

Patch-Worked Applications & Spreadsheets ...

Turning Turmoil into Opportunity

Time to get out of spreadsheets and into Controlled Business Decisions. In this article **MICHAEL SCHWARTZ & HARRY RAPP** focus on the exposure an organisation faces that relies on spreadsheets and patch-worked applications for reporting and control. They show how an integrated systems approach cannot only eliminate the problem, but can be a definitive step in recreating your business for a golden future.

WEATHER FORECASTERS CALL the confluence of specific events that together can cause a situation to spiral out of control a 'Perfect Storm'. Fundamental shifts predicted in the energy industry could put just such a strain on your business.

We have all noted the pundits' predictions including:

- 1) A decreasing supply of oil coupled with rising demand in the populous regions of India and China, causing a long-term fundamental shift from oil to other fuels; driving prices higher and creating increased volatility.
- 2) External market forces such as growing instability in parts of the world and more stringent environmental regulations further exaggerating volatility.
- 3) In addition to market forces, the business environment involves increased management complexity caused by more stringent regulations, emphasis on corporate governance, and a concentration on risk reporting and control.

The increases in regulations and corporate governance, in reaction to corporate excesses of the past, have greater visibility into organisational actions and a focus on management accountability as their goal. In addition, although regulations differ by industry and region, they are common in demanding increased controls, promoting risk analysis, and insisting on detailed auditability.

You should be able to answer 'yes' to each of the 'self-test' questions below:

Is there one version of the 'numbers' across divisions, products, and geographies? Are we sure of the integrity of all data input into the system and generated from the system? Do we have the appropriate toolset in place to monitor our operations? Do we adhere routinely to a business process that asserts 'our true financial position'? Is document generation automated for authorisation by top management? Can we ensure accountability by monitoring business changes through a detailed audit trail?

An example of the new regulatory environment is Sarbanes-Oxley in the US. In 2002, the US government tightened the seatbelt on corporate governance requiring real-time evaluation and justification of a firm's financial position and the processes used to determine this position. Compliance with the new rules was designed to put an end to the days of lax control which brought about the demise of firms like Enron. At the heart of this new code of business is the theme, 'Manage your risk or risk your management'. Sarbanes-Oxley puts management on the line, requiring companies and their CEOs/CFOs to be accountable for the integrity of their internal system of control by ensuring that top management personally sign off on their firm's financial position. Sarbanes-Oxley's jurisdiction spans all types of manufacturing, marketing, and retailing companies representing a wide range of commodities from power to grains.

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Opportunity Knocks

We can't control the weather, but we *can* affect our business results with informed decisions and decisive action. For the most forward thinking organisations, this unsettling set of risks presents a golden opportunity to redesign our businesses, and to thrive in this changing world.

To be a winner at this volatile time, business strategies and decision making processes need to adapt rapidly to the evolving market and pressures; the IT infrastructure will need to readily support change, increased transparency, greater controls, and auditability.

A Focus On Corporate Governance

*"Revelations of questionable accounting and trading manoeuvres ... market manipulation in California ... and phony trades and inflated revenue ... have roiled jittery markets ... Optimists say the problems aren't as bad as they appear to be. But others suspect the trading games were widespread in the rush to impress Wall Street. 'There's overall investor disgust with this sector now' says one analyst."*¹

Use Spreadsheets at Your Own Peril

Companies deploy spreadsheets within their organisation for tracking and monitoring operational processes and analytical decision support. While spreadsheet models can have benefits in terms of flexibility and reporting for an individual user, they fall apart when used as an enterprise tool because they are neither designed nor developed with the rigour of application development. Most organisations don't set best practices, procedures,

and standards for models built in spreadsheets. They're not scalable and lack the best practices with respect to control, security, detailed auditing, and performance reporting. Sophisticated models such as 'what-if' scenarios used to support important corporate decisions, are built by people without formal training in application development and lack quality assurance processes to determine the validity of the model.

Mistakes include input errors, logic errors, interface errors, and wrong cell range errors that put decisions and dollars at risk. The greatest cost of spreadsheets might be the implicit cost of poor decisions that are based on faulty data.

"Anecdotal evidence suggests that 20-40% of spreadsheets have errors, but recent audits of 54 spreadsheets found that 49 (or 91%) had errors," according to research by Raymond R. Panko, a professor at the University of Hawaii.

"Our [KPMG] findings are disturbing, but they are not really surprising, as 78% of models had no formal quality assurance to ensure they were built to specified requirements and were fit for purpose."

Amazingly, Patch-Worked Application & Spreadsheet Usage is Still Widespread

Despite the increased focus on corporate governance and the risk of poor decisions based on bad data, a surprising number of participants continue to trade using patch-worked applications and spreadsheets. The use of spreadsheets in the power market was noted in a recent study by Utilipoint: *"Spreadsheets continue to be used extensively across the power marketing business function with 52% of respondents saying that spreadsheet usage was widespread."*

Not only are spreadsheets a roadblock to competing in today's market, but the survey also noted "...every respondent, no matter of what size and complexity, runs multiple different systems" with some using "...16 total applications" to support trading and risk management.

Users waste time and money first keying data into spreadsheets and then re-keying the data, at some future point, into the system of record. Since the link is lost between the spreadsheet and system of record, validating and auditing the data becomes nearly impossible. Indeed, it is unlikely that a trader or market maker would pass an audit; the required accuracy, transparency, controls and audit trail are lost.

If you're lucky the only added cost will be the wasted effort and duplication of staff, but in many cases, there are large losses from either error or fraud:

An energy company took a multi-million dollar charge to earnings after a bidding snafu...computer spreadsheet contained mismatched bids...it was literally a cut-and-paste error in an Excel spreadsheet.

Allied Irish Bank 'Rogue Trader' John Rusnak circumvented the controls that were intended to prevent any such fraud ... spreadsheets were used as one of the vehicles.

Trying to compete in a complex, fast-changing environment, with current regulatory requirements, by using spreadsheets and a patch-work of applications is a formula for disaster.

But if the risks, costs, and problems are clear with the use of spreadsheets and siloed applications, why are they still prevalent in many IT environments? Numerous systems that claim to meet these needs don't understand how users work and consequently, although good for audit and control, are difficult to use and therefore people default back to spreadsheets. Often, if a system is designed to work well for one particular role, it does not offer the ease of use or functionality required by other people in the process. For example, if a system works well for a trader it is often kludgy and difficult for the risk manager and back office staff.

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Next-Generation Systems - Better Decision Support & Control

Although no one can be sure what the future holds, we can be positive that markets will change and the ideal system has to easily support the new requirements. In addition to best-of-breed functionality, the architecture needs to be flexible and adaptable to meet subsequent requirements. It should be standards based, scalable, and offer easy integration and concurrency across a large number of users. The architecture needs to be nimble and agile and provide the necessary controls, checks and balances required by the business.

The good news is that there exist today cross-commodity trading and risk management systems that are designed to profitably manage the complex, ever-changing requirements of physical and financial markets. They integrate front-to-back office and deliver best-of-breed functionality for the supply, trading, marketing and movement of commodities on a single platform. The systems have the full breadth of function to meet specific commodity trading requirements and provide a single, real-time view of supply and delivery, financial risk and market exposure either in a single market or across all commodities and markets. These systems provide the best of both worlds by seamlessly integrating with spreadsheets allowing individuals to use the productivity tools they prefer while ensuring the business system supports the needs of the enterprise.

The right system for your organisation will provide sophisticated decision support tools to win in the market and deliver all the controls required to run your business more effectively ■

FOOTNOTE:

1. *Power Gets Zapped From All Sides*, Business Week, May 2, 2002.

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