

Get Spreadsheets Under Control

Without careful scrutiny, spreadsheets can contribute to financial reporting misstatements.

BY ALYSSA G. MARTIN

IN AUGUST 2003, JASON BROWN, the former vice president of finance for HealthSouth Corp., pleaded guilty to fraud and admitted he had prepared a false spreadsheet for auditors. Thirteen other former executives entered into plea agreements. Prosecutors alleged that HealthSouth, a Birmingham, Ala.-based provider of health-care services, had inflated earnings by at least US \$3.5 billion.

Two months later, Fannie Mae, the largest U.S. financier of home mortgages, announced it had made a US \$1.2 billion error in calculating its third-quarter earnings. A Fannie Mae statement attributed the error to "honest mistakes made in a spreadsheet used in the implementation of a new accounting standard."

The HealthSouth and Fannie Mae cases illustrate the dangers of not applying appropriate scrutiny to the development of spreadsheets and the calculations they make. The reporting scandals of the past five years and the magnitude of Section 404 of the U.S. Sarbanes-Oxley Act of 2002 are forcing companies to address and mitigate the risks that accompany heavy reliance on spreadsheets and other information technology (IT). Application controls, data integrity, system reliability and security, and other IT concerns have become financial reporting issues that must be addressed now. Developing an effective controls framework and mitigating risk requires recognizing and understanding the potential risks associated with spreadsheet use.

Those risks include incorrect calculations caused by formulas or links that aren't updated from other spreadsheets, as well as errors attributed to hasty data entry. Internal auditors must know which spreadsheets contribute to financial reporting processes and monitor the development

of any new spreadsheets used for those purposes. Ongoing responsibilities include monitoring the controls surrounding spreadsheets and ensuring that access controls are in place.

A LACK OF CONTROLS

Spreadsheet software applications provide individuals myriad ways of designing spreadsheets for decision-making, financial reporting, and general logging and tracking of information. User-friendly features allow individuals with varying degrees of computing proficiency and accounting acumen to devise their own macros and formulas for financial analysis. However, spreadsheet programs lack the embedded logic and data controls found in other financial applications that help prevent errors and discrepancies during the financial reporting process. Such mistakes can go undetected in manual spreadsheet reviews. Once in an IT network, a spreadsheet can be altered inadvertently or intentionally to produce inaccurate results.

Macro use presents such possibilities for error. The macro function enables users to assemble and record a series of tasks or commands as a single step that can be activated with a mouse click or keyboard shortcut. Well-designed and correctly used, macros can save considerable time and reduce entry mistakes; however, if macros are poorly developed or applied inappropriately, they can produce inaccurate results. Entering a formula for cell calculations incorrectly will likewise generate errors.

Another popular spreadsheet capability, linking, allows users to embed data into a spreadsheet from another spreadsheet or other application file. Although visible in the spreadsheet, the linked data remains attached to its source file. While such data is usually updated or modified

from the source file, it can also be changed in any of the spreadsheets to which it is linked. Ideally, links automatically update all spreadsheets connected to that source file when changes are made to it. However, links can break, preventing all spreadsheets from being updated correctly. Links also can enable incorrect data to spread quickly across multiple spreadsheets.

Collaborating and consolidating data from so many disparate spreadsheets and users presents further complications. A 2005 international survey by IT research firm Ventana Research found that only 27 percent of large companies that rely heavily on spreadsheets could close their books at the end of the month within four days. The study cited spreadsheet errors as a major cause of delays.

In response, some organizations have turned to enterprise content management and enterprise rights management applications to automatically limit access to spreadsheet files or functions, track changes and modifications, and implement other means of spreadsheet control. Nearly one-third of the Ventana

survey participants cited such automated processes as means of reducing errors and shortening consolidation and closing cycles.

SETTING THE PARAMETERS

The extent to which organizations apply manual or automated processes may vary, but internal auditors need to assess their organizations' current use of spreadsheets to determine the levels of risk they pose and the controls needed to mitigate those risks. That assessment begins by conducting an inventory of all spreadsheets in use in each department. Spreadsheets that directly support journal entry, general ledger, and financial reporting processes also merit attention.

Auditors should also pay close attention to spreadsheets used on a weekly basis, because they typically pertain to significant financial reporting activities and are updated frequently. Spreadsheets that accumulate data that is used for more than one year are another concern; errors made during or shortly after their creation can affect the integrity of all subsequent entries.

Complexity is another crucial factor in determining control levels. Spreadsheets used for massive calculations, valuations, and modeling are quite complex and typically deploy macros and links. Those spreadsheets present the greatest risks for error, fraud, and ensuing misstatements on financial reports. In addition to regular internal testing and reviews, such spreadsheets are most likely to be selected for review by the external auditor. Spreadsheets that support significant accounts that could impact financial reporting activities also merit particular attention.

The approach described here follows guidance offered by the U.S. Public Company Accounting Oversight Board (PCAOB) and the U.S. Securities and Exchange Commission (SEC) in May 2005 that advised corporations and external auditors to deploy a top-down, risk-based approach in developing and testing the internal financial reporting controls required for Sarbanes-Oxley Section 404 compliance.

REDUCING ERRORS

Although Sarbanes-Oxley compliance is an ongoing commitment, implementing

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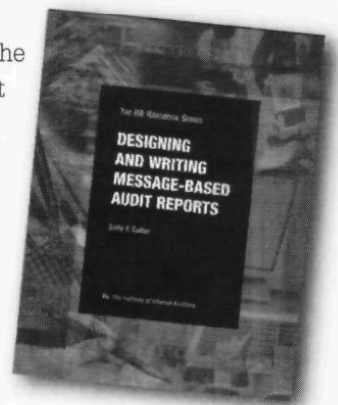
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preventive measures that reduce the potential for errors can make the effort easier. One of those measures is determining whether or not some processes and purposes could be addressed through other applications such as enterprise resource planning systems, thereby reducing the number of spreadsheets in use. These enterprisewide applications may be better equipped for handling and controlling some functions. Even so, spreadsheets enjoy immense popularity among individual users, and migrating completely to other applications may not be practical or cost-effective. Alternatively, organizations could consolidate spreadsheet data into databases that are managed by the IT department and are subject to access and general computer controls that can prevent changes to data.

Establishing purposes, accountability, and other standards for remaining spreadsheets further reduces complexity and errors. Each spreadsheet needs to support a stated business purpose or objective. Responsibilities for spreadsheet creation, access, and changes should be established, and someone within the

finance department must attest to a spreadsheet's accuracy, with periodic monitoring by the internal auditor.

Developing file name standards or conventions can reduce confusion caused by multiple spreadsheet versions or vague file titles. File standard items include purpose, title, and the date and time of modification. Organizations also need standards governing spreadsheet layout and data input to promote consistent development practices that can make spreadsheets easier to reconcile, review, and test. The layout should have distinct areas for data input, workings/calculation, and output. Variables, assumptions, and flexible inputs should be apart from those areas.

Users who create spreadsheets also need training to identify and correct errors at an early stage. Training may also include instruction on using the software's built-in error-detection features.

Implementing such control measures reduces the opportunities for error at the user or desktop level and lessens the chances of an inaccurate spreadsheet being accessed or modified at the network level. Internal auditors should also

test existing spreadsheets periodically to ensure accuracy.

TAKING PROTECTIVE MEASURES

Both well-intentioned people and those interested in committing fraud can wreak havoc by inappropriately accessing spreadsheets and altering data. For that reason, "lock-down" measures are needed, such as password-protecting spreadsheets to prevent unauthorized access and using application controls to hide cell data or prevent changes to formulas.

An option that offers further protection is converting high-risk spreadsheets into server-based applications that provide automated control measures such as restricting access based on password and limiting activity for individual users. Server-based applications also can automatically document all access and modifications.

Standalone spreadsheets and situations where one person has sole responsibility for overseeing all or most of a spreadsheet's data should be eliminated. Errors or fraudulent activity are more likely to go undetected when only one person has access to crucial information. In addition,



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maintaining secure backup files ensures that crucial financial data will be accessible if IT system problems occur. Significant historical spreadsheets should be archived as "read only" files.

PUTTING SPREADSHEETS TO THE TEST

Although preventive steps may reduce the incidence of errors, internal auditors also need to perform regular spreadsheet tests to verify accuracy, with the frequency determined by the significance of each spreadsheet. To ensure an objective evaluation, the auditor — rather than the spreadsheet's creator — should test the spreadsheet, including any macros and formulas. Spreadsheet results should be checked against printouts that contain only the data, and not the formulas, to prevent the tester from making the same mistakes or assumptions as the spreadsheet.

By documenting all control and compliance efforts, internal auditors establish audit trails that enable management, external auditors, and regulators to attest to an organization's financial statements. Following the organization's IT change management process, a spreadsheet's purpose,

developer, creation date, and all modifications — including changes to formulas and macros — should be documented throughout its life cycle, along with the reasons for those modifications. All tests and control activities also should be documented. The overall control framework should be described, including any control gaps or weaknesses that were identified and the steps that were taken to remedy them.

Internal auditors should own this monitoring process, which should begin at the time each spreadsheet is created for financial reporting purposes and encompass user training, overseeing access modification controls, periodic testing, and documenting the effectiveness of all controls. Collectively, these efforts reduce complexity and promote data integrity and security.

MORE THAN A COMPLIANCE TOOL

Over time, practices implemented to mitigate the risks associated with spreadsheets become routine. For internal auditors, the importance of monitoring controls rises in comparison to assessing risk. Control refinement becomes a higher priority than control implementation.

The benefits of monitoring extend beyond continually meeting financial reporting requirements. Adhering to internal controls prompts spreadsheet creators and users to apply greater diligence in detecting errors. Reducing spreadsheet complexity makes it easier for people to collaborate and consolidate data, allowing them to close financial reports faster and improving their accuracy. The resulting spreadsheets can help management make better-informed decisions and heighten confidence in the organization among investors and other stakeholders.

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