

## Audit Commander

### Testing for Suspect Duplicate Invoices

#### Audit task in brief

Identify suspect invoices due to various criteria:

1. Split invoices
2. “Near Miss” invoices (similar, but not exact information)

#### Data source(s)

✓ Access

#### Typical Audit Uses

Identification of paid invoices for potential cost recovery. Determine if controls over invoice payment are effective.

#### Description of Output

Each report is a brief summary of the analytical procedure performed. Examples of reports can be seen at [report examples of suspect invoices](#)

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### Form Image

Access DB: C:\Test\MDB\Suspects.mdb

Report File: C:\Test\MDB\Suspects.rep

Table: Suspects

Select column names:

- Date Column: Invoice Date
- Amt Column: Invoice Amount
- InvoiceNo col: Invoice Number
- VendorNo col: Invoice Number

Date range (1-90): 30

Similarity (1-30): 15

Suspect Testing mode:

- Near Miss
- Split Invoices

Criteria

Near Miss Report					
Vendno	Amt	Inv Date	Second Date	Invno	Suspect Ir
2048	458.9	5/27/2008	5/27/2008	2048	0
2090	301.36	5/28/2008	5/28/2008	2090	0
2048	458.9	5/27/2008	5/27/2008	2048	0
2048	458.9	5/27/2008	5/27/2008	2048	0

Exit OK

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#### How to complete the form and run it

The following steps should be used to complete and run the form:

1. Select the name of the Access database containing the data to be tested.
2. A default report file name will be generated, change the name if required
3. Select the table containing the data to be tested from the drop down list
4. Select the column which contains the invoice date to be tested
5. Select the column which contains the invoice amount to be tested
6. Select the column which contains the invoice number to be tested
7. Select the column which contains the vendor number to be tested
8. Specify any criteria to be used to focus the analysis, e.g. Cost > 100 will limit the analysis to just those rows which have a cost variable amount in excess of \$100
9. Click the radio button for the task to be performed, i.e. near miss or split invoices
10. Specify the date tolerance using the slider bar
11. Specify the similarity limit using the slider bar
12. Click the "OK" button to start the analysis.
13. Once all testing has been completed, click the "Exit" button to close the form and return to the main menu.

A little further explanation:

#### **Date Tolerance**

This is an integer amount representing the largest difference in days between two invoices for which further testing will be performed. For example a tolerance amount of 30 days will result in only invoices which are within 30 days of each other being tested. Note that it may be necessary to experiment with the values using the slider bar and running tests to see what (if anything) is identified.

#### **Similarity**

This is an integer amount representing a quantified measure for similarity between two invoice numbers. It is derived based upon the Levenshtein distance as a measure of similarity between invoice numbers. It represents the number of character additions, changes and deletions that would be required in order to make two invoice numbers identical. Note that it may be necessary to experiment with the values using the slider bar and running tests to see what (if anything) is identified.



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#### **Near Miss**

A “near miss” occurs when two invoices, although not identical, are fairly similar. Examples of similarity would include two invoices for the same amount of money, but having a transposition in the invoice number. Another example would be invoices from the same vendor for the same amount with one invoice number the same as another, except for a “suffix”.

#### **Split Invoices**

Split invoices occur when a single invoice amount from a vendor matches as to amount with any two, three or four other invoices from the same vendor. Note that the system does a review of invoices based upon a sliding “window” of 50 invoices. This is due to the CPU time required to look at all possible combinations. Invoices are initially sorted by vendor, invoice date, invoice number and amount. Note that the input data does not need to be sorted (System will sort the data automatically, but will not store it back in the input file). Thus, there is no need to perform any sort of “pre sort”.

#### Example Output

Examples of reports can be seen at  
[http://ezrstats.com/IIA\\_CDRUN/Doc/SuspectInvoices.pdf](http://ezrstats.com/IIA_CDRUN/Doc/SuspectInvoices.pdf)