

So Much Data – So Little Time

By David C. Hayes and James E. Hunton

In today's high-tech world, accountants are being called upon to do more than just create financial statements, they are also being asked to perform rigorous analyses on mountains of data comprising both financial and non-financial information. Without the appropriate data analysis tools, accountants can easily become overwhelmed. Aspiring and practicing accountants need to be aware of technological tools that can assist them in becoming more proficient at performing such analyses. One category of technological tools is known as "Computer Assisted Audit Tools and Techniques" (CAATTs).

Knowing how to make CAATTs work for you is a valuable skill indeed—a skill that you can and should acquire in college before entering the workforce. CAATTs are used in a wide array of accounting settings. For instance, CAATTs are frequently used by financial statement auditors and fraud investigators. Auditors can utilize the *organize* function to arrange data into meaningful tables and charts, both with drill-down capabilities. They can also use *sort* and *stratify* features to transform data into meaningful information for general analysis. Fraud investigators might use the *duplicate identification feature* to uncover potential fraud schemes that employ duplicate payments to vendors or employees. Another feature commonly used to detect fraud involves *Benford's Law*. This law proposes that under certain circumstances some numbers have a higher likelihood of being present than other numbers. By analyzing actual levels of data occurrences versus expected levels of occurrences, investigators can direct their procedures into areas that statistically seem more likely to contain fraud.

With recent passage of the Sarbanes-Oxley Act of 2002, many firms are heightening their awareness regarding internal control and compliance policies. CAATTs software can be especially helpful in the area of compliance, as the functionality of CAATTs can be used to test and validate the quality of corporate data and related financial statements. For example, internal auditors and corporate accountants might use CAATT's to identify exceptions to internal control procedures. At this point, management can take the necessary actions to ensure that the controls are functioning as prescribed. CAATTs software can be particularly useful in situations where unscrupulous acts or non-compliant behaviors might be buried under massive volumes of corporate transactions.

The AICPA has been pushing for firms to publish financial information on the internet using eXtensible Business Reporting Language (XBRL). Publishing such information on the Web can greatly facilitate investors and other stakeholders in their efforts to collect and analyze data in electronic format, thus helping to reduce data entry errors and speed up information availability. Some CAATTs software vendors recognize and support the movement toward online data availability by incorporating an *import* feature for data marked by XBRL tags. As a result, companies can utilize CAATTs to benchmark their performance against similar firms within the same industry. Additionally, individuals can use CAATTs to extract and analyze a firm's information for investment purposes.

Last, but not least, some of the CAATTs vendors offer add-on applications to examine possible computer security breaches (e.g., Caseware's Examiner). This optional component allows users to examine security and other log files for deviations from corporate policy or other inappropriate computer usages.

Summary

Whether you are involved with data manipulation, information presentation, fraud investigation, compliance examination, security inspection or budget variation, CAATTs represent powerful analytical tools that can help you sift through mountains of data in an efficient and effective manner. If your accounting information systems or auditing courses do not already include the use of CAATTs, please ask your instructors if they might incorporate CAATTs in current and future courses. You need an 'edge' in today's competitive accounting world and knowing how to use one of the CAATTs software packages can provide you with a new valuable tool to place in your growing accounting toolbox.

Remember, if the CAATTs away, the mice might come out to play on your computer system in your corporate sandbox! For more in-depth information on various data analysis tools, other possible uses, system requirements and client testimonials, visit the websites of two of the more common CAATTs packages (*Idea* and *ACL*): Their website addresses are:

Caseware's *Idea* - <http://www.caseware-idea.com>

ACL - <http://www.acl.com/>

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