

Spreadsheet Compliance 2006:

Straight Talk and Guidance

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Who Is Mobius?

- ▶ Technological innovation since 1981
- ▶ Market leader in software solutions that efficiently and cost-effectively manage *all* digital information from the point of creation, through usage and all the way to disposition
- ▶ Millions of users and nearly 1,400 organizations worldwide... including more than 60% of Fortune 100



The Mobius Advantage

- ▶ “Insurance” for digital enterprise assets
- ▶ Best-in-class scalability and reliability
- ▶ Complete platform, device and format independence
- ▶ Breadth and depth of integrated functionality
 - ▶ Enterprise archive, records and e-mail management
 - ▶ Total content integration
 - ▶ Audit and balancing
 - ▶ Microsoft SharePoint
- ▶ Lowest cost of ownership
- ▶ Lowest risk: 25-year track record

The enterprise archive of record for all digital information

Agenda

- ▶ **Background**
- ▶ **Problems with spreadsheets**
- ▶ **Best Practices**
- ▶ **Automated solutions**
- ▶ **Case study**

Background- the use of spreadsheets

Financial Spreadsheets: Background

- ▶ Common spreadsheet applications
 - ▶ Microsoft Excel®
 - ▶ Lotus 1-2-3®
- ▶ Originally used for simple functions
 - ▶ Logging information
 - ▶ Tracking transactions
 - ▶ Totaling sequences of numbers
- ▶ Evolved into a sophisticated business tool
 - ▶ Financial reporting
 - ▶ Operational decision making
 - ▶ Complex analytical instrument

Spreadsheets are good for what they were intended

- ▶ Spreadsheets were designed to be “analytical scratchpads” not “complex applications”-
 - ▶ Microsoft product manager Brandon Weber, EUSPRIG 06.

Spreadsheet Usage Categories

- ▶ Financial
 - ▶ Determine financial statement transactional amounts or balances
 - ▶ Directly populated into the company's books and records
- ▶ Operational
 - ▶ Tracking of workflow information (e.g., raw material usage, unpaid invoices, open accounts receivable)
 - ▶ Replaces manual records
- ▶ Analytical
 - ▶ Used to support management decision making

Spreadsheets are ubiquitous

The electronic spreadsheet may be ubiquitous—Microsoft estimates there are **400 million users of its Office product worldwide, which includes the now-dominant Excel spreadsheet** along with Word and other desktop applications.

Dan Bricklin co-creator of Visicalc, the first spreadsheet software program

Spreadsheets are the most widely used financial tool in the world!

Where does your company stand on the following technologies?	Use now	Plan	No plans but interested	No interest
Spreadsheets	100%	—	—	—
Basic budgeting, planning forecasting	66%	17%	13%	4%
ERP (finance modules)	34%	14%	26%	27%
E-payments, E-billing	34%	18%	34%	15%
Treasury systems	29%	8%	29%	34%
Tax systems	25%	10%	27%	38%
E-procurement	19%	19%	37%	25%
Portals (finance-oriented)	13%	16%	37%	34%
Dashboards	13%	19%	31%	37%
Compliance software	11%	15%	35%	40%
Risk-management software	10%	5%	45%	40%
Advanced BI, CPM, BPM	8%	20%	50%	22%
Enterprise spend management	6%	6%	36%	53%
Price-optimization software	6%	7%	31%	57%
Note: Percentage may not total 100, due to rounding.				

<http://www.cfo.com>

How do you rate electronic spreadsheets in the following areas?

	Excellent	Good	Neutral	Fair	Poor
Accuracy	51%	37%	7%	4%	2%
Ease of use	50%	44%	6%	0%	1%
Capabilities/power	46%	49%	5%	1%	0%
Labor saving potential	29%	47%	13%	9%	3%
Integration with other systems	10%	46%	23%	15%	7%

Problems with spreadsheets

Problems with spreadsheets

Errors

Fraud

Unauthorized users

Versioning

Worse case scenarios

Polling Question #1

- ▶ What percentage of all spreadsheets (in general) do you think contain errors?
 - ▶ 0 – 25%
 - ▶ 25 - 50%
 - ▶ 50 - 75%
 - ▶ 75 – 100%

Problems with Spreadsheets

- ▶ Studies point to the notion that the majority of business spreadsheets contain user errors
 - ▶ One study indicated that 20%-40% of spreadsheets contain errors
 - ▶ Another study found that 30%-90% of all spreadsheets suffer at least one major user error
- ▶ The more sophisticated and complex the spreadsheet usage, the more susceptible the spreadsheet is to errors
 - ▶ Studies suggest that the probability rates of error are as high as 100% in spreadsheets containing more than 200 lines of data

Spreadsheet Risk Indicators

- ▶ Complex spreadsheet with multifarious calculations
- ▶ Large number of possible input, logic and interface errors
- ▶ Numerous spreadsheets/worksheets
- ▶ Numerous spreadsheet users
- ▶ Inadequate or missing spreadsheet documentation
- ▶ Spreadsheet used for critical business decision making
- ▶ Frequent and/or extensive spreadsheet changes or modifications
- ▶ Spreadsheet with large amounts of data

Common Spreadsheet Errors

- ▶ Input errors
 - ▶ Flawed data entry
 - ▶ Inaccurate cell referencing
 - ▶ “Cut-and-paste” errors
- ▶ Logic errors
 - ▶ Incorrect formulas
- ▶ Interface errors
 - ▶ Faulty import/export of data
- ▶ Other errors
 - ▶ Improperly linked spreadsheets
 - ▶ Erroneous cell ranges

Spreadsheet Errors: examples

A \$400M insurance company disclosed that its earnings statements for the first six months of this year contained an error and investors should not rely on them.... ***But in calculating the amortization for the first and second quarters of this year, the company put the wrong year in the spreadsheet used to calculate amortization***

- ▶ A ***spreadsheet error*** at Fidelity's Magellan fund was deemed a significant factor in a ***\$1 billion financial statement error*** in the classification of securities. The error resulted from a flawed change control ***process—an unapproved change to a formula within the spreadsheet*** and other control deficiencies, including lack of technical and user documentation, insufficient testing and inadequate backup and recovery procedures.

Problems with spreadsheets: fraud

Spreadsheet Fraud

- ▶ Spreadsheets easy to manipulate and directly affect financial reporting
- ▶ Characteristics make them easy target for employees wishing to conduct fraudulent activities
- ▶ Risk of unauthorized changes being made that are not logged or reviewed by management



Fraud: an example

- ▶ A trader at a bank was able to perpetrate ***fraud through manipulation of spreadsheet models*** used by the bank's risk control staff. ...instead a spreadsheet was relied upon that obtained information from the trader's personal computer which included figures for transactions that were not real. ***Because of inadequate controls over the spreadsheet, this fraud continued for months***

Source: Price Waterhouse Coopers The Use of Spreadsheets: Considerations for Section 404 of the Sarbanes-Oxley Act July 2004

Problems with spreadsheets: unauthorized users

Unauthorized users

Accidental-

Employees may inadvertently create data or formula errors due to their unfamiliarity with spreadsheets or templates.

Malicious-

Fraud



Problems with spreadsheets: versioning

Spreadsheet Versioning

- ▶ Critical data can be overwritten when updating spreadsheet for new quarter or fiscal year.
- ▶ Multiple spreadsheets creates risk of user editing spreadsheet that is not master copy.
- ▶ Lack of naming conventions may create confusion when preparing or auditing financial reports.
- ▶ Email can create issues of finding the latest most authoritative copy

Problems with spreadsheets: versioning

Spreadsheet Rollups- an example of versioning challenges

Pressure was strong at Mentor Graphics, a \$675 million provider of engineering software. A few years ago, the company's annual **planning process required rolling up data from 1,200 Excel spreadsheets — one for each cost center.**

"On average, it was a six-to-eight-week process each year just to get that worked out."

Roll ups are one important example of error prone risk laden spreadsheet centric processes.

Worse case scenarios: anecdotal evidence

Spreadsheets: Material Weakness

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COMPLIANCE WEEK

Custom Research Department

Material Weaknesses In Internal Control Over Financial Reporting At 400 Sample Companies



These stories illustrate common problems that occur with the uncontrolled use of spreadsheets. We say how we think the problem might have been avoided.

An obvious form of risk avoidance is simply to check your work before sending it out. For important spreadsheets, a second pair of eyes ('peer review') is even better. Where stakes are high, a thorough test and audit is a further defence.

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Worse case scenarios: anecdotal evidence

Spreadsheets: Material Weakness

- ▶ **Modtech Holdings** - “As of September 30, 2005...[we] did not have adequate access, recalculation/control totals and **change management controls** relative to certain EXCEL **spreadsheets**. It was determined that there were no change management or **access controls** in place to prevent an unauthorized modification of the formulas within the **spreadsheets** and no recalculation/control totals to detect unauthorized changes or errors.”
- ▶ **Mittal Steel** - “Deficiencies in policies and procedures associated with a lack of **access controls and security** of certain computer systems, including electronic **spreadsheets** used in the compilation and presentation of the Company’s financial information, which could result in material errors in a significant number of account balances and disclosures due to a lack of **integrity of the data** used in preparing the Company’s consolidated financial statements.”
- ▶ **CanArgo Energy** - “... too much dependence on the use of **spreadsheets** that are not properly protected from **unauthorized access and/or errors in formulas** used...”
[From their 2004 Section 404 findings]
- ▶ **Interpool** - “Security of information technology. The Company’s information systems lacked security policies and procedures, including appropriate encryption and **standard security settings** and lacked system **access controls** over certain **spreadsheets** supporting financial information and other information systems.”
[From their 2004 Section 404 findings]

Eastman Kodak: The Spreadsheet Ate My Homework

November 10th, 2005 | Filed under General, Section 404, Restatement Zoo - by Jack Ciesielski @ 8:07 am

Best Practices

Polling Question #2

- ▶ Do you have controls around your spreadsheets? If so, are they automated or manual?
 - ▶ Automated
 - ▶ Manual
 - ▶ No controls

A Framework for Controlling Spreadsheets

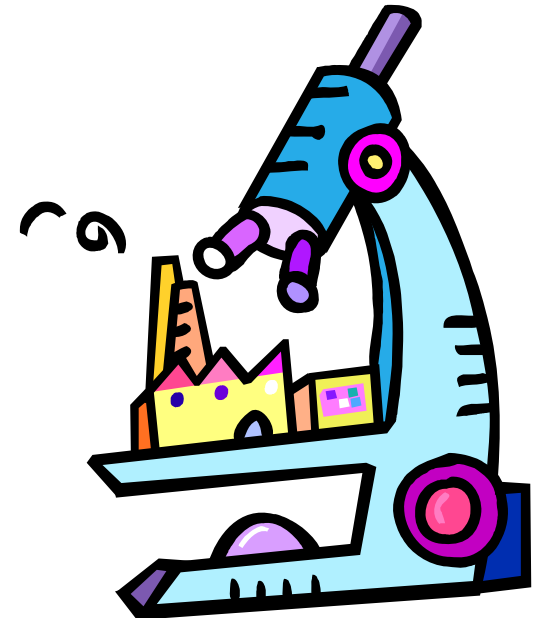
- ▶ Process
 - ▶ Policies and procedures for securing and managing spreadsheet lifecycle
- ▶ Enforcement
 - ▶ A technology platform that enables the systematic enforcement of all policies and procedures
- ▶ Results
 - ▶ A spreadsheet reporting process that meets regulatory, business and legal requirements
 - ▶ Auditable and repeatable
 - ▶ Lowest cost to implement and administer

Business Case

Large or small, Companies require an approach to managing spreadsheets

- ▶ Organizations need to have a well thought out, robust approach to managing and controlling spreadsheets in order to:
 - Help insure compliance
 - Minimize risk
 - Increase efficient and effective operations

*DT, EY, GT, JW, PWC, KPMG,
ITGI etc.*



Best Practices

Approach to Spreadsheet Compliance

- ▶ Inventory, Evaluate Use and Complexity
- ▶ Policies and Procedures
- ▶ Define Necessary Controls
 - Security
 - Change Control
 - Audit Monitoring
 - Retention
- ▶ Automated Solutions- enforcement of controls

Best Practices: Getting Started

- ▶ Determine project scope
- ▶ Define spreadsheet population
- ▶ Document spreadsheet input, logic and interface
- ▶ Review existing control structure and environment
- ▶ Perform risk and complexity assessment of spreadsheets

Best Practice: Spreadsheet inventory exercises

- ▶ Evaluate enterprise spreadsheets for:
 - ▶ Impact on key internal controls
 - ▶ Direct effect on financial statement transactions
 - ▶ Effect on financial disclosure information
- ▶ Evaluate complexity for the selected spreadsheets:
 - ▶ Low complexity: Simple add/subtract formulas
 - ▶ Moderate complexity: Multiplication/division
 - ▶ High complexity: Advanced formulas, macros

Best practices: spreadsheet inventory exercises

Illustrative

- ▶ Documentation for control purposes and risk analysis of external links outside managed systems
- ▶ Documentation for control purposes and risk analysis of macros (use to automate some operations local to a given spreadsheet, use to automate linking to other spreadsheets, use to automate interface to external systems or databases).
- ▶ Analysis and documentation for control purposes of 3rd party system (Oracle Financials, SQL databases, etc.) integrated with, spreadsheets
- ▶ Inventory of directory structures of where spreadsheets are located with a complete inventory of files in each folder.

Best practices: high level controls

- **Security**
- **Change Control**
- **Audit Monitoring**
- **Retention**

Best Practices

Spreadsheet Security — policy

▶ User Access

- Request Forms
 - Determine Managers to approve access
 - Require Help Desk request forms
 - Document access approval in forms
- Segregation of Duties
 - Separate and document responsibilities for view, edit, review, approve



▶ Maintenance

- Notify Help desk of changes with employee
 - New hires, job change, terminations
- Adjust access accordingly

▶ Recertification

- Management review of access rights

Deloitte.

Best Practices

Spreadsheet Security — technology

▶ Centralized Server

- Store spreadsheets on a centralized server
- Implement proper controls on server

▶ Passwords

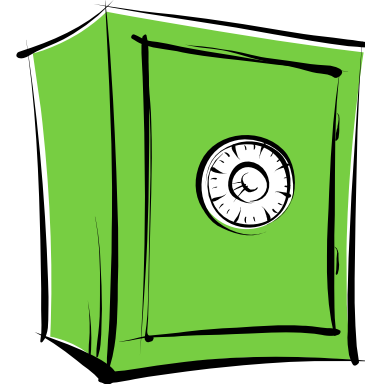
- **Good:** Password protect spreadsheet
 - **NOTE:** Security can be hacked
- **Better:** Operating system directory controls; store spreadsheet in protected directory and use proper read/write controls

▶ Unique Identifiers

- Policy for user ID or passwords

▶ Control User Activities

- Control which spreadsheets can be accessed
- Control actions within each individual spreadsheet



Best Practices

Spreadsheet Change Control — policy

▶ Approval

- Accompany changes with documented approval by independent approver
- High-risk changes include those to spreadsheet formulas or logic

▶ Testing

- Document testing of changes

▶ Logging

- Log changes
- Include name, date, testing method, and description of change
- Have management periodically reconcile operating system “last change date” from the file to the change log to ensure changes are documented

Deloitte.

Best Practices

Spreadsheet Change Control — technology

▶ Templates

- Create templates with formatting, formulas, and logic in place
 - Allows users to simply enter data
 - Reduces risk of error

▶ Cell Protection

- Cells and worksheets on templates that should be set as “Locked”
- Only spreadsheet developers should know passwords to unlock cells

▶ Linking

- Ensures that changes to data source are reflected in spreadsheet
- Links directly to data sources
- Reduces risk of accidental copy and paste errors

Best Practices

Spreadsheet Audit and Monitor

- ▶ Review spreadsheet for errors in formulas, logic, and data
 - Values should be reconciled against system data
- ▶ Logic Inspection Control
 - Maintained independent of user or developer
 - May be covered within a key control
- ▶ Input Control
 - Perform reconciliations of data back to source
 - Ensure accuracy and completeness
- ▶ Other Analytics
 - Detective control to find spreadsheet errors

Best Practices

Spreadsheet Retention and Archiving

▶ **Versioning**

- Create naming convention policy, i.e “Period XX FY200X V1.2”
- Enable check-in and check-out functionality
- Maintain Versions
- Use Version tracking software

▶ **Data Retention Tools**

- Create daily backups and store securely
- Retain spreadsheets in accordance with laws, regulations, and company policy to enable retrieval when needed
- Maintain historical files and logs

Deloitte.

Best practices: reporting and ongoing maintenance

- ▶ Identify training needs
- ▶ Product training
- ▶ Change management issues
- ▶ On-going status results and milestones
- ▶ Management reporting addressing compliance and control testing
- ▶ Develop/publish/update spreadsheet policy and procedures manual

Automated solutions

ABS for Spreadsheet Compliance: an automated solution

Features

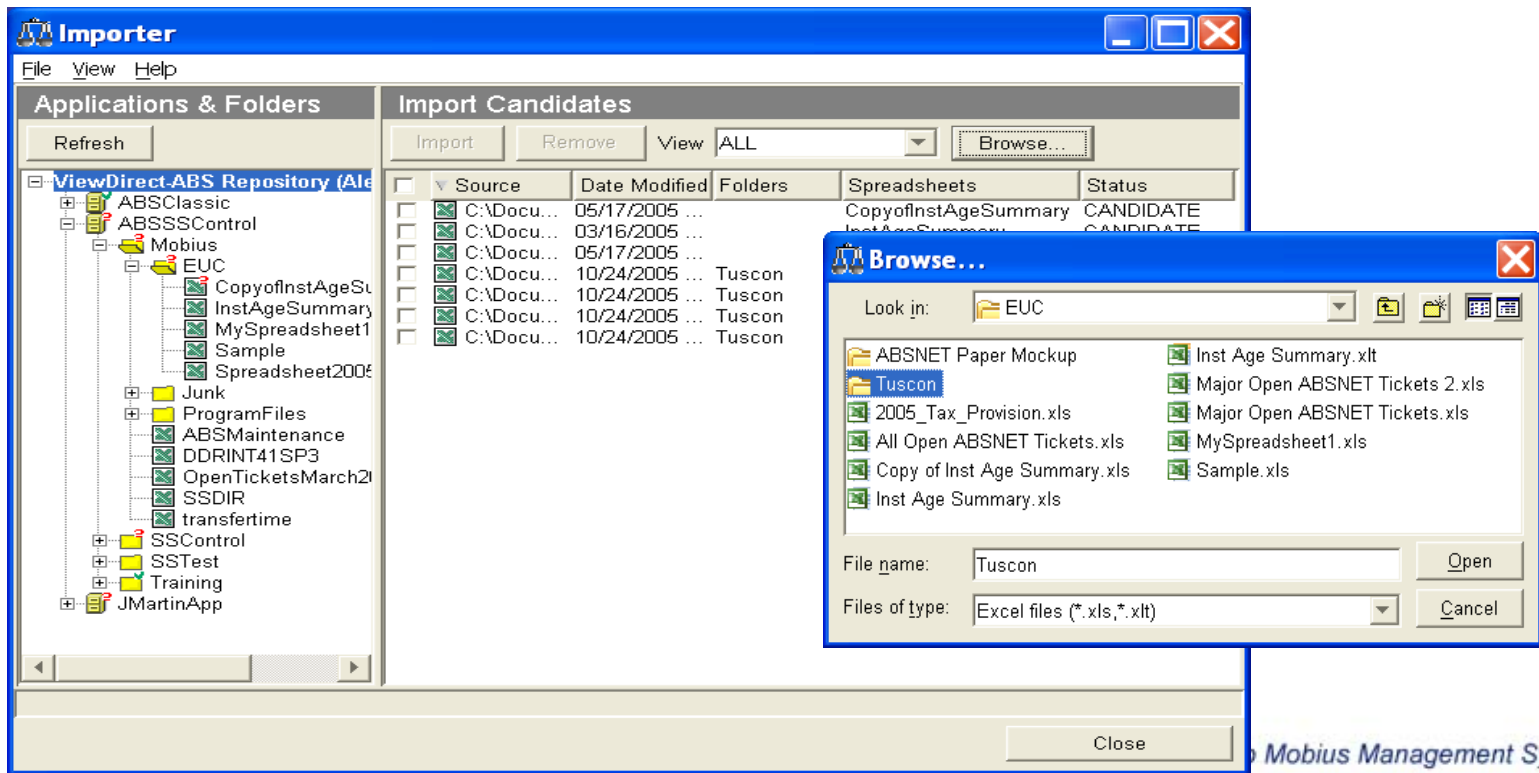
- ▶ Version control and recoverability
- ▶ Consistent updating
- ▶ Access controls
- ▶ Documented process
- ▶ Review and approval
- ▶ Audit trail for all changes

Benefits

- ▶ Enables management to determine which spreadsheets have been reviewed, rejected, or approved, and which are still pending
- ▶ Secures spreadsheets by limiting access to spreadsheet owners and authorized reviewers
- ▶ Maintains audit trail of all changes made to all spreadsheet versions
- ▶ Facilitates documentation of process and controls for SOX compliance
- ▶ Lowest total cost of ownership of any automated solution in the market

Gather Spreadsheets for Audit

- ▶ Imports a single spreadsheet or an entire folder
- ▶ Mirrors original folder structure
- ▶ Provides a secure central repository
- ▶ Provides records retention management for finite or indefinite periods



Version Control and Recoverability

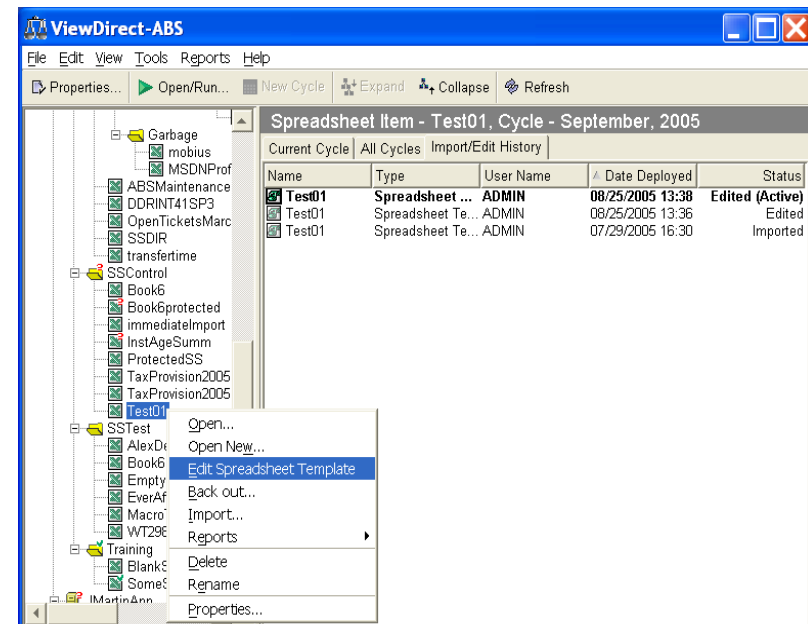
- ▶ Provides check-in and check-out capabilities
- ▶ Enforces usage of the most current and authoritative data
- ▶ Enables long-term access and retrieval in the case of an audit

The screenshot displays the ViewDirect-ABS software interface. On the left, a tree view shows the 'ViewDirect-ABS Repository (ABS)' structure, including 'Annual' and 'Monthly' categories with sub-items like 'AC001', 'SL001', 'TaxProvisions', 'CR001', 'FAS143', 'IN001', and 'SL001'. The right pane shows the 'Spreadsheet Item - AC001_Annual_Expenses, Cycle - 2006' with a table of its history.

Spreadsheet Item - AC001_Annual_Expenses, Cycle - 2006							
Current Cycle		All Cycles	Import/Edit History				
Cycle	Run#	Status	Run Date	Run By	Return Code	Message	Template
2006	5	Pending	09/11/2006 ...	acct_1	Success	Processing ...	AC001_An...
2006	4	Pending	05/03/2006 ...	acct_1	Success	Processing ...	AC001_An...
2006	3	Pending	02/22/2006 ...	acct_2	Success	Processing ...	AC001_An...
2006	2	Pending	02/22/2006 ...	acct_2	Success	Processing ...	AC001_An...
2006	1	Pending	01/03/2006 ...	acct_1	Success	Processing ...	AC001_An...

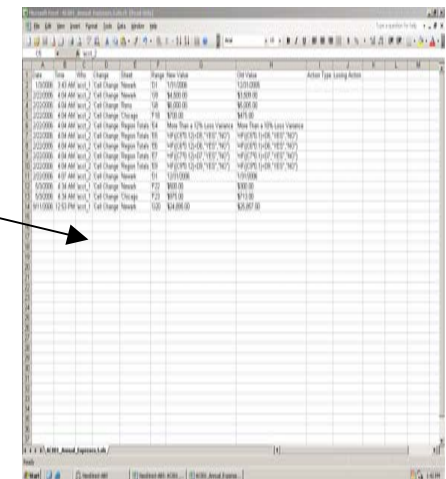
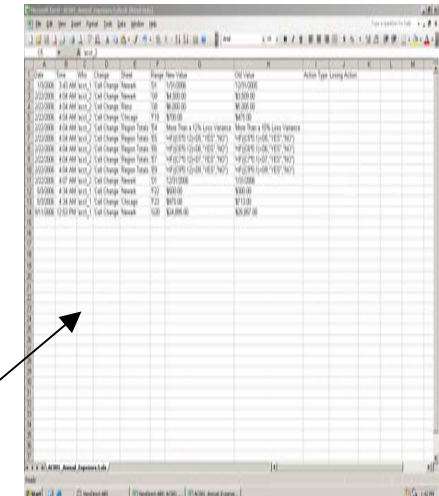
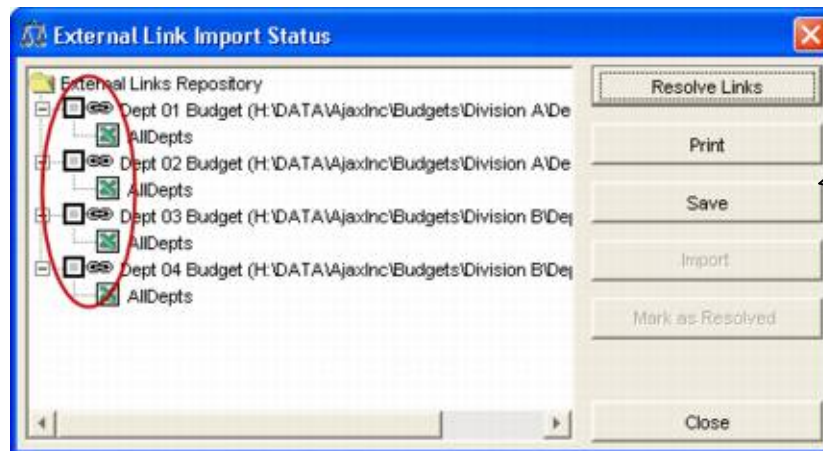
Consistent Updating

- ▶ Creates templates with formatting, formulas, and logic in place
 - ▶ Allows users to simply enter data
 - ▶ Reduces risk of error
- ▶ Locks cells and worksheets that are not to be altered



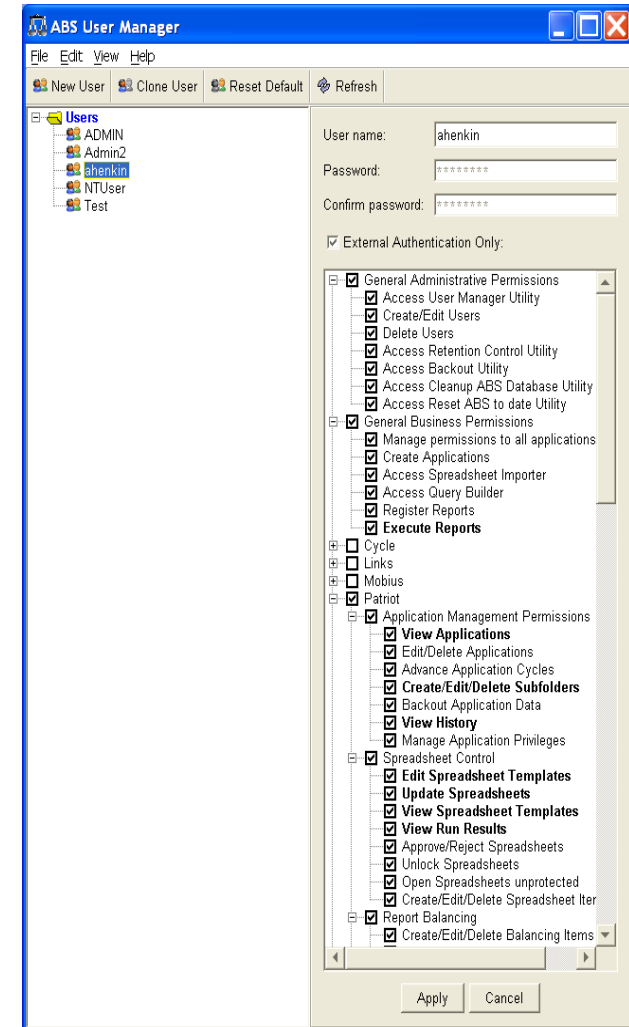
Consistent Updating

- ▶ Ensures rolling up the right text
- ▶ Resolves spreadsheets with links
- ▶ Identifies where data is being updated and enables control



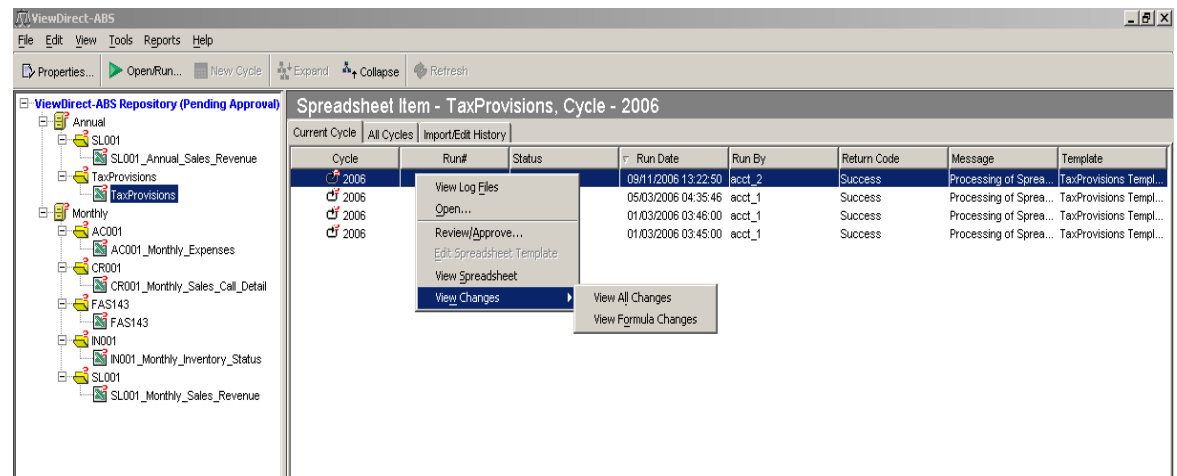
Access Control

- ▶ Addresses the issue of fraud/unauthorized users
- ▶ Provides folder- and document-level security
- ▶ Enforces selective locking of spreadsheet cells
- ▶ Ensures that final/approved spreadsheets are not modified



Review and Approval

- ▶ Enables management to determine which spreadsheets have been reviewed, rejected, or approved, and which are still pending
- ▶ Facilitates documentation of process and controls for SOX compliance
- ▶ Automates key financial close activities such as reconciliation



Review and Approval

- ▶ Provides an electronic record of the approval process with comments and e-signature
- ▶ Enables segregation of duties

[TaxProvisions 2006] Review/Approve

Started at: 09/11/2006 13:12:08 Finished at: 09/11/2006 13:22:50
Return code: 0 Version:
Run#: 4 Cycle: 2006
Message: Processing of Spreadsheet TaxProvisio...
Status: Pending

Review/Approve

Anyone can review this run. Only the designated person should approve or reject it.

Approve Reject Review

Message:

OK
Cancel
View Logs
View All Changes
View Formula Changes

#	Run#	Date	Action	User Name	Message
---	------	------	--------	-----------	---------

Audit Trail for All Changes

- ▶ Maintains an audit trail of all changes made to all spreadsheet versions
- ▶ Isolates formula changes
- ▶ Identifies errors before they become part of the reporting process
- ▶ Uses familiar Excel interface

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Date	Time	Who	Change	Sheet	Range	New Value	Old Value	Action Type	Losing Action			
2	1/31/2006	3:43 AM	'acct_1	'Cell Change	Newark	'D1	1/31/2006	1/231/2005					
3	2/22/2006	4:04 AM	'acct_2	'Cell Change	Newark	'G9	\$4,500.00	\$3,509.00					
4	2/22/2006	4:04 AM	'acct_2	'Cell Change	Reno	'G8	\$6,000.00	\$5,005.00					
5	2/22/2006	4:04 AM	'acct_2	'Cell Change	Chicago	'F18	\$700.00	\$475.00					
6	2/22/2006	4:04 AM	'acct_2	'Cell Change	Region Totals	'E4	'More Than a 12% Loss Variance	'More Than a 10% Loss Variance					
7	2/22/2006	4:04 AM	'acct_2	'Cell Change	Region Totals	'E5	=IF((C5*0.12)<D5,"YES","NO")	=IF((C5*0.1)<D5,"YES","NO")					
8	2/22/2006	4:04 AM	'acct_2	'Cell Change	Region Totals	'E6	=IF((C6*0.12)<D6,"YES","NO")	=IF((C6*0.1)<D6,"YES","NO")					
9	2/22/2006	4:04 AM	'acct_2	'Cell Change	Region Totals	'E7	=IF((C7*0.12)<D7,"YES","NO")	=IF((C7*0.1)<D7,"YES","NO")					
10	2/22/2006	4:04 AM	'acct_2	'Cell Change	Region Totals	'E9	=IF((C9*0.12)<D9,"YES","NO")	=IF((C9*0.1)<D9,"YES","NO")					
11	2/22/2006	4:07 AM	'acct_2	'Cell Change	Newark	'D1	12/31/2006	1/31/2006					
12	5/3/2006	4:34 AM	'acct_1	'Cell Change	Newark	'F22	\$500.00	\$300.00					
13	5/3/2006	4:34 AM	'acct_1	'Cell Change	Chicago	'F23	\$975.00	\$713.00					
14	9/11/2006	12:53 PM	'acct_1	'Cell Change	Newark	'G20	\$24,895.00	\$25,857.00					
15													
16													
17													
18													
19													
20													
21													

Audit Trail for All Changes

- ▶ Produces a report for all system activities, access patterns and user behavior
- ▶ Facilitates fraud detection

The screenshot displays a 'System Audit Log. All operations.' report generated by Crystal Reports. The report is titled '(by application Annual)' and contains a table with the following data:

Date	User Name	Net Login	Workstation	Operation	Object	Name	Status	Message
9/11/2006 2:03:37PM	controller	Administrator	abs	Pending run approved	Run	4 [BI - TaxProvisions, Cycle - 20060101]	success	Processing of Spreadsheet TaxProvisions comple
9/11/2006 1:49:15PM	controller	Administrator	abs	Pending run approved	Run	5 [BI - AC001_Annual_Expense, Cycle - 20060101]	success	Processing of Spreadsheet AC001_Annual_Expense completed.
9/11/2006 1:12:08PM	acct_2	Administrator	abs	Register	Run	4 [BI - TaxProvisions, Cycle - 20060101]	success	Registering Run 4
9/11/2006 12:39:19PM	acct_1	Administrator	abs	Register	Run	5 [BI - AC001_Annual_Expense, Cycle - 20060101]	success	Registering Run 5
9/11/2006 12:31:51PM	acct_1	Administrator	abs	Register	Run	5 [BI - AC001_Annual_Expense, Cycle - 20060101]	success	Registering Run 5
5/3/2006 4:35:12AM	acct_1	gholmes	WXFGHOLMES-D610	Register	Run	3 [BI - TaxProvisions, Cycle - 20060101]	success	Registering Run 3
5/3/2006 4:34:24AM	acct_1	gholmes	WXFGHOLMES-D610	Register	Run	3 [BI - SLO01_Annual_Sales_Revenue, Cycle -	success	Registering Run 3
5/3/2006 4:33:48AM	acct_1	gholmes	WXFGHOLMES-D610	Register	Run	4 [BI - AC001_Annual_Expense, Cycle - 20060101]	success	Registering Run 4
2/22/2006 4:06:46A	acct_2	gholmes	WXFGHOLMES-D610	Register	Run	3 [BI - AC001_Annual_Expense, Cycle - 20060101]	success	Registering Run 3
2/22/2006 4:05:13A	acct_2	gholmes	WXFGHOLMES-D610	Register	Run	2 [BI -	success	Registering Run 2

Case Study: Mobius Management Systems Inc.

Mobius took stock of its spreadsheets, looking at quantity, complexity and other factors.

- ▶ Our spreadsheet environment
 - ▶ All spreadsheets used by Finance and Administration group were inventoried
 - ▶ Spreadsheets were evaluated for:
 - ▶ Impact on key internal controls
 - ▶ Direct effect on financial statement transactions
 - ▶ Effect on financial disclosure information
 - ▶ Complexity was evaluated for the selected spreadsheets:
 - ▶ Low complexity: Simple add/subtract formulas
 - ▶ Moderate complexity: Multiplication/division
 - ▶ High complexity: Advanced formulas, macros

A system was needed to control access and establish a process for file review

- ▶ Restricted access directories were set up for selected spreadsheets:
 - ▶ Preparers had read/write access
 - ▶ Reviewer had read access only
- ▶ All moderately complex and highly complex spreadsheets required reviewer to re-calculate formulas:
 - ▶ For spreadsheet containing 5 or fewer formulas, all formulas were tested
 - ▶ For spreadsheets containing more than 5 formulas, 5 plus 20% of formulas over 5 were tested
- ▶ A separate checklist for spreadsheets was used by the reviewer to indicate review was completed

But the new system wasn't flawless...

▶ Problems

- ▶ Time-consuming task for reviewer to find formulas to test
- ▶ Possibility of changes after reviewer re-calculated formulas
- ▶ Manual checklist used for reviewer sign-off

ABS for Spreadsheet Compliance was the answer

- ▶ Restricted-access directories easily created and maintained
- ▶ Cycle restrictions imposed – only a reviewer can advance a cycle (an accounting period).
- ▶ Reviewers can see all changes from one cycle to the next, saving time with re-calculations of formulas

Our automated solution cut down on the risk of human error and lost data.

- ▶ Once a cycle is closed, approved copy of spreadsheet cannot be changed, unless reviewer opens previous cycle
 - ▶ Eliminates the possibility of the preparer making a change after spreadsheet is reviewed
- ▶ Approved spreadsheets are automatically archived
- ▶ Reviewer sign-off automatically recorded
 - ▶ Eliminates manual sign-off checklist

ABS for Spreadsheet Compliance simplifies and streamlines our processes

- ▶ Speeds financial reporting cycle
- ▶ Frees up reviewers' time for other projects
- ▶ Improves the accuracy of key financial data
- ▶ Reduces manual interaction thereby reducing chance of error
- ▶ Enhances “peace of mind” related to compliance

References

- ▶ The Use of Spreadsheets: Considerations for Section 404 of the Sarbanes-Oxley Act July 2004 <http://www.pwcglobal.com>
- ▶ Deloitte and Touche
 - ▶ Excellent discussion of the use of Excel in financial reporting
- ▶ Compliance Week <http://www.complianceweek.com>
 - ▶ Monthly list of audit problems
- ▶ CFO.com <http://www.cfo.com>
 - ▶ Numerous articles on spreadsheets
- ▶ Public Company Accounting Oversight Board <http://www.pcaobus.org/>
 - ▶ Auditing and accounting standards organization, SOX guidelines
- ▶ European Spreadsheet Risks Interest Group <http://www.eusprig.org>
- ▶ Dr. Ray Panko's Spreadsheet Research site (Univ of Hawaii)
 - ▶ <http://panko.cba.hawaii.edu/>

Questions?

Thank You!

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**Contact for additional information or to
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