Data Integrity and Completeness using IDEA

ISACA Accra Chapter’s IT Audit, Information Security and Risks Insights

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21 May 2014
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Overview of CAATs

CAATs- Computer Assisted Audit Techniques/Tools
  - Also know as data-analysis/data mining.

CAATs can be classified into four broad categories:

- Data Analysis Software
- Network Security Evaluation Software/Utilities
- OS and DBMS Security Evaluation Software/Utilities
- Software and Code Testing Tools

IDEA is a Data Analysis software.
Introducing IDEA

IDEA stands for:

Interactive  Data  Extraction  and Analysis

It is a computer-based interrogation tool for use by auditors, accountants, investigators, and IT staff.
Introducing IDEA – Historical Perspective

Created by the Office of the Auditor General for Canada in the mid 80's

Developed commercially by the Canadian Institute of Chartered Accountants.

Currently owned by Caseware International.
### Introducing IDEA - What Can it do?

<table>
<thead>
<tr>
<th>Analysis Task</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Analyzes data</td>
<td>Analyzes data</td>
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<tr>
<td>Allows data extraction</td>
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<tr>
<td>Sampling</td>
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<tr>
<td>Manipulation of data</td>
<td>Manipulation of data</td>
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<tr>
<td>Can read data from almost any source</td>
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</tr>
<tr>
<td>Export data in a multitude of formats</td>
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</tr>
</tbody>
</table>

**Features**:
- Analyzes data
- Allows data extraction
- Sampling
- Manipulation of data
- Can read data from almost any source
- Export data in a multitude of formats
Introducing IDEA - How Can IDEA be Used?

- General use is validating the accuracy and integrity of the data
- Increase your coverage
- Testing validity of items
- Displaying data in different ways
- Generating analysis that would not otherwise be unavailable
- Identifying unusual or strange items

Increase your coverage
Introducing IDEA - Where can IDEA be Used?

- Examine subsets of a population (sample)
- Substantive testing
- Increase or widen the scope of investigation
Introducing IDEA - Features Specific for Consideration

- No limit to the number of records
- Own programming language that is compatible with Visual Basic for Applications (VBA)
- Has a File Explorer
- Can create or download additional options for IDEA
Introducing IDEA - The Stages of Using IDEA

1. Determine if IDEA is appropriate for the audit
2. Consider audit objectives and where IDEA can be used
3. Determine data required and arrange download
4. Use IDEA Functions
5. Review and Housekeeping
Why perform data analysis?

It cannot be ignored

- A good system is useless with bad data ("GIGO")
- Solvency II requirements for data quality in insurance

Enhanced risk management

- Better coverage, up to 100% of population
- Easier to identify unusual or large transactions/items
- Analysis of data from different sources/combining data
- Provides audit trail for review

Specific Benefits

- Reduces less interesting manual review of data
- Analyzes data more quickly and efficiently
- Identifies trends, exceptions and potential areas of concern
- Responds to client expectations or demands
- Efficiencies from reuse
Triggers for data analysis

From the client

• Responds to client expectations or demands
• Required by legislation/regulators
  • Solvency II
  • Anti Bribery & Corruption
• Losses caused by fraud
• Improve business decision making and gain competitive advantage
• Demonstrate good governance or thought leadership (e.g. CA/CM)
• Data cleansing for upload to new systems implementation

Internally within KPMG

• Differentiate our proposition in proposals (e.g. CA/CM)
• Reduce audit costs and achieve efficiencies
• Provide more value-added analysis and insight to maintain client relationship
Introducing IDEA - Import Different File Types

- ASCII (fixed, delimited)
- EBCDIC
- dBASE IV
- Print Report and Adobe PDF Files
- Microsoft Excel and Microsoft Access
- SAP / AIS
- ODBC
- Other (AS400 / XML)
Section 2

Other Products
Other Products

- CaseWare Smart Analyzer
- IDEAServer
- Smart Exporter
- CaseWare Monitor
Case Study – Employee Database Integrity and Completeness Test
Thank you

Presentation by:

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