Getting More from IDEA

James Loughlin – AuditWare Systems Ltd
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Introductions

James Loughlin

- Head of Technical & Training Services
- Joined AuditWare Systems in 2009 as a software trainer and technical consultant,
- Background in data analytics.
- Heads up the Technical and Training areas of AuditWare Systems, steering the changes of direction in CAATS education and services.
- Ardent advocate of Computer Assisted Audit Techniques and Tools, providing varying levels of training and consultancy, as well as speaking at various events on the benefits of audit analytics.
Introductions

AuditWare Systems

• Established in 1987, AuditWare helped to introduce and develop computer assisted audit techniques to the UK and Ireland, and is a national leader in supplying the most powerful data analytics software available, globally.
  ▪ Provided solutions to audit professionals for more than 30 years
  ▪ Trained over 30,000 professionals
  ▪ Consulting team with extensive experience and best practice knowledge
  ▪ Targeted focus on Audit, Tax, Finance, Fraud, Risk and Compliance - Continuous Monitoring.
AuditWare News – New Data Analytics Courses

• Learning to Audit Using Data

• How to Use IDEA to Combat Fraud
AuditWare News – IDEA 11 Release

• Scheduled for UK release in early 2019

• 64 bit only
  ▪ Major infrastructure change that positions IDEA for future performance improvements (speed / volume)

• CloudShare – Cloud Connectivity
  ▪ CloudShare provides auditors a virtualized platform to work, collaborate, and store and access files.
  ▪ User based permissions allows a centralized and shared view of project files.
  ▪ Execute the audit process without having multiple occurrences or individual copies of the same data sources.

ISO 27001 & SOC 2 Type 2 Certified
AuditWare News – Future IDEA 11 Enhancements

• Licencing Enhancements
  ▪ Deployment of an on-premise license manager to manage client licenses
  ▪ Support for more application virtualisation software (Citrix etc)

• Bundle versions of IDEA
  ▪ Internal Audit Edition
  ▪ External Audit Edition

• Ongoing Enhancements
  ▪ Improve performance for 64Bit IDEA
  ▪ Main Grid enhancements to a more modern solution
  ▪ Right click actions
  ▪ @Function improvements
  ▪ Revamping data visualization engine
AuditWare News – Product Strategy

**Integrated Suite**
- Complementary
- Shared data
- Collaborative

**All Auditors**
- Specialist to Generalist
- Scripting to AI

**Multi-Platform**
- Desktop
- Hybrid
- Cloud

**Open Ecosystem**
- Apps / Scripts
- Community
- 3rd Party Inteegrations
AuditWare News – New Product coming soon

• Internal Audit Working Papers
  ▪ For small Internal Audit teams
  ▪ Document management
  ▪ Project management
  ▪ Timetracking
  ▪ Collaboration
  ▪ Reporting
AuditWare News – New Product Coming Soon

• Internal Audit Working Papers
  ▪ Currently testing in our partner network with ‘early adopter’ customers
  ▪ Cloud-based
  ▪ User customisable
  ▪ Industry specific content
  ▪ Integrated with IDEA
IDEA Lab Apps:

- Outliers (Machine Learning – OVSM, LOF, Isolation Forest)
  - Machine Learning (ML)
    - Unsupervised (unlabelled data)
    - Supervised - (labelled data)
    - Reinforced

Pic Credit: Linked IN | Machine Learning vs Deep Learning
IDEA Lab Apps:

- New Apps:
  - Currency Converter
  - Fuzzy Join
  - Python Profiling
  - Range Join
  - Word Find
AuditWare News - New SmartAnalyzer Apps

• Smart Analyzer Financials v2.0
  ▪ New & Improved Tests
  ▪ Data visualisations

• Exceptional Exceptions – Risk based journals analysis
  ▪ Trend Analysis
  ▪ Exception Reports
  ▪ Machine Learning algorithms
  ▪ Advanced dashboards
AuditWare News - New SmartAnalyzer Apps

• CaseWare Audit Solutions (180 Tests):
  ▪ Accounts Payable
  ▪ Expense Controls
  ▪ Fixed Assets
  ▪ General Ledger
  ▪ Inventory Controls
  ▪ Journal Entries
  ▪ Payroll Controls
  ▪ Procurement
  ▪ Travel & Expenses
Expenses Audit – The Basic Plan

1. Clarify client requirements
2. Formulate Audit Objectives
Expense Controls – Data Analytics

• Top Spends by Department
• Top Payees by Department
• Weekend Expense Payments
• Public Holiday Expense Payments
• Expenses with Blank Reference
• Expenses with Unusual References (All numeric or special characters)
• Segregation of Duties Violations
• Backdating of Expenses
• Reversal of Expenses
• Potential Expense Splitting
• Suspicious Key Word Check

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Possible Testing Within This Scenario

**Duplicate Tests**

- Potential Duplicate Expense
  - Same Employee, Same Expense, Same Amount, Same Reference
  - Same Employee, Same Expense, Same Date, Same Amount
  - Different Employee, Same Expense, Same Date, Same Amount
- Expenses with Same Description (Same description, different expense code)

**Trend Analysis**

- Trend Analysis of Expense Amounts
- ABC-Pareto Analysis of Expenses
- Expense Payment Amount Relative Size Factor Test
Expenses Audit – The Basic Plan

1. Clarify client requirements
2. Formulate Audit Objectives
3. Ascertain the data you require
Expense Controls – Data Requests

- Expenses System Transaction Number
- Employee ID/Payee ID
- Employee/Payee Name
- Expense Account Code
- Expense Account Description
- Expense Cost Centre Code
- Expense Reference/Memo/Narration
- Expense Entry Date
- Expense Posting Date
- Expense Amount
- Expense Department
- Expense Location
Expenses Audit – The Basic Plan

1. Clarify client requirements
2. Formulate Audit Objectives
3. Ascertain the data you require
4. Discuss processes with owner of credit card reconciliations and Accounts Payable
5. Refine data requirements
6. Get the data and verify that it is what you requested
7. Analyze data and produce report for client
Expense Controls – Data Analytics

Expenses with Blank Reference

Overview
• Gaining insights into payments to any Payee where the reference/memo field is blank.

Impact
• Red flag indicator for suspect expenditures.

Method in IDEA
• Direct extraction of all payments where the reference field is blank.
Segregation of Duties Violations

Overview

• Identify expenses where the user entering the expense on the expenses system is the same as the expense approver.

Impact

• Red flag indicator for fictitious expenses.

Method in IDEA

• Direct Extraction to isolate all expenses where the Created By user and approver are the same.
Expense Controls – Data Analytics

Top Spends by Department

Overview
- Gaining insights into top expense accounts with sum of amounts spent for each department.

Impact
- Target sampling for high-confidence/materiality of expenses per department.

Method in IDEA
- Summarization with fields to summarize being department, expense code, expense description and fields to total being amount.
- Top Records Extraction on sum of amounts with fields to group being the department.
Expense Controls – Data Analytics

Weekend Expense Payments

Overview

• Expenses incurred on Saturday or Sunday.

Impact

• Red flag indicator for suspect expenses.

Method in IDEA

• Direct Extraction to isolate all expenses made on a Saturday or Sunday.
  • @Workday(EXPENSE_DATE) == 0
Expense Controls – Data Analytics

Public Holiday Expense Payments

Overview

• Expenses incurred on Public Holidays.

Impact

• Red flag indicator for suspect expenses.

Method in IDEA

• Direct Extraction to isolate all expenses made on public holidays which can then be defined by the user
  ▪ EXPENSE_DATE == "20140101" .OR. EXPENSE_DATE == "20140418" .OR.EXPENSE_DATE == "20140421"
    .OR.EXPENSE_DATE == "20140505" .OR.EXPENSE_DATE == "20140526" .OR.EXPENSE_DATE == "20140825"
    .OR.EXPENSE_DATE == "20141225" .OR.EXPENSE_DATE == "20141226" .OR. EXPENSE_DATE == "20150101" .OR.
    EXPENSE_DATE == "20150403" .OR.EXPENSE_DATE == "20150125" .OR.EXPENSE_DATE == "20150831" .OR.EXPENSE_DATE == "20151225"
    .OR.EXPENSE_DATE == "20151226" .OR.EXPENSE_DATE == "20151228"
Expense Controls – Data Analytics

Expenses with Unusual References

Overview

• Identifying expense claims with an all numeric, or all special character values in the reference field

Impact

• Red flag indicator for authenticity of expenses.

Method in IDEA

• Create 2 new fields
  ▪ Virtual Character Field (JUST_NUMBERS)
    ▪ @lf(@JustNumbers(REFERENCE_MEMO) > 0, "Y","N")
  ▪ Virtual Character Field (JUST_SPECIAL_CHARACTERS)
    ▪ @lf(@Strip(REFERENCE_MEMO) == "" .AND. REFERENCE_MEMO <> "" ,"Y","N")
  ▪ Direct Extraction - JUST_NUMBERS == “Y” .OR. JUST_SPECIAL_CHARACTERS == “Y”
Expense Controls – Data Analytics

Backdating of Expenses

Overview
• Expenses being booked with backdated effect.

Impact
• Unauthorised adjustments to expense claims through retrospective bookings.

Method in IDEA
• Create a new field
  ▪ Virtual Date Field (NEXT_POSTING_DATE)
  ▪ @GetNextValue("EXPENSE_POSTING_DATE")
• Direct Extraction - EXPENSE_POSTING_DATE > NEXT_POSTING_DATE
Expense Controls – Data Analytics

Expense Codes with Same Description

Overview

• Identify more than one expense code with the same description within the expenses system.

Impact

• Improper expense account code creation control on account of duplication of expense codes within the system.

Method in IDEA

• Summarise by Account Code & Description
• Apply a Fuzzy Duplicate Key Detection Test to the Description Field
Expense Controls – Data Analytics

Potential Duplicate Expense
- Same Employee, Same Expense, Same Amount, Same Reference

Overview
- Identify expense claims that have the same amount having the same reference/memo.

Impact
- Red flag indicator for fictitious expenses.

Method in IDEA
- Direct Extraction to isolate all expenses where the user and approver are the same.
Expense Controls – Data Analytics

Potential Expense Splitting

Overview

• Identify expenses entered by the same expense user in the same week of the year with the same key criteria with a different expense ID.

Impact

• Red flag indicator for circumvention of expense payment sanction limits within the application system.

Method in IDEA

• Create a new field
  ▪ Virtual Numeric Field (WEEK)
  ▪ \#WEEKNUM(EXPENSE_POSTING_DATE,2) – Custom function which can be downloaded from the CaseWare Passport site

• Duplicate Key Exclusion test – Same Expense Account Code, Week, Reference/Memo, Created By and Authorised By, Different Expense ID
Expense Controls – Data Analytics

Expense Payment Amount Relative Size Factor Test

Overview

• Deriving expense amount ratio of highest to next highest spend (i.e. relative size factor) and checking for ratios above ‘x’ percent which can be defined by the user. Users are prompted to enter this percentage at the beginning of the test.

Impact

• Red flag indicator for identifying outliers in expenditures.

Method in IDEA

• Top records extraction to extract the top 2 expense payments based on payment value per Expense Account.

• Create 3 new fields
  ▪ Virtual Character Field (NEXT_EXPENSE_ACCOUNT)
  ▪ @GetNextValue("EXPENSE_ACCOUNT_CODE")
  ▪ Virtual Numeric Field (NEXT_AMOUNT)
  ▪ @GetNextValue("AMOUNT")

• Direct Extraction to extract all records where the next record has the same Expense Account Code (EXPENSE_ACCOUNT_CODE == NEXT_EXPENSE_ACCOUNT_CODE)

• Create a new field
  ▪ Virtual Character Field (RELATIVE_SIZE_FACTOR)
  ▪ AMOUNT/NEXT_AMOUNT * 100
Thank you for your time.

Any Questions?

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