Audit, Fraud Detection, and Cash Recovery
Using ActiveData for Office

Self Study Course

By: Michelle Shein and Richard B. Lanza

This Course is recommended for 8 hours of continuing education credit

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Purpose of the Publication / Learning Objectives

The purpose of this course is to assist auditors, fraud examiners, and management in implementing data analysis routines using ActiveData for Office. 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 course is not expected to explain ActiveData for Office database concepts at length but rather to provide guidance as to which of the product's features can be used in an audit setting. The course 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 Office please see the respective Help features in these products.

This course will:

- Introduce you to the powerful combination of ActiveData for Office
- Walk you through basic fraud detection and cash recovery reporting concepts
- Map out each step for the most common of fraud detection, cash recovery and audit tests
- Equip you with sample data, providing a glimpse of the resulting report prior to the (crunch time) situation
- Suggest fraud detection and audit procedures to perform on the resulting reports

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 rich@auditsoftware.net or PR1OR1TY@optonline.net.

Self Study Roadmap

This self study guidebook has been organized to build your knowledge in ActiveData for Office. It is suggested that the guide be completed in the order as established in the table of contents, answering the review questions as they present themselves in the text.

It is also required that the steps explained throughout the text using the sample data files be completed in order to become proficient in ActiveData for Office and to meet the requirements of this self study course.

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, Microsoft Excel and ActiveData for Office.

Ms. Shein is the President of ***PR1OR1TY 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, Columbia University, 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 as 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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Rich Lanza (CPA, CFE, PMP) enables organizations in the use of technology to (1) generate cash recoveries, (2) stop profit leaks , (3) move away from control issues, and (4) work towards process improvements. With automated report systems and personalized coaching, Rich helps companies get quality results in minutes. This is done by maximizing the technology companies already have and showing professionals how to become "info magicians". He is the author of numerous publications and training courses in ACL, IDEA, Access, ActiveData, and Excel. While he has over 13 years of experience and is a recognized leader in the use of technology, Rich also founded of *AuditSoftware.Net*, a free website devoted to using technology for generating bottom line results. This website recently started providing a free audit software planning service to help companies better implement their audit software technology. To contact Rich, receive his free e-newsletter, get a free planning session, or to order his products, e-mail him at rich@auditsoftware.net or visit his website at www.infomagician.com.

The Power of ActiveData for Office as an Audit Software

ActiveData for Office enables you to easily analyze tabular data beyond the 65,000 row limit of Excel. ActiveData for Office provides new levels of control over your information working with the familiar Microsoft Excel environment. Sophisticated data analysis and manipulation tools let you stratify, summarize, age and look for gaps and duplicates. Navigate, merge, split, sort and rearrange your tabular data with ease. Use special purpose test sets to run standard audit and fraud detection tests that give you one-click results with minimal user intervention. Quickly analyze your data and vastly improve productivity, all with one easy to use tool.

ActiveData for Office has been designed to handle large data sets. By using the Microsoft Access database, ActiveData for Office is able to use the power of Access to provide easy to use results in Microsoft Excel. ActiveData for Office requires Excel 2000 or above.

ActiveData for Office Specifications

ActiveData for Office is a 6 Megabyte file named aaudit.msi and is downloaded from the Information Active website. Double-clicking on the aaudit.msi file launches the install program that will create the ActiveData for Office folder and add ActiveData for Office functionality to your copy of Excel. The default ActiveData for Office folder is C:\Program Files\ActiveData for Office.

Installation

You can download ActiveData for Office from the Information Active web site at www.informationactive.com/download-ad. A 30 day trial version is available free of charge for evaluation purposes.

Your email address is requested prior to download. Your email address is used exclusively to encourage you to register ActiveData for Office if you find that it helps you through the day. InformationActive retains your email address in a secure database for 45 days from initial download. If you do not register your downloaded version of ActiveData for Office by that time, your email address is purged.

Updates

ActiveData for Office has an online update feature that can be used manually or automatically to check the InformationActive website for the latest version of ActiveData for Office. To manually check for updates you can click **ActiveData for Office/Help/ActiveData for Office Online Updates**. ActiveData for Office will look for the latest version and begin downloading it or will inform you if you have the latest version. You can also configure ActiveData for Office options to automatically check the InformationActive website for updates every few days. To do this, select **Tools/Options**. This will open the **Options** dialog box. On the **General** tab, check the box for **Automatic Updates** and enter a number in the **Check For Updates Every field**.

ActiveData for Office will provide updates during the 30-Day Trial period to the conclusion of the trial. Registered users of ActiveData for Office are entitled to free updates as they become available.

Uninstalling ActiveData for Office

Use the Control Panel's **Add/Remove Programs** feature to remove ActiveData for Office.

Please note that in order to re-install ActiveData for Office, it must be uninstalled first.

How ActiveData for Office Compensates Excel's Limitations

Excel Limitation	Manually Compensated?	How Does ActiveData for Office Compensate For The Limitation? / What Other Considerations Should Be Noted For Uncompensated Limitations?
Can only process 65,536 rows or records of data which may be too small for most organizational databases.	Y	ActiveData for Office allows for more than 65,536 rows in a table
Does not document the auditor's work in easy to access logs for later reference and work paper storage.	Y	ActiveData for Office provides a log of each processed step (as a comment in cell A1 of the worktable created via ActiveData for Office processing). Then, using the *Index Tables* function, a summary page of all comment fields can easily be created for review; in essence creating an audit log of all work performed with the table data.
Allows data to be changed in the spreadsheet.	Y	ActiveData for Office does not allow for data changes in the table environment.
Can only read a small subset of the complete types of data files available in digital format. For example, EBCIDIC files stored in IBM mainframes would need to be converted for use in Excel.	N	While not compensating for this limitation, this has become less of an issue as most middleware working with IBM mainframes (or other older computing platforms), allow data files to be converted to a text format. Most database software provides the option of exporting data into a table format.
Has difficulty in performing data analysis and management tests such as relating tables. Although it can be accomplished, it is an onerous task.	Y	ActiveData for Office provides over 100 data analysis and management features that automate functions that may be possible in Excel, albeit extremely difficult from a technical perspective.
Does not have functionality specifically tailored to the auditor. For example, a sample can be calculated in just a couple of clicks with minimal training in specifically designed audit software. In Excel, it can be done, but it does take some effort and guidance.	Y	The over 100 ActiveData for Office features are mostly tailored to the auditor and accountant but there are many additional features that just make Excel plain old easy to use. For example, you can use ActiveData for Office to reorganize columns in an Excel table with just a few clicks (rather than inserting and cutting/pasting column data one at a time.

How Key Data Analysis Tasks Are Met With ActiveData for Office

Off the shelf data analysis software that is focused on the audit environment has key features amongst them. The table below compares two popular audit-focused data analysis products for their "out of the box" functionality, along with ActiveData for Office. These features will be practically applied to a host of audit settings later in this publication.

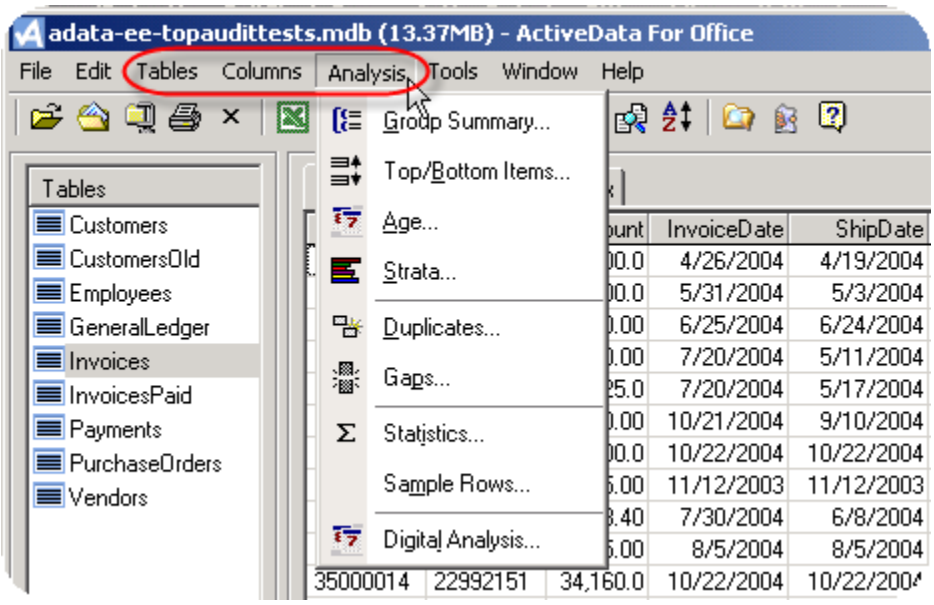
Data Analysis Features	Description	ACL™	IDEA™	ActiveData for Office™
Append / Merge	Combines two files with identical fields into a single file. An example would be to merge two years worth of accounts payable history into one file.	√	√	√
Audit Log	Maintains a documentation log of all procedures performed on a data file.	√	√	√
Calculated Field/ Functions	Created a calculated field (which can use a function such as ABS for the absolute value of the field) using data within the file. For example, the net payroll pay to an employee could be recalculated using the gross pay field and deducting any withholding/taxes.	√	√	√
Cross Tabulate	Cross Tabulate lets you analyze character fields by setting them in rows and columns. By cross-tabulating character fields, you can produce various summaries, explore areas of interest, and accumulate numeric fields.	√	√	√
Digital Analysis	Completes digital analysis tests (i.e., Benford's Law).	√	√	√
Duplicates	Identifies duplicate items within a specified field in a file. For example, this report could be used to identify duplicate billings of invoices within the sales file.	√	√	√
Export	Creates a file in another software format (e.g., Excel, Word) for testing. An example would be to export customer address information to Word for "Mail Merge"ing to customer confirmation letters.	√	√	√*
Extract/Filter	Extracts specified items from one file and copies them to another file, normally using an "if" or	√	√	√

Data Analysis Features	Description	ACL™	IDEA™	ActiveData for Office™
	"where" statement. Examples include extracting all balances over a predefined limit.			
Gaps	Identifies gaps within a specified field in a file. For example, identify any gaps in check sequence.	√	√	√
Index / Sort	Sorts a file in ascending or descending order. An example would be sorting a file on social security number to see if any blank or "999999999" numbers exist.	√	√	√*
Join / Relate	Combines specified fields from two different files into a single file using key fields. This function is used to create relational databases on key fields. It can also be done in an unmatched fashion to identify differences between data files.	√	√	√
Sample	Creates random or monetary unit samples from a specified population.	√	√	√
Statistics	Calculates various statistics on a selected numeric field.	√	√	√
Summarize	Accumulates numerical values based on a specified key field. An example would be summarizing travel and entertainment expense amounts by employee to identify unusually high payment amounts.	√	√	√

ActiveData for Office Step-By-Step

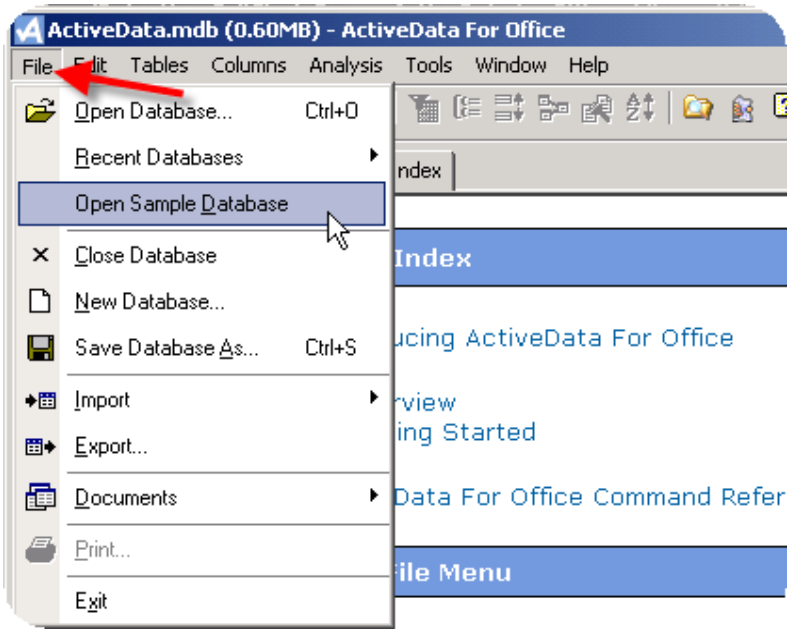
The purpose of this Step-By-Step Tour of ActiveData for Office is to introduce you to the range of its functions and capabilities. If you have never used ActiveData for Office before, after installing the program, open the application from the **Programs** group found by clicking on your computer's **Start** button.

The main ActiveData for Office functions are grouped under three main menu headings: Tables, Columns, and Analysis. These groups form a general hierarchy that starts with a very high level and then moves towards the manipulation and creation of data for individual cells, finally to a highly sophisticated analytical capability. With these functions ActiveData for Office provides analytical and data manipulation capabilities. Functions can also be accessed from toolbar buttons and from the right mouse click short cut menu.



Loading Sample Data

The first step in this basic step-by-step walkthrough is to load the sample data. ActiveData for Office comes with a sample database that was created to demonstrate its capabilities. By default, the first time you open ActiveData for Office the database is loaded. However if you closed the database or have been using your own data and wish to reload the sample database to go through this guide, select **File** then **Open Sample Database** from the main menu and the tables for the sample database will appear.



The ActiveData for Office Sample Database has four tables including: Customers, Inventory, Invoices, and SalesPeople.

Once you have opened the sample database you are ready to explore the built in functions. We have included an example for each of the function groups that give you some idea of the power of the application.

Please note that the data included with this publication for use with the examples is presented in the section *Data Files Included With This Publication*.

Database Structure

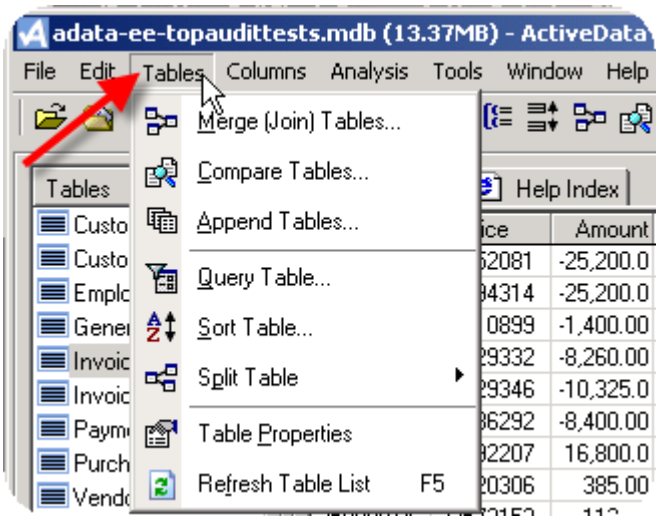
A database is made up of separate tables much like a Microsoft Access database with separate tables or a Microsoft Excel workbook made up of separate spreadsheets. This database structure allows you to rearrange information in different ways. You can efficiently extract specific information to view it, work with it, or print it. With ActiveData for Office you can manipulate, summarize, and analyze data stored in these tables.

A table contains a collection of related information stored in rows and columns. With ActiveData for Office database-management system, you store data in separate tables, yet merge related data together in one table when needed.

A table is comprised of records. Each record is contained in a separate row. A record is comprised of columns which are fields (cells) of information about different categories.

Table - Functions

The Tables menu contains functions that allow you to manipulate data in a single table or multiple tables. The Tables menu includes five functions that can be applied to the table level. With these functions you have the ability to **Merge Tables**, **Compare Tables**, **Query Table**, **Sort Table** and **Split Table**.

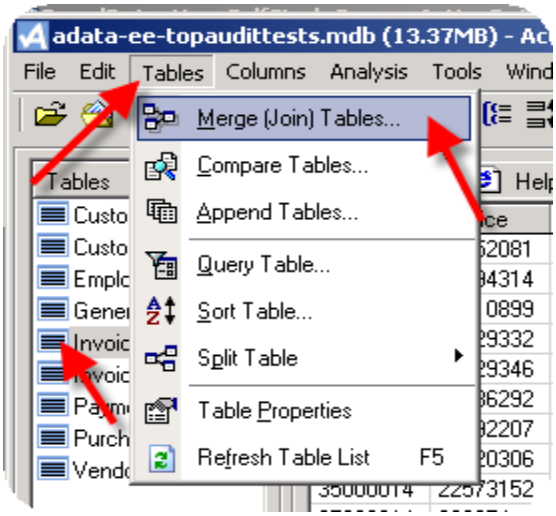


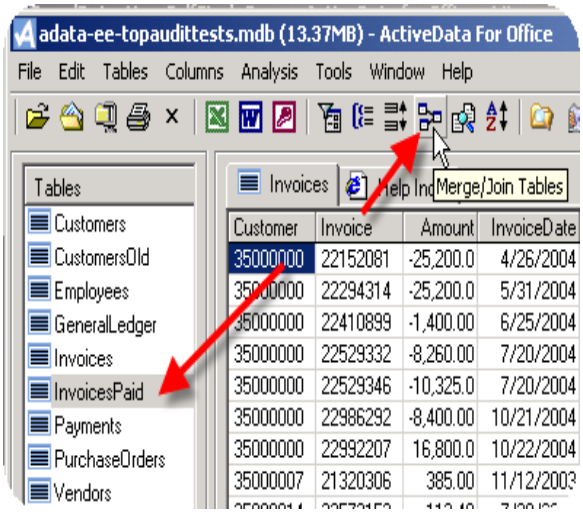
Clicking on the tables in the left column will open them in the right window and place the name of the table in the tab menu at the top of the right hand window. Clicking on any tab will bring that table to the foreground. You will notice at the bottom of the right hand window a scroll bar that lists the table name and the number of rows. You can use the arrow tabs to scroll to the top or bottom of the list or to proceed through it one record at a time.

Directly beneath the table is a window that provides the audit trail for the table listing its name and details. The date field indicates the first time the table was created inside ActiveData for Office, the comments and description fields can both be edited by double clicking on them. This launches a window in which text comments can be made and saved.

Merge Tables… Function

To demonstrate the functionality of this function, perform the following example to merge two tables into a new worktable based on a related field. In the **InvoicesPaid** table the Vendor is entered by a number, there is no name to go with it. In this example we'll merge the **InvoicesPaid** table with the **Vendor** table to create a new table that includes the Vendor names with the Invoice information.

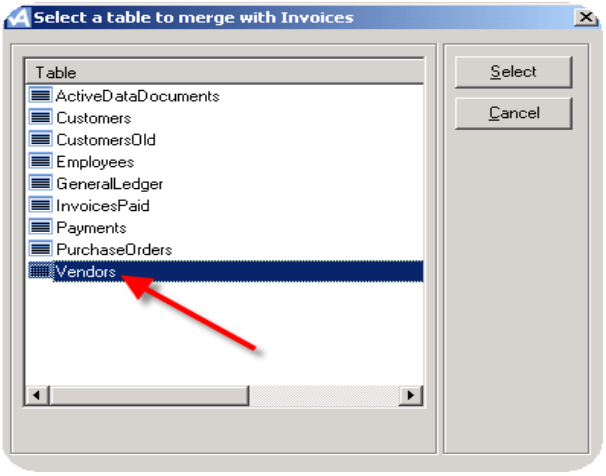




Step 1: Select the **InvoicesPaid** table by clicking on it. Notice the name of the open table appears above the column headings for the table.

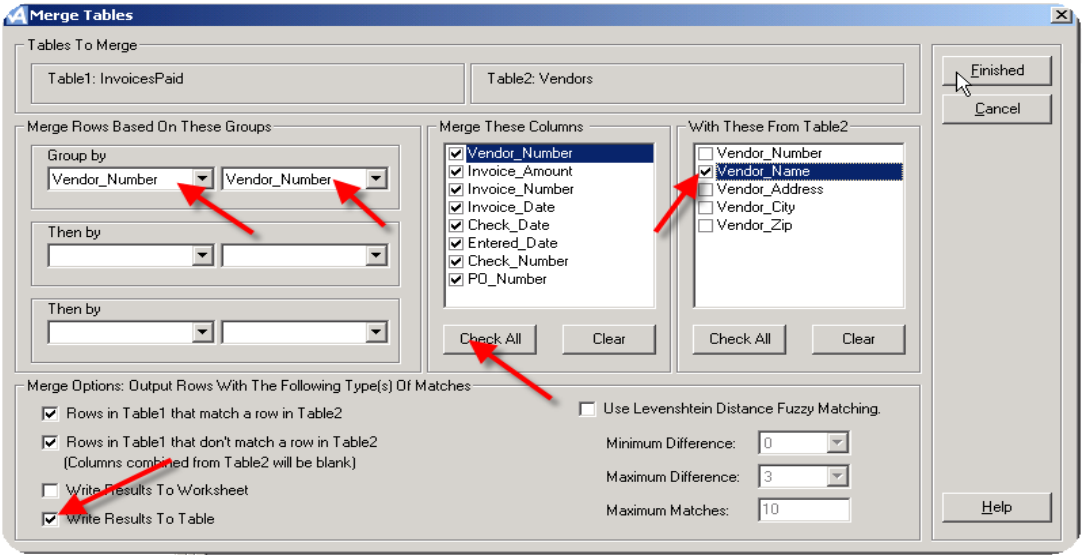
Step 2: Select **Tables – Merge (Join) Tables**… from the main menu or click the **Merge/Join Tables** button on the ActiveData for Office toolbar.

Step 3: In the 'Select a table to merge with InvoicesPaid' dialog box, choose the table which contains the elements you wish to merge with the open table, in this case **Vendors**.



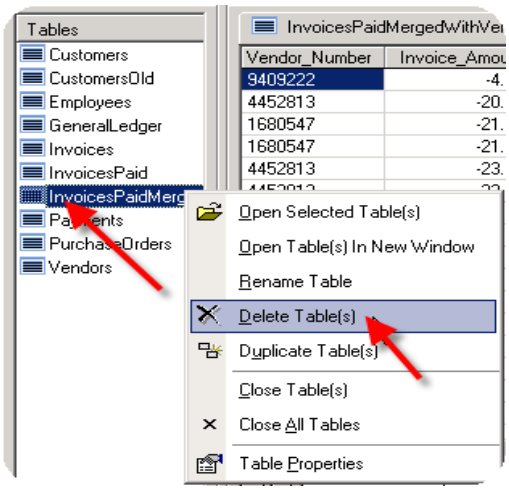
Step 4: In the 'Merge Tables' dialog box 'Group by' **Vendor_Number** in both tables. In the 'Merge These Columns' area, select the columns you want copied to the new worktable. We'll click the **Check All** button to select all fields from the first table. Select the **Vendor_Name** field in the 'With These From Table2' area.

Step 5: You have the option of the output going to a new Microsoft Excel worksheet or to create another ActiveData for Office table. Make your selection and click **Finished**.

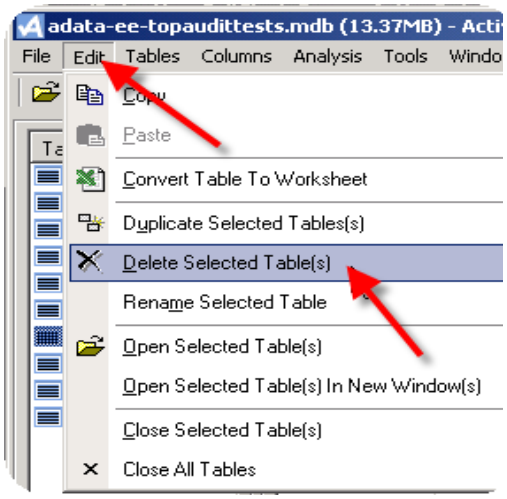


Step 6: ActiveData for Office creates a result table called **InvoicesPaidMergedWithVendor** containing all the columns selected with the related tables.

After you have finished this activity and the other function activities that are outlined in this workbook, you may want to further examine the data copied to the new object. Unless a test indicates to keep the worktable, you may choose to delete the new worktable so as not to get confused with the various new tests' worktables. To delete a table in ActiveData for Office you can select the table name from the table list and press either the delete key on your keyboard or use the right mouse click shortcut menu to delete the table(s). You can also use the menu selection **Edit – Delete Selected Table(s)**.



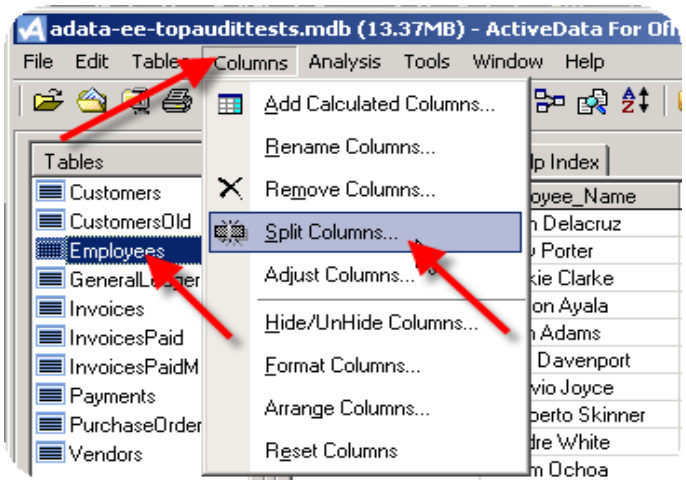
or



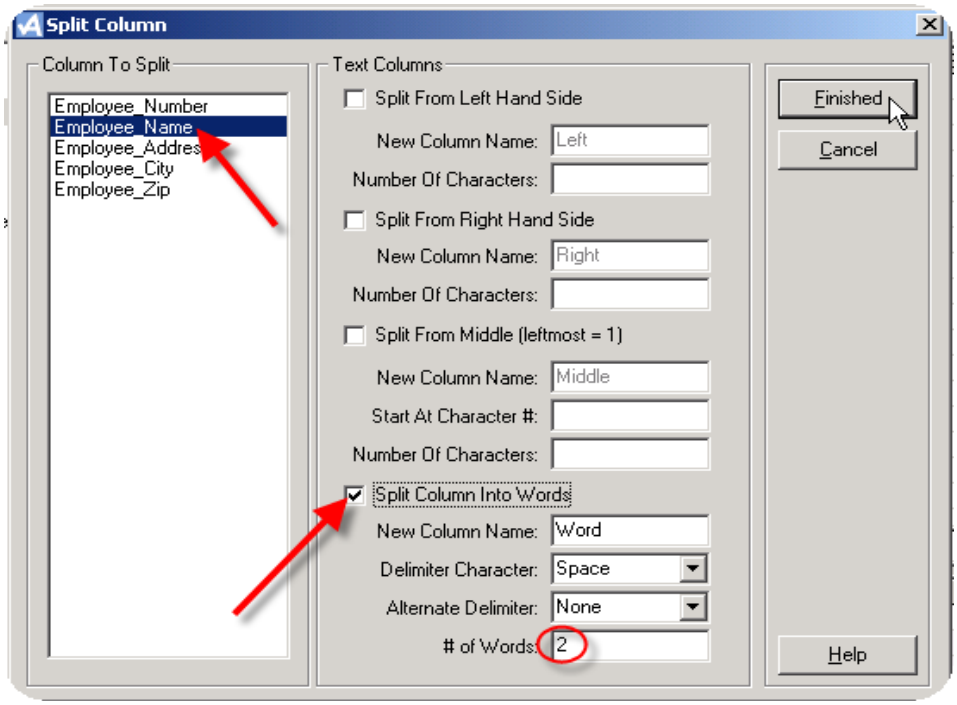
Columns - Functions

The **Columns** menu choice has four column function selections. The column menu functions allow you to **Add Calculated Columns**, **Rename Columns**, **Remove Columns** and **Split Columns**.

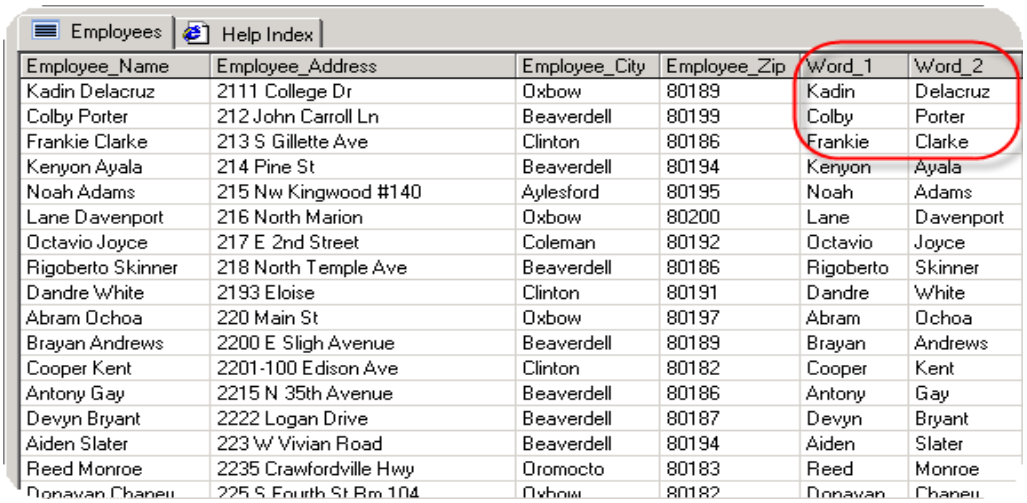
To demonstrate this group of functions perform the following example to split an Employees full name into two separate field columns and then rename the column headings for the new columns as well as delete the original field.



Step 1: Select the **Employee** table
Step 2: Select **Columns – Split Columns…**
Step 3: In the **Split Column** dialog box, select the **Employee_Name** 'Column To Split' and click in the check box for 'Split Column Into Words', keeping the default of **2** words, and then click the **Finished** button.



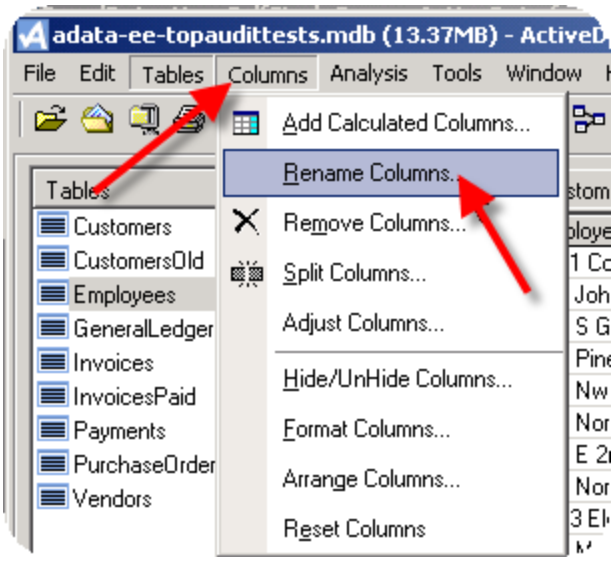
ActiveData for Office creates two additional columns with the Employee's names.



Employees | Help Index

Employee_Name	Employee_Address	Employee_City	Employee_Zip	Word_1	Word_2
Kadin Delacruz	2111 College Dr	Oxbow	80189	Kadin	Delacruz
Colby Porter	212 John Carroll Ln	Beaverdell	80199	Colby	Porter
Frankie Clarke	213 S Gillette Ave	Clinton	80186	Frankie	Clarke
Kenyon Ayala	214 Pine St	Beaverdell	80194	Kenyon	Ayala
Noah Adams	215 Nw Kingwood #140	Aylesford	80195	Noah	Adams
Lane Davenport	216 North Marion	Oxbow	80200	Lane	Davenport
Octavio Joyce	217 E 2nd Street	Coleman	80192	Octavio	Joyce
Rigoberto Skinner	218 North Temple Ave	Beaverdell	80186	Rigoberto	Skinner
Dandre White	2193 Eloise	Clinton	80191	Dandre	White
Abram Ochoa	220 Main St	Oxbow	80197	Abram	Ochoa
Brayan Andrews	2200 E Sligh Avenue	Beaverdell	80189	Brayan	Andrews
Cooper Kent	2201-100 Edison Ave	Clinton	80182	Cooper	Kent
Antony Gay	2215 N 35th Avenue	Beaverdell	80186	Antony	Gay
Devyn Bryant	2222 Logan Drive	Beaverdell	80187	Devyn	Bryant
Aiden Slater	223 W Vivian Road	Beaverdell	80194	Aiden	Slater
Reed Monroe	2235 Crawfordville Hwy	Oromocto	80183	Reed	Monroe
Donavan Chaney	225 S Fourth St Rm 104	Oxbow	80182	Donavan	Chaney

Renaming the additional columns is easy with the **Rename Columns** option.



Step 1: Click on **Columns - Rename Columns…**
Step 2: In the 'Rename Columns' dialog box; select the **Word_1** column and click on **Rename**.
Step 3: In the second 'Rename Column' dialog box enter a new name for this column: **First_Name** and click **OK**.
Step 4: Repeat these last two steps to rename the **Word_2** column to **Last_Name**.
Step 5: Click the **Finished** button to close the dialog box.

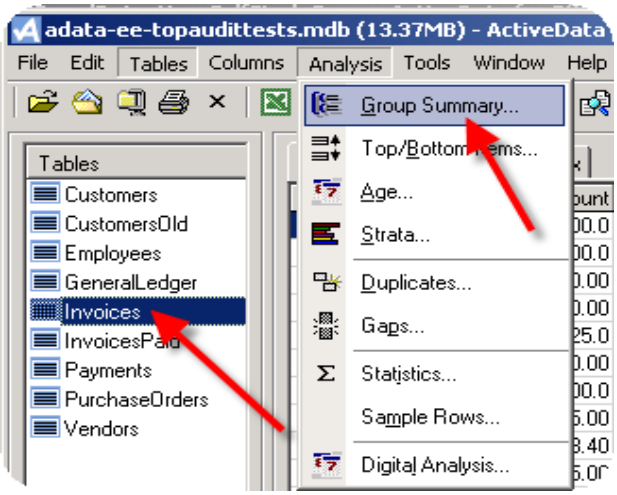
You might wish to delete the original **Employee_Name** column with the **Columns – Remove Columns** menu option selecting the **Employee_Name** field to delete.

Analysis - Functions

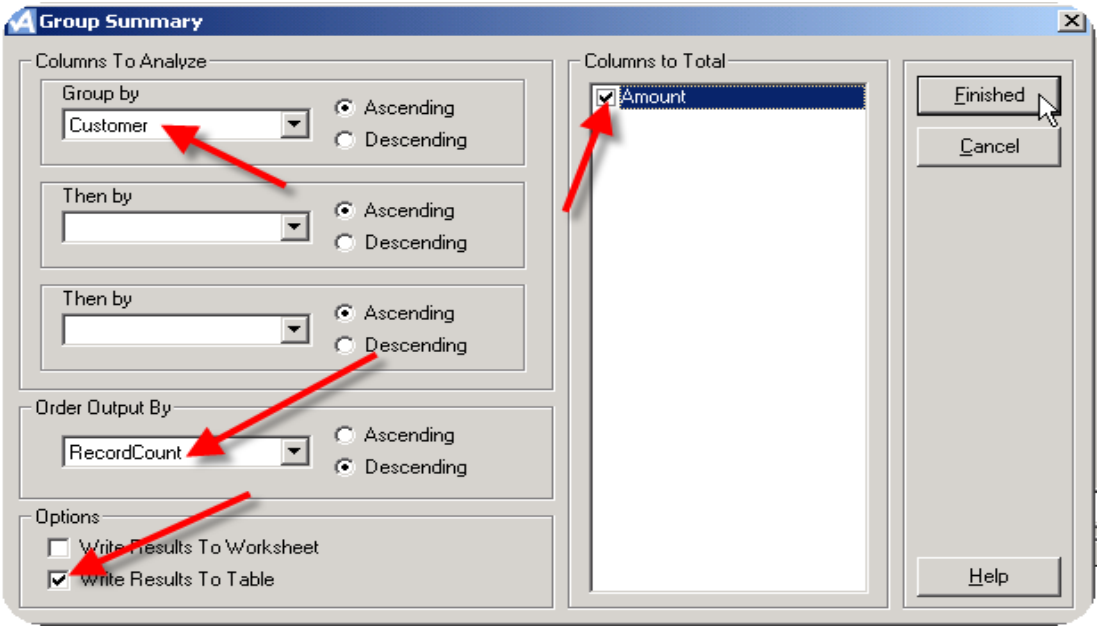
The next most complex group of functions is located in the Analysis section. This group contains nine sophisticated analytical tools that let you summarize or group data, look at the Top or Bottom items in the table, age data, perform strata-type analysis, look for duplicates, identify gaps, provide descriptive statistics, sample rows in a table and perform digital analysis according to Benford's Law.

To illustrate the power of one of the analysis functions; **Group Summary**, perform the following example:

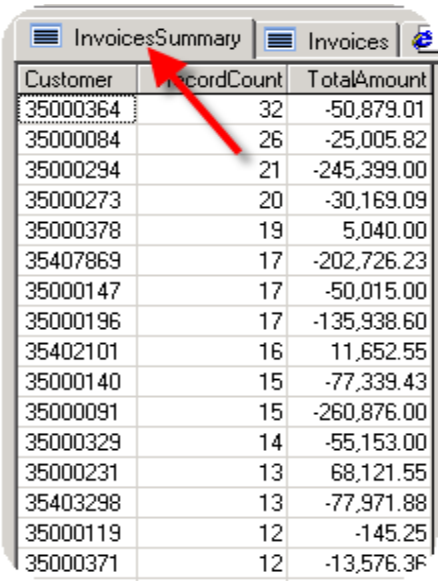
Step 1: Select the **Invoices** table.
Step 2: Select **Analysis – Group Summary** from the ActiveData for Office menu.



Step 3:In the 'Group Summary' dialog box select **Customer** to 'Group by', **RecordCount** to 'Order Output By', and an 'Option' for saving the results to either a worksheet or table and check the **Amount** column to total before clicking **Finished**.



ActiveData for Office creates a new worktable or spreadsheet called **InvoicesSummary** that holds the summarized invoice information.



InvoicesSummary | Invoices

Customer	RecordCount	TotalAmount
35000364	32	-50,879.01
35000084	26	-25,005.82
35000294	21	-245,399.00
35000273	20	-30,169.09
35000378	19	5,040.00
35407869	17	-202,726.23
35000147	17	-50,015.00
35000196	17	-135,938.60
35402101	16	11,652.55
35000140	15	-77,339.43
35000091	15	-260,876.00
35000329	14	-55,153.00
35000231	13	68,121.55
35403298	13	-77,971.88
35000119	12	-145.25
35000371	12	-13,576.36

ActiveData for Office Tips and Tricks

In addition to its many functions, ActiveData for Office also includes a number of tools to help you get where you want to be simply and quickly.

Tip 1 You can double click in any column header to sort the column. The first time you double click ActiveData for Office sorts in ascending order, the next time you double click it sorts in descending order.

Tip 2 Right clicking anywhere in the worktable will provide you with access to the ActiveData for Office shortcut menu which includes some of the popular functions.

Tip 3 Right clicking on the table name will provide you with access to another shortcut menu that includes table functions such as; **Rename Table** and **Delete Table**.

Tip 4 You can get quick descriptive statistics on a column of data in a worktable by selecting it, right clicking on your mouse and selecting **Quick Stats**.

Tip 5 Located on the **Tools** menu the **Compact Database** option will compact the open database to compress its size and make it run faster.

Tip 6 For those of you who are Microsoft Access users, located on the **Tools** menu is the **Open Current Database in Access** option. When you select this option, the current database file opens in Access, displaying all of the tables that were present in the open database. Using the Access application you can add, edit and delete records as well as perform other helpful data management functions.

How To Get Help

ActiveData for Office has extensive help facilities available through the ActiveData for Office menu structure and over the phone. Users with questions are urged to explore the Help Files, the Getting Started file, the ActiveData for Office Tutorials and the User Forums. If you discover a bug or require help in troubleshooting a specific problem with ActiveData for Office please contact us by email or by telephone.

The Help File

ActiveData for Office's Help file is located on the ActiveData for Office menu by selecting **Help**. An ActiveData for Office Help dialog box opens that gives you help for each command, lets you walk through two tutorials and two scenarios. The Help file includes a definition for each function as well as an example of how it can be used.

Troubleshooting and Reporting A Bug

If you discover a bug or require help in troubleshooting a specific problem with ActiveData for Office please contact InformationActive by email. E-mail: Support@informationactive.com. In particularly difficult situations we can be contacted by phone at 613-569-4675 x 175.

User Forums

We have User Forums at http://www.informationactive.com/forum/. These can be used to discuss any aspect of ActiveData for Office ™ and report issues with the product.

Where To Find More Information

If you have a question about using ActiveData for Office, please refer to the following resources for information:

ActiveData for Office Online Help

If you still can't find the solution to your problem, please contact ActiveData for Office through the following means:

Phone: 613-569-4675 x175 (10:00 a.m. to 6:00 p.m. EST – Seven days a week)
Email: support@informationactive.com

Review Questions

#1 When working with ActiveData for Office you are restricted to the same number of records a standard Microsoft Excel table holds.

A) True
B) False

#2 The maximum number of records a single ActiveData for Office table can hold is:

A) 640,000
B) 1 million
C) Unlimited
D) 65, 536

#3 In the ActiveData for Office application the software provides the following ways to access the ActiveData for Office functions:

A) An ActiveData for Office menu
B) An ActiveData for Office toolbar
C) A short cut to ActiveData for Office functions from the right-mouse click menu
D) Short cut tricks (e.g. sorting) performed by ActiveData for Office
E) All of the above

#4 In order for ActiveData for Office to be installed on a PC there must also be a copy of Microsoft Excel and Microsoft Access on the PC.

A) True
B) False

#5 Which of the following is not a menu function on the ActiveData for Office menu:

A) Workbook
B) Tables
C) Columns
D) Analysis
E) Edit
F) Tools

#6 To combine information from more than one table use the following menu choices:

A) Workbook – Import
B) Tables – Merge Tables
C) Tables – Compare Tables
D) Analysis – Group Summary

#7 ActiveData for Office can easily split a column into more than one column.

A) True
B) False

#8 Duplicate records in a table can be found with which ActiveData for Office function:

A) Tables
B) Columns
C) Analysis
D) All of the above

#9 Double clicking on a column heading will:

A) Access the ActiveData for Office menu
B) Delete the column
C) Sort the column
D) Highlight the column

#10 To update your version of ActiveData for Office you must uninstall the program.

A) True
B) False

#11 How does ActiveData for Office manage documenting the work completed by the user?

A) Stores the procedures for later reporting.
B) Has a separate menu for displaying the log of procedures.
C) Provides an audit properties box displaying information about the structure of the open table.
D) Displays the log of procedures after each one is processed.

#12 Does ActiveData for Office provide practically all of the functionality of pre-packaged audit software tools currently on the market?

A) True
B) False

Review Answers

#1 When working with ActiveData for Office you are restricted to the same number of records a standard Microsoft Excel table holds:

A) True – *Incorrect (ActiveData for Office allows you to import and export into Microsoft Excel but you are not restricted to the number of records a single ActiveData for Office table can hold.)*
B) False - Correct (ActiveData for Office is not limited like a spreadsheet is which is set at 65,356 records.)

#2 The maximum number of records a single ActiveData for Office table can hold is:

A) 640,000 – *Incorrect (ActiveData for Office can hold more than 640,000 records per table.)*
B) 1 million – *Incorrect (ActiveData for Office can hold over 1 million records if the PC has the storage for the data.)*
C) Unlimited – Correct (You are not limited in the number of records you can store in a single table.)
D) 65, 536 – *Incorrect (65,536 is the number of records an Microsoft Excel spreadsheet is restricted not an ActiveData for Office restriction.)*

#3 After you have installed ActiveData for Office the software provides the following ways to access **ActiveData for Office** functions:

A) An **ActiveData for Office** menu – *Incorrect (There is an ActiveData menu but this isn't the best answer.)*
B) An **ActiveData for Office** toolbar – *Incorrect (There is an ActiveData toolbar but this isn't the best answer.)*
C) A short cut to **ActiveData for Office** functions from the right-mouse click menu – *Incorrect (ActiveData short cuts are accessible from a right-mouse click menu but this isn't the best answer.)*
D) Short cut tricks (e.g. sorting) performed by **ActiveData for Office** – *Incorrect (There are short cut tricks performed by ActiveData but this isn't the best answer.)*
E) All of the above – Correct (ActiveData for Office provide numerous convenient options to accessing functions)

#4 In order for ActiveData for Office to be installed on a PC there must also be a copy of Microsoft Excel and Microsoft Access on the PC:

A) True – *Incorrect (You do not need to have either Microsoft Excel or Microsoft Access installed on your PC in order to install ActiveData for Office.)*
B) False – Correct (ActiveData for Office runs independently of other software packages.)

#5 Which of the following is not a menu function on the ActiveData for Office menu:

A) Workbook – Correct (Workbook is the only selection not on the ActiveData for Office menu.)
B) Tables – *Incorrect (Tables is a selection on the ActiveData for Office menu.)*
C) Columns – *Incorrect (Columns is a selection on the ActiveData for Office menu.)*
D) Analysis – *Incorrect (Analysis is a selection on the ActiveData for Office menu.)*
E) Edit – *Incorrect (Edit is a selection on the ActiveData for Office menu.)*
F) Tools – *Incorrect (Tools is a selection on the ActiveData for Office menu.)*

#6 To combine information from more than one table use the following menu choices:

A) Workbook – Import – *Incorrect (Importing data into ActiveData for Office will create a new table.)*
B) Tables – Merge Tables – Correct (The Merge Tables function combines information from two tables.)
C) Tables – Compare Tables – *Incorrect (Comparing tables will create a new table but does not allow you to select all table fields for building a new table. This is not the best choice.)*
D) Analysis – Group Summary – *Incorrect (The Group Summary function will only summarize data from one table at a time.)*

#7 ActiveData for Office can easily split a column into more than one column:

A) True – Correct (ActiveData for Office has a Split Columns function.)
B) False – *Incorrect (ActiveData for Office has a Split Columns function located on the Columns menu.)*

#8 Duplicate records in a table can be found with which ActiveData for Office function:

A) Tables – *Incorrect (The Table function has an option for sorting records in a table and for working with multiple tables but not for looking for duplicate records.)*
B) Columns – *Incorrect (The Columns function does not look at records.)*
C) Analysis – Correct (The Duplicate function is found within the Analysis function on the ActiveData for Office menu.)
D) All of the above – *Incorrect (Only one of the above selections has a duplicate records function.)*

#9 Double clicking on a column heading will:

A) Access the ActiveData for Office menu – *Incorrect (The ActiveData for Office menu is a fixed object in the application window.)*
B) Delete the column – *Incorrect (Deleting a column can only be performed with the Remove Column function on the Columns menu.)*
C) Sort the column – Correct (ActiveData for Office will auto sort the table of data based on the column in ascending order when the heading is double-clicked on or descending order when double-clicked a second time.)
D) Highlight the column – *Incorrect (Single clicking on a column heading highlights the column.)*

#10 To update your version of ActiveData for Office you must uninstall the program:

A) True – *Incorrect (If updates are made to your version of ActiveData for Office, you will be prompted to update the application which can be done without uninstalling the program.)*

B) False – Correct (ActiveData for Office automatically searches the Web for updates to the software, usually every week. You will not need to uninstall the program for these updates.)

#11 How does ActiveData for Office manage documenting the work completed by the user:

A) Stores the procedures for later reporting – *Incorrect (ActiveData for Office does not create procedure reports but provides an audit properties box displaying information about the structure of the open table.)*

B) Has a separate menu for displaying the log of procedures – *Incorrect (There isn't a separate menu selection for tracking procedures.)*

C) Provides an audit properties box displaying information about the structure of the open table. – Correct (ActiveData for Office is designed to provide worktable properties.)

D) Displays the log of procedures after each one is processed – *Incorrect (ActiveData for Office does not have a procedure log but instead lists the properties for all new worktables in an audit properties box.)*

#12 Does ActiveData for Office provide practically all of the functionality of pre-packaged audit software tools currently on the market:

A) True – Correct (ActiveData for Office provides practically all of the functionality of pre-packaged audit software allowing for large data sets.)

B) False – Incorrect *(Review the chart included in this work book in the section titled 'How Key Data Analysis Tasks Are Met With ActiveData for Office' to see the comparison between ActiveData for Office and two other audit applications.)*

How To Get Started Running The Top Audit Tests

The Morning Of Reality

It's 9:00 a.m. and you awaken in a room filled with a PC, a data file and Microsoft Excel. But wait, just when you thought everyone has forgotten your existence, you come across a note left by your supervisor that reads "Test It!". This may be taking things a little too far but haven't we all, at some time in our data
reporting careers, been faced with a similar situation? Wouldn't it have been helpful from a productivity and self-confidence standpoint to own a book that would:

- walk you through basic reporting concepts
- map out each step for the most common of audit tests
- equip you with sample data, providing a glimpse of the resulting report prior to the (crunch time) situation
- suggest audit procedures to perform on the resulting report

Therefore, this training course gives you all the information you need to produce audit reports immediately for the most common accounting areas: accounts payable, accounts receivable, and the general ledger. Report objectives, audit steps, and the functional instructions are included for each application. To help practice the concepts, sample data is also provided, giving you an immediate "hands on" experience.

The Steps To Developing ActiveData for Office Tests

To get you started, you need to put your first foot forward if you ever expect to run audit tests. This section explains the four step process, summarized below:

Step 1 – Set Your Sights – As in any audit, risk must be assessed with tests selected to mitigate that risk.

Step 2 – Ready Yourself – By running the ActiveData for Office test with the sample data provided, you can get comfortable for the real thing, once you get the client's data.

Step 3 – Get Data – The process does not have to be difficult and is a necessity if you ever expect to run the audit test.

Step 4 – Run It For Real / Consider Other Tests – Now that you know how to run the test (based on playing with the sample data), all that is left is to run the test on the client's data. As you run the reports, other report ideas are bound to come to mind (that may not be explained in this book). With the data analysis procedures learned from this publication, you should be able to mold different permutations to create the newly desired report.

Step 1 – Set Your Sights

To know where to audit, you need to assess the risk of certain events occurring. Since risk can be an amorphous concept, it is generally helpful to quantify the risk. The below formula does just that:

Likelihood * Impact = Risk Score

So, in order to determine where first to audit, it is best to lay out all of the potential areas (i.e., accounts payable duplicate payments, fraudulent payment, inflated sales, etc.) and assign a likelihood percentage (between 0% and 100%) and the potential impact, which should be stated as a dollar amount whenever possible. To ease this process, and avoid minutia, it may be useful to set general parameters for impact (i.e., up to $500,000, $500,001 to $1,000,000, and over $1,000,000) and likelihood (10%, 50%, 75%, and 90%). After each audit type is scored, they can be prioritized from highest to lowest fraud risk score.

Once the top risk areas are identified, the following responses can be applied:

- ***Prevent/Avoid Using Audit Software Reports*** – Develop responses before ever letting the threat occur thus improving on any company vulnerabilities. As it relates to using this document, certain reports may be run and reviewed prior to certain transaction types ever occurring.
- ***Mitigate Using Audit Software Reports*** – Develop responses that reduce the risk to a more manageable level. As it relates to using this document, certain reports may be run and reviewed on a periodic basis.
- ***Transfer*** – the risk could be transferred to a third party such as an insurance carrier

Therefore, the goal of this step is to determine the precise tests to run, which will aid you in the next step.

Step 2 – Ready Yourself

In this publication, we have provided 16 reports across three major audit areas. Hopefully, we have identified the precise test you hope to run. If not, the explained tests should get you close and teach you the needed data analysis concepts. Please note that these concepts have been reduced to ActiveData for Office features in the section *The Tests and Their Relation To ActiveData for Office's Features* to help you make this comparison.

With the test selected, go to the appropriate page in this publication and:

1. Read the section *Why Are We Running This Test and What To Do With The Results* which provides the alpha and the omega of the test to be performed.
2. Read the *What Data Is Needed?* section of the test to understand the data file and fields (columns) needed in order to run the test.
3. Open the sample database provided with this publication and walk through the steps explained in the test in order to get the final results.

4. For any concepts that you are having trouble understanding, review the *Getting Help With ActiveData for Office* document that is under the *Help* menu in ActiveData for Office.
5. Allow yourself time to understand the results of each test. Begin to imagine how your data will be represented in the reports. Ask yourself:
    - Is the test providing me with enough information to prevent or mitigate the risk?
    - Do I need to add more tests?
    - Does the presentation of the report convey its message effectively?

Step 3 – Get Data

With an understanding of the risk to be mitigated, the test to be performed, and the data required (as stipulated in the "*What Data Is Needed?"* section of each audit test) all that is needed is to obtain client data and walk through the same test steps. It is suggested that prior to requesting data that all expected reports be identified so that one request is made of the client. Getting data can be broken into the following logical process steps:

- Step 3a—Making Arrangements with the Client to Obtain Data
- Step 3b—Transferring the Client's Data
- Step 3c—Verifying the Data Received from the Client

Step 3a—Making Arrangements with the Client to Obtain Data

You should meet with the appropriate client personnel (generally the primary contact for the audit and a key contact in information systems) to make arrangements to obtain the data. Matters to be discussed include:

- Specific data needed
- Types of files needed. Common file types include: Comma delimited format, Tab delimited format, Microsoft Access format, and of course, the Microsoft Excel format.
- Record layout of the file (The auditor should arrange to get copies of the record layout which is a simple definition of each data field and where the fields are positioned in the data file).
- Timing of the transfer.
- Method of transfer (See Step 3b below).
- Arrangements for verification information (see Step 3c below).

Step 3b - Transferring the Client's Data

There are many ways to transfer data to your computer for analysis, depending on the client's system architecture. Examples of possible data transfer methods include:

- Floppy disk
- E-mail
- Tape
- High storage disks (such as, 100MB Iomega Zip disks)
- FTP or network transfers
- CD-ROM
- Web harddrive (i.e., www.ibackup.com)

The first two methods are more likely to be used for small PC systems. The last five methods are more likely to be used on larger systems (LANs, minicomputers, or mainframes). However, since we will be using Microsoft Excel in our processing, the files should stay relatively small making Email a preferable option for sending data.

Consideration should be given to the security and privacy of client data when transferred. Examples of procedures to ensure security and privacy include:

- Storing data on and external harddrive that is locked in a safe place each evening.
- Using logon passwords for PCs processing data, including screen saver passwords.
- Any Emails of client data is done via secure FTP or encrypted Emails

- The results of this discussion should be formalized into a request letter as shown below:

Mr. X
IS Manager
ABC Company

Dear *Mr. X*:

As part of our investigation, we will be performing certain tests in the X audit area using data extraction software.

As we discussed today, we require the *X* file be available for us on *X/X/XXXX*. We believe the following fields are required from the file for the period *X/X/XXXX to XX/XX/XXXX*:

List Fields Here

If you believe, after looking at the reports we expect to process (Appendix A), that we will need more data fields besides those listed above, please provide these fields in the file extraction. Also, if it would be easier, we can receive the entire files from which we can extract and define our desired fields.

We will need this file in an ASCII file format for importing into ActiveData for Office. Therefore, any text file format will be acceptable (tab delimited, comma delimited, Microsoft Excel, Microsoft Access or ODBC data). To assist in downloading the file to our PC, we prefer that the file be provided on a CD-ROM or Emailed to us.

We would like to receive the first 100 records of the data file printed out, as well as, a record count for the file. We will be using this information to confirm the proper transfer of the data to our system.

Please contact us if you are unclear as to the source or significance of any of the items requested.
Thank you for your assistance.

Sincerely,

Mr. Y

Page 2 of Request Letter
Appendix A - Expected Reports To Produce

Report Name	**Expected Completion Date**
List reports here	*List desired report completion date*

Step 3c—Verifying the Data Received from the Client

It is generally good practice to verify client data before processing it. There are two reasons for this. First, the auditor can confirm that the data file received from the client is complete and accurate. Second, the auditor can ensure that the data has been read correctly by Microsoft Excel. Verification of client data is generally accomplished through one or more of the following procedures:

- Obtain a printout of the first 100 rows and match "on screen" to the data file.
- Compute totals for key data fields (i.e., invoice amount) and agree them to control totals supplied by the client's IS personnel.
- Agree account totals to general ledger balances.
- Calculate totals or statistics of the file to determine if the relative size of the activity appears reasonable.
- Check the sequence (such as, check numbers, inventory part numbers, or invoice numbers) for gaps and/or duplicates.
- Select a sample of data items and trace the information to client records.

Any exceptions, unreconciled amounts, or other indications of problems should be resolved before applying the automated procedures.

Step 4 – Run It For Real

Now that you:

- Have the data imported into ActiveData for Office,
- Know the data has been verified,
- Understand the ActiveData for Office steps to perform based on this publication,

all that is needed is to run the procedures on the real data by following the test steps explained in this book. Also, if you want to modify the report slightly or run a new report (based on a new direction that is identified with the data analysis), the concepts learned in this book should allow you to run these new procedures. It is like learning to hammer a nail. Once you can nail into one wooden board, that function can be applied to all types of wooden boards.

Let's take a couple of examples:

1) Query Table – Once you learn how to filter out unwanted records from a paid invoice history file, the same function could be applied to filtering out unwanted customers from a customer table or inventory costs that are too high.

2) Compare Tables – After learning to relate a Paid Invoice file to a Vendor file, you could just as easily relate a Customer file to an Invoice Sales file or customer sale files for two separate years.

If you are in need of new areas to apply data analysis in an audit, there are many tools available on the Internet such as:

- *AuditSoftware.Net* (www.auditsoftware.net) - website devoted to the use of all audit software, primarily data analysis. Check out the "How To Use Audit Software" section for a listing of areas and associated tools to jump start a data analysis program.
- *AuditNet* (www.auditnet.org) - AuditNet is a great source of audit information and probably their strongest relevant toolset is their "Auditors Sharing Audit Programs" section which is a library of various audit programs. These documents can be reviewed for relevant audit steps that could be automated using data analysis reports.

Data Files Included With This Publication

The following data file is included with this course and is referred to with the test steps for the respective audit area: Fraud Detection Database.mdb

The file includes tables holding the following information:

Customers – listing of customers and their address information
CustomersOld – an older list of customers and their address information
Employees – listing of employees and their address information
GeneralLedger - listing of detailed journal entries posted to a general ledger system
Invoices - listing of sales invoices
InvoicesPaid - listing of invoice-level detail of paid invoices, as well as, a list of purchase orders
Payments – listing of payments associated to the invoice records
PurchaseOrders – listing of PO numbers
Vendors – listing of vendors and their address information

The Tests And Their Relation To ActiveData for Office Features

The purpose of this matrix is to identify for each test the features of ActiveData for Office that you will learn from this workbook:

	Tests in ActiveData for Office	Query By Formula	Compare Tables	Descriptive Statistics	Digital Analysis	Group Summary	Merge Tables	Gaps / Duplicates	Age / Strata	Sample
1	Vendor Summary Totals Period One to Period Two Comparison	X	X							
2	Descriptive Statistics / Benford's Law Analysis			X	X					
3	Above average payments to a vendor (over two times the average)	X				X				
4	Duplicate payment testing (multiple ways)							X		
5	Employee to vendor address match						X			
6	Identifying payments made after period end for valid liabilities at period end	X								
7	Identify exceeded purchase orders					X	X			
8	Missing / Unusual customer masterfile information / Match to prior year for changes									
9	Cash Receipt to Open Invoice Matching	X				X				
10	Age receivables, extract older balances, and summarize by customer.	X				X			X	
11	Accounts Receivable Invoice Stratified Sampling								X	X
12	Calculate the difference between ship and invoice dates, as well as, invoice dates with no shipments	X								
13	Stratify general ledger detail information								X	
14	Journal entry gap tests							X		
15	Identify nonstandard journal entries made in a timeframe after year end related to specific accounts	X				X				
16	Summarize activity by user account					X				

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 (recovery auditors) 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 made a duplicate payment or 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 running a duplicate invoice/vendor report you could find duplicate payments to vendors.

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".

1. Vendor Summary Totals - Period Comparison

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

This is a basic analytical report to identify trends in vendor purchase history. A trend analysis should be completed to identify key vendors that have increased or decreased substantially. This can best be assessed using the dollar and percentage variance fields, which can be added as calculated fields in Excel. Based on the changes in the business environment and/or new company projects, a reasonableness assessment should be performed on the vendor changes.

Please note that while this test is being shown for vendors in accounts payable, this test could also be used in the revenue area to test for inappropriate fourth-quarter customer sale entries. The three quarter to fourth-quarter trend analysis would quickly identify any inappropriate customer behavior.

Key Note:
When building a formula you have the option of using the field list, available buttons and function list to help you build a formula or type in the desired formula. When typing a formula without

Your Notes:

Key Note:

Compare the totals for Vendors' Invoice Amounts over two periods. This test will create data needed to compare the totals for the first quarter of 2003 to the totals for the second quarter of 2003 for all Vendors in the Invoices table.

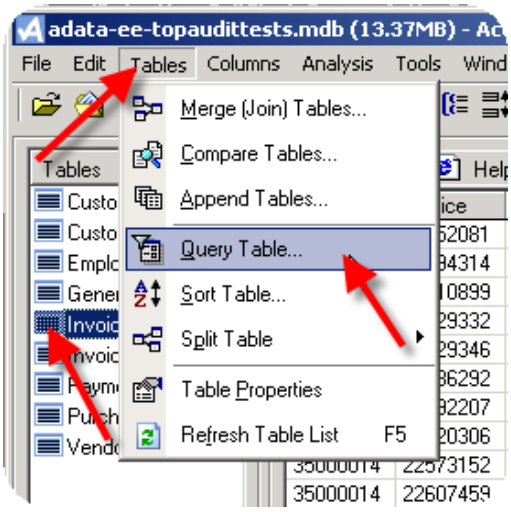
Payable Data Fields
The following fields are needed from the Invoices table for this test:

- Customer
- Invoice_Date
- Amount

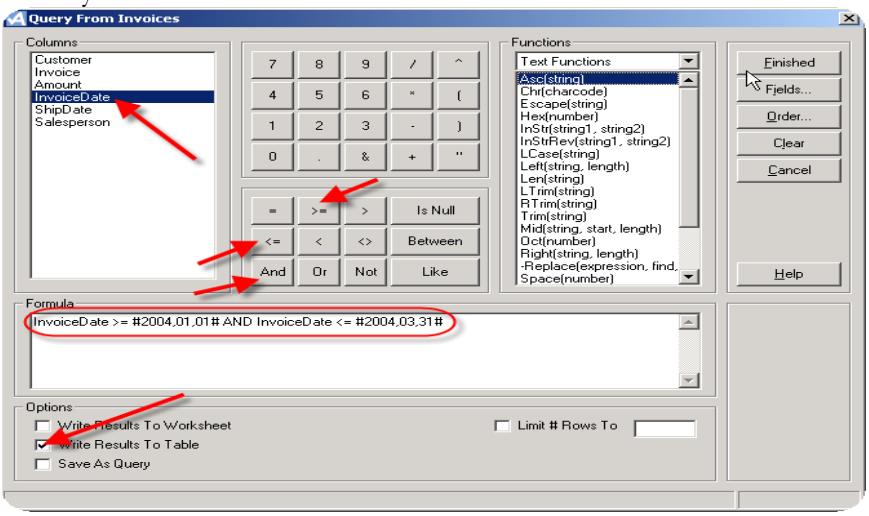
To follow up with your audit you will want to look further at other fields to analyze extreme invoice amount differences between periods.

How To Run The Report

Step 1: Open the table **Invoices** and select from the main menu: **Tables** - **Query Table**.



Step 2: In the 'Query From Invoices' dialog box you will need to build a formula to find the Invoice Dates for the first quarter of 2004. Select the **InvoiceDate** field in the left column (it will appear in the 'Formula' box below, click on the **>=** button, pull down the Functions list and type **#2004,01,01#**. Pound symbols are used to identify date.



Continue building the formula by clicking on the **And** button, select **InvoiceDate**, click on the **<=** button, and type **#2004,03,31#**. The formula now reads**: InvoiceDate >= #2004,01,01# AND**

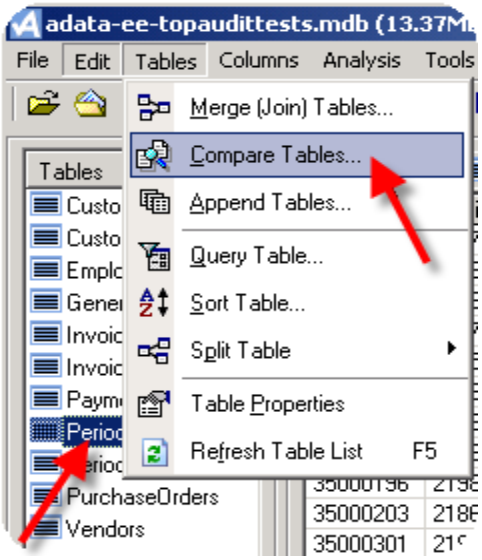
Your Notes:

InvoiceDate <= #2004,03,31#. Click **Finished**. in this dialog box. ActiveData for Office builds a new worktable with this query information.

Step 3: The new worktable contains invoice records for the first period we want to use in our comparison. Rename the table calling it **Period 1**.

Step 4: Have ActiveData for Office build a second worktable and name it **Period 2** by repeating Steps 1 – 3 and using the date range of **#2003,04,01# and #2004,06,30#** in the query formula.

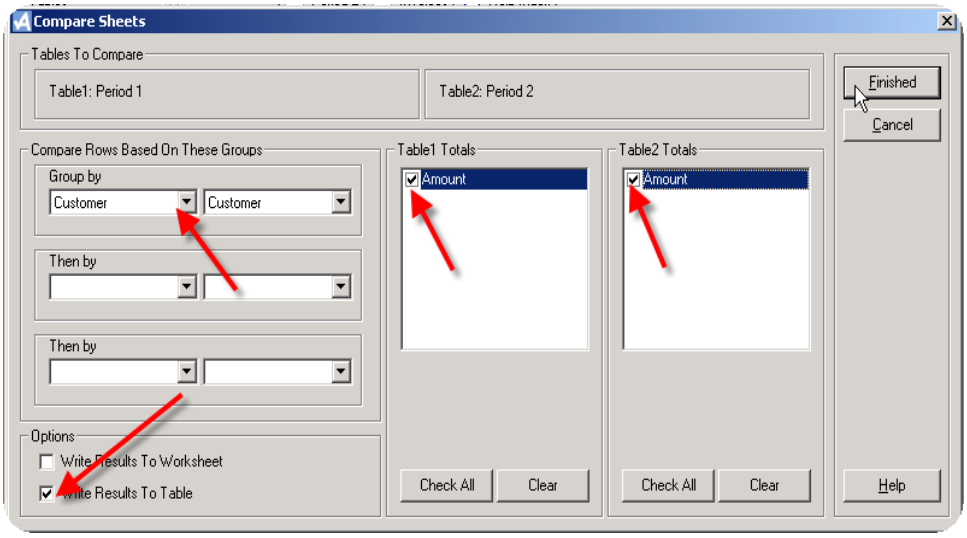
Step 5: We will have ActiveData for Office compare the two new tables. Select the worktable **Period 1**. Select from the **ActiveData for Office** Menu: **Tables - Compare Tables…**



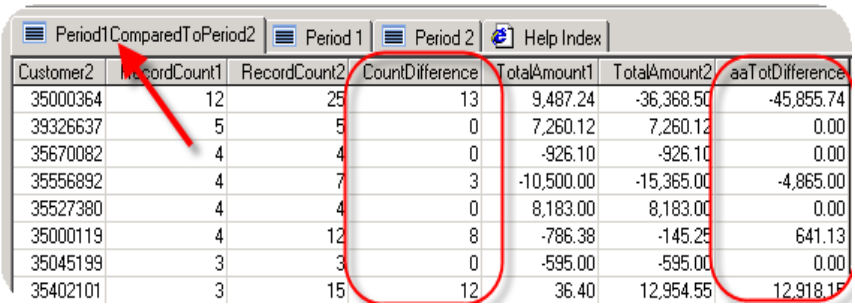
Step 6: Select the **Period 2** worktable in the "Select a table to compare with Period 1" dialog box and click **Select**.

Step 7: In the 'Compare Sheets' dialog box, Select **Customer**, in both 'Group by' selections as the related field in both worktables. Check the **Amount** fields for both tables to total, and the Option of 'Write Results To Table' before clicking **Finished**. ActiveData for Office will sum the Invoice Amounts for both of these periods and place the totals and a count of records per vendor in a new worktable named Period 1 compared to Period 2.

Key Note:
In order to compare tables, the field that is being used Customer in the example at right doesn't need to be the same name in both tables but needs to be the same data.



The steps for creating the data needed to compare two periods of Invoice records is complete. The new worktable can be formatted to make analyzing the information easier to view.



Customer2	RecordCount1	RecordCount2	CountDifference	TotalAmount1	TotalAmount2	aaTotDifference
35000364	12	25	13	9,487.24	-36,368.50	-45,855.74
39326637	5	5	0	7,260.12	7,260.12	0.00
35670082	4	4	0	-926.10	-926.10	0.00
35556892	4	7	3	-10,500.00	-15,365.00	-4,865.00
35527380	4	4	0	8,183.00	8,183.00	0.00
35000119	4	12	8	-786.38	-145.25	641.13
35045199	3	3	0	-595.00	-595.00	0.00
35402101	3	15	12	36.40	12,954.55	12,918.15

By calculating the two period customer totals, the count of invoices per customer and the total amounts, extreme differences can be easily recognized.

2. Descriptive Statistics / Benford's Law Analysis

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

The descriptive statistics provides maximum amount, minimum amount, average amount and other high-level statistics. These statistics should be reviewed for reasonableness such as a high value of negative amounts or a maximum amount that looks too high.

Then, a Benford Law analysis of the first two digits of your data, as well as, a list of all amounts from highest to lowest frequency is provided for review. Benford's Law maintains that certain digits show up more than others. A one will appear as the first non-zero digit roughly 30% of the time; two will be the leading digit 18% of the time; nine will lead off just 4.6% of the time. Zero is most likely to be the second digit, popping in there 12% of the time. It's all very predictable. Benford's Law never fails to work. With it, you can tell if someone fakes data that are derived from other data. It can also identify errors within the data that appear "out of place" given their frequency of appearance.

It is suggested that the Benford Law analysis first be executed so the most statistical outliers can be reviewed. As a follow up to these tests, a Query Table should be used to query outlier activity for additional review.

For those desiring more information on Benford's Law, it is suggested that the following two documents be reviewed from the Internet:

www.nigrini.com

http://www.richlanza.com/aboutrich/articles/digit.htm

Using ActiveData for Office functions view Invoice Amount statistics and look for abnormal duplications of specific digits and round numbers.

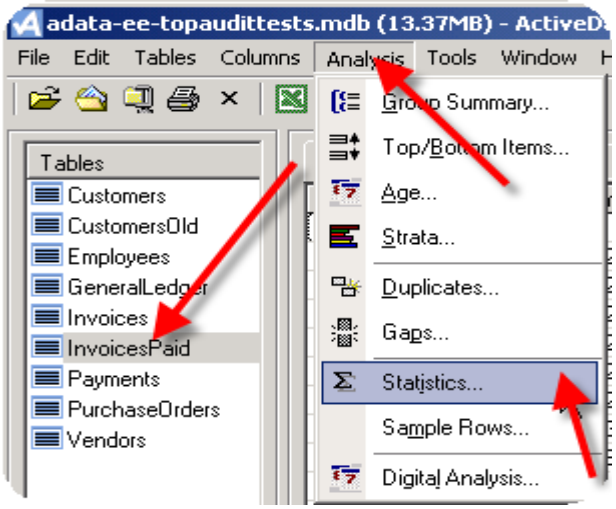
Payable Data Fields
The following fields are needed from the InvoicesPaid table for this test:

- Invoice_Amount
- Vendor_Number

ActiveData for Office will provide statistical data analysis on a single field as well as on values grouped by Vendor_Number.

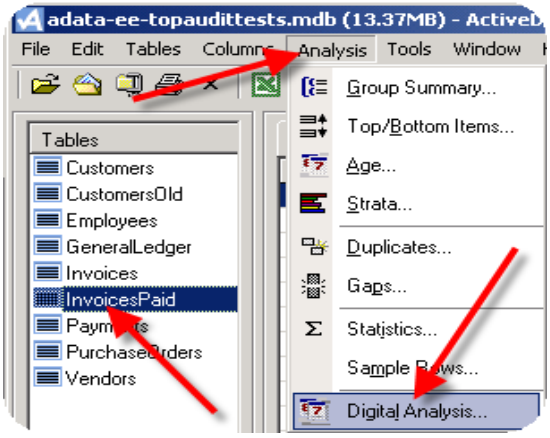
How To Run The Report

Step 1: Open the table **InvoicesPaid** and select from the main menu: **Analysis - Statistics…**



Step 2: Select **Invoice_Amount** in the 'Column(s)To Analyze' dialog box, and make sure the 'Write Results To Table' option is checked before clicking **Finished**. ActiveData for Office will build a new worktable with the statistical analysis of the **Invoice_Amount** field.

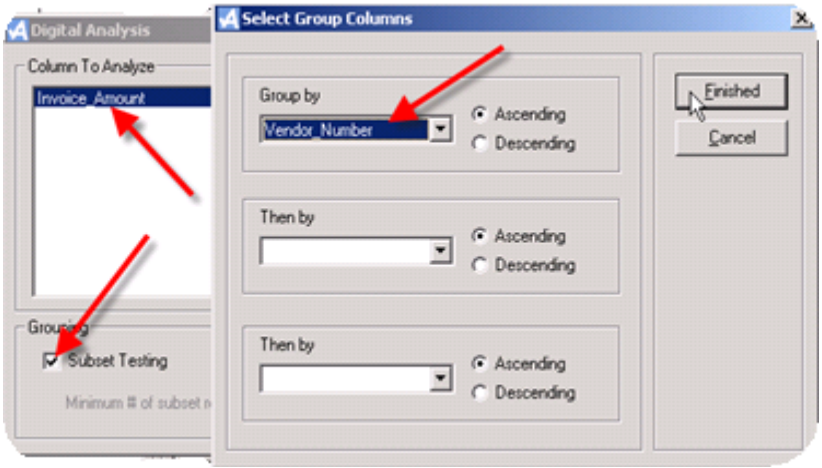
Step 3: Return to the worktable **InvoicesPaid** and select from the main menu: **Analysis - Digital Analysis…**



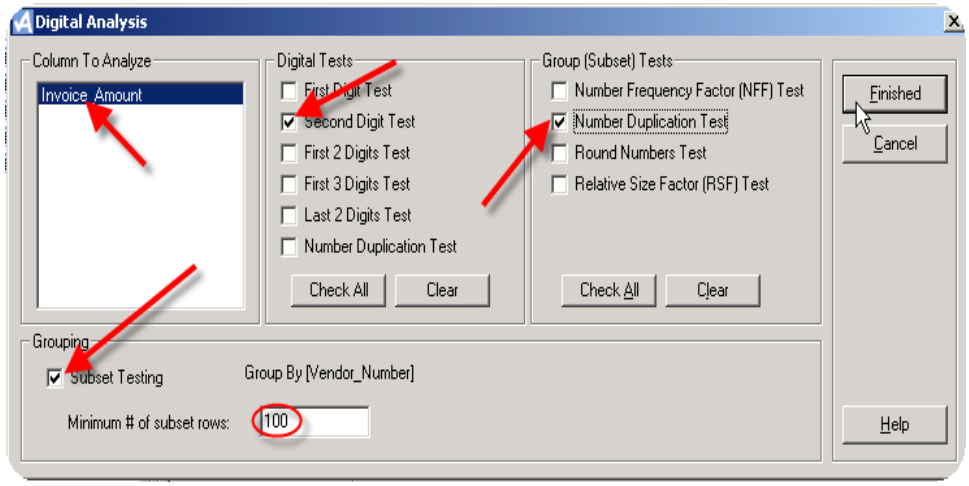
In the 'Digital Analysis' dialog box select the **Invoice_Amount** field as the 'Column to Analyze'. Select a grouping option by checking 'Subset Testing' and then **Vendor_Number** to 'Group by' in the 'Select Group Columns' dialog box. By clicking **Finished** you'll be

Your Notes:

returned to the 'Digital Analysis' dialog box where you can select the various tests you would like to perform.



Besides selecting the various 'Digital Tests' and 'Group[Subset]Tests', choose the 'Minimum # of subset rows'. We'll enter **100** to indicate that Vendors with 100 or more records will be analyzed.



When you click the **Finished** button, ActiveData for Office builds an Excel spreadsheet with the Digital Analysis information you requested. Microsoft Excel will be launched and opened as a minimized application on your PC's status bar. Open the application and view the **InvoicesPaidDigitalAnalysis** sheet. This spreadsheet includes tables as well as graphs of the statistical data generated.

3. Above Average Payments To A Vendor

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

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).

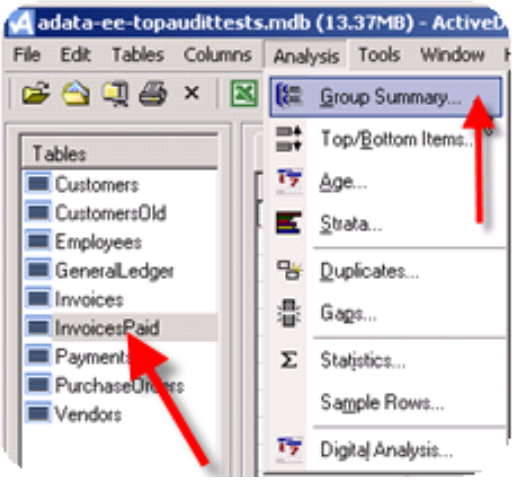
For vendors with unusual payments above the average, a sample of the "average" payment invoices, as well as, the unusual payment invoice should be reviewed. The reasonableness of the purchase should be assessed based on the documentation reviewed. The auditor should be keenly aware of the potential for 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 Office can also include totals for all numeric columns.

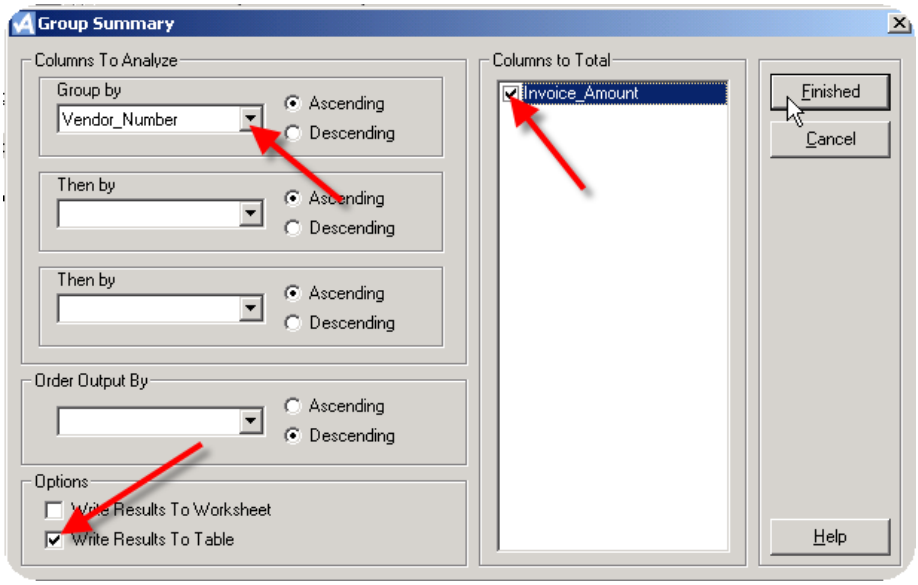
The Write Results To Worksheet is found in most of the ActiveData for Office functions dialog boxes, allowing the user to write the results to a Microsoft Excel spreadsheet.

How To Run The Report

Step 1: Open the table **InvoicesPaid** and select from the main menu: **Analysis - Group Summary…**



Step 2: 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**.



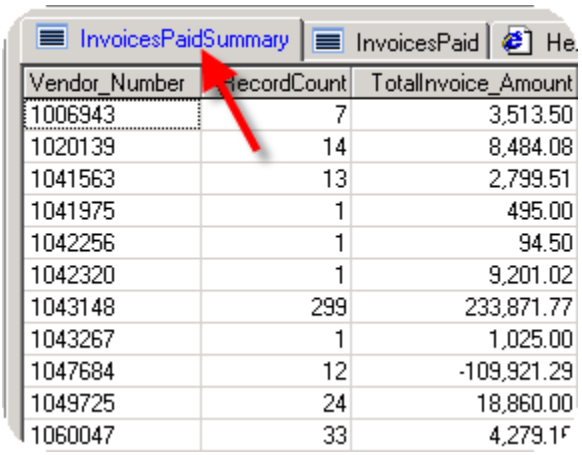
Payable Data Fields
The following fields are needed from the Invoices Paid table for this test:

- 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.

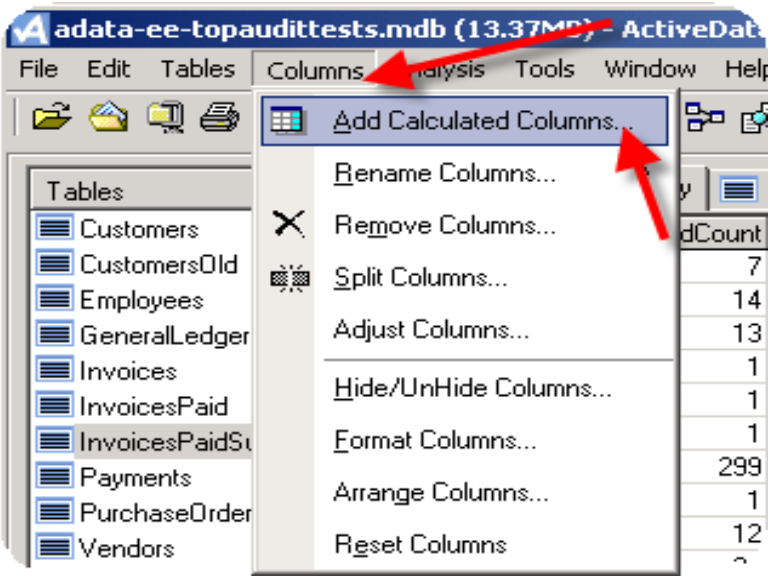
Your Notes:

Step 3: A new **InvoicesPaidSummary** worktable is built counting the number of records per Vendor_Number and totaling the Invoice Amounts by each Vendor.



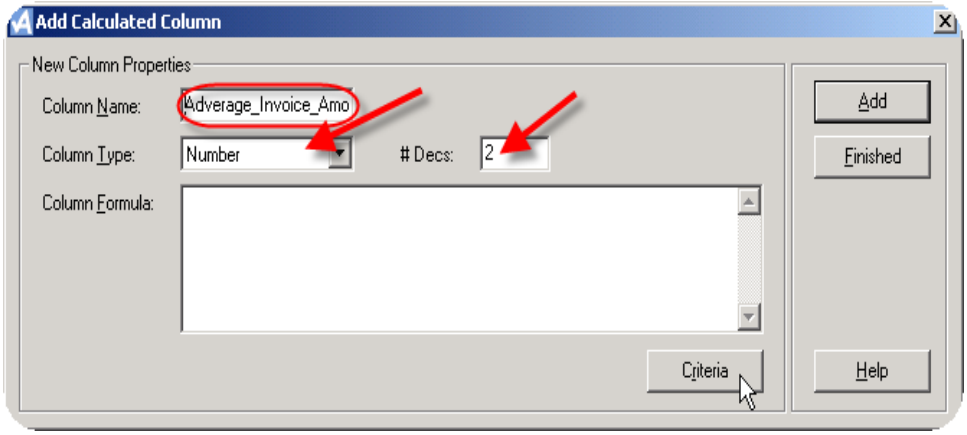
Vendor_Number	RecordCount	TotalInvoice_Amount
1006943	7	3,513.50
1020139	14	8,484.08
1041563	13	2,799.51
1041975	1	495.00
1042256	1	94.50
1042320	1	9,201.02
1043148	299	233,871.77
1043267	1	1,025.00
1047684	12	-109,921.29
1049725	24	18,860.00
1060047	33	4,279.1

To this worktable we will add a calculated column to find the average invoice amount for each Vendor record. From the menu select **Columns – Add Calculated Columns…**

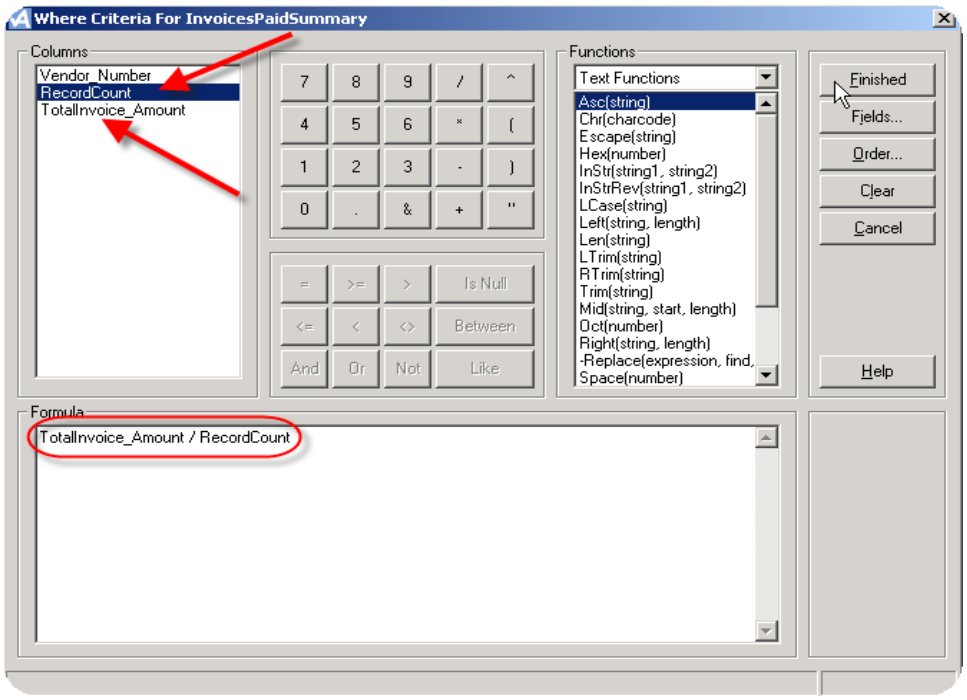


Step 4: In the 'Add Calculated Column' dialog box type **Adverage_Invoice_Amount** as the new 'Column Name'. Make sure **Number** is selected for 'Column Type' and type **2** for '# Decs' (number of decimals). After you have made these column options we will build a formula to calculate average.

Your Notes:



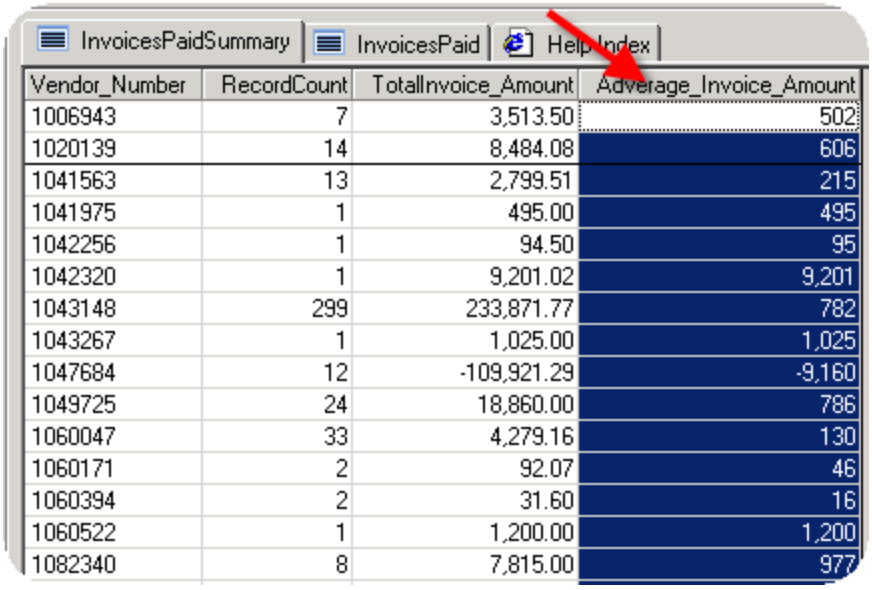
Step 5: Click the **Criteria** button to display the 'Where Criteria For InvoicesPaidSummary' dialog box.



Step 6: Build the formula **TotalInvoice_Amount / RecordCount** by selecting the fields and the division button before selecting **Finished**. Back in the 'Add Calculated Column' dialog box click the **Add** button followed by the **OK** button to add the new column to the open worktable.

A message box appears indicating that the column has been added. Click **Finished** closing the open dialog box and viewing the worktable.

Your Notes:

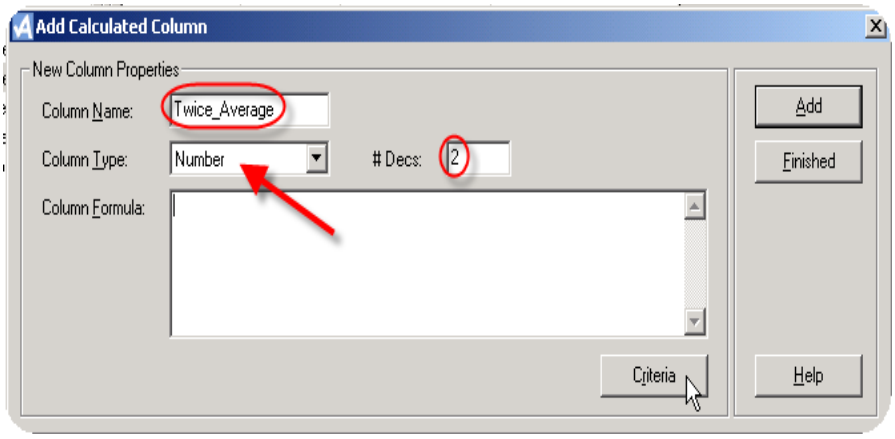


InvoicesPaidSummary | InvoicesPaid | HelpIndex

Vendor_Number	RecordCount	TotalInvoice_Amount	Average_Invoice_Amount
1006943	7	3,513.50	502
1020139	14	8,484.08	606
1041563	13	2,799.51	215
1041975	1	495.00	495
1042256	1	94.50	95
1042320	1	9,201.02	9,201
1043148	299	233,871.77	782
1043267	1	1,025.00	1,025
1047684	12	-109,921.29	-9,160
1049725	24	18,860.00	786
1060047	33	4,279.16	130
1060171	2	92.07	46
1060394	2	31.60	16
1060522	1	1,200.00	1,200
1082340	8	7,815.00	977

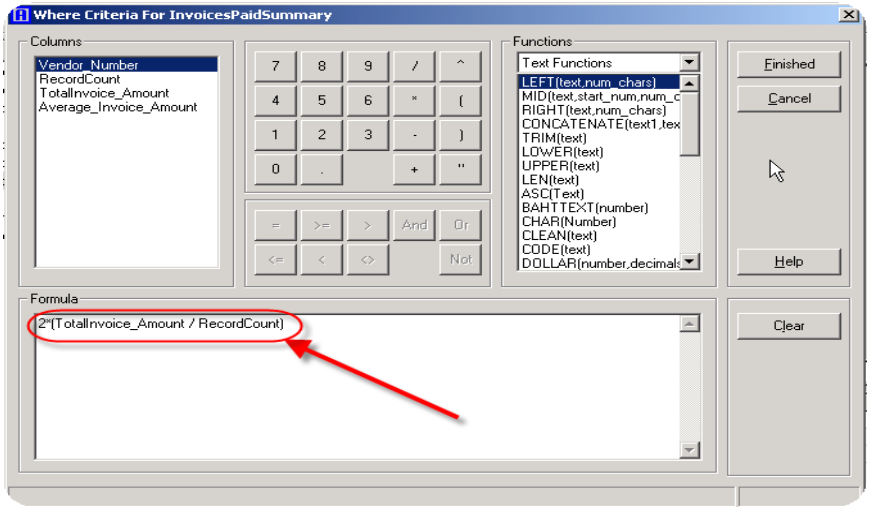
Step 7: (This step could have be combined with *Step 6*.) We need to have a column display twice this calculated average amount. In an additional column calculate two times the average.

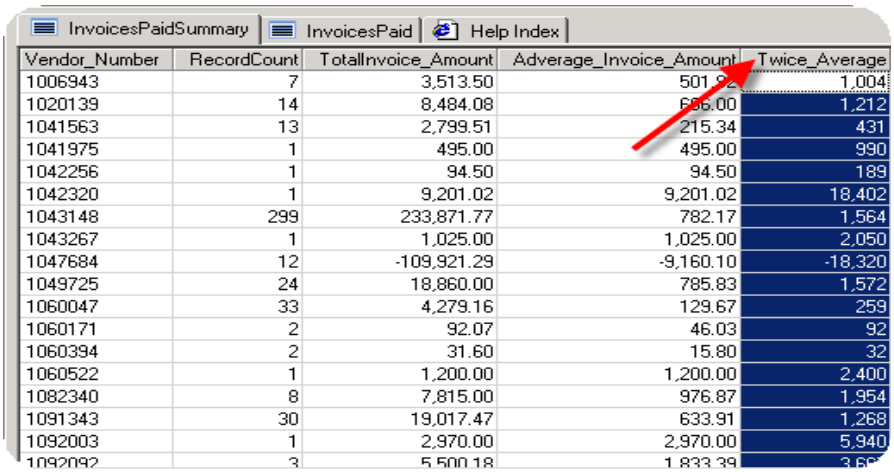
Follow ***Steps 3 - 6*** to create another calculated column using the following expression: **2*(TotalInvoice_Amount / RecordCount**) in the 'Where Criteria For InvoicesPaidSummary' dialog box.



Name the new column **Twice_Average**.

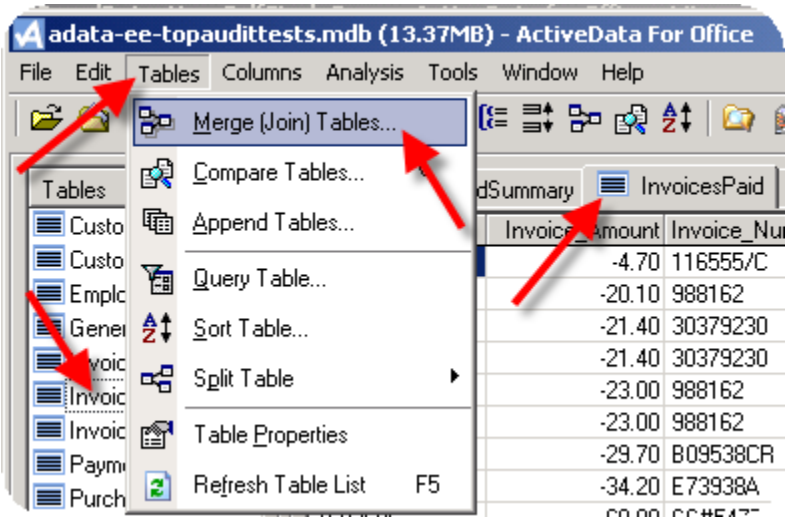
Your Notes:





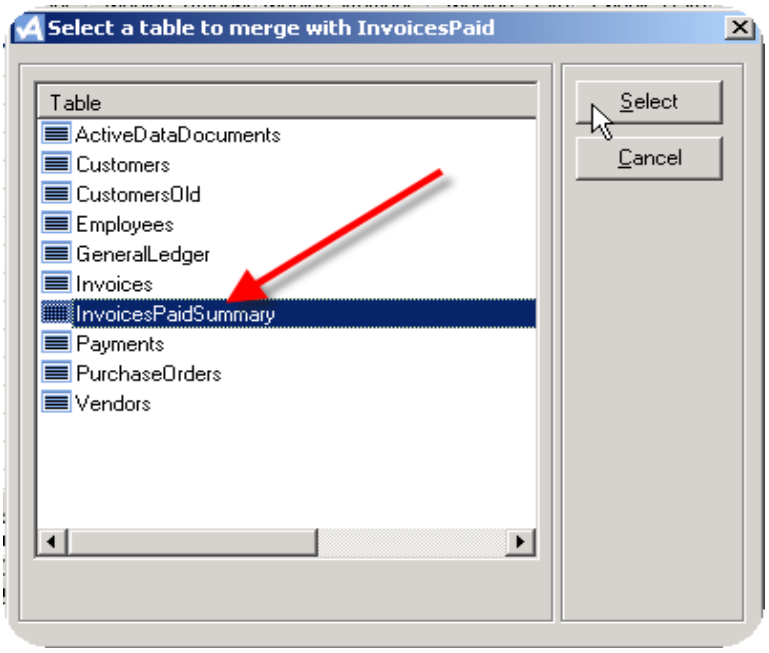
Vendor_Number	RecordCount	TotalInvoice_Amount	Average_Invoice_Amount	Twice_Average
1006943	7	3,513.50	501.9	1,004
1020139	14	8,484.08	606.00	1,212
1041563	13	2,799.51	215.34	431
1041975	1	495.00	495.00	990
1042256	1	94.50	94.50	189
1042320	1	9,201.02	9,201.02	18,402
1043148	299	233,871.77	782.17	1,564
1043267	1	1,025.00	1,025.00	2,050
1047684	12	-109,921.29	-9,160.10	-18,320
1049725	24	18,860.00	785.83	1,572
1060047	33	4,279.16	129.67	259
1060171	2	92.07	46.03	92
1060394	2	31.60	15.80	32
1060522	1	1,200.00	1,200.00	2,400
1082340	8	7,815.00	976.87	1,954
1091343	30	19,017.47	633.91	1,268
1092003	1	2,970.00	2,970.00	5,940
1092092	3	5,500.18	1,833.39	3,66

Step 8: We will merge these **Twice_Average** figures with the **InvoicesPaid** fields to compare these new figures to the individual **Invoice_Amounts**. Return to the **Invoices Paid** table. Select from the menu: **Tables - Merge Tables…**

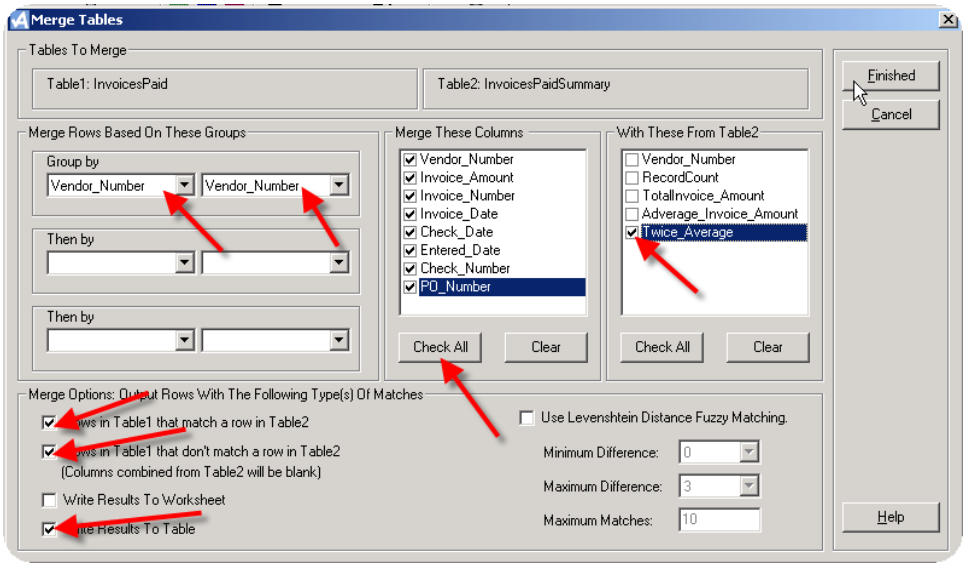


Step 9: In the 'Select a table to merge with InvoicesPaid' dialog box select the **InvoicesPaidSummary** as the table to merge with and click **Select**.

Your Notes:

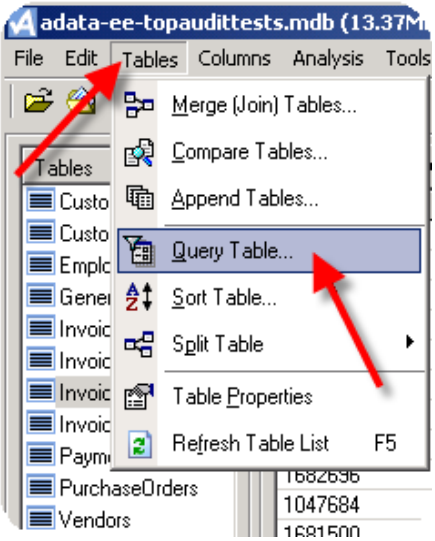


Step 10: In the **Merge Tables** dialog box select the **Vendor_Number** field to identify the fields to group by, **Check All** fields in Table 1 and select the **Twice_Average** field in 'With These From Table2'. We'll elect to 'Write Results To Table'. Click **Finished** to complete the merge.

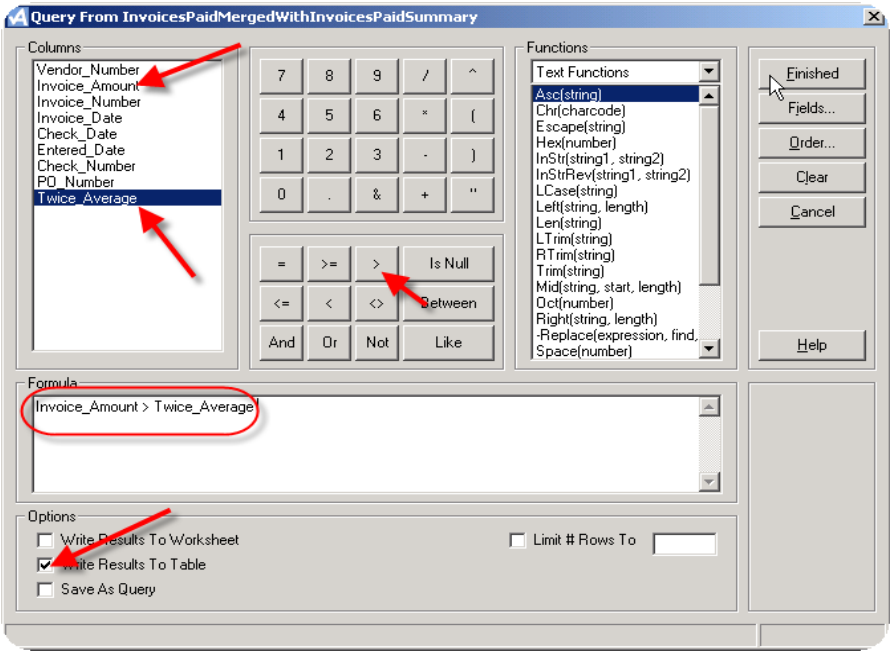


ActiveData for Office has created an additional worktable that has all the field information from the **InvoicesPaid** table and an added column at the right with the amount that is twice the invoice average for each individual vendor.

Step 11: We will now perform the final step to query for records where a record's **Invoice_Amount** exceeds twice the average. From the menu select: **Tables - Query Table…**



Step 12: In the 'QueryFromInvoicesPaidMergedWithInvoices PaidSummary' dialog box, build the formula expression: **INVOICE_AMOUNT > SummaryOfinvoicespaidTwiceAverage** by clicking on the **Invoice_Amount** field followed by the **>** button and then clicking the field **Twice_Average**.



When you click Finished ActiveData for Office builds an additional worktable that contains only those invoice records that have exceeded twice their average invoice amount.

Key Note
In order to Merge Tables, the field that is being used (Vendor_Number in the example at right) does not have to be spelled the same in both tables but does have to contain related data.

Your Notes:

InvoicesPaidMergedWithInvoicesPaidSummary

nvoice_Date	Check_Date	Entered_Date	Check_Num
11/25/2002	6/4/2003	5/25/2003	301875946
11/3/2002	3/13/2003	11/5/2002	293255426
11/10/2002	3/6/2003	11/20/2002	292623222
12/11/2002	4/5/2003	12/21/2002	295996644
11/3/2002	3/13/2003	11/13/2002	293255426
11/3/2002	3/13/2003	3/3/2003	293255426
9/15/2002	12/26/2002	12/16/2002	284783136
10/21/2002	5/17/2003	10/23/2002	300108654
11/11/2002	3/6/2003	11/21/2002	292626394
12/8/2002	4/4/2003	3/25/2003	29570774F

After reviewing the new worktable and before moving on to another test, you may wish to delete the newly created tables. With a right mouse click on any table or highlighted group of tables in the table list you can Delete Table(s).

4. Duplicate Payment Testing – Multiple Ways

Identify duplicate data for vendor records that might be suspicious in the InvoicesPaid table.

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

Duplicate payments to vendors normally represent errors that the computer system was unable to detect. In most systems, a check will be made as to whether the vendor number, invoice number, and amount are the same. This test could be run to ensure this basic control is operational and also to test for other permutations of duplication.

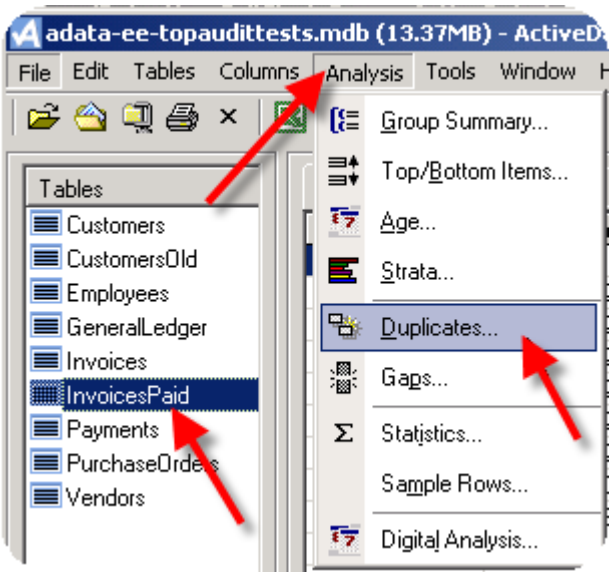
Any results from this test should first be reviewed for trends. For example, rent payments that occur on a monthly basis may appear to be duplicate payments when, in fact, they are simply regularly occurring payments. Please also note that certain accounting packages allow the issuance of partial payments (i.e., a payment to the same vendor with the same invoice number, and amount). Therefore, it is advised that the auditor review whether the system allows such payments and omit them prior to running this application. This can be done with a Query function in ActiveData.

Voided checks should also be reviewed as if a payment is made first on a regular check and then on a voided one, only one payment was technically made.

After the above review of the data file, actual invoices can be pulled for further analysis. As a general note, it is advisable that the auditor pull any associated invoices independent of the accounts payable function and review such physical invoices to determine whether a duplicate payment was made. That way, a fully independent review is completed and there is no room for "cover up" by the employees.

How To Run The Report

Step 1: Open the table **InvoicesPaid** and select from the main menu: **Analysis - Duplicates…**

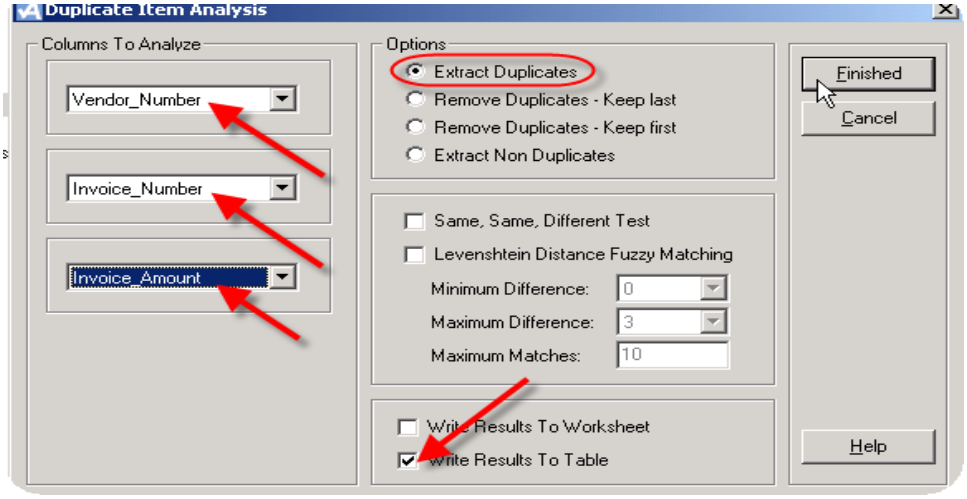


Payable Data Fields
The following fields are needed from the InvoicesPaid table for this test:

- Vendor_Number
- Invoice_Number
- Invoice_Amount
- Invoice_Date

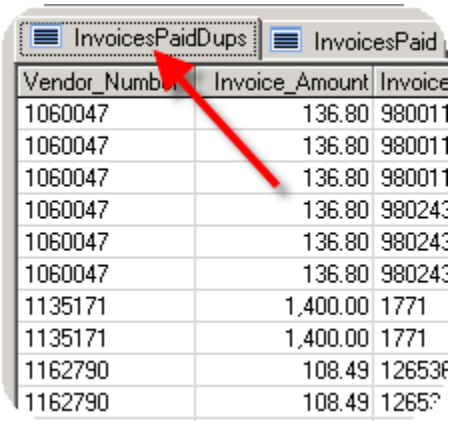
While the above fields are the only ones needed to complete this test, you may want to include additional fields to assist you're your audit. Other fields that could be included are check number, check date, purchase order number, and vendor name.

Step 2: Select **Vendor_Number**, **Invoice_Number**, and **Invoice_Amount** for 'Columns To Analyze' and select **Extract Duplicates** for 'Options' in the 'Duplicate Item Analysis' dialog box. Before clicking on the **Finished** button make sure the 'Write results To Table' option is turned on. ActiveData for Office builds an additional worktable with duplicate records.



In the **InvoicesPaidDups** worktable ActiveData for Office has copied records where there are multiple records with the same data in

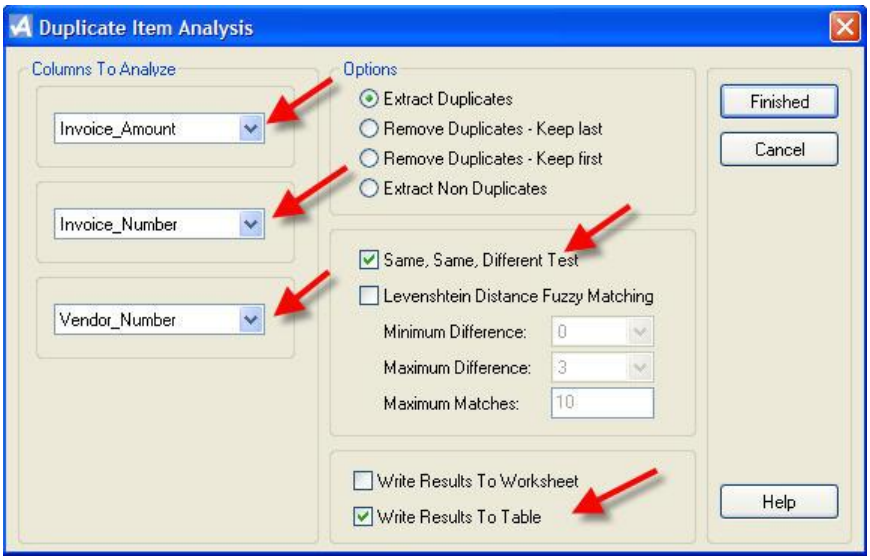
the first three fields. Examine these records to help in your investigation for fraud.



Step 3: Continue looking for duplicate data with a **Same, Same, Different Test** on invoice records. Repeat ***Steps 1-2*** again using the **InvoicePaid** table to look for duplicates in two of three fields.

Key Note:
This duplicate item extraction is different from the previous one because it will find identical invoice records that show up for more than one vendor. This set of records produced will be different than the previous data set found.

A invoice record may have been entered under an incorrect Vendor Number or an invoice may have been submitted more than once but under different Vendor_ Numbers.



ActiveData for Office will build a new worktable with records that have the same data in the **Invoice_Number** and **Invoice_Amount** fields when the **Vendor_Number** is different.

5. Employee to Vendor Address Match

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

This test identifies same/similar fields between the vendor and employee master table in an attempt to identify fraudulent payments to employees. While this test explains how to complete this task for addresses, the same could be done for phone numbers, tax identification numbers, and other personal information.

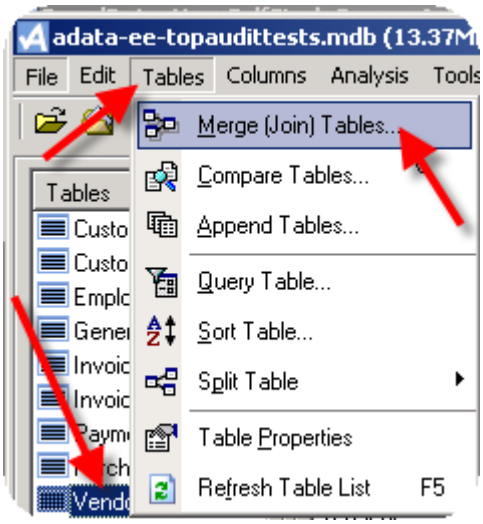
Once the results are produced, the auditor should scan them to determine if there are any valid address matches between the employee and vendor tables. As a next step, a Query Table could be performed in ActiveData for Office of the actual invoices posted to that vendor to determine whether they are fraudulent. Two notes when completing this review are as follows:

- Since this exercise may detect fraud, it may be beneficial to locate the invoices or vendor information independent of the accounts payable department (who may be culpable for creating the false vendor account)
- Since it is common to pay employee travel and entertainment expenses or employee advances this should be the key reason to not consider the payments fraudulent. If possible, the vendor file should be filtered for all employee travel and entertainment vendor accounts prior to running this test.

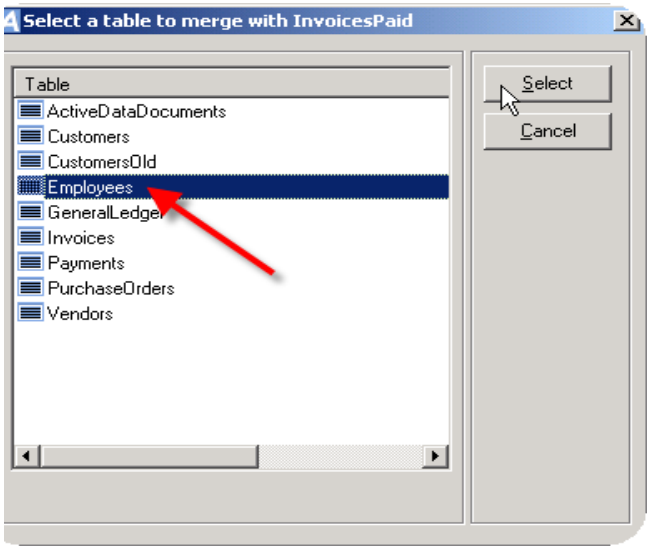
Compare the street address for Vendors and Employees to see if there are any matches. We will first look both for exact address matches and partial matches.

How To Run The Report

Step 1: Open the **Vendors** table and select from the main menu: **Tables** - **Merge Tables…**



Step 2: In the 'Select a table to merge with Vendor' dialog box select the **Employee** table to match against the **Employee** table and click **Select**.



Payable Data Fields
The following fields are needed from the Vendor table for this test:

- Vendor_Number
- Address

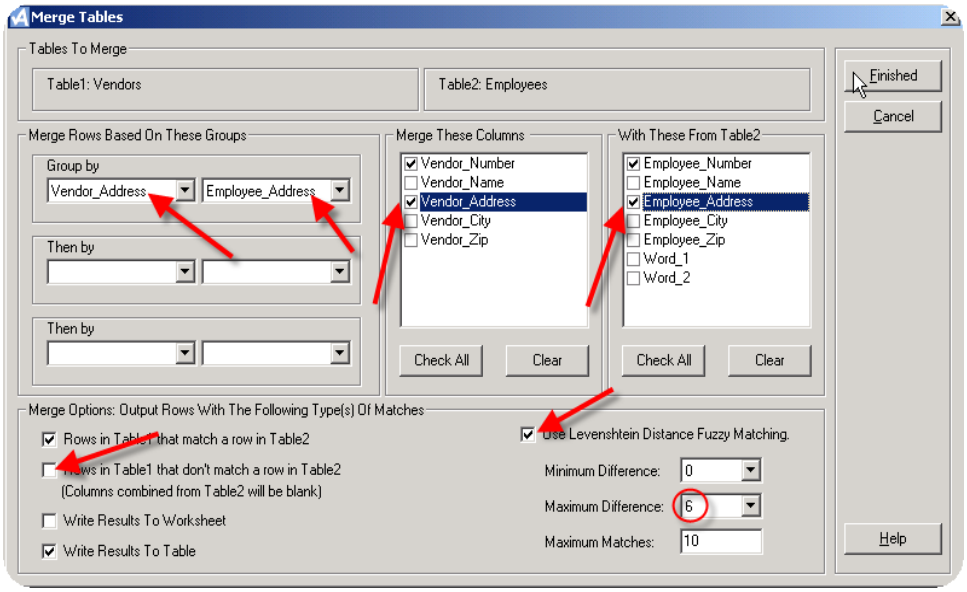
The following field is needed from the Employee table:

- Address

To follow up with your investigation you will want to look further at other employee and vendor fields to evaluate the matches found.

Your Notes:

Step 3: In the 'Merge To Tables' dialog box select the **Vendor_Address** and the **Employee_Address** fields to 'Group by'. In the 'Merge These Columns' dialog box select the **Vendor_Number** and **Vendor_Address** fields. In the 'With These From Table2' select the **Employee_Number** and **Employee_Address**.

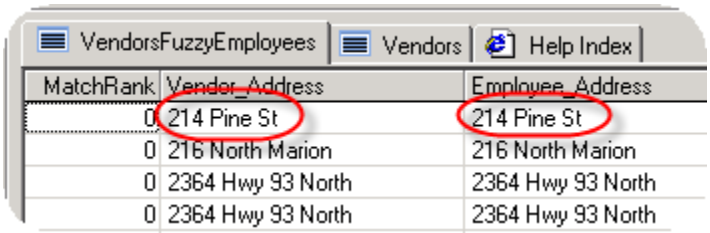


Continue by turning off the selection to find 'Rows in Table1 that don't match' and select the option to 'Use Levenshtein Distance Fuzzy Matching' with a 'Sensitivity' level of **6**.

The fuzzy match compares data by calculating the number of keystroke edits required to turn one field into another. The fuzzy match produces a rank field that shows how many keystrokes are necessary. A rank of 0 means that there are no keystrokes required (they are identical). A rank of 1 means that only 1 keystroke is required to make both columns equal. The sensitivity simply tells ActiveData for Office to only list matches with a rank <= to the sensitivity so a setting of 6 means show me all matches where the number of keystrokes required to change one column to the other is 6 or less.

Click the **Finished** button to build the merged worktable named **VendorsFuzzyEmployees**.

By reviewing the merged records we find address from both tables that are exact matches as well as addresses that are similar.



MatchRank	Vendor_Address	Employee_Address
0	214 Pine St	214 Pine St
0	216 North Marion	216 North Marion
0	2364 Hwy 93 North	2364 Hwy 93 North
0	2364 Hwy 93 North	2364 Hwy 93 North

Your Notes:

The 'MatchRank' of 2 indicates that the two fields are just two keystrokes apart.

VendorsFuzzyEmployees | Vendors | Help Index

MatchRank	Vendor_Address	Employee_Address
2	3110 Austin Chaney Rd	3110 Austin Chaney Road
2	33 Village Park Rd	33 Village Park Road
3	2200 Airport Road	4410 Airport Road
3	2215 N 35th Ave	2215 N 35th Avenue

6. Payments Made After Period End for Valid Liabilities at Period End

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

This report works to identify unrecorded liabilities. A common scheme is for an organization to "hold" an invoice by not entering it into the system. Then, after period end, the invoice will be entered into the system thereby evading the expense charge in the year under review.

The invoices identified in this test should be reviewed for reasonableness and materiality. If not material, further test work may not be considered necessary. If material, trends may be identified in the types of invoices or the vendor. The final analysis should include pulling the actual invoices to determine whether they are for services rendered or products received before the period end.

Locate payments that were made after corporate year end for invoices that were entered before year end. June 1, 2003 will be used as year end in the following example.

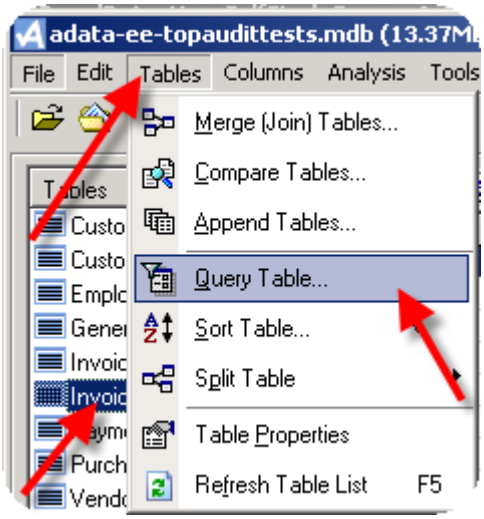
Payable Data Fields
The following fields are needed from the Invoices Paid worktable for this test:

- Invoice_Date
- Check_Date
- Entered_Date

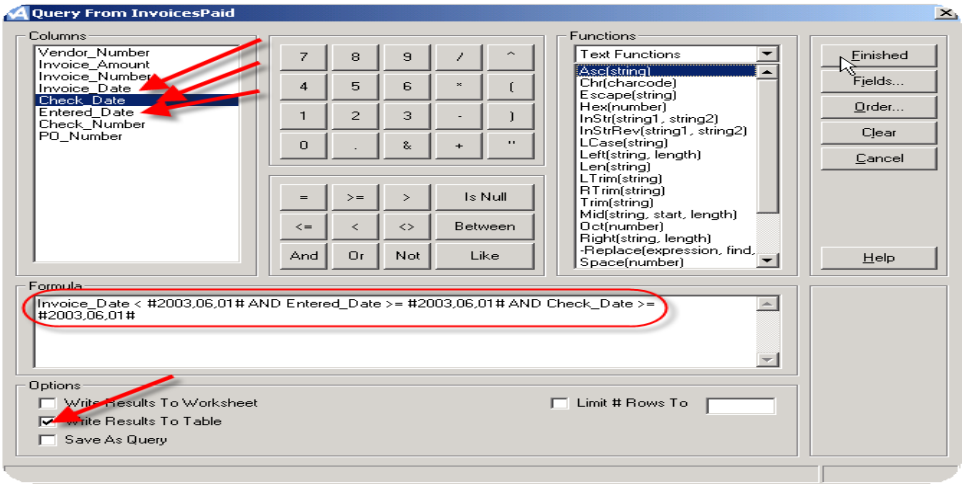
To follow up with your audit you will want to have other fields to research the invoices found. These fields could be Invoice Number, Vendor Number, Invoice Amount, Vendor Name, and Purchase Order Number.

How To Run The Report

Step 1: Open the **InvoicesPaid** table and select from the main menu: **Tables** - **Query Table…** -



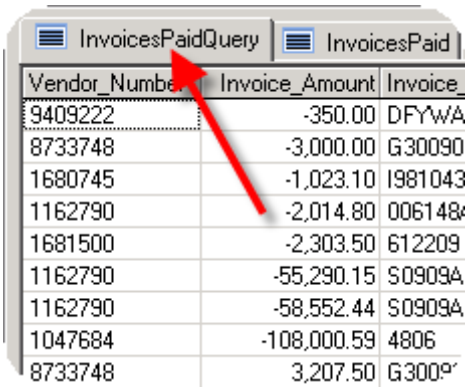
Step 2: In the 'Query From Payments' dialog box build the following formula to find invoices where the **Invoice_Date** is before June 1, 2003 and the **Entered_Date** and **Check_Date** is June 1, 2003 or after:. **Invoice_Date < #2003,06,01# AND Entered_Date >= #2003,06,01# AND Check_Date >= #2003,06,01#**.



This formula is looking for Invoices that were dated before year end (June 1st, 2003) and entered with checks dated after year end. Use **#**

symbols around the dates you enter into a formula. The symbol identifies the text as a date field.

After clicking **Finished** ActiveData for Office builds a new worktable that contains the invoice records found with this expression.



Vendor_Numbe	Invoice_Amount	Invoice_
9409222	-350.00	DFYWA
8733748	-3,000.00	G30090
1680745	-1,023.10	I981043
1162790	-2,014.80	006148
1681500	-2,303.50	612209
1162790	-55,290.15	S0909A
1162790	-58,552.44	S0909A
1047684	-108,000.59	4806
8733748	3,207.50	G300

Once you view these records you might want to sort the invoices in **Entered Date** order. This way you can recognize if numerous records were entered right after the year end.

Key Note:
To sort records using ActiveData for Office, double click in any column header to sort the column. The first time you double click ActiveData for Office sorts in ascending order, the next time you double click it sorts in descending order.

7. Identify Exceeded Purchase Orders

Locate purchase orders where the invoice amount totals exceed their purchase order amount.

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

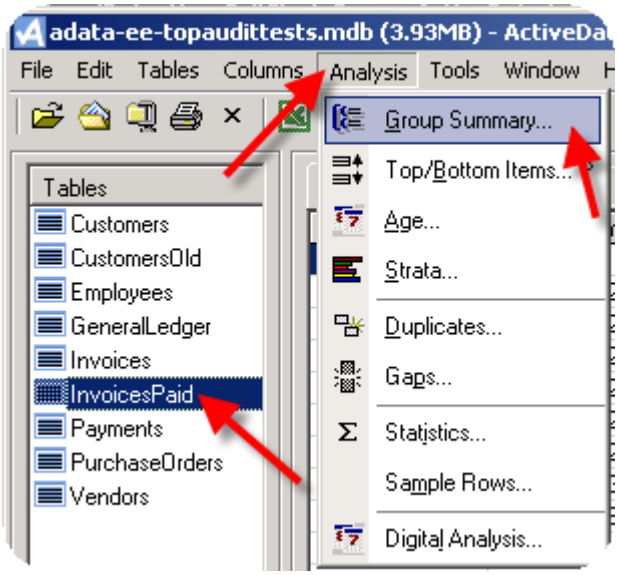
This report works to identify authorization issues within an accounts payable process whereby the invoices paid exceed the approved purchase order amount. Aside from assessing the authorized limits, this reports tests the system control that should not allow an invoice to be paid above a pre-determined limit (i.e., normally between 5% and 10%). This may also highlight frauds:

- Where a valid purchase order is provided to authorize payment yet inflated payments are made to assist the fraudster in some way.
- Vendors working with an employee create a purchase order with valid unit prices yet inflate those prices when the invoices are sent

This test may highlight a computer system control issue (that should check for exceeded purchase orders) or may identify numerous overrides to the computer system. These overrides may be within the normal course of business (i.e., purchase order prices were meant to be at the invoice price rate but were entered in error on the purchase order) but also may highlight fraudulent activity. Regardless, the auditor should walk through the entering of a purchase order and associated invoices to understand the system controls. Once understood, the differences presented in this test can be investigated by vouching to purchase order and invoice documentation.

How To Run The Report

Step 1: First we need to total **Invoice_Amounts** by **PO_Number**. Open the **InvoicesPaid** table and select from the menu: **Analysis - Group Summary…**



Payable Data Fields
The following fields are needed from the InvoicesPaid worktable for this test:

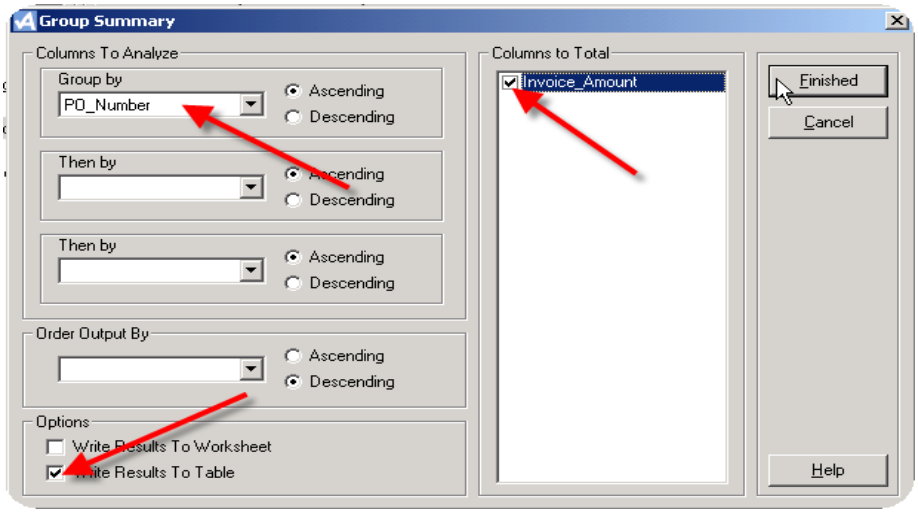
- PO_Number
- Invoice_Amount

To follow fields are needed from the Purchase Orders worktable for this test:

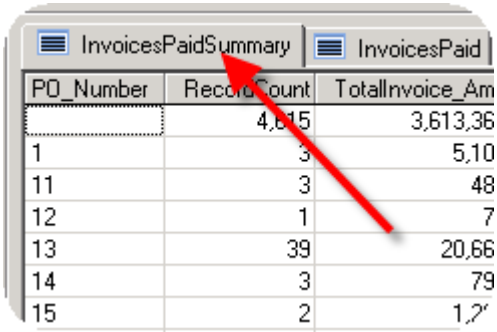
- PO Number
- PO Amount

Other useful fields to facilitate the audit from the Invoices Paid worktable include Invoice Number, Invoice Date, Check Number, Check Date and Vendor Number.

Step 2: In the Group Summary dialog box select **PO_Number** as the column to 'Group by' and **Invoice_Amount** to Total. Make sure 'Write Results To Table' is selected before clicking **Finished**.



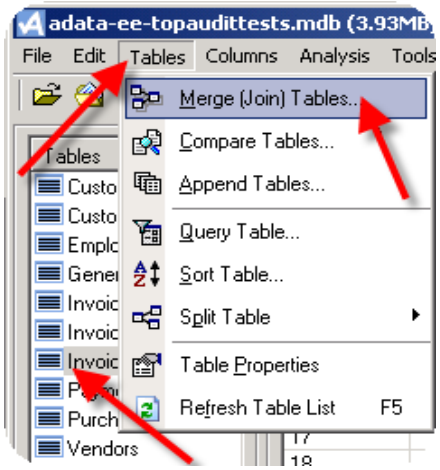
Your Notes:



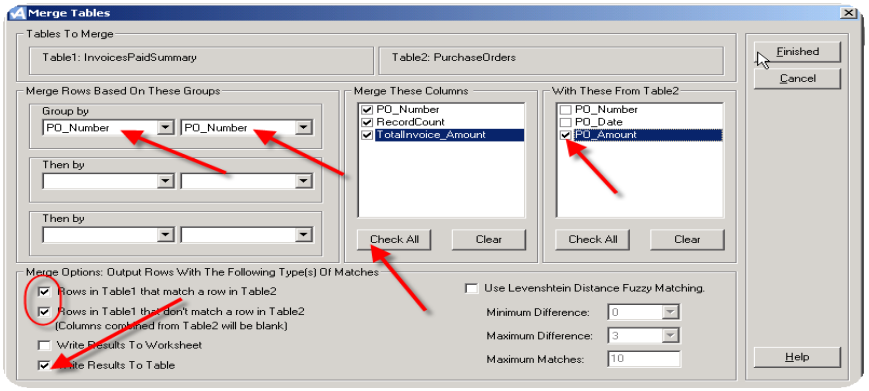
Key Note:
In this exercise we are not looking at invoice records with missing PO Numbers. Researching why some invoice records are missing PO Numbers would make this test even more complete. An invoice may not have included the appropriate PO Number and therefore the invoice increases the totals higher for a PO Number.

ActiveData for Office will build a new worktable that totals all **Invoice_Amounts** by **PO_Number**s. Invoice records without **PO_Numbers** are grouped together.

Step 3: In the new **InvoicesPaidSummary** worktable we will merge the **POAmounts** from the **PurchaseOrders** table. From the menu select: **Tables - Merge Tables…**

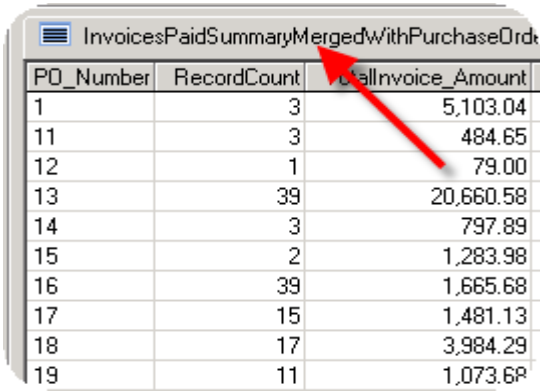


Step 4: Select the **PurchaseOrders** table in the 'Select a table to merge with InvoicesPaidSummary'dialog box. In the 'Merge Tables' dialog box select **PO_Number** as the 'Group to Merge Rows Based On' for both tables and **Check All** fields from Table 1 and the **PO_Amount** field in the 'With These Form Table2. Make sure the 'Write Results to Table' option is selected before you click **Finished**.



Your Notes:

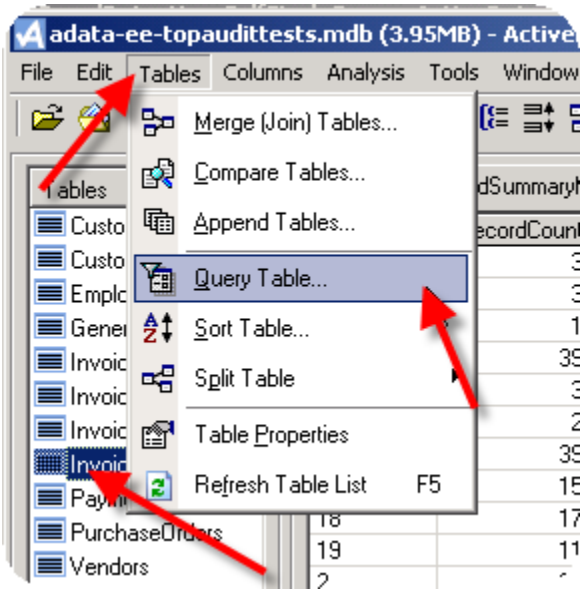
The new **InvoicesPaidSummaryMergedWithPurchaseOrder** worktable displays the **PO_Amounts** from the **PurchaseOrders** table matched to the summed **Invoice_Amounts** by **PO_Numbers**.



InvoicesPaidSummaryMergedWithPurchaseOrd

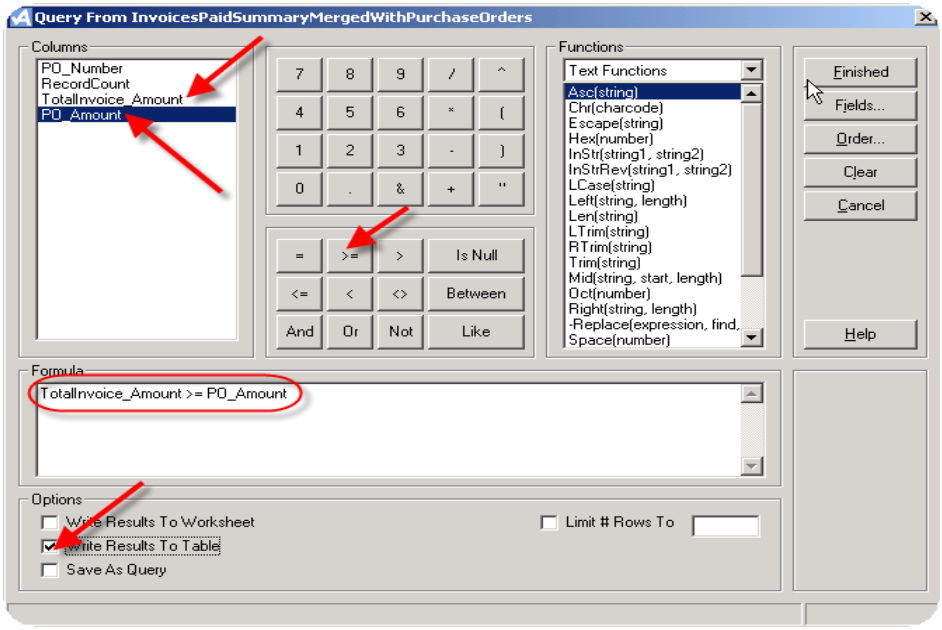
PO_Number	RecordCount	TotalInvoice_Amount
1	3	5,103.04
11	3	484.65
12	1	79.00
13	39	20,660.58
14	3	797.89
15	2	1,283.98
16	39	1,665.68
17	15	1,481.13
18	17	3,984.29
19	11	1,073.68

Step 5: To find the summed **Invoice_Amounts** that exceed their **PO_Amount** we will run a query. In the new worktable, select from the menu: **Tables – Query Table…**

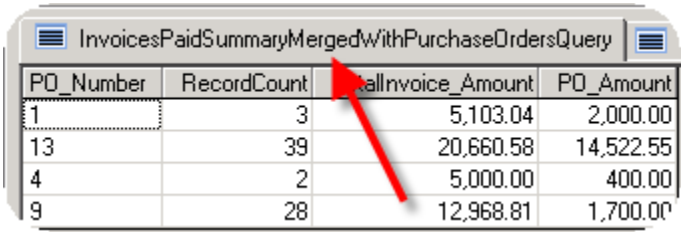


Step 6: In the Query dialog box build the formula: **TotalInvoice_Amount >= PO_Amount**.

Your Notes:



Step 7: Click **Finished** and ActiveData for Office creates a new worktable where the summed **Invoice_Amounts** exceed their **PO_Amount**.



InvoicesPaidSummaryMergedWithPurchaseOrdersQuery

PO_Number	RecordCount	TotalInvoice_Amount	PO_Amount
1	3	5,103.04	2,000.00
13	39	20,660.58	14,522.55
4	2	5,000.00	400.00
9	28	12,968.81	1,700.00

Review Questions

#1 Which of the following fields would not be needed to perform a Vendor Invoice totals summary to compare invoice totals for two periods:

A) Payment Date
B) Vendor Number
C) Invoice Amount
D) Invoice Date

#2 Which of the following steps can be followed to find above average payments to a vendor:

A) In a Group Summary dialog box select the average option for Invoice Amounts by Vendor Number, in the summary table create an additional column that displays an amount that is greater than the average, merge the two tables to have the above average amount included along with the Invoice Amount for each Vendor Record, create a query to compare each record's Invoice Amount to the greater than average amount and build a new table with the records where the Invoice Amount is greater than the greater than average amount field.

B) Summarize Invoice Amounts by Vendor Number, in the summary table add a calculated column to average the vendor summed amounts, create an additional column that displays an amount that is greater than the average, create a query to compare each record's Invoice Amount to the greater than average amount and build a new table with the records where the Invoice Amount is greater than the greater than average amount field.

C) Summarize Invoice Amounts by Vendor Number, in the summary table add a calculated column to average the vendor summed amounts, create an additional column that displays an amount that is greater than the average, merge the two tables to have the above average amount included along with the Invoice Amount for each Vendor Record, create a query to compare each record's Invoice Amount to the greater than average amount and build a new table with the records where the Invoice Amount is greater than the greater than average amount field.

#3 The ActiveData for Office Duplicates Item Analysis function has the options to:

A) Extract Duplicates
B) Remove Duplicates – Keep first
C) Remove Duplicates – Keep last
D) Extract Non duplicates
E) All of the above

#4 AcitvAudit can perform an exact match of data with the Compare Tables function:

A) True
B) False

#5 To find payments made after period end for valid liabilities before period end a query could be created to:

A) Locate records where the Invoice Date is greater than period end date.
B) Locate records where the Invoice Date is less than the period end date and the Entered Date is greater than the Invoice Date.
C) Locate records where the Invoice Date is less than the period end date and the Entered Date as well as the Check Date is greater than the period end date.

#6 To identify Invoice records that exceed their Purchase Order amount:

A) Perform a Compare Tables function, comparing the Invoice Amounts field in the Invoices Paid table to the Purchase Order Amount field in the Purchase Orders table.
B) Summarize the Invoice Amounts by Vendor and merge the new summary table with the Purchase Order table extracting records that don't match.
C) Summarize the Invoice Amounts by Vendor, merge the new summary table with the Purchase Order table, have AcitvAudit extract the rows where the summed Invoice Amount is greater than the Purchase Order amount.
D) Merge the Purchase Order table and the Invoices Paid table together grouped on the Vendor Number field. Create a query that extracts records where the Invoice Amount is greater than the Purchase Order Amount.

#7 Assessing risk is the first step in the risk assessment process:

A) True
B) False

#8 A useful document, providing over 300 fraud related reports organized by the ACFE fraud classification system is the:

A) Detect Fraud With Computer Reports
B) Proactively Detecting Occupational Fraud Using Computer Audit Reports
C) Find Fraud With Computers
D) Proactively Detect Fraud With Fraud Reports

#9 Making arrangements with the client is the first step in obtaining data files:

A) True
B) False

#10 The last step in the data extraction process is:

A) Validate data
B) Load data
C) Run tests
D) Present results

#11 Is there fraud due to cash misappropriation in accounts payable:

A) True
B) False

#12 What is NOT a reason to audit accounts payable using ActiveData for Office:

A) Fraud
B) Duplicate payments
C) Inventory turnover
D) Inefficiencies

Review Answers

#1 Which of the following fields would not be needed to perform a Vendor Invoice totals summary to compare invoice totals for two periods:

A) Payment Date – Correct (In order to compare two years worth of vendor invoice information, the invoice date, invoice amount, and vendor number would be the main fields used.)

B) Vendor Number – *Incorrect (The Vendor Number field would be necessary in order to group records by Vendor.)*

C) Invoice Amount – *Incorrect (The Invoice Amount field would be necessary to sum the grouped Vendor records for the selection date period.)*

D) Invoice Date – *Incorrect (The Invoice Date field would be necessary to determine which records fall into the selected date periods.)*

#2 Which of the following steps can be followed to find above average payments to a vendor:

A) In a Group Summary dialog box select the average option for Invoice Amounts by Vendor Number, in the summary table create an additional column that displays an amount that is greater than the average, merge the two tables to have the above average amount included along with the Invoice Amount for each Vendor Record, create a query to compare each record's Invoice Amount to the greater than average amount and build a new table with the records where the Invoice Amount is greater than the greater than average amount field. – *Incorrect (There is no average option in the Group Summary dialog box.)*

B) Summarize Invoice Amounts by Vendor Number, in the summary table add a calculated column to average the vendor summed amounts, create an additional column that displays an amount that is greater than the average, create a query to compare each record's Invoice Amount to the greater than average amount and build a new table with the records where the Invoice Amount is greater than the greater than average amount field. – *Incorrect (This isn't the best solution since an additional column that displays an amount that is greater than the average invoice amount is not necessary.)*

C) Summarize Invoice Amounts by Vendor Number, in the summary table add a calculated column to average the vendor summed amounts, create an additional column that displays an amount that is greater than the average, merge the two tables to have the above average amount included along with the Invoice Amount for each Vendor Record, create a query to compare each record's Invoice Amount to the greater than average amount and build a new table with the records where the Invoice Amount is greater than the greater than average amount field. – Correct (These are the sequence of steps to be performed in ActiveData for Office to identify above average payments to a vendor.)

#3 The ActiveData for Office Duplicates Item Analysis function has the options to:

A) Extract Duplicates – *Incorrect (The Duplicate Item Analysis function can extract duplicates from a table based on up to three fields to analysis however this isn't the only option.)*
B) Remove Duplicates – Keep first – *Incorrect (The Duplicate Item Analysis function can remove duplicate records from a table keeping the first one, based on selected columns that you choose to analyze however this isn't the only option.)*
C) Remove Duplicates – Keep last – *Incorrect (The Duplicate Item Analysis function can remove duplicate records keeping the last one based on selected columns however this isn't the only option.)*
D) Extract Non duplicates – *Incorrect (The Duplicate Item Analysis function can extract all non duplicate records from a table based on up to three fields to analysis and place copy these unique records into a new worktable however this isn't the only option.)*
E) All of the above – Correct (ActiveData for Office provides all of the above options when completing its duplication test.)

#4 AcitvAudit can perform an exact match of data with the Compare Tables function:

A) True – Correct (When matching data from one table to another with the Compare Tables function, it requires an exact match.)
B) False – *Incorrect (An exact match must be found when comparing data from one table to another.)*

#5 To find payments made after period end for valid liabilities before period end a query could be created to:

A) Locate records where the Invoice Date is greater than period end date – *Incorrect (Records with Invoice Dates after period end could be legitimate records for the following period.)*
B) Locate records where the Invoice Date is less than the period end date and the Entered Date is greater than the Invoice Date – *Incorrect (This would find the records we are looking for however this solution isn't the best answer.)*
C) Locate records where the Invoice Date is less than the period end date and the Entered Date as well as the Check Date is greater than the period end date. – Correct (In essence, liabilities that have invoice dates prior to year end are probable liabilities to the entity that, when entered and paid after year end, may not have been accrued as a valid period end liability.)

#6 To identify Invoice records that exceed their Purchase Order amount:

A) Perform a Compare Tables function, comparing the Invoice Amounts field in the Invoices Paid table to the Purchase Order Amount field in the Purchase Orders table – *Incorrect (The Compare Tables function alone would not be able to recognize if there were several Invoice records per Purchase Order*)

B) Summarize the Invoice Amounts by Vendor and merge the new summary table with the Purchase Order table extracting records that don't match – *Incorrect (Extracting records that don't match would not find invoice amounts that exceed the PurchaseOrder amount.)*

C) Summarize the Invoice Amounts by Vendor, merge the new summary table with the Purchase Order table, have AcitveAudit extract the rows where the summed Invoice Amount is greater than the Purchase Order amount. – Correct (By summarizing the invoice amounts, this total amount can be related to the purchase order amount in order to arrive at any difference between the invoice and purchase order amounts.)

D) Merge the Purchase Order table and the Invoices Paid table together grouped on the Vendor Number field. Create a query that extracts records where the Invoice Amount is greater than the Purchase Order Amount – *Incorrect (The Invoices Paid table would not identify all of the invoices that had been entered against a single PurchaseOrder number.)*

#7 Assessing risk is the first step in the risk assessment process:

A**) True - Correct (Assessing risk is the first step in the risk assessment process.)**

B) False – *Incorrect (Assessing risk is the first step in the risk assessment process before you get data and run tests.)*

#8 A useful document, providing over 300 fraud related reports organized by the ACFE fraud classification system is the:

A) Detect Fraud With Computer Reports – *Incorrect (This is not the name given to the document. Review the section in this workbook titled 'Run It For Real'.)*

B) Proactively Detecting Occupational Fraud Using Computer Audit Reports – Correct (The " Proactively Detecting Occupational Fraud Using Computer Audit Reports" document was produced by the Institute of Internal Auditors Research Foundation to assist in detecting fraud with computer reports.)

C) Find Fraud With Computers Reports – *Incorrect (This is not the name given to the document. Review the section in this workbook titled 'Run It For Real'.)*

D) Proactively Detect Fraud With Fraud Reports Reports – *Incorrect (This is not the name given to the document. Review the section in this workbook titled 'Run It For Real'.)*

#9 Making arrangements with the client is the first step in obtaining data files:

A) True - *Incorrect (Understanding what reports you expect to run precedes all other activity.)*
B) False – Correct (Making arrangements to receive data follows the first step: deciding what tests you expect to run with ActiveData for Office.)

#10 The last step in the data extraction process is:

A) Validate data – Correct (The last step in the data extraction process, prior to running reports, is to validate data.)
B) Load data – *Incorrect (Loading data is the first step in the data analysis process.)*
C) Run tests – *Incorrect (Running the test is the second to last step in the data analysis process.)*
D) Present results - *Incorrect (Presenting results is the last step in the data analysis process.)*

#11 Fraud in accounts payable is mostly cash misappropriation:

A) True – Correct (Per the Report to the Nation by the ACFE, 45% of fraud is done to misappropriation of cash in accounts payable.)
B) False - Incorrect (It is very common to find fraud due to cash misappropriation in accounts payable.)

#12 What is NOT a reason to audit accounts payable using ActiveData for Office?

A) Fraud – *Incorrect (Fraud is a major reason to audit accounts payable.)*
B) Duplicate payments – *(Duplicate payments may be due to fraud or to data entry errors and should be investigated.)*
C) Inventory turnover - Correct (Inventory turnover would best be tested in an inventory audit using ActiveData for Office.)
D) Inefficiencies – *Incorrect (Accounts payable should be audited looking for inefficiencies.)*

Why Audit Revenue?

Revenue recognition poses significant risk to auditors, and has contributed to erosion in the integrity of financial reporting. In recent years, several high-profile incidents of improper revenue recognition attracted the attention of the business media and led to unflattering coverage. Therefore, accounts receivable, and the revenue streams that drive it, is arguably the most risky part of a financial statement audit. Any restatement, due to error or fraud, has the potential to bankrupt an organization. Aside from the financial statement impacts, the effects of improper billings or efficiency of the revenue process could have sizable impacts to the company's profitability and ability to sustain operations. And we can't forget about cash misappropriation fraud, which based on a recent study, accounts for 30% of all fraud. Below are four major reasons to review revenue:

Fraudulent Financial Misstatements

Management is under pressure every day to meet sales and associated income targets. Stock price, management compensation, and analyst/media commitments exacerbate this pressure, so much so that it can persuade management to misstate earnings. Although such misstatements may start as a laissez-faire reading of Generally Accepted Accounting Principles, they tend to snowball into larger and larger entries until they become outright fraud.

Therefore, it is no surprise that a 10-year study commissioned by the Committee of Sponsoring Organizations of the Treadway Commission concluded that more than half of frauds involved overstating revenue. This is corroborated by the Association of Certified Fraud Examiner's 2002 Report to the Nation on Occupational Fraud and Abuse. If the business model is sound and industry conditions do not pose a threat, there is nothing for management to feel pressured about. Unfortunately, business models are not realized as they are envisioned and the industry may be highly impacted due to change and competition. Management will be the primary identifiers of these trends but may not be compelled to explain such vulnerabilities with investors or creditors. Thus, it is an imperative for the auditor to not only understand the business and industry conditions, but also to utilize computer assisted tools to identify trends underlying the financial reports.

Uncollectible Accounts

Any system that is managed by humans is prone to error. It is hoped that through appropriate internal control, such errors will be prevented. However, given that any internal control can be circumvented, verification of the appropriate processing is critical to the organization's success. This is especially true in the capital marketplace where even the hint of financial restatement can have the same effects as fraudulent misstatements discussed above. On a day-to-day level, erroneous billings can tarnish relationships with customers, hampering the long term potential of the organization. Further, approving customer sales without appropriate credit limit controls can lead to cash flow operating losses.

To combat errors, tests of the input controls, mathematical accuracy, and analytical reviews are key. However, through data analysis, an understanding of how the business data is processed, and ultimately reported, can be obtained. Such an understanding will drive an auditor towards the root causes of errors, as well as their associated solutions.

Efficiency

Efficiency has become commonplace in the wake of rightsizing and outright downsizing of employees. Companies need to do more with less to stay competitive or "someone else will." In the accounts receivable lifecycle, cash is king. Therefore, the efficient transformation of sales orders into cash needs to be paramount to sustain a healthy operation.

Fraud Reduction

Aside from financial statement fraud explained above, there are three major types of fraud in the accounts receivable/revenue area:

- *Skimming*, in which cash is stolen from an organization before it is recorded on the organization's books and records.
- *Cash larceny*, in which cash is stolen from an organization after it has been recorded on the organization's books and records.
- *Fraudulent shipments* made to employee locations.

Using the statistics in the 2002 Report to the Nation on Occupational Fraud and Abuse, a company loses 6% to fraud of which roughly 30% involves misappropriation of accounts receivable/revenue and 40% can be saved through internal auditing. This means that a company with $250 million in sales loses $15 million to fraud, of which $4.5 million involves the misappropriation of accounts receivable/revenue and $1.8 million can be saved through internal auditing. This is a sizable savings which goes straight to the bottom line. This savings excludes the immeasurable benefits of preventing a financial misstatement.

8. Missing Customer Information

Analyze the Customer table to see if there is missing information.

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

This report will identify changes in the customer masterfile (additions and deletions). Given that most systems do not track the changes in the customer masterfile (there is no "Last Maintained on Date" field), this report sometimes is the only means of determining changes in the customer master.

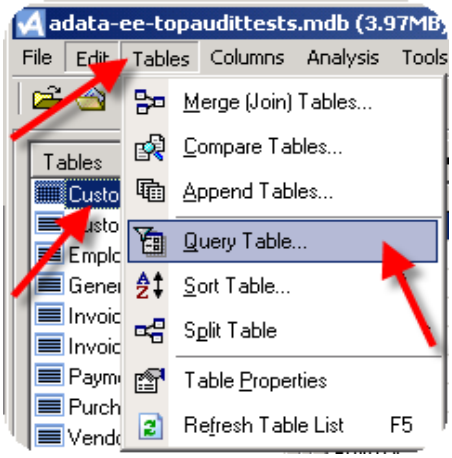
The auditor should review major additions and/or deletions to the customer masterfile. Given that there is a high potential for fraud on newly added customers (i.e., posting false sales invoices to phony customer accounts to inflate period end sales balances), the names and addresses for such customers should be reviewed to those employees having access to enter invoices into the system. This can be done using the accounts payable test also described in this book that matched vendor address to employee address files. Since this exercise may detect fraud, it may be beneficial to locate the invoices or customer files independent of the accounts receivable department (who may be culpable for creating the false customer accounts).

Revenue Data Fields
The following fields are needed from the Customer worktable for this test:

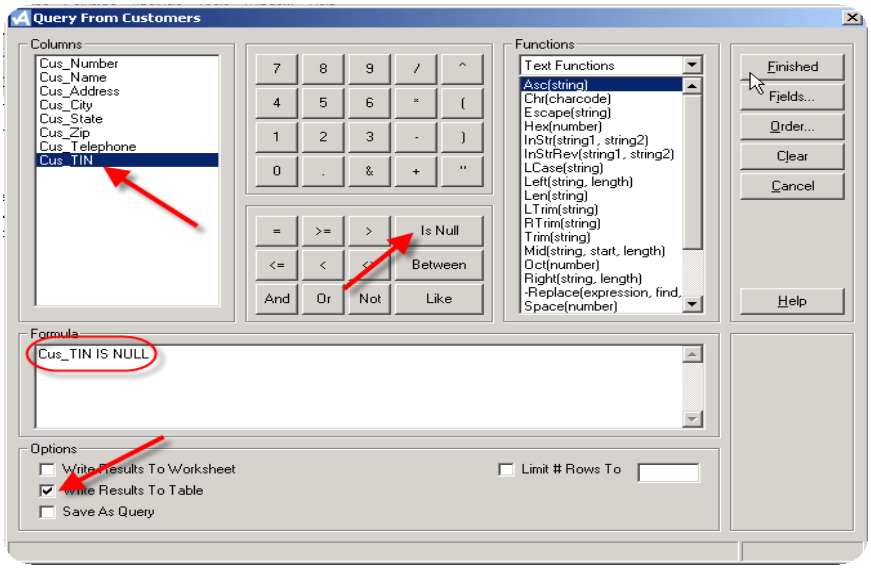
- Cus_Number
- Cus_TIN
- Cus_Telephone

How To Run The Report

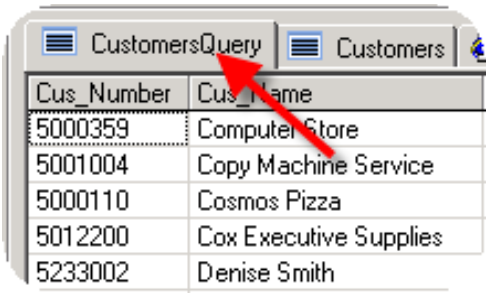
Step 1: We will look to see if there is missing data in any of the **Customer** records. Open the **Customer** table and select from the menu: **Tables – Query Table…**



Step 2: We will query for missing Tax Identification Numbers. In the 'Query From Customer' dialog box build the formula: **Cus_TIN IsNull**. The expression IsNull will look for missing data in the TIN column.

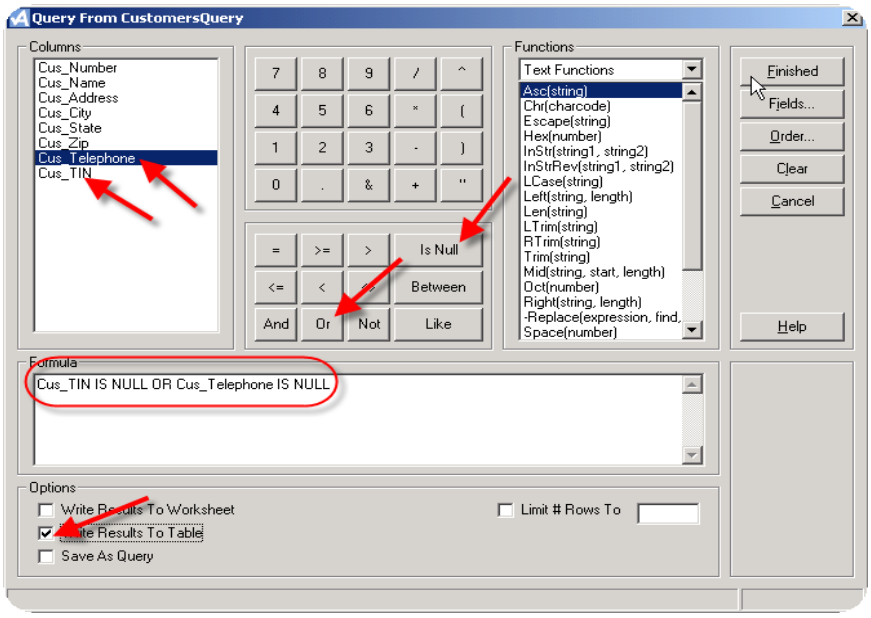


Your Notes:



ActiveData for Office builds a **CustomerQuery** table that contains only those records that are missing TIN information. If there was more than one field to check for missing information, you could build a formula for more than one expression.

Step 3: In the 'Query From Customers' dialog box include the following expression: **Cus_TIN Is Null Or Cus_Telephone Is Null**.



This query will produce not only records with missing TIN numbers and/or records with missing information in another field. This query can be modified to include any single field or multiple fields looking for missing information.

9. Cash Receipt to Open Invoice Matching

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

This test helps assess the existence and valuation of open invoices at period end based on the cash received subsequent to year end. Therefore, it is one of the most popular tests used by auditors in assessing the existence of period end invoices.

Based on this test, the auditor can easily assess whether open invoices were paid off with cash (and therefore existed at year end) and for those still outstanding, whether they should be further reviewed from the perspective of year end valuation. Most probably, such invoices relate to customers that regularly pay late but could represent new customer payment issues and/or fraudulent sales posted at year end that will never receive cash.

Compare the invoice amounts to the payment amounts for customer invoices to look for open invoices and unmatched amounts.

Revenue Data Fields
The following fields are needed from the Invoices table for this test:

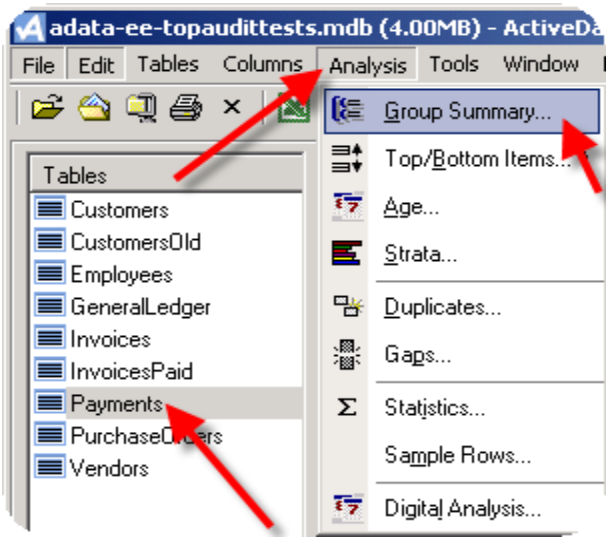
- Customer
- Invoice
- Amount
- InvoiceDate

The following fields are needed from the Payment table for this test:

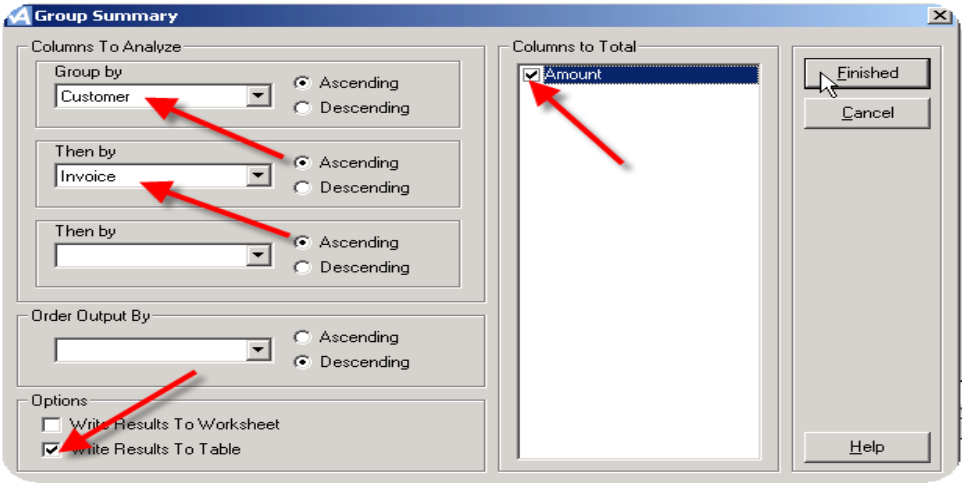
- Customer
- Invoice
- Amount

How To Run The Report

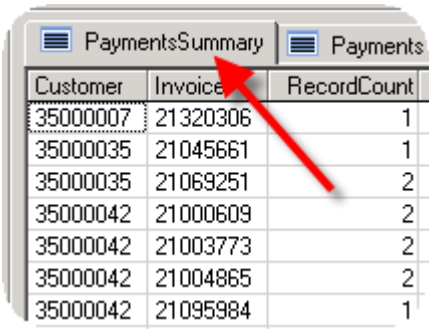
Step 1: Compare the summed **Amounts** from the **Payments** table (as there may be multiple payments for each invoice) to the **Amounts** in the **Invoices** table. First we will sum the **Amounts** in the **Payments** table. Open the table **Payments** and select from the menu: **Analysis - Group Summary…**



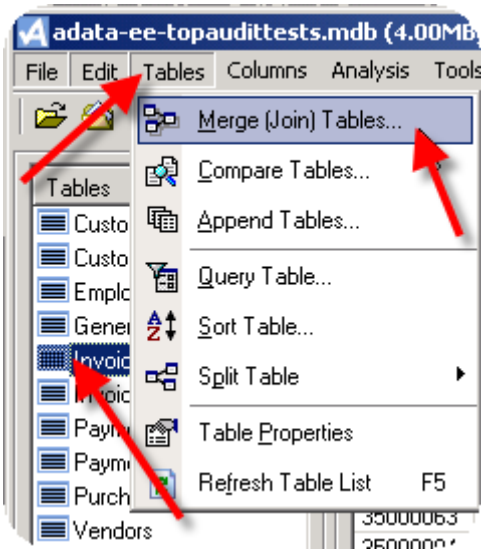
Step 2: In the Group Summary dialog box select the fields of **Customer** and then **Invoice** to 'Group by' and check the **Amount** field for totals before clicking on **Finished** to write the summary to a new worktable with the **Amounts** summed by customer payments.



Your Notes:

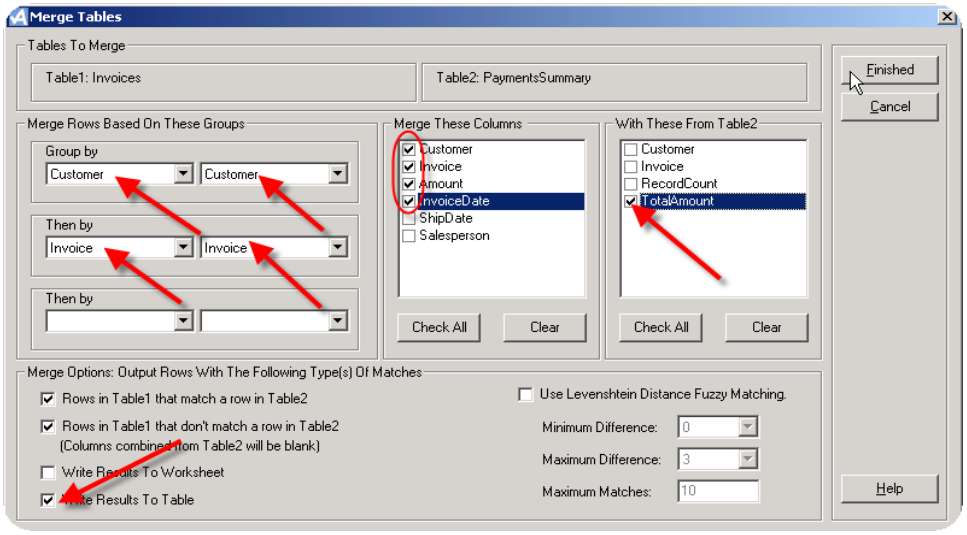


Step3: We will merge the **Invoices** table with the **PaymentsSummary** table to compare invoice amounts. Open the **Invoices** table and from the menu select: **Tables - Merge Tables…**



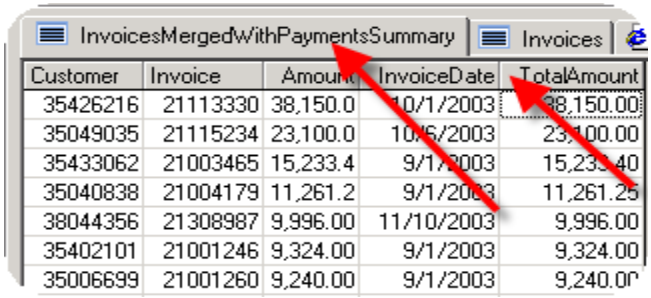
Step 4: In the 'Select a table to merge with Invoices' dialog box, select the new worktable **Payments Summary**. In the 'Merge Tables' dialog box, select the fields of **Customer** and **Invoice** to 'Group by' from both tables. Select **Customer**, **Invoice, Amount** and **InvoiceDate** in the 'Merge These Columns' box and add the **TotalAmount** field from Table2. Before clicking the **Finished** button, make sure the option of 'Write Results To Table' is selected.

Key Note:
This option that are selected here will not locate payments that don't match up with an invoice record. Another query could be run to find these mismatched payment records. These payment records should be researched to recognize if an invoice number is missing or mistyped. Unmatched payment records may also be an example of fraudulent records.

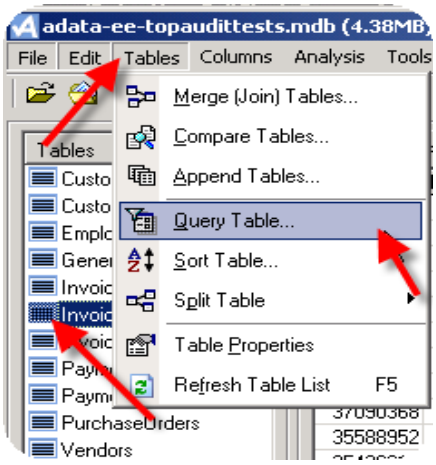


Step 5: ActiveData for Office builds a new worktable that has the merged information. To more easily view records where there are payments you may wish to sort the records by the **TotalAmount** field.

Key Note:
When this query is run, open invoices are located and placed in a new table. If additional payment and invoices are entered in this file the whole test (summing of payments, merging of tables and querying for mismatched payments) would need to be run again to update an open invoices table.

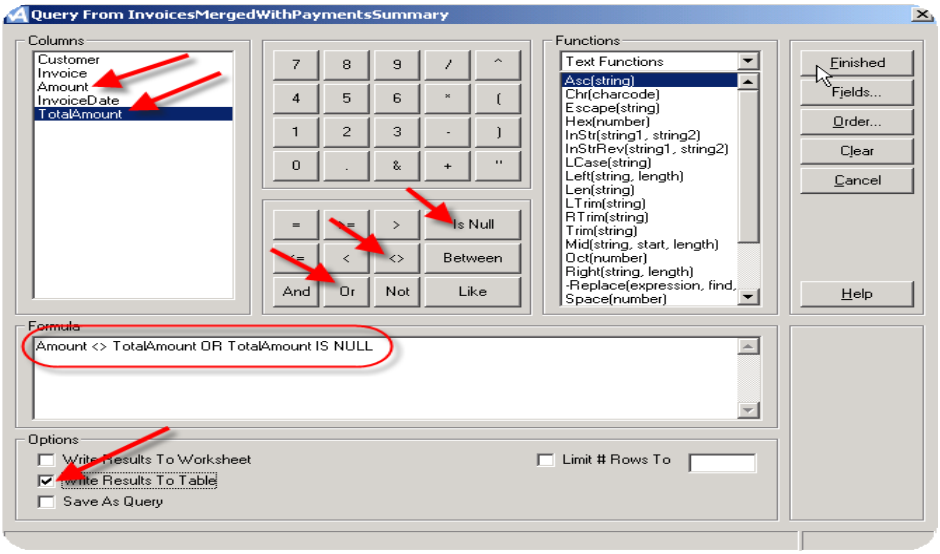


Step 6: To view invoice records where there are no payments or where the summed payment amount doesn't match the invoice amount, we will run a query. While in the **InvoicesMergedWithPaymentsSummary** table select from the menu: **Tables - Query Table…**

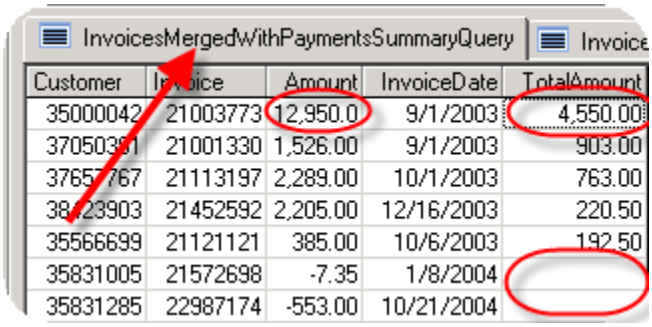


Key Note:
When this query is run, open invoices are located and placed in a new table. If additional payment and invoices are entered in this file the whole test (summing of payments, merging of tables and querying for mismatched payments) would need to be run again to update an open invoices table. Excel's macro feature would be helpful in automating this process.

Step 7: In the Query dialog box, build the formula: **Amount <> TotalAmount OR TotalAmount Is Null**. This formula will look for missing payments and unmatched payments.



When you click **Finished**, ActiveData for Office builds a new worktable that contains records where the invoice amount and the totals for the payment amounts are different or there were no payments made for invoice records.



Customer	Invoice	Amount	InvoiceDate	TotalAmount
35000042	21003773	12,950.0	9/1/2003	4,550.00
37050361	21001330	1,526.00	9/1/2003	903.00
37657767	21113197	2,289.00	10/1/2003	763.00
38423903	21452592	2,205.00	12/16/2003	220.50
35566699	21121121	385.00	10/6/2003	192.50
35831005	21572698	-7.35	1/8/2004	
35831285	22987174	-553.00	10/21/2004	

Key Note:
To rename the new table, right mouse click on the table in the table list and select Rename Table. Type in a new name for the table.

It is asked that you not delete the newly created table. This file with these new table will be needed for the next test.

Sorting these records in 'TotalAmount' descending order will help you locate the mismatched amounts. These are open invoices. Rename this query table **OpenInvoices** and save it. We will need this table in the next test.

10. Age Receivables, Extract Older Balances and Summarize by Customer

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

This test mainly recalculates the aging of the invoices in the accounts receivable ledger for review against the company-derived report. Any differences between this calculation and the report used by management may be due to a system error, a poorly designed report, or fraud. As to the fraud aspect, the organization may want to hide the true payment patterns of customers to minimize their bad debt valuation reserve at year end.

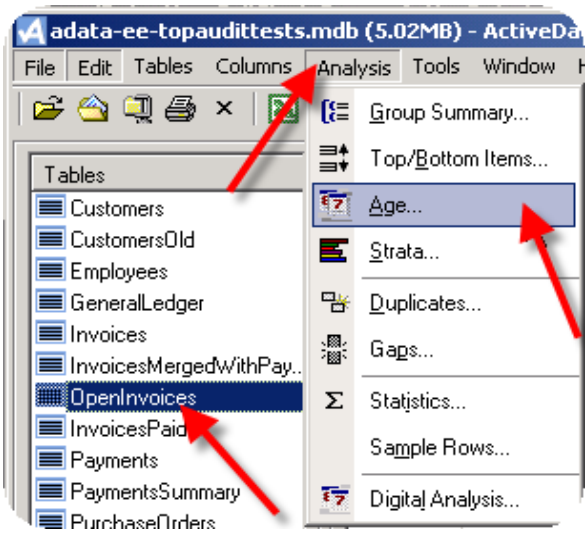
The aging report should be reconciled to the organization's accounts receivable aging report. Any differences should be investigated. One approach is to extract a sampling of invoices (see previous test on performing a sample of invoices) within a specific aging group and reconcile to the aging report, on an invoice by invoice basis. This work may identify report errors or an attempt by the organization to hide the true aging of accounts receivable. Focus of test work should be on more current aging categories that may be inflated inappropriately.

The aging report also highlights customer balances, once the invoices are summarized by customer, older than a pre-defined "old" limit. This may be 180 or 270 days after which payment of such invoices is unlikely. Large customer balances could be reviewed with management as to their collectibility and possibly, with the actual customer. This analysis would further support the year end bad debt reserve calculation.

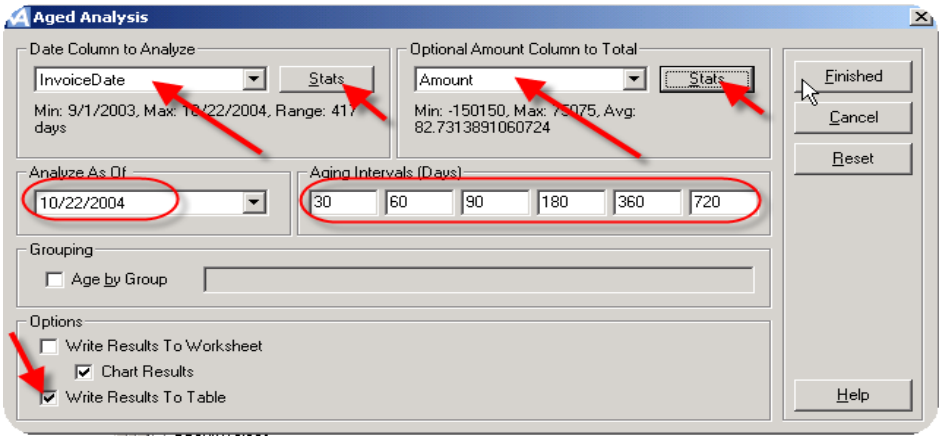
Use ActiveData for Office's ageing function to view open records aged by invoice date. Create a new table that has extracted older balances and then summarize these records by customer.

How To Run The Report

Step 1: Have ActiveData for Office report on the aging of open invoices. Open the **OpenInvoices** table. From the menu select: **Analysis - Age…**



Step 2: In the 'Aged Analysis' dialog box select the **InvoiceDate** field as the Date Column to Analyze, add **10/22/2004** as the Analyze As Of date and edit the Aging Intervals to include the following intervals: **30**, **60**, **90**, **180**, **360**, **720**. Select the **Amount** field as the 'Optional Amount Column to Total'. Before clicking the **Finished** button, if you want to see the ranges of dates and amounts click the **Stats** button next to each field.



Revenue Data Fields

The following fields are needed from the OpenInvoices worktable for this test:

- Invoice Date
- Customer

This test requires that an OpenInvoices table be used in the exercise. This table was built on summed record information from the Payments table. From this table the fields of:

- Customer
- Invoice
- Amount

were needed to create the OpenInvoices table.

Your Notes:

ActiveData for Office builds an aging report based on the parameters entered.

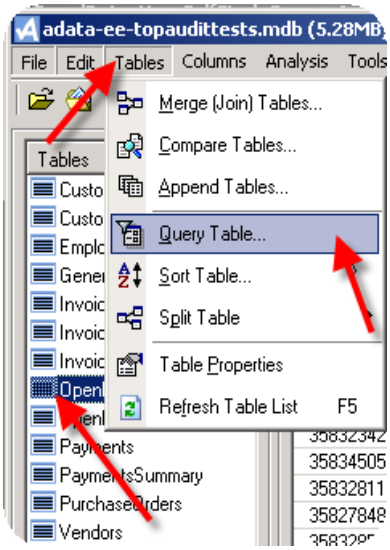
OpenInvoicesAge | OpenInvoices | Help Index

Interval	RecordCount	PercentRecordCount	Amount	PercentAmount	Debits
<= 0	667	17.3800	661,008.3200	-45.3500	893,603.83
<= 30	943	24.5800	15,042.5100	-1.0300	715,738.17
<= 60	221	5.7600	-68,468.6100	4.7000	134,615.32
<= 90	226	5.8900	-566,687.380	38.8800	12,615.400
<= 180	480	12.5100	-1,371,915.09	94.1300	248,285.80
<= 360	1,147	29.8900	-126,493.220	8.6800	530,385.10
<= 720	68	1.7700	91.1400	-0.0100	27,625.500
720+	85	2.2200	0.0000	0.0000	0.000

The aging report provides totals for the aging intervals of these open invoices. There are significant number of records that fall in the <= 360 day range. This interval shows many records between 6 months and 12 months that are still open. These are records that we should be very concerned about.

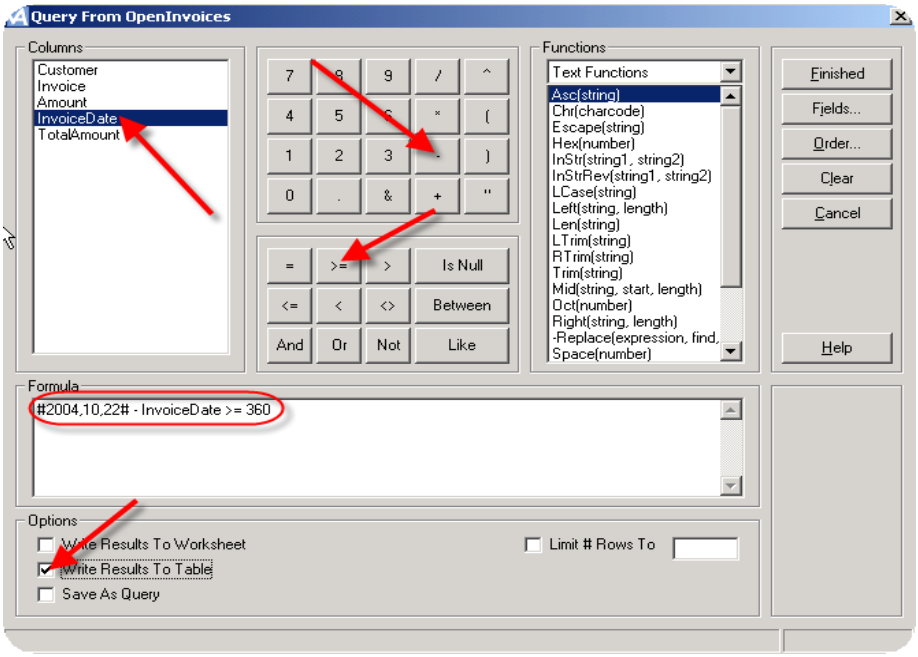
Older balances over the one year mark are possible lost revenue. We will extract these older invoice records and summarize them by customer.

Step 3: Open the **OpenInvoices** table. From the main menu select: **Tables - Query Table…**



Step 4: In the 'Query from OpenInvoices' dialog box, build the formula: **#2004,10,22# - InvoiceDate >= 360**. Use pound signs around the date expression and enter the year, month, day followed by the **–** button, the **InvoiceDate** field, the **>=** button and **360**.

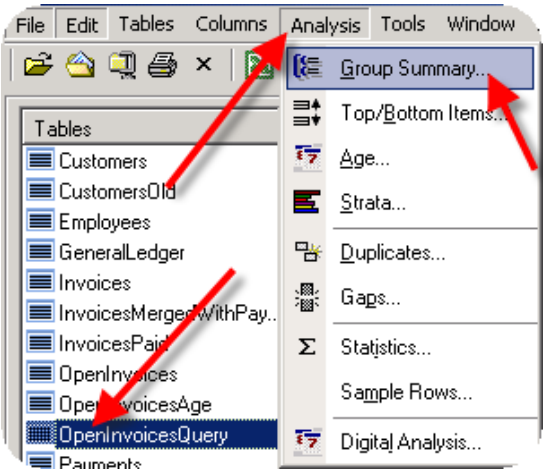
Your Notes:



Have ActiveData for Office build a table with these older balances by clicking **Finished** in this dialog box.

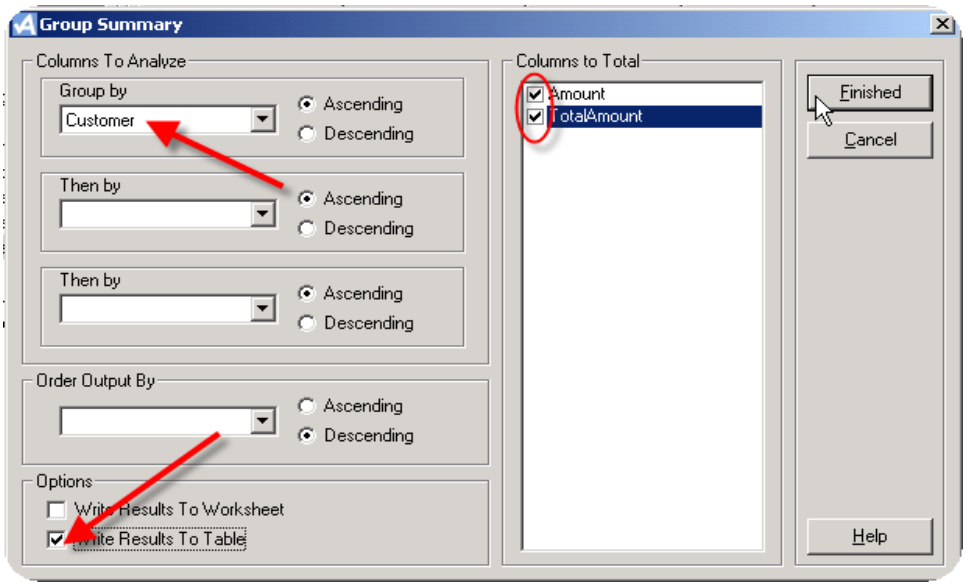
The number of records copied to the new **OpenInvoicesQuery** worktable will match the number of records that the age report recognized were **<=**720 days (there were no records reported as older than 720) plus the mismatched payment records.

Step Five: To analyze these records, group and sum the older balance records by customer. Open the **Query From Open Invoices** table. From the **AcitvAudit** menu select: **Analysis-Group Summary…**

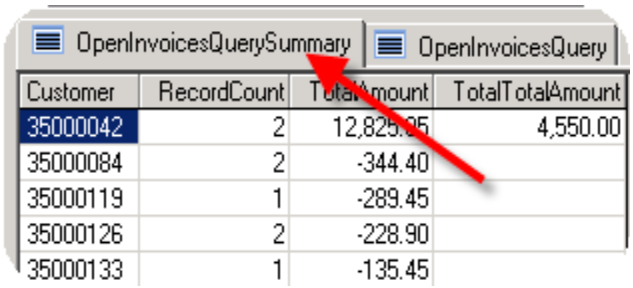


Step Six: In the 'Group Summary' dialog box select **Customer** as the Column to group by, **Amount** and **TotalAmount** as the fields to total and click **Finished**.

Your Notes:



The **OpenInvoicesQuerySummary** worktable holds the summarized customer information, record count by customer and customer for these older outstanding balances. Sorting these records in descending count order or descending amount order will display the customer with the largest number of outstanding invoices and/or the largest outstanding balance at the top of the table.



Customer	RecordCount	TotalAmount	TotalTotalAmount
35000042	2	12,825.95	4,550.00
35000084	2	-344.40	
35000119	1	-289.45	
35000126	2	-228.90	
35000133	1	-135.45	

11. Accounts Receivable Invoice Stratified Sampling

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

To extract a sample for confirmation of customer invoices using a stratification methodology that ensures a weighted focus is given to larger dollar invoices.

Once this sample is complete, these invoices would be confirmed with customers which could be done using the Mail Merge feature in Microsoft Word (to create the confirmation letters). This can easily be done given one of the main inputs for a Microsoft Word Mail Merge is an Excel spreadsheet and records can be extracted to an Excel spreadsheet. In this document, the auditor would request whether the listed invoice was a valid sale during the year.

The main test of this sample is to determine the accurate and complete reporting of sales through confirming the sales with the customer. To facilitate this effort, the worktable produced in this test could be used for test work documentation.

ActiveData for Office has the capability to print stratification data. We will view this feature and use our findings to put together an invoice record sampling.

Revenue Data Fields
The following fields are needed from the Invoices table for this test:

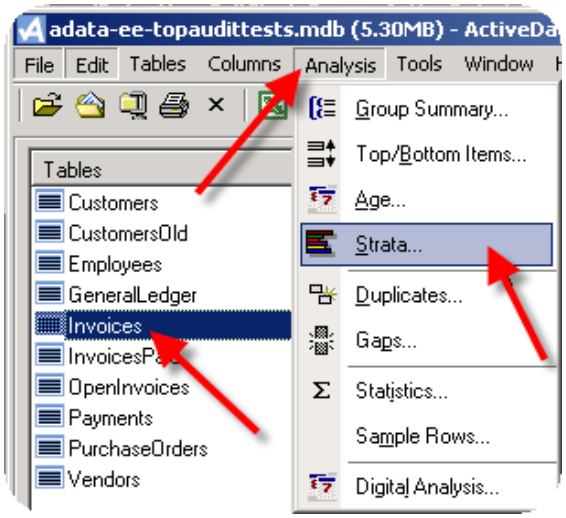
- Amount

This exercise will display a sample of all fields from Invoice records which, at a minimum should include:

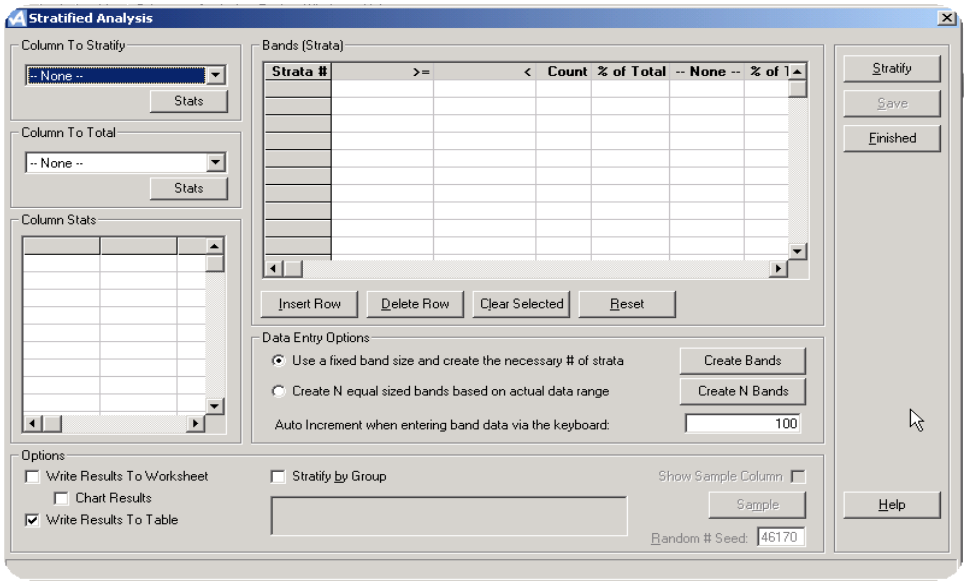
- Invoice
- Customer

How To Run The Report

Step 1: First we will use ActiveData for Office's Stratified feature to learn more about **Invoice** data. Open the **Invoices** table. Select from the menu: **Analysis - Strata…**

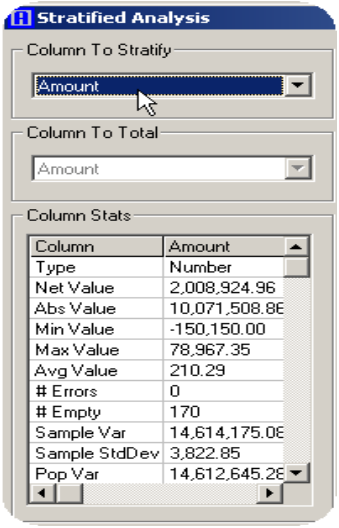


The Stratified Analysis dialog box opens and displays column information and a 'Bands [Strata]' work table.



Your Notes:

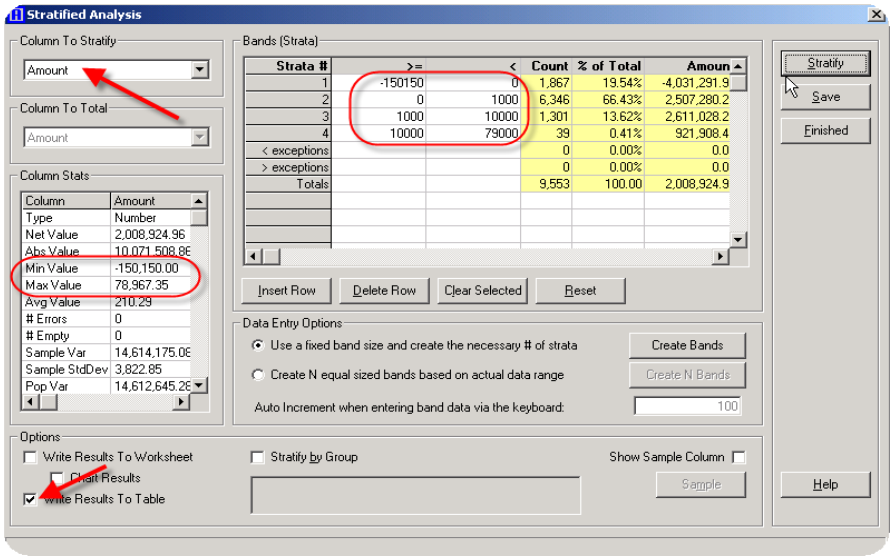
Step 2: Select **Amount** as the Column to Stratify then click the **Stats** button. In the Column Stats lower portion of this section, ActiveData for Office displays a statistical analysis of the invoice amounts. This information will help in selecting bands of **Amount** ranges for the Bands table. Note that the lowest value for **Amounts** is -150,150 and the highest **Amount** value is under 79,000. We will use this range to create our Stats.



Step 3: In the Bands table enter the first value range of **-150150** to **0**. This band will provide information about all negative amounts. Continue creating ranges for the next bands by filling in strata in the >= and < columns below.

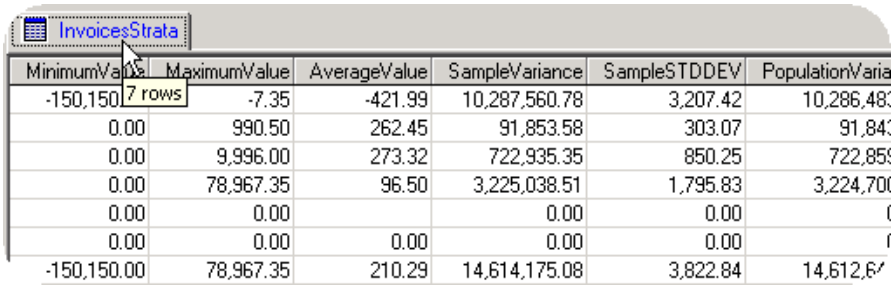
We have used the ranges of: **-150150 – 0, 0 – 1000, 1000 – 10000** and **10000 – 79000**.

After entering in the ranges for statistics analysis, click **Stratify**.



Your Notes:

In the Bands work area calculations are performed. ActiveData for Office displays statistical information about the entered ranges. Ranges can be manipulated until desired strata are displayed. When you are satisfied with the ranges, click **Save** and then **Finished** to output the results to a new worktable. The results table is called **InvoicesStrata** and contains the strata bands with statistics.



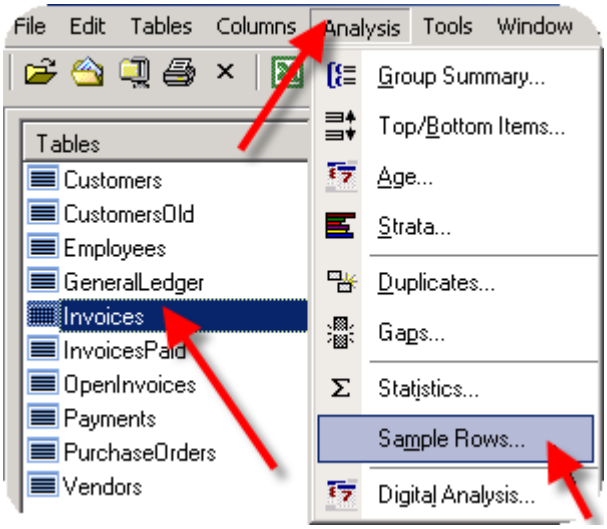
InvoicesStrata

7 rows

MinimumValue	MaximumValue	AverageValue	SampleVariance	SampleSTDDEV	PopulationVaria
-150,150	-7.35	-421.99	10,287,560.78	3,207.42	10,286,48
0.00	990.50	262.45	91,853.58	303.07	91,84
0.00	9,996.00	273.32	722,935.35	850.25	722,85
0.00	78,967.35	96.50	3,225,038.51	1,795.83	3,224,70
0.00	0.00		0.00	0.00	
0.00	0.00	0.00	0.00	0.00	
-150,150.00	78,967.35	210.29	14,614,175.08	3,822.84	14,612,6

Step 4: To extract a sampling of records from our **Invoices** table we will use ActiveData for Office's **Sample** function. Open the **Invoice** table and sort the table in Ascending **Amount** order. With the records in this sorted order it will make it possible for ActiveData for Office to extract records with low, high and medium **Amounts**.

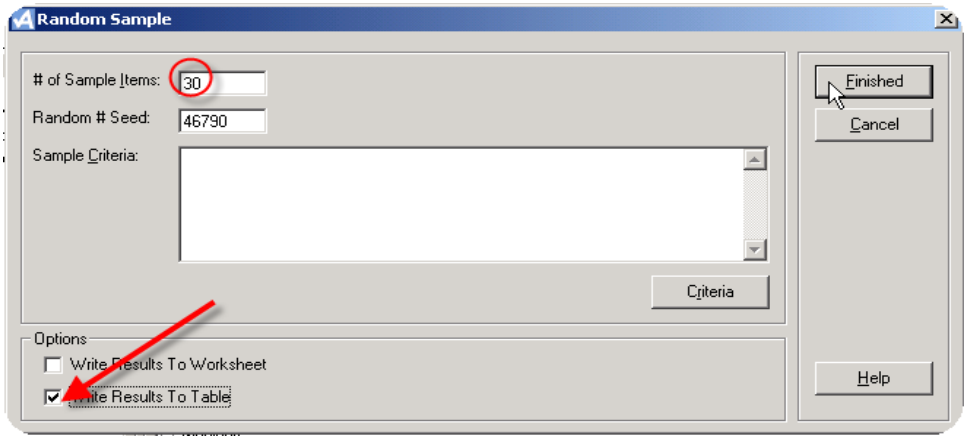
Step 5: From the menu select: **Analysis – Sample Rows…**



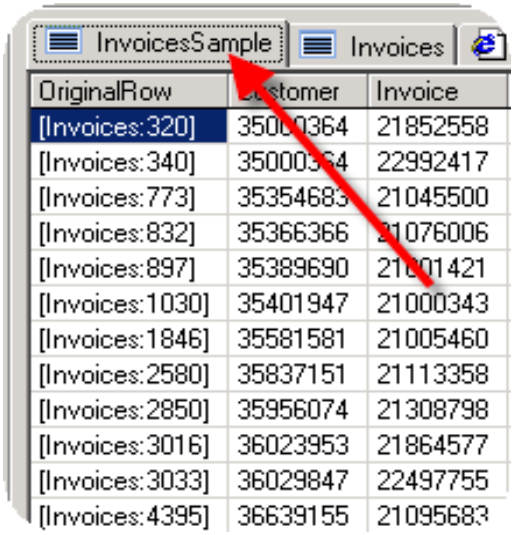
Step 6: We will add 30 records to a new worktable.

In the Random Sample dialog box enter the values to extract 30 records. Click **Finished** building the new **InvoicesSample** worktable.

Your Notes:



ActiveData for Office has placed all sample records in the new table. For analysis purposes you may want to sort them.



Key Note:
If you want a larger sampling of records, enter a larger number for Sample Items and a higher row number in the And box.

12. Invoice Date and Ship Date Comparisons

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

As the old adage goes, the faster you invoice your customers, the quicker they are likely to pay the bill. Although this is not always the case, depending on the terms afforded to or the relationship existing with the customer, it stands to reason that doing so can only increase the organization's chances that payment will be made in a swift manner. Let alone the interest lost, orders not billed are a clear sign of inefficiencies within the invoicing process that left unattended, could lead to inferior customer service and inadequate cash flow.

It is common for shipments to not be billed due to:

- no price has been established in the system
- the customer has not been set up properly to execute invoicing (i.e. - no billing address)
- customer pickup of a preloaded shipment is expected at a later date (which does not constitute a valid unbilled shipment considering the product has not left the company premises)
- invoices have been lost leading to gaps in the invoice sequence

In addition to untimely invoicing, erroneous and/or fraudulent sales invoices may be detected if invoices are sent without valid shipments. In this case, revenue is potentially being recorded prior to being earned. Further research of these invoices should be done independent of the sales and accounts receivable functions in order to ensure an independent analysis.

Calculate the difference between ship and invoice dates, as well as locate invoices without shipment dates.

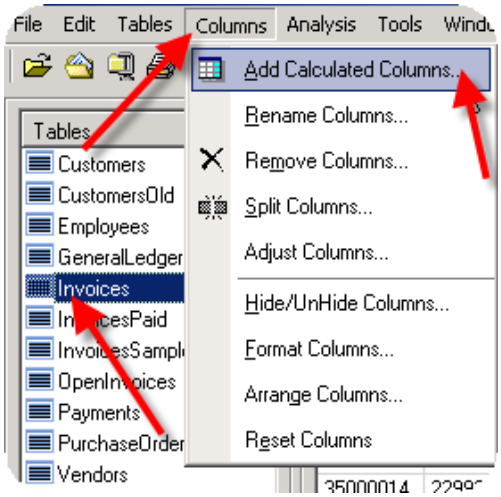
Revenue Data Fields
The following fields are needed from the Invoices table for this test:

- Invoice Date
- Ship Date

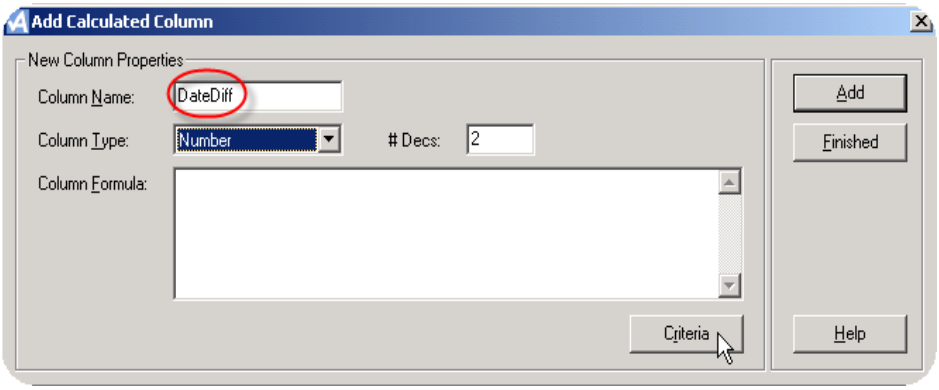
To follow up with your investigation you will want to look further at other fields (i.e., Invoice and Customer) .

How To Run The Report

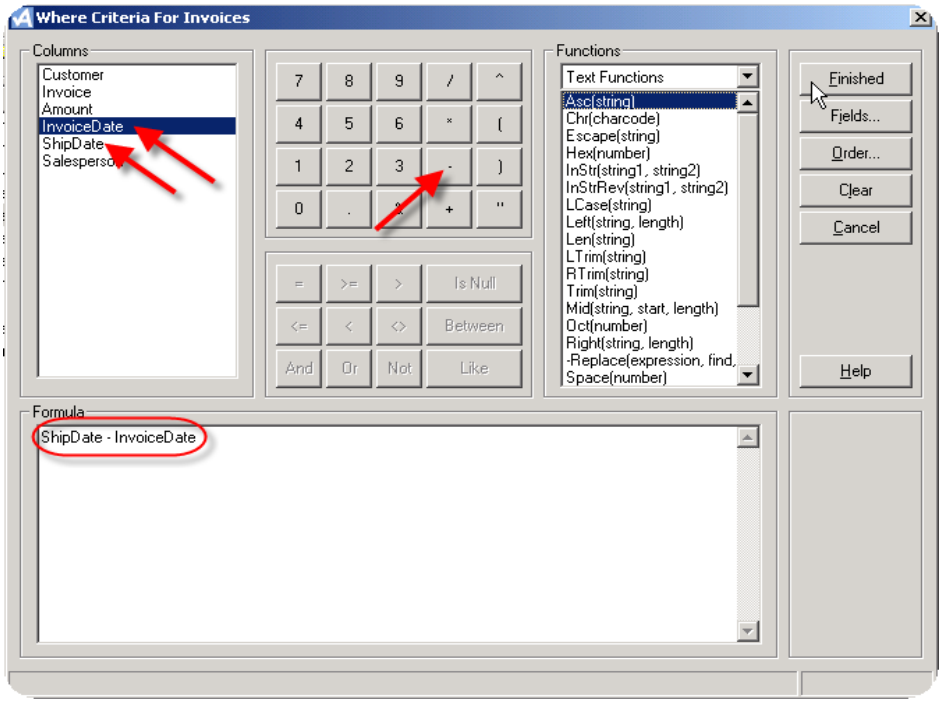
Step 1: To find the difference between **Invoice Dates** and **Ship Dates** in a record we will add a new calculated column. Open the **Invoices** table. From the **AcitvAudit** menu select: **Columns - Add Calculated Columns…**



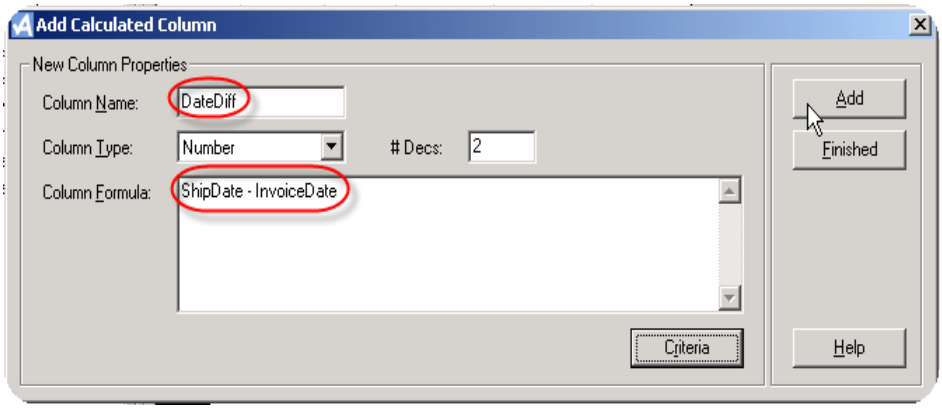
Step 2: In the 'Add Calculated Column' dialog box type in **DateDiff** as the new column name before clicking **Criteria**. In the 'Where Criteria For Invoices' dialog box build the formula **ShipDate – InvoiceDate** by clicking on the field names and using the **–** button for minus.



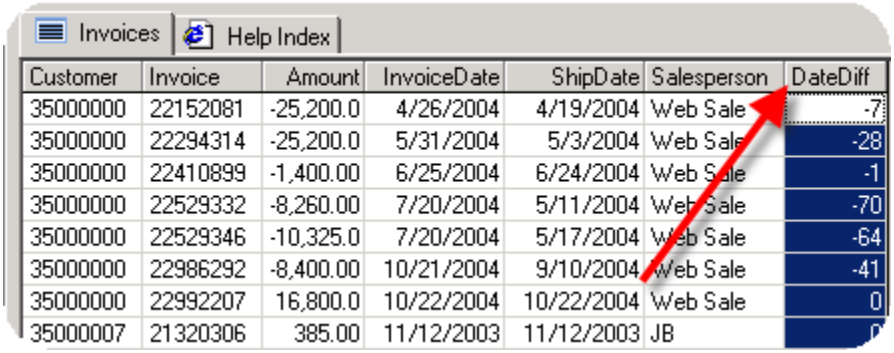
Key Note:
Another formula that could be used in the last Calculated Column dialog box is DateDif. Build the following formula: *DATEDIF(ShipDate,InvoiceDate,"D")* The difference with the output from this formula, only positive numbers will be displayed. If the InvoiceDate is before the ShipDate or if the ShipDate is blank an error message will be displayed.



Click **Finished** adding this formula to the 'Add Calculated Column' dialog box. Complete this column by clicking **Add** then **Finished.**



ActiveData for Office adds another column in the **Invoices** table that calculates the number of days between these two dates. If the **ShipDate** date and the **InvoiceDate** date is the same date than the **DateDiff** is zero.



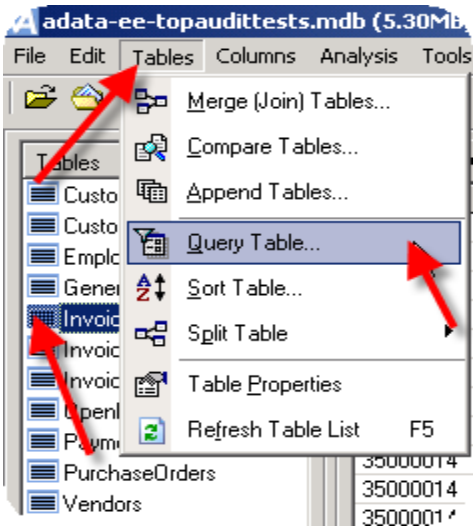
Invoices | Help Index

Customer	Invoice	Amount	InvoiceDate	ShipDate	Salesperson	DateDiff
35000000	22152081	-25,200.0	4/26/2004	4/19/2004	Web Sale	-7
35000000	22294314	-25,200.0	5/31/2004	5/3/2004	Web Sale	-28
35000000	22410899	-1,400.00	6/25/2004	6/24/2004	Web Sale	-1
35000000	22529332	-8,260.00	7/20/2004	5/11/2004	Web Sale	-70
35000000	22529346	-10,325.0	7/20/2004	5/17/2004	Web Sale	-64
35000000	22986292	-8,400.00	10/21/2004	9/10/2004	Web Sale	-41
35000000	22992207	16,800.0	10/22/2004	10/22/2004	Web Sale	0
35000007	21320306	385.00	11/12/2003	11/12/2003	JB	0

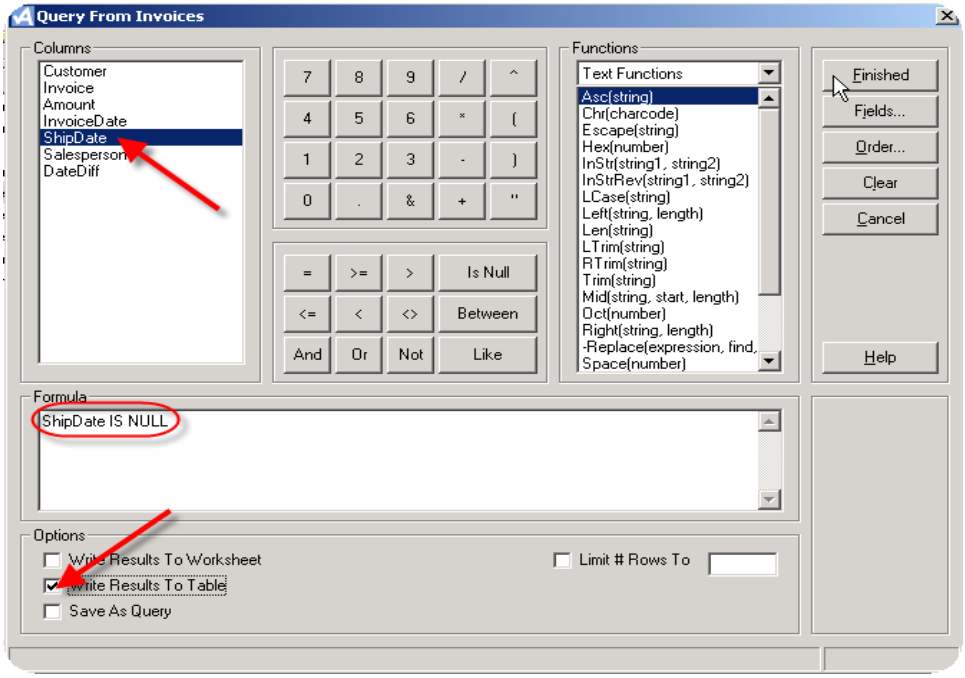
Your Notes:

Step 3: To view the calculated figures in sequence order, sort the **DateDiff** column in descending order. The records with the least amount of time between **InvoiceDates** and **ShipDates** appear at the top of the list. Records without **ShipDates** will appear at the bottom of the list.

Step 4: To run a test looking for **Invoice** records where there are no **ShipDates**, create a query. From the menu select: **Tables - Query Table…**



Step 5: In the 'Query From Invoices' dialog box, build the following formula: **ShipDate IsNull**. Complete this step by clicking on **Finished** in this dialog box.



ActiveData for Office builds a new **InvoicesQuery** worktable for these records without **ShipDates**. You might continue analyzing the

Your Notes:

data found by running stats on the calculated **DateDiff** field in the **Invoices** table to find: the average date difference, the minimum date difference, the maximum date difference etc..

InvoicesQuery | Invoices | Help Index

Customer	Invoice	Amount	InvoiceDate	ShipDate	Salesperson	DateDiff
35000140	22955086	-289.73	10/13/2004		Web Sale	
35000196	22987391	1,481.55	10/21/2004		Web Sale	
35000273	22923334	-2,520.00	10/5/2004		Web Sale	
35000273	22923355	2,730.00	10/5/2004		Web Sale	
35000273	22923362	-2,450.00	10/5/2004		Web Sale	
35000273	22924090	-16,450.0	10/5/2004		Web Sale	
35000273	22992732	476.00	10/22/2004		Web Sale	
35000273	22992739	595.00	10/22/2004		Web Sale	
35000343	21316218	231.00	11/11/2003		Web Sale	
35000364	21046256	175.00	9/12/2003		Web Sale	
35000700	22246679	-218.40	5/20/2004		JB	
35003479	21161616	-411.60	10/14/2003		Web Sale	
35009702	22099168	840.00	4/16/2004		Web Sale	
35040663	21355768	-42.00	11/25/2003		JB	

Review Questions

#1 To find missing customer information ActiveData for Office can:

A) Compare tables for exact field matches
B) Merge tables
C) Add calculated columns
D) Query for null information
E) All of the above

#2 To find the totals for payments made on an invoice:

A) Run a Group Summary function on the Invoices table
B) Run a Group Summary function on the Payments table grouped by Customer
C) Run a Group Summary function on the Payments table grouped on Invoice
D) Run a Group Summary function on the Payments table grouped on Customer and Invoice

#3 To find open invoices all of the following steps are needed except:

A) Sum the Amounts in the Payment table by Customer and Invoice
B) Compare the Payments table to the Invoice table grouped by Customer and Invoice
C) Merge the new PaymentsSummary table with the Invoice table
D) Query in the merged table for Amounts that don't equal the Summary of Payments Amount

#4 AcitvAudit's Aged Analysis function performs all but one of the following features. Which feature is NOT an Aged Analysis option:

A) Analyze a record's age by multiple fields
B) Select or type a date to establish aging As Of date
C) Choose a field to total
D) Chart Results

#5 The expression: <u>#2004,10,22# – InvoiceDate > 360</u> used in a query formula could:

A) Extract unpaid records from the Invoices table where the InvoiceDate is more than a year older than the entered date 10/22/04
B) Extract unpaid records from the Payments table where the Invoice Date is more than a year older than the entered date 10/22/04
C) Extract unpaid records from the OpenInvoices table where the Invoice Date is more than a year older than the entered date 10/22/04
D) All of the above

#6 When summarizing records using ActiveData for Office's Group Summary function, you can group by the following number of fields:

A) One
B) Two
C) Three
D) Four

#7 With ActiveData for Office's Stratified Analysis feature you can set your own stratification ranges.

A) True
B) False

#8 With the Random Sample function you can select the number of items to sample as well as the value range you want to select.

A) True
B) False

#9 To find the difference between a Ship Date and an Invoice Date:

A) Run a Compare table function on the Invoice and Payments tables.
B) Run a Match table function on the Invoice and Payments tables.
C) Create a calculated column in the Invoice table that calculates the number of days between the two date fields.
D) Create a query that extracts records where the ShipDate and the Invoice Date of an Invoice record do not match.

#10 To locate records where the ShipDate is missing you could:

A) Run a Query looking for ShipDate Is Null
B) Sort the ShipDate column
C) All of the above

Review Answers

#1 To find missing customer information ActiveData for Office can:

A) Compare tables for exact field matches – *Incorrect (Comparing tables wouldn't be the method to use because it wouldn't locate missing data.)*
B) Merge tables – Incorrect (After you have merged two tables you would still have to look for missing data.)
C) Add calculated columns – *Incorrect (Adding a calculated column wouldn't locate missing data and if the calculation was based on a field that contained missing values, the calculation wouldn't be correct.)*
D) Query for null information – Correct (You can look for as many null fields and you wish to combine in a query formula.)
E) All of the above – *Incorrect (Only one of the answers above would locate missing data.*

#2 To find the totals for payments made on an invoice:

A) Run a Group Summary function on the Invoices table – *Incorrect (The Invoice table doesn't include payment information.)*
B) Run a Group Summary function on the Payments table grouped by Customer – *Incorrect (Grouping by Customer alone would not achieve the correct results. Customers may have multiple invoices.)*
C) Run a Group Summary function on the Payments table grouped on Invoice – *Incorrect (There is a chance that the same invoice number may be used by more than one customer.)*
D) Run a Group Summary function on the Payments table grouped on Customer and Invoice – Correct (You would need to group on first the Customer and then the Invoice and sum the grouped amounts.)

#3 To find open invoices all of the following steps are needed except:

A) Sum the Amounts in the Payment table by Customer and Invoice - *Incorrect (You would need to summarize payment amounts by Customer and Invoice to find the total payment made on any one customer invoice.)*
B) Compare the Payments table to the Invoice table grouped by Customer and Invoice -Correct (You can run a Compare Table function on payments and invoices but you would need the Summed Payments table for this.)
C) Merge the new PaymentsSummary table with the Invoice table - *Incorrect (Merging the new table with the Invoice table would be the second step in the process of finding open invoices.)*
D) Query in the merged table for Amounts that don't equal the Summary of Payments Amount – *Incorrect (Creating a query formula to find the mismatched payments for invoice amounts would be the third step in the process of finding open invoices.)*

#4 AcitvAudit's Aged Analysis function performs all but one of the following features. Which feature is NOT an Aged Analysis option:

A) Analyze a record's age by multiple fields -Correct (The age of a record is based on one field such as an InvoiceDate.)
B) Select or type a date to establish aging As Of date – *Incorrect (You would need to determine a date to age by.)*
C) Choose a field to total – *Incorrect (This is an option and you would more than likely want to see the amounts that are summed in the various aged brackets.)*
D) Chart Results – *Incorrect (This option is included as well in the Aged Analysis function.)*

#5 The expression: #2004,10,22# – InvoiceDate > 360 used in a query formula could:

A) Extract unpaid records from the Invoices table where the InvoiceDate is more than a year older than the entered date 10/22/04 – *Incorrect (Unpaid records could not be identified using the Invoices table alone.)*
B) Extract unpaid records from the Payments table where the InvoiceDate is more than a year older than the entered date 10/22/04 – *Incorrect (This query would find these older records however these records would be paid records.)*
C) Extract unpaid records from the OpenInvoices table where the Invoice Date is more than a year older than the entered date 10/22/04 -Correct (The expression used in conjunction with the OpenInvoices table will locate the records that exceed a year beyond the entered date.)
D) All of the above – *Incorrect (Only one of the above selections is correct.)*

#6 When summarizing records using ActiveData for Office's Group Summary function, you can group by the following number of fields:

A) One – *Incorrect (Grouping can be performed on multiple fields.)*
B) Two – *Incorrect (Grouping can be performed on more than two fields.)*
C) Three -Correct (Grouping, otherwise known as summarizing, can be done on a maximum of three fields.)
D) Four – *Incorrect (Four exceeds the maximum number of fields to group by*.)

#7 With ActiveData for Office's Stratified Analysis feature you can set your own stratification ranges:

A) True - Correct (Stratification ranges can either be set by the user or ActiveData for Office can complete an automatic calculation of equal ranges for analysis.)
B) False – *Incorrect (You may choose to use ActiveAuidit's predefined stratification ranges or set your own.)*

#8 With the Random Sample function you can select the number of items to sample as well as the value range you want to select:

A) True – Correct (You can set a criteria expression to look for a specific value range.)

B) False – *Incorrect (The Random Sample function does allow you to choose the number of items to sample as well as provide an option for you to set criteria for a specific value range.)*

#9 To find the difference between a ShipDate and an InvoiceDate:

A) Run a Compare table function on the Invoice and Payments tables . – *Incorrect (A Compare sheet function will only compare information using a common field rather than calculate the difference between two fields.)*

B) Run a Match table function on the Invoice and Payments tables – *Incorrect (A Match sheet function will only compare information using a common field rather than calculate the difference between two fields.)*

C) Create a calculated column in the Invoice table that calculates the number of days between the two date fields. –Correct (The easiest way to calculate the difference between date fields is to create a calculated column using those two fields.)

D) Create a query that extracts records where the ShipDate and the InvoiceDate of an Invoice record do not match – *Incorrect (A query to identify differences in the invoice and ship dates will simply note there is a difference rather than calculate the exact difference.)*

#10 To locate records where the ShipDate is missing you could:

A) Run a Query looking for ShipDate Is Null – *Incorrect (This is a true statement yet there are more than one correct responses to this question.)*

B) Sort the ShipDate column– *Incorrect (This is a true statement yet there are more than one correct responses to this question.)*

C) All of the above – Correct (Either running a query looking for 'Null' ShipDates or sorting the ShipDate column to view all blank ShipDates would work.)

Why Audit General Ledger?

The general ledger is the backbone of the financial records, holding every business transaction. Please note that sub-ledgers (i.e., accounts payable, fixed assets, inventory) may post in full detail (i.e., every accounts payable invoice broken out to the actual detail) but normally this sub-ledger activity is summarized on a periodic basis by account and posted. Regardless, the general ledger is a treasure-trove for auditing. Below are three main reasons for auditing it:

Fraud Reduction

Once again, fraud tops the list of issues with General Ledger. The easiest way to commit financial statement fraud is for a high-ranking officer to post a nonstandard journal entry, falsifying the records. That way, the sub-ledger could show the proper balance but such balance could be adjusted at the general ledger level, with the nonstandard entry. Given this fact, a recent audit standard on fraud (SAS 99 – Consideration of Fraud in a Financial Statement Audit) and later audit risk alerts point to the specific need to review journal entries in the general ledger.

Efficiency

Efficiency has become commonplace in the wake of rightsizing and outright downsizing of employees. Companies need to do more with less to stay competitive or “someone else will.” In the general ledger, this efficiency translates into whether postings are made via manual entries or through automated feeds (the latter being more efficient). Other efficiencies can be had by posting at more periodic intervals rather than on say a weekly basis. Therefore, the efficient posting of general ledger information can have a significant effect on the staffing needed to manage the data flow.

Erroneous Entries

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.

13. Stratify General Ledger Detail Information

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

Look at the multitude of activities in a general ledger and ask yourself, "How can I survey this data in an extremely quick manner while efficiently planning my audit"? This test should provide the answer by helping the auditor focus on large dollar postings, while helping to assess the administrative burden from maintaining low dollar activity.

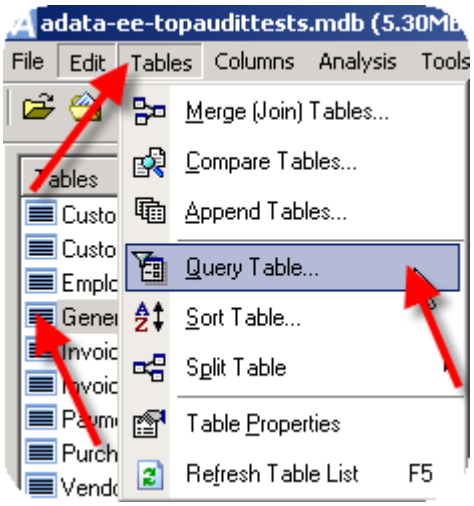
The stratification report should be reviewed for:

- unreasonably large balances where activity could be queried (see Query Table feature) for recalculation and proper classification
- high number of transactions with low accumulated activity for possible consolidation
- planning detailed testing of the journal entry approval process

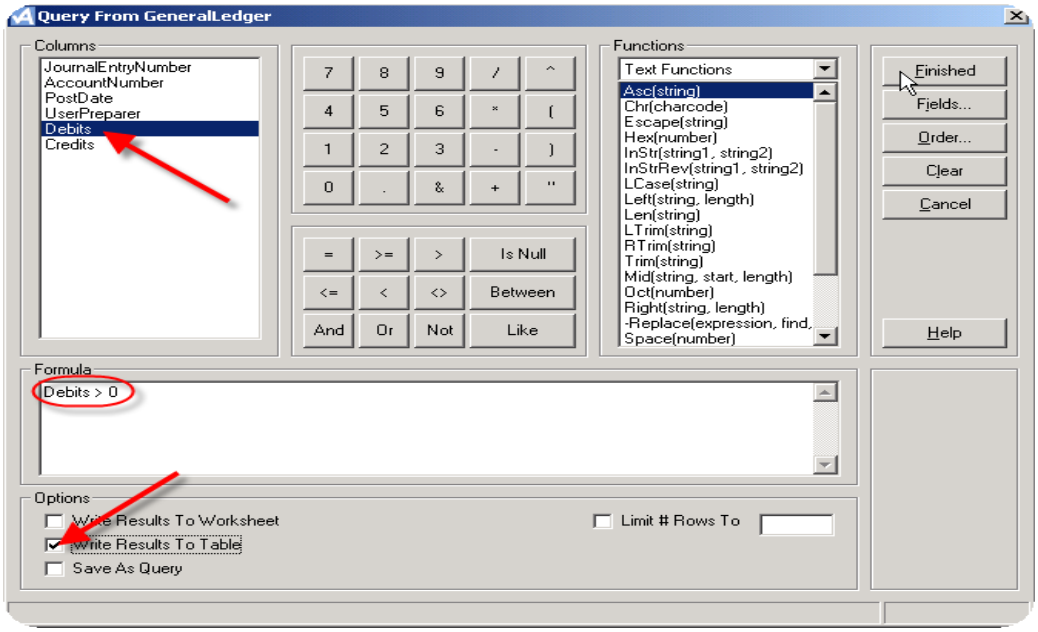
Run a stratification report on debit records and then on credit records. Query to find the largest debit records.

How To Run The Report

Step 1 To run a stratification report on either debit records only or only credit records, query for these records. To find debit records, open the **General Ledger** table and from the menu select: **Tables - Query Table…**



Step 2: In the 'Query From General Ledger' dialog box build the following formula: **Debits > 0** before clicking **Finished**.

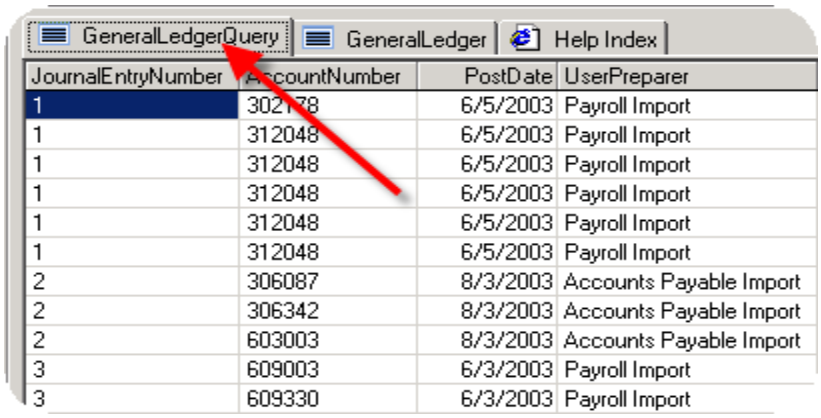


General Ledger Fields
The following fields are needed from the General Ledger worktable for this test:

- Credits
- Debits

To follow up with your audit you will want to look further at other fields to analyze the account and user/preparer involved with this record.

Your Notes:

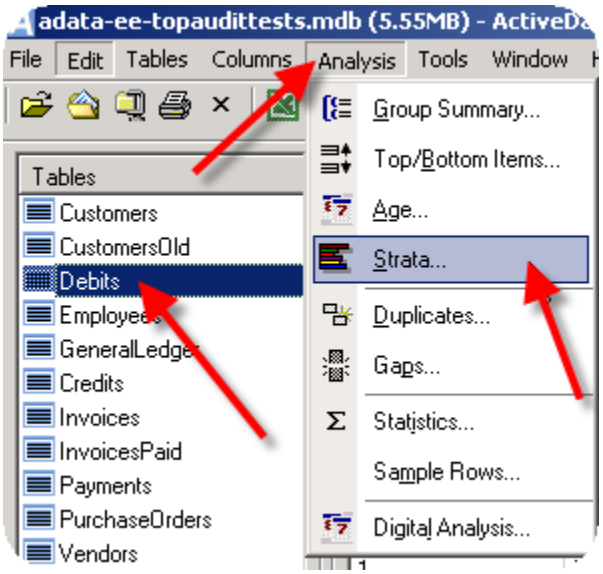


JournalEntryNumber	AccountNumber	PostDate	UserPreparer
1	302178	6/5/2003	Payroll Import
1	312048	6/5/2003	Payroll Import
1	312048	6/5/2003	Payroll Import
1	312048	6/5/2003	Payroll Import
1	312048	6/5/2003	Payroll Import
1	312048	6/5/2003	Payroll Import
2	306087	8/3/2003	Accounts Payable Import
2	306342	8/3/2003	Accounts Payable Import
2	603003	8/3/2003	Accounts Payable Import
3	609003	6/3/2003	Payroll Import
3	609330	6/3/2003	Payroll Import

Step 3: ActiveData for Office builds a new worktable with records that have debit amounts. Rename this table **Debits** by right clicking on the table name, selecting **Rename Table** and typing in the new name.

Step 4: Create another table naming it **Credits** that contains records that have credit amounts. Follow the first three steps of this test using the formula **Credits > 0**.

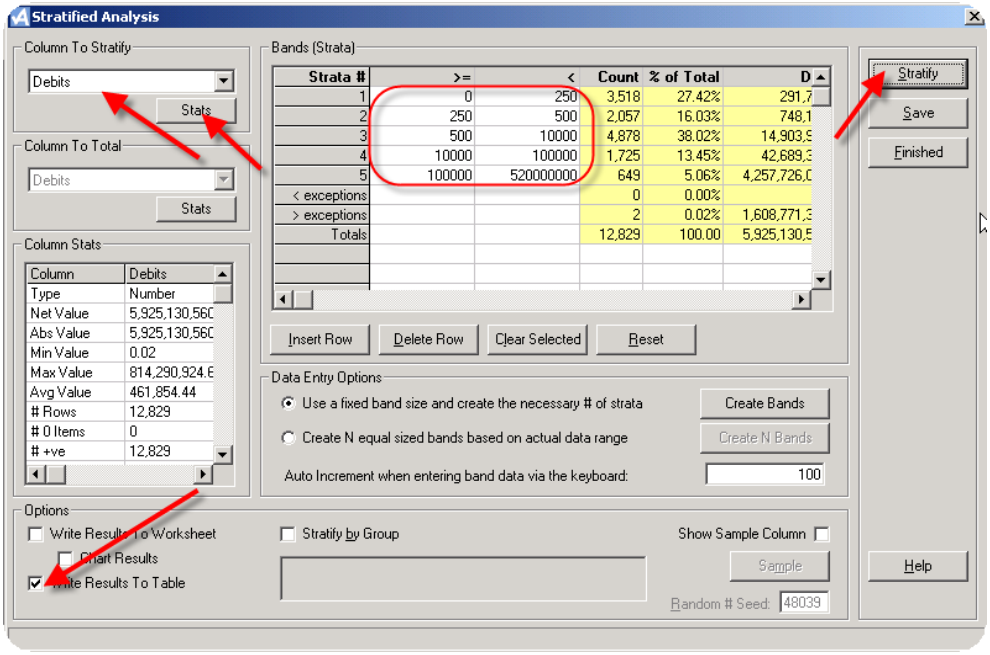
Step 5: To create the stratification report on debits, open the **Debits** table and from the menu select: **Analysis - Strata…**



Key Note:
Stratification bands may be modified until the desired Count and/or % of Total is achieved.

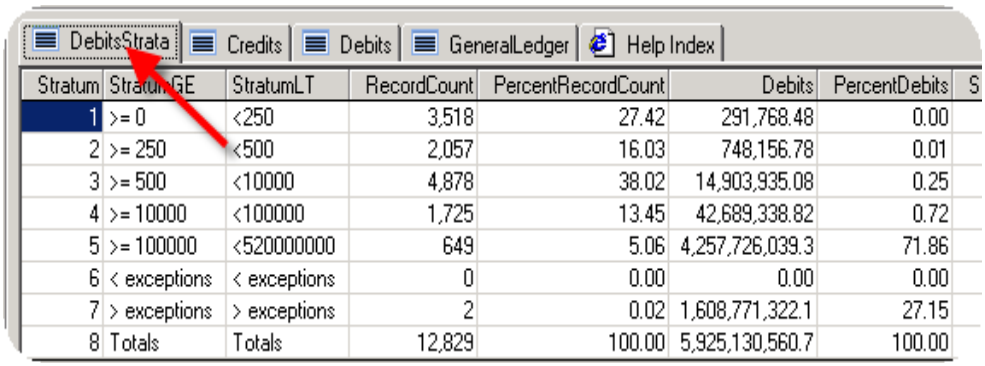
Step 6: In the Stratified Analysis dialog box select the **Debits** field as the Column To Stratify. Create Bands by entering the following ranges in the **>=** column and the **<** column:
0-250, 250 – 500, 500 – 10000, 10000 – 1000000, 1000000 – 820000000.

Your Notes:



Step 7: Click the **Stratify** button to produce the stratification table.

Step 8: Click the **Save** and then the **Finished** buttons to save the stratification bands and close this dialog box and create the new **DebitsStrata** worktable.

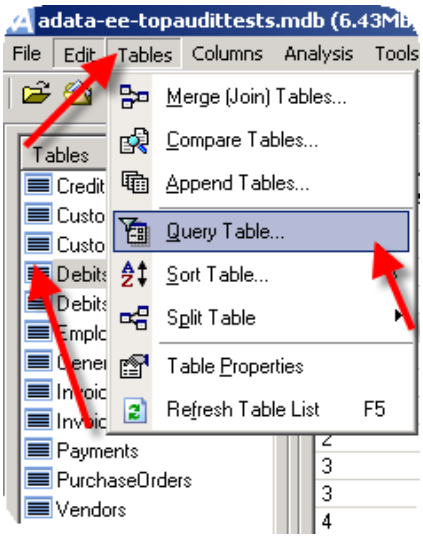


Stratum	StratumGE	StratumLT	RecordCount	PercentRecordCount	Debits	PercentDebits	S
1	>= 0	<250	3,518	27.42	291,768.48	0.00	
2	>= 250	<500	2,057	16.03	748,156.78	0.01	
3	>= 500	<10000	4,878	38.02	14,903,935.08	0.25	
4	>= 10000	<100000	1,725	13.45	42,689,338.82	0.72	
5	>= 100000	<520000000	649	5.06	4,257,726,039.3	71.86	
6	< exceptions	< exceptions	0	0.00	0.00	0.00	
7	> exceptions	> exceptions	2	0.02	1,608,771,322.1	27.15	
8	Totals	Totals	12,829	100.00	5,925,130,560.7	100.00	

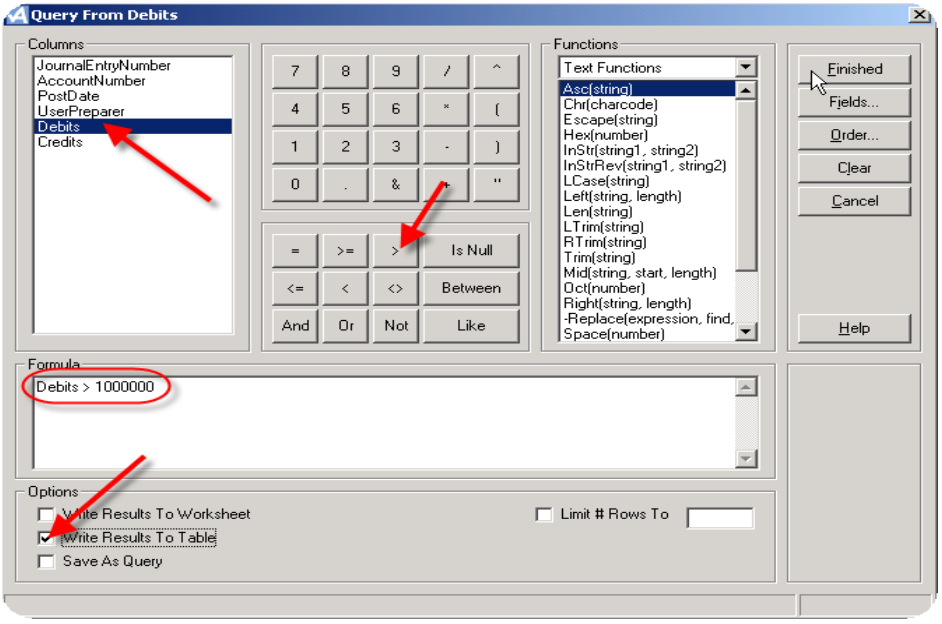
Step 9: To create the **CreditsStrata** worktable, open the **Credits** table repeat steps five through eight this time using the **Credits** field as the 'Column To Stratify'.

Step 10: Reviewing the **DebitsStrata** table you can see that over 96% of the debit total comes from debits over $1,000,000. Create a table that contains these records to further analyze the largest debit records. Open the **Debits** table and from the menu select: **Tables - Query Table…**

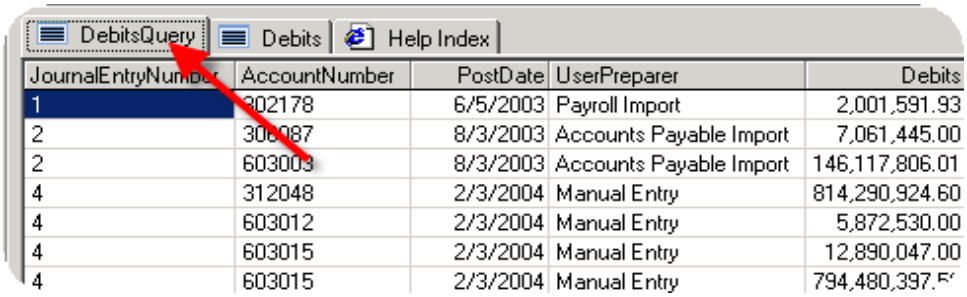
Your Notes:



Step 11: In the 'Query From Debits' dialog box build the following formula: **Debits > 1000000** before clicking **Finished**.



ActiveData for Office creates a new worktable that contains the largest debit records. Renaming this table and sorting it in descending debit order may be helpful when you refer to this table in your research of general ledger records.



JournalEntryNumber	AccountNumber	PostDate	UserPreparer	Debits
1	302178	6/5/2003	Payroll Import	2,001,591.93
2	306087	8/3/2003	Accounts Payable Import	7,061,445.00
2	603003	8/3/2003	Accounts Payable Import	146,117,806.01
4	312048	2/3/2004	Manual Entry	814,290,924.60
4	603012	2/3/2004	Manual Entry	5,872,530.00
4	603015	2/3/2004	Manual Entry	12,890,047.00
4	603015	2/3/2004	Manual Entry	794,480,397.5

14. Journal Entry Gap Tests

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

Gaps may signal incomplete data processing or, in the situation of journal entries, possible hidden entries. Usually, a method of documenting these occurrences, along with a review by an independent party, is sufficient to ensure the completeness and accuracy of processing. However, it is rare that a journal entry gap test is performed in the Accounting Department (it is more common in the Accounts Payable area related to the check sequence) so this may be the first time this test is being performed.

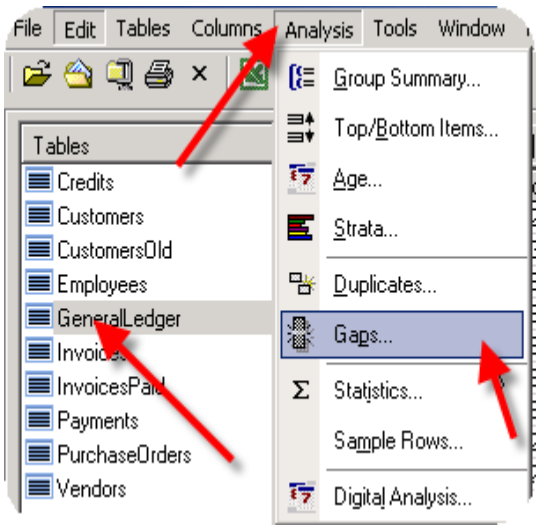
Gaps in the journal entry sequence should be reviewed with Accounting Department. The test work should answer the following questions:

- What procedures are in place to document and approve all gaps in the respective sequences?
- How are gaps communicated to management?

Locate missing journal entry numbers by running a Gap test.

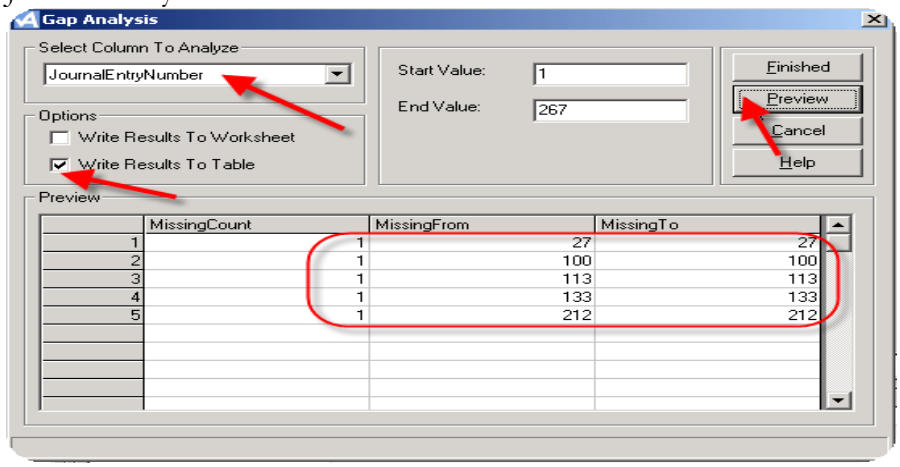
How To Run The Report

Step 1: ActiveData for Office **Gaps** tool provides the ability to search a range in a column and look for missing items.
To find missing Journal Entry numbers, open the **GeneralLedger** table and from the main menu select: **Analysis - Gaps…**



Step 2: In the 'Gap Analysis' dialog box select **JournalEntryNumber** as the 'Column to Analyze'. ActiveData for Office will display the 'Start Value' and 'End Value' for the selected field.

Step 3: To preview the missing items, click the **Preview** button. ActiveData for Office displays in the 'Preview' box the missing Journal Entry numbers.



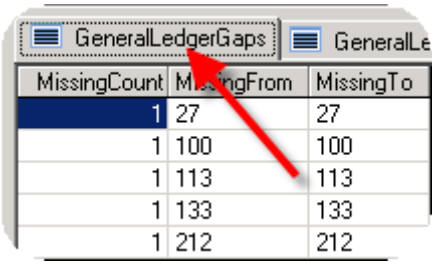
General Ledger Fields
The following field is needed from the General Ledger worktable for this test:

- Journal Entry Number

To follow up with your audit you will want to look further at other records to analyze why these records are missing.

Your Notes:

Click the **Finished** button to build a new **GeneralLedgerGaps** worktable with the missing journal entry numbers information.



15. Identify Nonstandard Journal Entries Made After Year End

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

Nonstandard journal entries generally are those that are posted manually (rather than through an automated feed from a fixed asset or accounts receivable subledger). Such entries are more prone to error and fraud due mainly to the human error, judgment normally being applied in the support for the entry, and the possibility for management override in authorizing the entry. This is especially true for entries made just after year end (related to the prior year) as these entries are more prone to be adjustments for the fiscal year's annual reporting.

Given the above, the test of these entries should include:

- Reviewing the journal entry and associated supporting documentation
- Ensuring the approvals are appropriate for the size and nature of the journal entry
- Assessing whether Generally Accepted Accounting Principles ("GAAP") are being applied

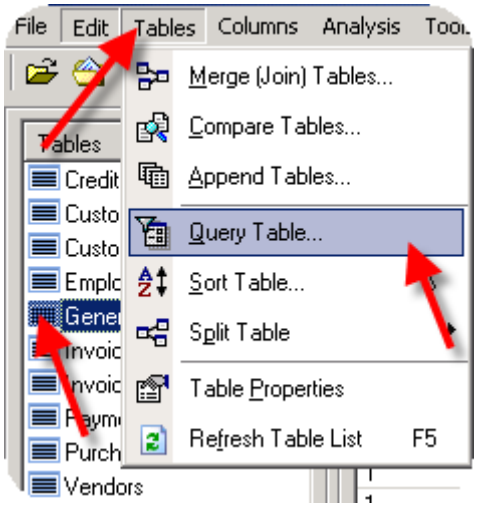
Locate all manual entry records entered after year end and then summarize debits and credits by account.

General Ledger Fields
The following fields are needed from the GeneralLedger table for this test:

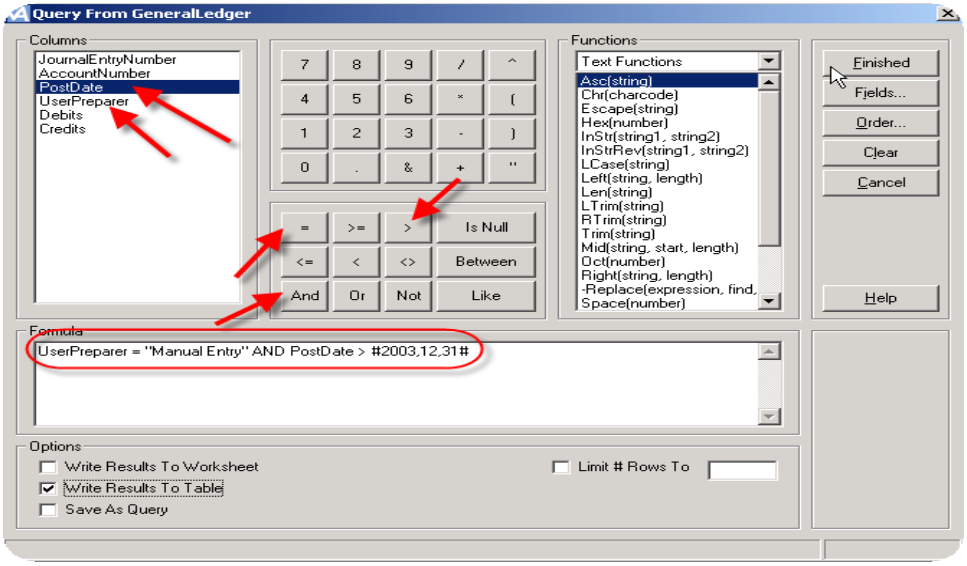
- User/Preparer
- Post Date
- Journal Entry
- Credits
- Debits
- Account Number

How To Run The Report

Step 1: To locate and analyze account records after 12/31/03 open the **GeneralLedger** table and from the menu select: **Tables - Query Table…**

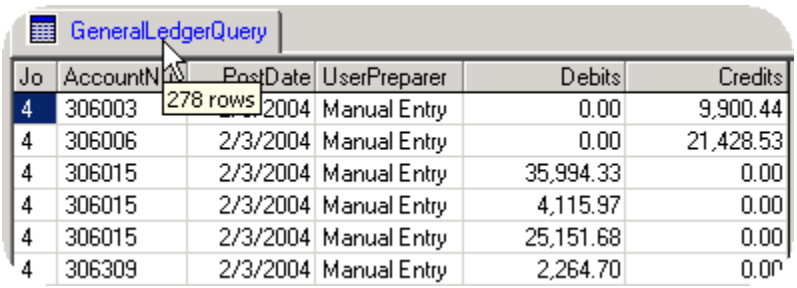


Step 2: In the 'Query From GeneralLedger' dialog box build the following formula: **UserPreparer ="Manual Entry" AND PostDate > #2003,12,31#**. before clicking **Finished**. In formulas quotes are required for text expressions and pound signs are required for date expressions.



ActiveData for Office builds a new worktable named **GeneraLedgerQuery**. The new worktable displays the records that meet both criteria.

Your Notes:

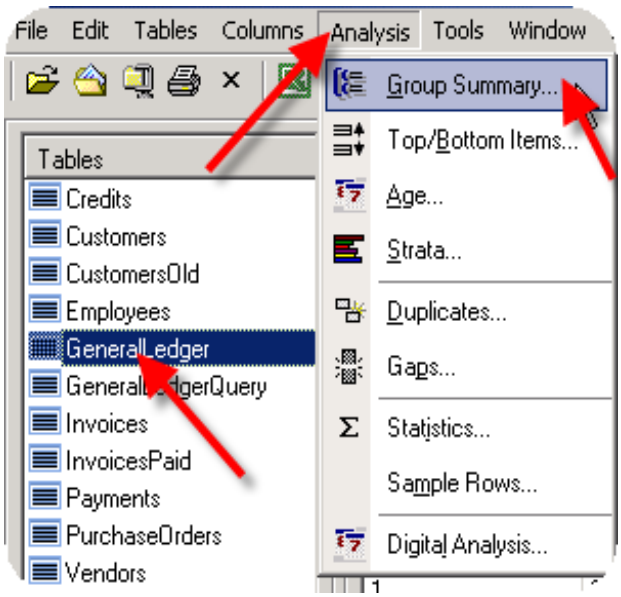


GeneralLedgerQuery

278 rows

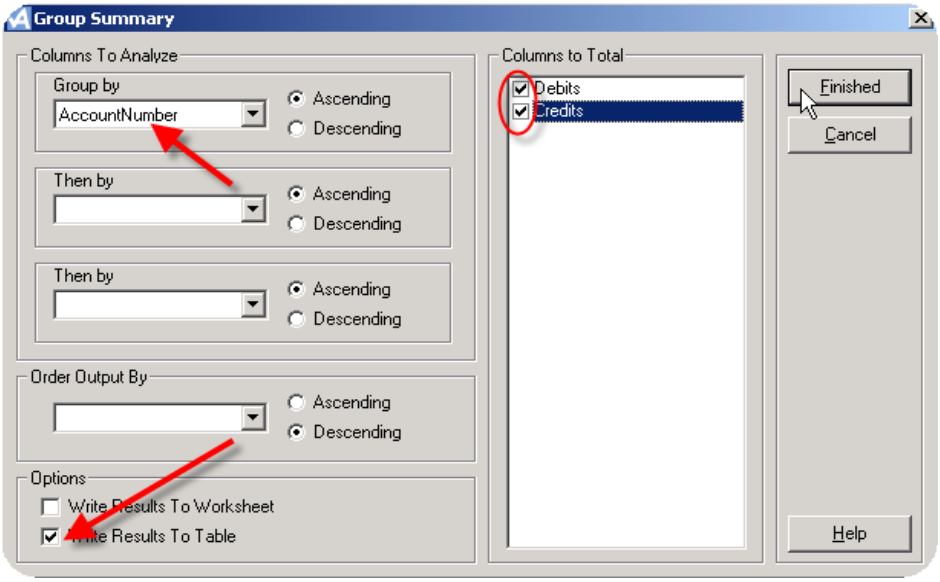
Jo	AccountN	PostDate	UserPreparer	Debits	Credits
4	306003	2004	Manual Entry	0.00	9,900.44
4	306006	2/3/2004	Manual Entry	0.00	21,428.53
4	306015	2/3/2004	Manual Entry	35,994.33	0.00
4	306015	2/3/2004	Manual Entry	4,115.97	0.00
4	306015	2/3/2004	Manual Entry	25,151.68	0.00
4	306309	2/3/2004	Manual Entry	2,264.70	0.00

Step 3: To review account information, make sure the **GeneralLedgerQuery** worktable is still open and from the menu select: **Analysis - Group Summary…**

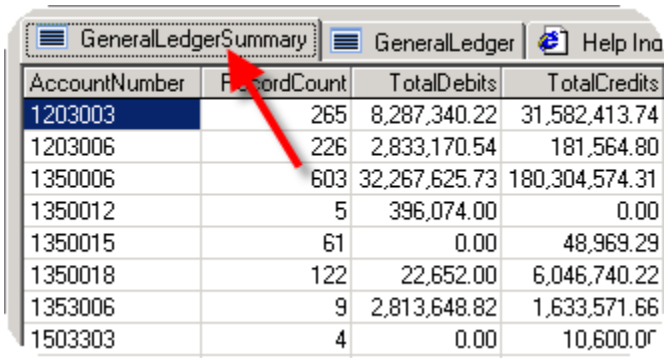


Step 4: In the 'Group Summary' dialog box select the **AccountNumber** field as the column to 'Group by' and select both the **Debits** and **Credits** fields before clicking **Finished**.

Your Notes:



ActiveData for Office creates a **GeneralLedgerQuerySummary** worktable. The new table contains a count of account records with summed debit and credit amounts. To make it easier to analyze this information you may wish to sort the records.



AccountNumber	RecordCount	TotalDebits	TotalCredits
1203003	265	8,287,340.22	31,582,413.74
1203006	226	2,833,170.54	181,564.80
1350006	603	32,267,625.73	180,304,574.31
1350012	5	396,074.00	0.00
1350015	61	0.00	48,969.29
1350018	122	22,652.00	6,046,740.22
1353006	9	2,813,648.82	1,633,571.66
1503303	4	0.00	10,600.0

16. Summarize Activity By User Account

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

This test looks for:

- Standard names such as "DEFAULT" or "TEST". These Ids usually have equally simple passwords for a hacker to guess and should generally be avoided. Replacements to these generic user Ids would be specific Ids associated with that person using the system (i.e., RLANZA).
- Unrecognized or terminated employees. This test focuses more on the responsiveness within the MIS function to ensure that, at any point in time, only authorized employees have system access. Such employees can be found by reviewing the list created with this test to an active employee roster.
- Users that have access beyond their level of responsibility. This access may highlight a non-segregation of duties where a person has an opportunity to commit fraud by being able to initiate, authorize, and/or record a transaction.

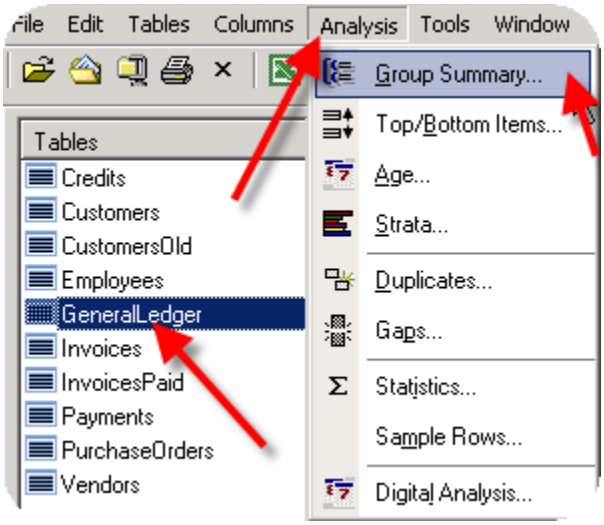
The resulting report should be reviewed bearing in mind the above considerations. It should be recommended that

- Default passwords be deleted and replaced with specific Ids
- Employees not on the active employee roster be deleted.
- Users that are posting high activity or may have access to other non-segregated functions be reviewed to assess whether other controls are needed to mitigate the access level being afforded to the individual.

Summarize records by preparer summing credits and debits, counting records for activity standings and then reporting on account activity.

How To Run The Report

Step 1: Summarize General Ledger records by **UserPreparer**. Open the **GeneralLedger** table. From the menu select: **Analysis - Group Summary…**

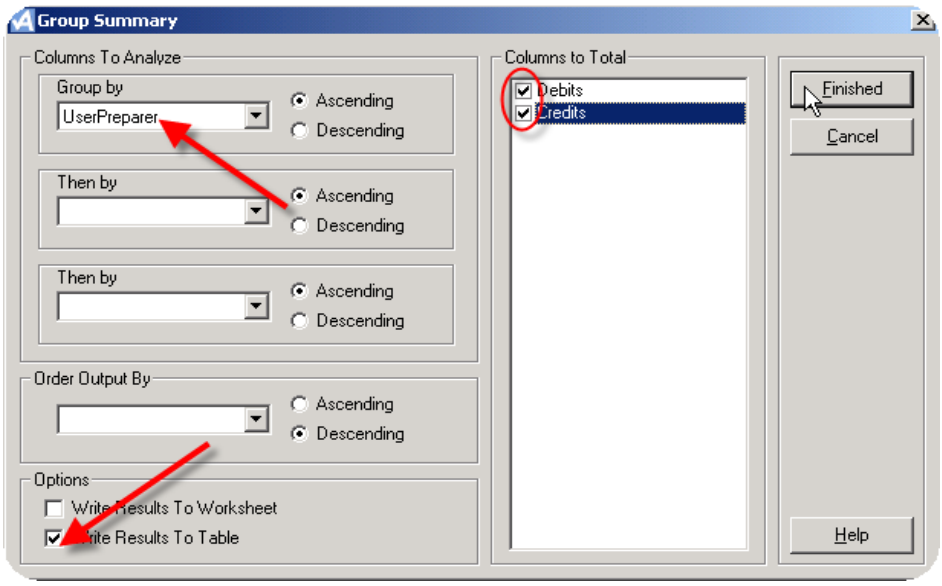


General Ledger Fields
The following fields are needed from the GeneralLedger table for this test:

- User/Preparer
- Account Number
- Debits
- Credits

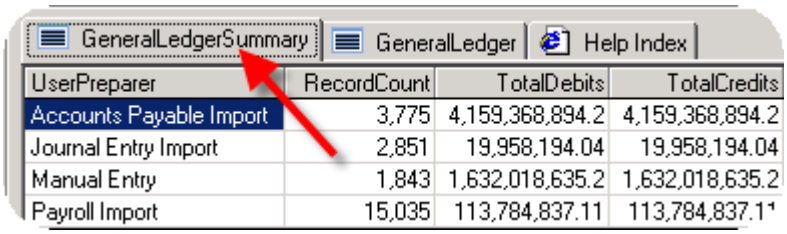
To follow up with your audit you will want to look further at other fields such as the JournalEntryNumber and PostDate to analyze the account information.

Step 2: In the 'Group Summary' dialog box select **UserPreparer** as the Column to 'Group by' and the **Debits** and **Credits** fields as the 'Columns to Total'. Click on the **Finished** button to build the new worktable.



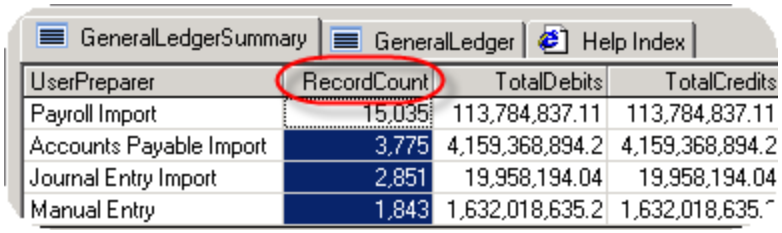
The new **GeneralLedgerSummary** worktable displays credits and debits summed by **UserPreparer**.

Key Note:
When performing an Excel sort you may want to highlight the record range illustrated at the right. Do not include the totals row or this row will be sorted with the other records. Without highlighting the record range for the sort, the totals row would be sorted as well.



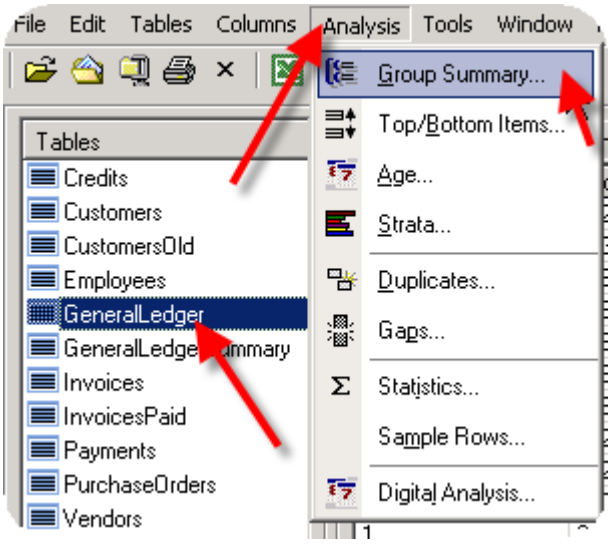
UserPreparer	RecordCount	TotalDebits	TotalCredits
Accounts Payable Import	3,775	4,159,368,894.2	4,159,368,894.2
Journal Entry Import	2,851	19,958,194.04	19,958,194.04
Manual Entry	1,843	1,632,018,635.2	1,632,018,635.2
Payroll Import	15,035	113,784,837.11	113,784,837.11

Step 3: In the **GeneralLedgerSummary** worktable sort the **RecordCount** field in descending order to see which preparer has the greatest number of entries.



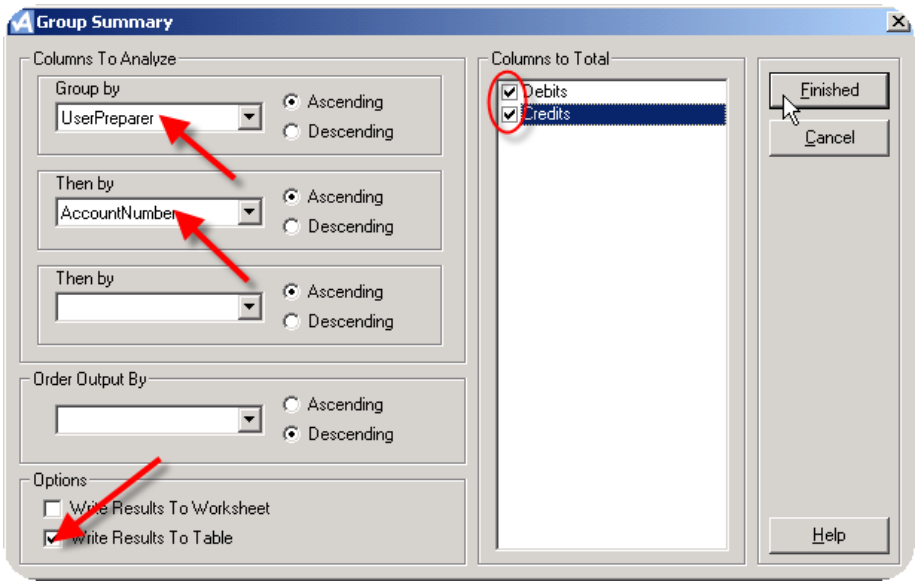
UserPreparer	RecordCount	TotalDebits	TotalCredits
Payroll Import	15,035	113,784,837.11	113,784,837.11
Accounts Payable Import	3,775	4,159,368,894.2	4,159,368,894.2
Journal Entry Import	2,851	19,958,194.04	19,958,194.04
Manual Entry	1,843	1,632,018,635.2	1,632,018,635.

Step 4: To learn more about account activity perform a group summary on **UserPreparer** and **AccountNumber**. Open the **GeneralLedger** table. From the menu select: **Analysis - Group Summary…**

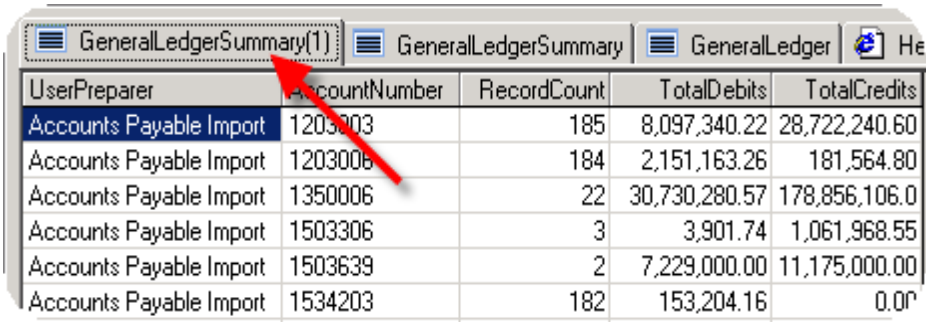


Step 5: In the 'Group Summary' dialog box 'Group by' **UserPreparer** and then **AccountNumber**. Include both fields of **Debits** and **Credits** as 'Columns to Total' before clicking **Finished**.

Your Notse:



ActiveData for Office creates a new worktable with the records grouped by **AccountNumbers** and **UserPreparer** and summing **Debits** and **Credits**.



UserPreparer	AccountNumber	RecordCount	TotalDebits	TotalCredits
Accounts Payable Import	1203003	185	8,097,340.22	28,722,240.60
Accounts Payable Import	1203006	184	2,151,163.26	181,564.80
Accounts Payable Import	1350006	22	30,730,280.57	178,856,106.0
Accounts Payable Import	1503306	3	3,901.74	1,061,968.55
Accounts Payable Import	1503639	2	7,229,000.00	11,175,000.00
Accounts Payable Import	1534203	182	153,204.16	0.00

Review Questions

#1 To create a stratification report on records that have a debit amount you could:

A) Run a report using ActiveData for Office's Stratified Analysis function on the records in the General Ledger table using the Debit field.
B) Extract records from the General Ledger table with a query where the Debits field is greater than zero and then run a report using ActiveData for Office's Stratified Analysis function.
C) Extract records from the General Ledger table where the Debit field is less than zero and then run a report using ActiveData for Office's Stratified Analysis function.
D) Tag records in the General Ledger table where the Debit field is greater than zero and then run a report using ActiveData for Office's Stratified Analysis function on the tagged records.

#2 The Gap Analysis function can show where there are missing values as well as look for duplicate values:

A) True
B) False

#3 To locate Journal Entries made after year end:

A) Run a Query by Formula using the PostDate field to look for dates after the year end date.
B) Create a calculated column that enters a value for the difference between the PostDate field and the year end date and then sort the records in descending order to view positive values.
C) All of the above

#4 When ActiveData for Office creates a Group Summary table it can include a grand total as well as group totals:

A) True
B) False

#5 When summarizing General Ledger records by user accounts, the Group Summary function can group the records by multiple fields as well as sort the records.

A) True
B) False

#6 What are the main reasons for auditing the general ledger using ActiveData for Office:

A) Fraud
B) Efficiency
C) Errors
D) All of the above

Review Answers

#1 To create a stratification report on records that have a debit amount you could:

A) Run a report using ActiveData for Office's Stratified Analysis function on the records in the General Ledger table using the Debit field - *Incorrect (This report would include all zero amounts rather than when there is a debit amount value.)*

B) Extract records from the General Ledger table with a query where the Debits field is greater than zero and then run a report using ActiveData for Office's Stratified Analysis function. – Correct (To stratify based on a filtered set of date, first query the data and then stratify on the query results.)

C) Extract records from the General Ledger table where the Debit field is less than zero and then run a report using ActiveData for Office's Stratified Analysis function – *Incorrect (Negative items in the debit field would be credit amounts which is the opposite of debit amounts for stratification purposes.)*

D) Tag records in the General Ledger table where the Debit field is greater than zero and then run a report using ActiveData for Office's Stratified Analysis function on the tagged records – *Incorrect (ActiveData for Office doesn't have a 'Tag Records' function.*

#2 The Gap Analysis function can show where there are missing values as well as look for duplicate values:

A) True **–** *Incorrect (The Gap Analysis function does not have built-in options to look for missing and duplicate values in a column.)*

B) False– Correct (The Gap Analysis function does not have built-in options to look for missing and duplicate values in a column.)

#3 To locate Journal Entries made after year end:

A) Run a Query by Formula using the PostDate field to look for dates after the year end date – *Incorrect (This is a true statements yet there are more than one correct responses to this question.)*

B) Create a calculated column that enters a value for the difference between the PostDate field and the year end date and then sort the records in descending order to view positive values – *Incorrect (This is a true statements yet there are more than one correct responses to this question.)*

C) All of the above – Correct (Both of the above options will locate journal entries based on the post date looking for entries made after year end.)

#4 When ActiveData for Office creates a Group Summary table it can include a grand total as well as group totals:

A) True – *Incorrect (The Group Summary does not allow for both types of totals.)*

B) False– Correct (The Group Summary function in ActiveData for Office does not provide an options for grand totals.)

#5 When summarizing General Ledger records by user accounts, the Group Summary function can group the records by multiple fields as well as sort the records:

A) True - Correct (The Group Summary function can group or summarize records based on multiple fields then order the output by a single field.)
B) False – *Incorrect (The Group Summary can group and sort records.)*

#6 What are the main reasons for auditing the general ledger using ActiveData for Office:

A) Fraud – *Incorrect (This is a true statements yet there are more than one correct responses to this question.)*
B) Efficiency – *Incorrect (This is a true statements yet there are more than one correct responses to this question.)*
C) Errors – *Incorrect (This is a true statements yet there are more than one correct responses to this question.)*
D) All of the above – Correct (All of the above reasons can be used for auditing the general ledger using ActiveData for Office.)