



Spreadsheet Risk

TRANSFORMING AN OBSTACLE INTO
AN ASSET USING AUTOMATION

 **insight**software



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Introduction

Spreadsheets continue to be one of the most ubiquitous business tools, owing largely to their simplicity and universality. Over three-quarters of a billion people use Microsoft Excel because it offers the features they want in an interface they understandⁱ. After a certain point, however, spreadsheets can begin to create as much confusion as clarity.

Spreadsheets have been used by businesses for more than 30 years, growing in size, complexity, and consequence throughout that time. Their function has evolved past accounting and finance and now encompasses every corner of the enterprise.

When spreadsheets are used for increasingly critical business applications, they create greater risks and greater consequences due to those risks. By most estimates, up to 90 percent of spreadsheets contain errors, with around one in every hundred cells being incorrectⁱⁱ. Any mistake can have enormous consequences, a fact that was proven when JPMorgan lost \$6 billion because of a cut and paste mistakeⁱⁱⁱ.

Compliance is another cause for concern. Spreadsheets usage is now regulated by the European Commission's 2018 General Data Protection Regulation (GDPR)^{iv}. These rules dictate how spreadsheets may be shared in order to maintain confidentiality and minimize the risk of a data breach.

Staying compliant is hard to do without consistently excellent spreadsheets, and there are significant penalties for failure.

Experts agree that spreadsheets are too useful and too entrenched to be replaced anytime soon. They also agree that as spreadsheet usage increases, risk proportionally increases as well. Ensuring that this mission-critical business tool remains an asset requires a process for sound development and proper usage. Security is only possible through a systematic approach.

Creating a process is only half the challenge, however, because it does not address the plethora of spreadsheets that already exist in a company's day-to-day business activities. Thus, spreadsheet solutions must offer ways to build control and security into new spreadsheets, as well as tools to improve the spreadsheets already in circulation. Meeting these twin challenges takes a careful approach aided by the right technology.

Secure Spreadsheets in Seven Steps

One of the most important components in spreadsheet compliance, control, and security is process. Any critical spreadsheet must follow sound development and usage practices, including controlled testing, deployment, maintenance, and use^v. One such life cycle includes the following stages: design, test, document, use, share, modify, and archive^{vi}.

	A	B	C	D	E	F	G	H
	No.	Existing Budget	Category	Unit	Dec-16	Jan-16	Feb-16	Mar-16
1	10460	Benefits	1-Personal	0	12,034	13,565	10,674	13,095
2	35246	Payroll taxes	1-Personal	0	345	347	154	1,953
3	76745	Salaries	1-Personal	1	521	434	178	519
4	76745	Salaries	1-Personal	0	0	2,300	189	90
5	76023	Commissions and bonuses	1-Personal	0	0	2,300	189	90
6	23674	Personnel Total	1-Personal	1	12,900	16,646	11,195	15,657
7	14678	Web Research	2-Marketing	2	6,000	2,300	5,000	1,500
8	10567	Independent Research	2-Marketing	1	2,000	5,420	3,000	2,100
9	95643	Firm Research Fees	2-Marketing	0	8,200	4,900	2,000	8,000
10	17695	Market Research Total	2-Marketing	3	16,200	12,620	10,000	14,600
11	94015	Promotions	3-Commu	2	1,239	190	1,245	432
12	75321	Branding	3-Commu	1	522	431	573	323
13	95235	Web Advertising	3-Commu	1	10,432	-	10,430	14,093
14	32564	Direct Marketing	3-Commu	0	-	532	156	1,090
15	85508	Newspaper Advertising	3-Commu	0	-	1,243	12	567
16	06342	Communication Total	3-Commu	4	12,662	19,330	12,416	16,505
17	89063	Travel	4-Other	0	19,300	15,333	15,000	15,800
18	07421	Phone	4-Other	0	200	150	155	200
19	93012	Computer/Office Equipment	4-Other	2	400	500	100	200
20	24801	Postage	4-Other	0	883	153	356	235
21	35151	Other Total	4-Other	2	20,583	16,136	15,611	16,525
22	10460	Benefits	1-Personal	0	12,034	13,565	10,674	13,095
23	35246	Payroll taxes	1-Personal	0	345	347	154	1,953
24	76745	Salaries	1-Personal	1	521	434	178	519
25	76023	Commissions and bonuses	1-Personal	0	0	2,300	189	90
26	23674	Personnel Total	1-Personal	1	12,900	16,646	11,195	15,657
27	14678	Web Research	2-Marketing	2	6,000	2,300	5,000	1,500
28	10567	Independent Research	2-Marketing	1	2,000	5,420	3,000	2,100

- **Design**

The design phase of a spreadsheet is not limited to its initial conception, because the consequences of a spreadsheet's design can impact the entire lifespan of the document. Following proper design practices will reduce errors, increase comprehension, and prevent the spreadsheet from becoming disordered with use.

- **Test**

Testing is a crucial step in the spreadsheet process, yet few companies give testing the attention it deserves. Simply by the virtue of having numbers plugged into formulas in a spreadsheet, many consider the information as reified and do not test it. Testing should be conducted using methods such as calculator checks, displaying formulas, and employing the formula auditing toolbar.

- **Document**

The best way to ensure a spreadsheet is used properly is to provide information that tells users exactly how the spreadsheet works. In-depth descriptions eliminate confusion while standardizing how users engage with the spreadsheet. Popular documentation methods include writing text in spreadsheet cells, using the cell comment feature, and providing an entire worksheet in the workbook that is only for recording documentation.

- **Use**

Spreadsheet risk is closely related to how a spreadsheet is used and by whom. The spreadsheet developer may not be the end user, or the end user could actually be multiple people. Designing a spreadsheet for a target audience with an intended purpose ensures it is as relevant and valuable as possible.



- **Share**

Sharing spreadsheets across departments or even locations is becoming the norm as companies strive to become more efficient. Shared models save time in development while increasing the number of spreadsheets a team is capable of producing. However, sharing also creates inherent risks that should be managed using cell protection, password protection, and data validation.

- **Modify**

Spreadsheet modification is a common occurrence because business needs frequently change. Unfortunately, modification can result in version control difficulties, especially considering that a vast majority of modifications will be made by new users who are not the original developers. These issues can be avoided by instituting documented version control, including employing version numbers.

- **Archive**

Spreadsheet archiving is often required for legal and financial purposes. Archives also function as references for future spreadsheet development. A spreadsheet archive helps preserve organizational knowledge, as well as create a repository of spreadsheets that are ready for reuse, minimizing rework, time to develop, and ideally minimizing errors as well. An effective archive is built on two principles: storing quality spreadsheets in the archive, and referencing the archive before building a new spreadsheet model.



Optimizing Across the Board

Controlling existing spreadsheets takes more effort than perfecting newly-created spreadsheets. Many companies don't have the time or resources to ensure that every single spreadsheet on their servers has been audited. Consequently, they must begin the arduous task of determining which spreadsheets are relevant or critical, and therefore in need of review and revision.

Relevant spreadsheets can be defined by their purpose and relationship to critical business processes. In finance, this includes analysis and reporting for financial data. In operations, it refers to any spreadsheet where a lack of control might lead to a material error. In terms of security, it's all the spreadsheets containing sensitive or protected data. In truth, the majority of spreadsheets deserve to be called relevant or critical, which is important to recognize, but hard to follow through with.

Most literature agrees that it is overwhelming, unproductive, and even impractical to employ controls on every single spreadsheet, and they would be correct. But only when referring to manual reviews. To limit reviewed and controlled spreadsheets only to those who risk impacting at least 5 percent of the general ledger (using corporate finance as an example) is to still allow some measure of risk to slip through.

The solution, then, is to leverage technology to review more spreadsheets at a faster pace.

Spreadsheets don't have to cause confusion or create disruption. Fixing the errors in the cells doesn't have to be overwhelming, either. Automation can ensure that all spreadsheets are precise and protected, not just the ones deemed critical by a set of standards or a committee.





Leveraging Spreadsheet Automation

Spreadsheets already contain a number of automated tools that expedite how users manipulate data. However, those tools only work on data that already exists inside the spreadsheet, not for the data that needs to be entered. Users end up spending countless hours adding entries, double-checking formulas, hunting down errors, and coordinating their efforts.



A better way exists in the form of spreadsheet automation. The concept is as simple as it sounds: automating the most time- and labor-intensive aspects of spreadsheet management. In practice, spreadsheet automation addresses each of the seven steps for creating secure spreadsheets, yet it delivers better results in a fraction of the time. Here are some of the most obvious benefits:

- **SAVE TIME ON MANUAL ENTRIES**

Building spreadsheets means manually entering and integrating vast amounts of data. The process is a distraction and a waste of talent, particularly because spreadsheet automation can handle all of the entries automatically. Designing and populating a spreadsheet becomes an effortless process so that users spend less time organizing data and more time utilizing it.

- **ELIMINATE USER ERRORS**

Spreadsheet errors can typically be traced back to user error. All it takes is one wrong number to drastically distort what the spreadsheet says and compromise all the decisions the spreadsheet influences. Since spreadsheet automation organizes data with speed and precision, the number of errors inside those spreadsheets drops dramatically. Users no longer have to conduct laborious spreadsheet audits looking for errors or worry about errors disrupting their decision making.

- **EXPAND ACCESS TO DATA**

The scope of spreadsheets is limited by the amount of work they require. Since users have to populate spreadsheets manually, the actual information present can be quite shallow. Automation collects and integrates information instantly, adding new layers of depth to every spreadsheet. Users have access to key metrics and indicators, as well as all the underlying data, all from one place.

Instead of serving as discrete documents, spreadsheets become an entry point to study every aspect of performance.

- **IMPROVE DISTRIBUTION**

Spreadsheets must balance the need for accessibility with the need for security. That's not easy to do without a system for governing access. Technology automates how spreadsheets are built and streamlines how they are distributed. Senders have complete control over what information gets sent to whom and when. Just as significant, managing the entire distribution effort takes only a few minutes. Spreadsheets and the information within them become a resource companies can actually manage, minimizing risk and maximizing value.

- **STREAMLINE SPREADSHEET REPORTING**

Once all the applicable data is inside a spreadsheet, there is still the challenge of turning it into clear and actionable reporting. Automation helps with this in several ways. Tools help users quickly design spreadsheets that perfectly match their business requirements. Data is automatically imported into these spreadsheets, then updated in real-time, eliminating concerns about version control and stale data. Visualizations bring the data to life, making it relevant for more stakeholders. Similarly, intuitive tools allow any user to create sophisticated reports without needing spreadsheet expertise. Automation turns spreadsheets into an equal asset for everyone's benefit



Spreadsheet Automation from insightsoftware

Today's companies rely on ERP solutions to help them harness their most valuable asset: data. Then they rely on spreadsheets to organize, analyze, and leverage that data. insightsoftware links the two, automatically funneling data from a variety of ERP systems directly into the familiar interface of Excel.





We offer three separate solutions for spreadsheet automation. All share some overlapping strengths, tools, and use cases, while also being distinct in important ways:

• **Atlas for Dynamics**

This solution integrates data in Microsoft Dynamics AX and 365 with data from a number of other internal and external sources. The integration then takes place in Excel, Word, Outlook, or PowerPoint. Once this data is consolidated, it becomes a single source of truth users can reference for any business question. In a recent user survey, nearly 75 percent of users said Atlas significantly increased the timeliness, efficiency, and accuracy of reporting.

• **Excel4Apps**

Designed specifically for Oracle EBS and JD Edwards, this solution turns Excel into a powerful, all-in-one reporting tool that eliminates the need for IT assistance. Users are in control of the experience, taking advantage of automatically imported data and drill-down capabilities to generate insights on demand. One user reported that Excel4Apps reduced reporting times by almost 90 percent.

• **Spreadsheet Server**

This solutions links Excel to more than 130 ERP options to enable automated reporting. The sorts of inaccuracies, inconsistencies, and inconveniences that make spreadsheets a liability are resolved in an instant. Spreadsheets become trustworthy documents filled with insightful, in-depth takeaways. At the same time, they become effortless to manage and update. The vast majority of Spreadsheet Server users report saving more than 100 hours on reporting in just one year.

What sorts of spreadsheets challenges do you face daily, monthly, quarterly, and yearly? In every case, spreadsheet automation is the simple solution. Contact us to explore which option is best for your data.

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