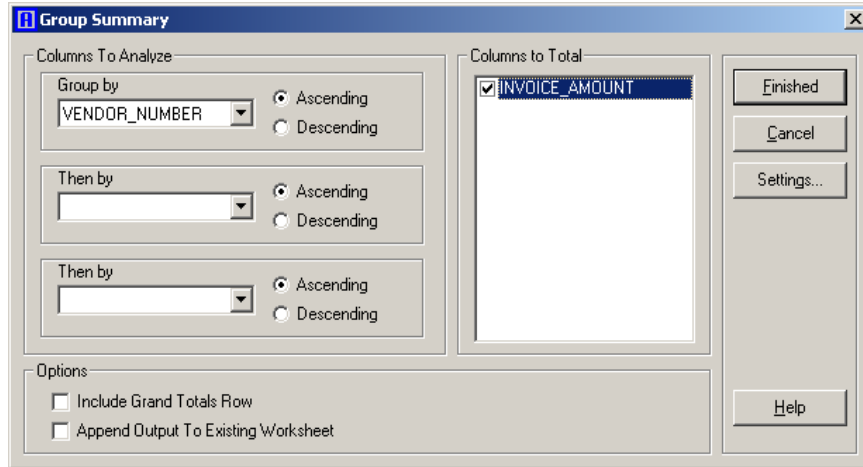


Step Two: In the Group Summary dialog box select **Vendor Number** as the Column to Group by and **Invoice Amount** as the Column to Total. Complete this step by clicking **Finished**.

Payable Data Fields
The following fields are needed from the Invoices Paid sheet for this test:

- Vendor Number
- Invoice Amount

To make your audit complete you will want to fields in a detail record for further analysis such as the invoice date, purchase order number, check number, and check date.

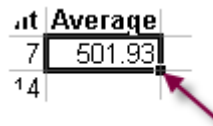


Step Three: In the new **Summary of Invoices Paid** worksheet add an additional calculated column next to the **Count** column. This fourth column will calculate the average invoice amount for each vendor record. Use the following equation to calculate the average for the first vendor record.

A	B	C	D
VENDOR_NUMBER	INVOICE_AMOUNT	Count	Average
1006943	3,513.50	7	=B2/C2
1020139	8,484.08	14	

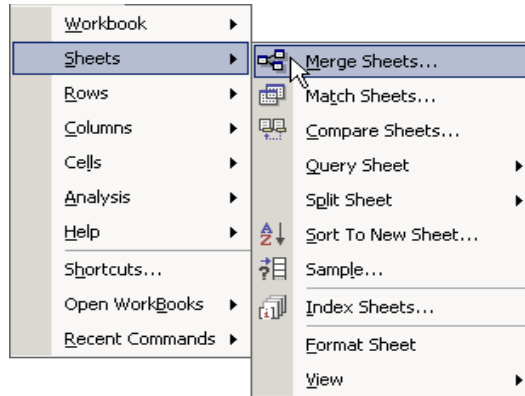
Key Note:
Anyone of Excel's copy and paste functions can be used in this exercise when a formula needs to be copied.

Copy this expression to the remaining vendor records by double clicking on Excel's auto-fill handle in the calculated cell or by performing copy and paste functions.



Step Four: (This step could be combined with step three.) We need to have a column display twice this average amount. In either this fourth column or in an additional column have Excel calculate two times the average. e.g. =2*(B2/C2) Copy the expression to all records. Name this column **Twice Average**.

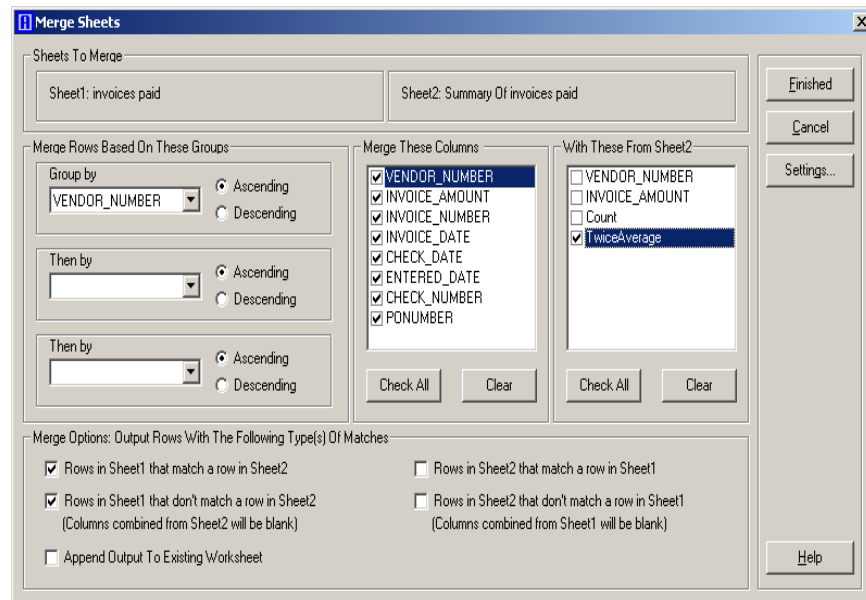
Step Five: We will merge these vendor figures with the **Invoices Paid** fields to compare these new figures to the individual **Invoice Amounts**. Return to the **Invoices Paid** sheet. Select from the **ActiveData** menu: **Sheets-Merge Sheets...**



Step Six: In the **Select a Sheet to Merge** dialog box select the **Summary of Invoices Paid** as the sheet to merge with. In the **Merge Sheets** dialog box (see next page) select the **Vendor Number** field to identify the field to group by, keep all fields in sheet 1 selected and select the **Twice Average** field in sheet 2. Click **Finished** completing the merge.

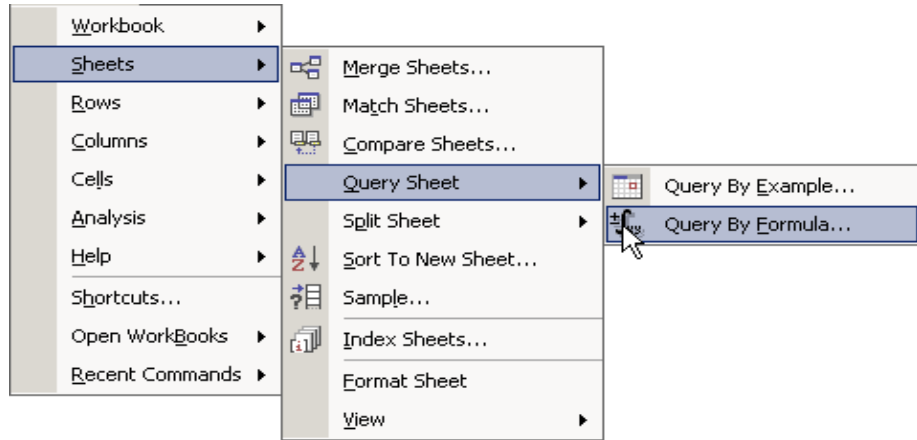
Key Note

In order to Merge Sheets, the field that is being used (Vendor Number in the example at right) needs to be the same name in both sheets. So, for example, you cannot have “Vendor” as a column title in one sheet and “Vendor Number” in the other as they both need to be Vendor Number.



ActiveData for Excel has created an additional worksheet that has all the field information from the **Invoices Paid** sheet and an added column at the right with the amount that is twice the invoice average for each individual vendor.

Step Seven: We will now perform the final step to query for records where the **Invoice Paid** amount exceeds twice the average. From the **ActiveData** menu select: **Sheets-Query Sheet-Query By Formula**



Step Eight: In the first dialog box click **F**ormula and then in the **Q**uery **B**y **F**ormula dialog box build the formula expression: **I**NVoice **A**MOUNT > **S**ummary**O**f**i**nvoices**p**aid**T**wice**A**verage by clicking on the **I**nvoice **A**mount field followed by the > button and then clicking the field that represents twice the average invoice amount. When you click **F**inished ActiveData for Excel builds an additional worksheet that contains only those invoice records that have exceeded twice their average invoice amount.

	A	B	I
1	VENDOR_NUMBER	INVOICE_AMOUNT	SummaryOfinvoicespaid.TwiceAverage
2	1006943	1,200.00	1003.86
3	1006943	1,120.00	1003.86
4	1020139	2,405.55	1212.01
5	1020139	2,116.68	1212.01
6	1020139	1,677.76	1212.01
7	1041563	1,652.52	430.69
8	1041563	644.64	430.69

The query displays all record information for these invoice records that exceed twice the invoice average amount. To better view and compare the figures, use Excel's Split option to arrange the columns as in the example above. Formatting the new column for two places after the decimal, has also been applied.