

E-BOOK

# The Spreadsheet User's Guide to Modern Analytics

alteryx



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# Introduction

Spreadsheets have been the go-to for data analysis for decades. But as data grows in volume and complexity – and the value of that data increasingly serves as a competitive differentiator – spreadsheet users say they are pushing rows and columns to the limit.

**50%**

**of Excel users are considering migrating to advanced analytics tools.**

*2024 Analytics Buying Intentions Survey, Nucleus Research*

A recent Nucleus Research survey reveals that 50% of Excel users are considering migrating to more advanced tools.

If you want to spend more time solving problems and less time cleansing and blending, consider a new way of getting it all done with automated analytics.

In this e-book, you will learn the negative impact of relying on spreadsheets, how modern analytics can accelerate insights to help your organization and your career thrive, plus real-world examples of how automated solutions are delivering value for global organizations.

# Testing the Limits of Spreadsheets — and Your Patience

The challenges of manual  
spreadsheets in modern business



The average analyst spends 26 hours a week using spreadsheets for data preparation and analysis. That's time that could be better spent diving deeper into data insights to uncover business value.

We get it. You've invested months or years perfecting your spreadsheet game. Still, it's important to know how the drawbacks impact your day-to-day work life and the value you deliver to the business.

### 1. LIMITED SCALABILITY

If you've worked with large files in Excel, chances are you've experienced freezing, crashing, or no response at all. These work-stopping problems are becoming more common as the sheer size and complexity of data grows. It's more than a decades-old tool can handle in today's digital enterprise. Compared to advanced solutions, spreadsheets also lack user-friendly interfaces, and the streamlined, repeatable workflows analysts need to improve problem-solving and decision-making.

### 2. DIFFICULT TO AUTOMATE

If you're faced with the tedious chore of repetitive tasks, Excel macros offer a way to automate repeatable processes by recording and saving a set of actions. However, they are difficult to understand for anyone but the person who created them and are not easy to change once they are created unless you have solid programming skills.

### 3. TIME-CONSUMING

Manual data preparation and transformation in spreadsheets can consume hours in the day of an analyst and often requires advanced knowledge. Spreadsheets that house armies of formulas and duplicate entries can easily become a bottleneck in your workflow. And, as data volumes grow, the speed and performance of spreadsheets can diminish, leading to slow calculations, delayed refresh times, and increased risk of crashes.



#### 4. COMPLEX DATA INTEGRATION

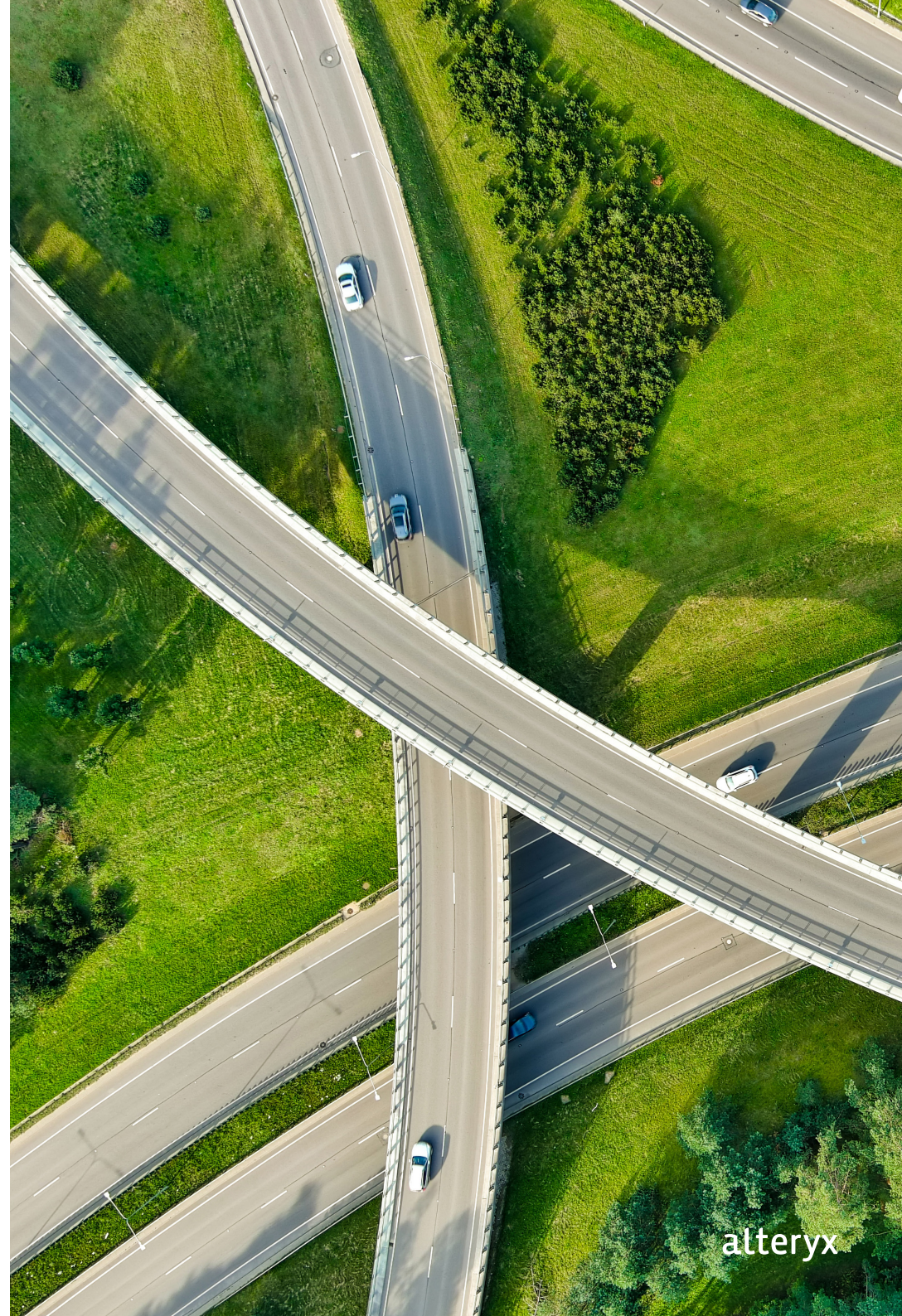
If you've ever had to bring in data from multiple sources, like a series of CSVs, you know what a pain it can be using spreadsheets. Aggregating and joining data can be overly complicated and time-consuming. And when information is trapped in unusable formats from insulated departments, there is the added worry of duplicating information or missing important data altogether.

#### 5. ERROR-PRONE AND RISKY

The danger of hitting the wrong key or changing a single cell can trigger a chain reaction that alters data output and paralyzes some analysts with fear. For example, a simple Excel formula error once famously cost JP Morgan Chase \$6 billion dollars. Simple and unnoticed mistakes can impact everything from financial forecasting to manufacturing accuracy and regulatory reporting.

Simple Excel error in Value-at-Risk model at J.P. Morgan Chase cost the financial institution

**\$6B**





# From Worksheets to Workflows

The benefits of  
automated analytics

**What if you could put the days of cutting and pasting behind you and instead, automate any report and repeat it forever?** Moving from worksheets to automated workflows can improve the quality of your day and the trajectory of your career. These are the most common benefits users realize with automated analytics solutions.



**Our analysts have gone from report builders to storytellers and problem solvers."**

Manager of Enterprise Analytics

## 1. TIME SAVINGS

Moving from manual spreadsheets to automated workflows significantly reduces time spent wrangling data, building reports, and communicating insights. Automated solutions use visual workflows and drag-and-drop features that reduce manual workloads by up to 80%. The time saved can be used to uncover deeper insights that make a tangible business impact.

Automated analytics solutions can reduce manual workloads by up to

**80%**

## 2. REPEATABILITY

Free yourself from the tedious task of producing the same reports over and over. Automated workflows are reusable and automatable, reducing repetitive tasks and allowing you to update your data on a consistent schedule with no additional work. Workflows also allow all stakeholders or future analysts to follow the process you created with visual documentation and transparency.

## 3. HIGH ACCURACY AND LOW-RISK

Automation removes the unintentional but inevitable risk involved in manual processes. It can also improve data quality and accuracy with at-scale validation of data performed automatically and visually. This helps users quickly assess possible problems, unusual patterns, and required changes. The ability to validate each step of the data process also helps stakeholders trust every answer.

#### 4. SCALABLE AND FLEXIBLE

Legacy tools like spreadsheets are limited to the compute power of a desktop machine, which can prevent analysts from scaling data insights quickly and effectively, especially if working with large datasets. Modern analytics solutions can take advantage of on-demand cloud computing to process huge datasets quickly without limitations on size or data format.

#### 5. EMPOWERS ALL BUSINESS USERS

Automation is traditionally accomplished through coding, using SQL or Python. While this is a reliable approach to data prep and automation, there aren't enough developers or coders to meet the demand for data, and they lack the business domain expertise to know what needs to be answered and for what problem. That's why most business users revert to the comfort of the spreadsheet.

Automated analytics solutions, on the other hand, are often no-code and self-service, allowing business professionals to run and modify their own queries and reports, regardless of skill level. The democratization of analytics insights and reporting allows companies to leverage the collective wisdom of the broader organization and achieve better outcomes faster.



**The fact that I could process over 4.5 million rows of data from separate data sets without writing a single line of code was just incredible."**

Senior Business  
Analytics Manager

# Deliver a Lot More in Less Time

High-impact use cases for  
automated analytics



**The use cases are endless when it comes to automation, but if you're just getting started, you'll want to make a big first impression.** These are the areas where automated solutions offer quick ROI and high impact.

### **FINANCIAL REPORTING**

Automated analytics revolutionizes financial reporting by eliminating manual, highly repetitive, and error-prone processes across tax, audit, and FP&A. This not only saves time but also empowers finance teams to focus on high-value activities such as identifying growth opportunities, cost savings, and strategies for financial decision-making. The implementation of easy-to-use applications further streamlines the processing and calculation of financial models.

### **CUSTOMER INTELLIGENCE**

Understand customer behaviors and preferences better by automating the collection and pre-processing of customer interaction data from multiple sources, including CRM software, customer service call platforms, website data, and mobile apps. Automated analytics platforms can cleanse the data by eliminating duplicates, rectifying inconsistencies, and standardizing data. Import the data into your reporting platform of choice to track customer satisfaction, churn rates, and user patterns.

“

**We don't have to work 18 hours just on manipulating tax data. We are freed up to spend the time on value added activities.”**

Tax Technology Manager

“

**For the first time, we are able to understand the customer's full interaction with the brand at scale and focus on the highest value customer interactions.”**

VP of Marketing Intelligence

## MARKETING ANALYTICS

One of the most challenging aspects of tracking and analyzing marketing analytics is pulling in data from multiple sources and standardizing it. Marketing teams can use automated analytics solutions to automate the ingestion of marketing data from platforms like Facebook Ads, Google Ads, and email campaigns and clean the data, filter out duplicate or irrelevant information, and standardize formats. Then, import this refined data set into a dashboarding platform to track things like campaign performance, customer engagement, and ROI. Make data-driven decisions quickly and optimize campaigns in real-time for better outcomes.

## PRODUCT DEVELOPMENT

Meeting customer expectations with compelling product experiences is challenging but critical to succeed in a hyper-competitive market. Automated data insights can help improve every stage of product development, from accelerating innovation to optimizing the post-purchase customer experience. This strategic use of analytics ensures a more agile and competitive approach in product development processes.

## MANY MORE

The sky is truly the limit. For any analytics report involving multiple data sources and different file formats, automated analytics solutions make it easy to connect, blend, prep, standardize, and automate the reporting process.



**Rather than relying on Excel to learn about what has happened in the past, we are now able to focus on business outcomes at a quicker pace."**

Director of Digital Analytics



# A Modern Solution to a Decades-Old Tool

How the Alteryx One Platform can help you and your team



AI-powered, self-service analytics platforms that were once a 'nice to have' are becoming a critical tool to help all business users work with large amounts of complex data, automate manual tasks, and reduce the risk posed by spreadsheets.

The Alteryx One Platform enables users to profile, prepare, and orchestrate data for analytics and machine learning. Through its no-code/low-code drag-and-drop interface, it can reduce the time, technical skills, and costs required to build and automate data pipelines and analyze data.

Integrating Alteryx One streamlines the process of connecting to new data sources, making it easier to join and modify data and create visualizations, all within the same platform. This enhances efficiency, usability, and data quality, offering users the potential to experience analytics up to 10x faster.

One customer who has benefited from this approach is PepsiCo. While using spreadsheets, PepsiCo's CPFR team was struggling to quickly turn around sales forecasting reports that would determine how much and what quantities of product were needed for their largest retailers.

**Their huge volumes of inventory data were breaking their spreadsheets, not to mention the dollars wasted in the time they lost or the occasional error that slipped through. After using Alteryx, the PepsiCo CPFR team saw tremendous results—reporting time has been reduced by 70% and build time has been reduced by as much as 90%.**





# From Pain Points to Possibilities

Real stories from real customers

**Organizations globally are leveraging Alteryx to improve revenue performance, manage costs, and mitigate risk.** Don't take our word for it. These are just some of the real-world examples of how customers are using Alteryx to increase speed to data insight and free up time to spend on strategic initiatives.

## Nielsen

- As part of a BI modernization initiative, Nielsen adopted Alteryx to democratize analytics and provide faster time to value.
- **The result:** Nielsen automated more than 2,000 manual processes and has over 250 business users who are empowered with self-service analytics.

**Automated 2000+ manual processes**

[READ CUSTOMER STORY](#)

## SIEMENS energy

- Siemens Energy implemented the Alteryx code-free, automated platform to eliminate spreadsheets, consolidate data, and gain full visibility into the company's data.
- **The result:** Thousands of hours saved and dozens of new insights created through data and process automation.

**1000+ hours saved with analytics automation**

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## SaskTel

- SaskTel utilizes Alteryx to automate inventory forecasting and improve demand planning.
- **The result:** A manual inventory report that used to take one year to develop can now be completed in three minutes using Alteryx.

**Reduced inventory data processing from 1 year to 3 minutes**

[READ CUSTOMER STORY](#)

## CBRE

- Real estate services firm CRBE uses Alteryx to predict tenant occupancy churn, identify trends, and uncover business opportunities.
- **The result:** Alteryx replaced 60+ Python scripts with an automated data pipeline, reducing manual monthly processing by 50%.

**Reduced monthly data processing time by 50%**

[READ CUSTOMER STORY](#)



# It's Your Time to Shine

## How to Get Started

With Alteryx, getting started with automation is easy. You can ingest and prepare data from anywhere and upskill with self-service analytics.

Get started with a [30 day free trial](#) or create value on day one with prebuilt analytic workflows using our [Starter Kits](#).

Check out [Alteryx One](#) to see how we do automation. And don't forget to search the [Alteryx Community](#) to spark new ideas and learn from the best.

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