AIS Educator Journal

Volume 7
Number 1
2012

ISSN: 1935-8156

http://www.aisej.com

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Mary Antcliff
KPMG Advisory—Richmond VA

Ryan Doren
KPMG Advisory—Tyson's Corner, VA

Lauren Harris
KPMG Audit — Richmond, VA

David C. Hayes
James Madison University

Author Acknowledgements
This paper has greatly benefited from helpful reviewer and participant comments at the 2011 AIS Educator's Association Conference and from Dana Newman (academic program coordinator, Audimation Services – IDEA Software).

Published by the AIS Educator Association
http://www.aiseducators.com

AIS Educator Journal

Published by the AIS Educator Association

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Volume 7, Number 1
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page 69-73

Mary Antcliff
KPMG Advisory — Richmond VA, mantcliff@kpmg.com, tel. 757-876-2803
Ryan Doren
KPMG Advisory — Tyson's Corner, VA, dorenre@cox.net, tel. 757-291-9809
Lauren Harris
KPMG Audit — Richmond, VA, lharris1228@gmail.com, tel. 757-439-4400
David C. Hayes
James Madison University, hayesdc@jmu.edu, tel. 540-568-3234

ABSTRACT

As audits and financial information become increasingly complex, computer assisted audit techniques (CAATs) can be used to make audits more effective and efficient. Accounting students embarking on their auditing careers may use CAATs software. Having experience with CAATs and specifically Interactive Data Extraction and Analysis (IDEA) software will help set students apart from their peers. The purpose of this article is to provide a case to help students develop a working knowledge of CAATs software.

Keywords
IDEA Software, Instructional Case, Inventory Audit, CAATs

A teaching note and grading rubric are available for use with this case. If you are member of the AIS Educator Association, please go to http://www.aiseducators.com and follow the links for the AIS Educator Journal. If you are not a member of the Association, please contact the author directly at the address provided above to obtain these materials. Please provide a means for verifying your credentials as a faculty member so that we may protect the integrity of the solutions materials.

INTRODUCTION

An increasing number of accounting firms are using computer assisted audit techniques (CAATs) software to assist with audits and fraud investigations. Exposure to CAATs enables accounting students to obtain a competitive advantage over other peer accounting students as they prepare for their future careers. "All of the Big 4 firms have at least one CAATs software package (e.g., ACL, IDEA, etc.) available. CAATs can be used in conducting fraud detection procedures, performing analytical procedures, conducting data queries, as well as performing other auditing applications" (Richardson and Louwers 2010, 553).

This paper presents an instructional case on CAATs, specifically IDEA software.

> "Given that the accounting curriculum seems to expand endlessly, why would an instructor consider adding an audit software package to his or her course? Teaching students the tools of the trade makes them more aware of current practice and therefore more marketable. Accounting students typically get exposure to other technological tools of the trade such as spreadsheets, accounting packages, database software, and online research resources. Incorporating audit software into the curriculum helps complete this toolkit and prepares students for the content of the computer-based Uniform CPA exam" (Weidenmier and Herron 2004, 96).

When the IDEA software was implemented in a college setting, Weidenmier and Herron went on to report that positive feedback was received from the students.

> "Two-thirds of the students in the class (n = 64) agreed or strongly agreed that IDEA contributed to the learning experience by helping them to both understand what audit tests might be done and why audit tests might be done. Fifty-seven percent of the students agreed that they wanted to spend more time using IDEA in this class or other classes" (ibid., 105).

These results show that students realize the benefit they receive from learning IDEA in the classroom. Being able to use CAATs software is a good skill for any accounting student who is considering starting a career in internal audit, private accounting, forensic accounting, or public accounting. Learning IDEA may set students one step ahead of new colleagues on their first day on the job. Even if their future employers do not currently use CAATs software, there is a high probability that students will need to have the skills to utilize CAATs software at some point during their careers.

LEARNING OBJECTIVES

The following learning objectives serve as a guide to provide students with enough working knowledge of IDEA to implement and utilize the software in audits and other investigations desired by clients or their firms. As students become proficient with these skills, other features can be added to increase their ability to analyze data.

1. Students should be able to create and manage a working folder in IDEA.
2. Students should be proficient at importing data into IDEA from various sources, such as Excel and text files.

3. Students should be able to demonstrate how to view, analyze, and manipulate data using the following IDEA features:
    a. Aging Analysis
    b. Benford's Law Analysis
    c. Duplicate Key Detection
    d. Extractions
    e. Field Manipulation
    f. Stratification
    g. Virtual Connection

4. Students should understand how IDEA can be implemented to increase the efficiency and effectiveness of an audit.

IDEA ASSIGNMENT

A small family business called CheeseIt, which sells high quality imported cheese, has requested the help of your accounting firm in reviewing their financial data. The owner, Mr. Macoroni, is concerned about possible fraud. Their current inventory system does not have many controls in place and therefore should be reviewed carefully. Your supervisor has asked you to perform the following tasks in order to assess the reliability of the inventory balance and accuracy of the financial statements. Show your work (screen captures / comments) after each of the following tasks.

1. Use Windows Explorer to create a new folder titled "CheeseIt Inventory Audit." Open the IDEA software and set the working folder to the folder that you just created. Name the project "CheeseIt Inventory Audit" and set the period as "1/1/20XX - 12/31/20XX." Where "XX" is the current year. Take a screen capture showing the naming of the project and setting the audit period (only one screen shot needed).

2. Upon request, the client has provided you with two files relating to inventory. One file contains purchasing information and the other file contains receiving information. Import the Excel Purchase Orders.xlsx and Receiving.txt (using the Print Report and Adobe PDF Option) data. Once the data is imported, link the two databases using the Visual Connector. Take a screen capture of linking the two databases together. Name this new database "Complete Purchase Info."

3. Using the Complete Purchase Info database, insert a new calculated field that shows the total invoice amount with two decimals. The new Field Name should be INVOICE_AMOUNT. Move this column to the right of PRICE_PER_UNIT. Take a screen capture of the data showing the quantity received, the price per unit and the invoice amount for the first five transactions.

4. From the Complete Purchase Order Info database, extract only the transactions where the inventory should be included on our financial statements: Mr. Macoroni has informed us that all the purchases are with the shipping terms of FOB destination. Name the new database "20XX Purchases." Calculate a control total on the INVOICE_AMOUNT. Take a screenshot of the Properties tab reflecting the correct inventory control total. Comment on your findings.

5. Show the earliest and latest date received and the average invoice amount. Ensure that these results are displayed at the top of your data. Hint: Don't use "Field Statistics." Take a screen capture of the results and include the first five rows of data—make sure that the columns INVOICE_AMOUNT and DATE_RECEIVED are displayed.

6. One task your supervisor has assigned to you is to verify that there is only one unique invoice for every purchase order. Perform the task in IDEA that would allow you to determine this, and take a screen capture of your results. Comment on your findings.

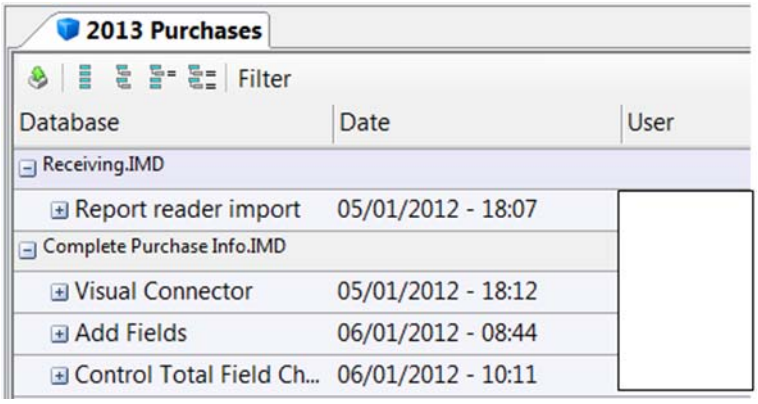
7. Mr. Macaroni is interested in knowing the age of his inventory received in the month of November. Using an aging date of 12/01/20XX, generate an aging schedule using increments of 5, 10, 15, 20, 25, and 30 days. Take a screen capture of the results assuming none of the November purchases have been sold and all the types of cheese last 30 days. Comment on your findings.

8. Any Invoice Amount over $145.00 requires authorization by Mr. Macaroni. Use Bedford's Law analysis to identify transactions that are right below the threshold. Take a screen capture of the results. Should Mr. Macaroni be worried that purchasing agents are making purchases just below the threshold? Comment on your findings.

9. CheeseIt's company policy states that purchasing agents should only acquire cheese if the price per unit is between 16 and 19 dollars. Complete a stratification to determine whether this policy is being followed. Comment on your findings.

10. Mr. Macaroni has indicated that Amanda Johnson was on maternity leave during the month of June. Your supervisor has requested that you complete an extraction to ensure that there were no purchases made under her account during that month. Comment on your findings.

11. Provide an audit trail by taking a screen capture of the history of your work and make sure to include the **User** information. You may collapse the report to show the summary of your steps: a small illustration is provided.



Do not delete the IDEA data files in the event that additional information is needed later.

Print out the above questions and answer and turn them in or submit it to blackboard.

CONCLUSION

IDEA software is a valuable tool for many professionals in the accounting field, whether in public or private accounting. The increasingly large and complex nature of financial information provides the opportunity for students to set themselves apart from their peers by being able to utilize the data analysis tools provided by CAATs software. Providing accounting students the opportunity to learn IDEA software before entering the workforce will allow them more opportunities to exemplify their high academic and practical knowledge in their future careers.

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