



## Five Reasons Spotfire Is Better than Excel for Business Data Analytics

A hugely versatile application, Microsoft Excel is the Swiss Army Knife of IT, able to cope with all kinds of jobs from managing personal finances to virtually running a business. Excel is also widely available and very familiar, making it an automatic first choice whenever there's work to be done, including data analytics and visualization.

But are Excel and other spreadsheets the right tools for business analytics, or are you better off using a custom made analytics and data discovery product like TIBCO Spotfire?

At TIBCO, we think Spotfire is a far better choice for all manner of reasons, and listing them all would need more space than available in this ebook. So instead, we set out our top five reasons why Spotfire is better than Excel for data analytics and a variety of Business Intelligence tasks.

### 1 | EXCEL IS TOO SIMPLE.

“When you start looking at a problem and it seems really simple, you don't really understand the complexity. Then you get into the problem, and you see that it's really complicated, and you come up with all these convoluted solutions. And that's where most people stop. The really great person will keep on going and come up with an elegant, really beautiful, solution that works.”

— Steve Jobs

Excel is a versatile tool that almost anybody can learn. In fact you would be hard pressed to find anyone in business who hasn't used it at some time or other. However, just because it's easy doesn't mean it's the right tool for more complex tasks.

Spreadsheets were never intended to be used for business data analytics, and Excel offers little to make it easier. There are no analytics wizards or best-practice templates to follow; no easy-to-use functions to help spot trends or outliers in your data; no geo-mapping; and no built-in help for validating macros or troubleshooting problems when they arise, as they most certainly will.

There are no controls over what you can do with Excel, which sounds like it ought to be a good thing. But in reality, you need a good understanding of how to go about analyzing data, in-depth statistical knowledge, plus a great deal of time to tackle data analytics using a general purpose tool like Excel. The ability to do what you like with Excel can also have major ramifications for governance and legal compliance.

### SPOTFIRE IS BETTER BECAUSE...

- *Its strength is business data analytics* for both data scientists and other specialists and for business users wanting fast, simple, appropriate information and insight.
- *It encapsulates the best-practice knowledge and expertise* of data scientists and makes it available in a format that can be more widely used. In this way, it makes data analytics easier for most people while not limiting what experts can do with it.
- *It lets you manage and enforce compliance* by applying strict rules over what can be done with data.

## 2 | EXCEL IS TOO PERSONAL.

“Coming together is a beginning, staying together is progress, and working together is success.”

— Henry Ford

Because it's part of Microsoft Office and available on most business desktops, Excel is widely used to collect, manipulate, and interpret data. This work is largely done in isolation, often with data transferred from original sources to personal storage where it quickly becomes out of date. The process can result in an extra layer of “unofficial” data. More than that, those copies may be altered during the transfer process and changed again later on. Whether intentional or not, the ability to change data has major implications for analysis and interpretation that drives business decisions.

Without using special add-on and custom programming, Excel offers little help for working directly with single or multiple data sources. Neither does it offer much support for sharing data, collaborating on analysis and visualization projects, managing those projects, or distributing and sharing the results.

Excel is very much a personal tool, designed to run on desktop computers and on relatively small data sets. Making it do more, like handling enterprise workloads in a collaborative environment requires a great deal of extra effort, time, and ingenuity.

**SPOTFIRE IS BETTER BECAUSE...**

- *Its unlocks the hidden value in data assets using integrated collaboration tools* that bring business users and data analysts together. It also manages dissemination of results with publication and distribution tools.
- *It works directly with original data and not just copies*, eliminating the risk of local data silos. It can be used to analyze and interpret data from a wide range of data sources—Excel spreadsheets to large ERP systems, and high-end SQL databases to big-data repositories.
- *It's an easy jumpstart, even for working with large enterprise data sets and mashups from multiple sources*. It can be further extended to apply analytic models for automating business applications. It is the next logical step for users frustrated by the limitations of Excel.

**3 | EXCEL IS TOO DULL.**

An attempt at visualizing the Fourth Dimension: Take a point, stretch it into a line, curl it into a circle, twist it into a sphere, and punch through the sphere.”

— Albert Einstein

Most Excel users believe in their ability to use Excel's built-in charting tools to create unique and stunning 3D visuals. In reality, the results are quite uniform, and because users can do more or less what they want, they often fail to convey the intended message any better than the raw data or a written summary.

As with Excel itself, the generic charts are intended to suit the widest variety of applications, with nothing to match the kind of visualizations available with custom BI tools. One major omission is the ability to use maps to represent geographical data, such as sales by region, although this feature is available using third-party add-ins.

It is possible to build interactive charts in Excel with complex pivot tables that directly manipulate the data. There's no ability to point and click on an Excel chart to drill down into more detail, manipulate the view of the data, or alter the dataset being visualized. Neither is it easy to build data dashboards.

**SPOTFIRE IS BETTER BECAUSE...**

- *Its visualization tools encapsulate and translate the results of complex analysis* into informative and appropriate graphics, including mapping and geocoding.
- *Its visualizations can be interactive so users can drill down into the data*, change the way it is viewed, and further investigate and act on the results.
- *It allows users to create visualizations in minutes* and for expert users to build complex applications, dashboards, and visualizations for others just as quickly.

#### 4) EXCEL IS TOO BASIC.

“Prediction is very difficult, especially about the future.”

— Niels Bohr

Excel tools that statistically analyze data are few and far between, and where available, difficult to apply, limited in scope, and hugely error prone, even when the data is highly structured. Statistical add-ins are available that claim to address this shortcoming, but these, too, are limited and require high levels of expertise to make them work correctly. They tend also to be industry and application specific, and therefore poorly equipped to provide more general predictive modeling using data patterns and trends to forecast potential business outcomes.

An increasingly important requirement, predictive analytics, is not part of Excel and can only be added through custom programming. The preferred alternative is to employ a specialized BI tool like Spotfire, which implements the required statistical modeling tools in a format that makes the job much easier.

##### SPOTFIRE IS BETTER BECAUSE...

- *It includes a wide range of visual analytics tools to help discover patterns and uncover meaning in data.*
- *It includes tools for applying linear and logistic regression, classification, and regression trees and other predictive modeling tools that, without complex programming, can be used by data analysts to help users generate deep insights from their data.*
- *It supports the open source R language popular with academic statisticians and business data analysts alike. Through TIBCO® Enterprise Runtime for R (TERR), users can take full advantage of existing R scripts and packages and put their R expertise to good use in a high performing enterprise-class environment.*

#### 5 | EXCEL IS TOO SLOW.

“Business opportunities are like buses: there’s always another one coming.”

— Richard Branson

Spreadsheet programs like Excel were one of the first truly interactive computer applications, enabling users to capture, manipulate, and visualize data sets. But to do what it does best, Excel requires the careful crafting of formulas and expressions, plus, in a lot of cases, manual re-ordering, reformatting, and transformation of the data. It requires continual checking to identify and fix errors, and a lot more to get the results into the required format. All this takes time, even with the help of macros and its programming language, Visual Basic for Applications (VBA).

While taking a few days to visualize data and identify important trends may be acceptable, beyond that, users want to drill down and ask what-if questions, look at the results from a different perspective, and get answers at the speed of thought, not tomorrow or the day after. Excel is unable to do any of this no matter how hard you push it or how inventive the workings behind the spreadsheets.

Speed becomes even more important as you move beyond basic data analytics and start leveraging data in real time to act on events and trends to, for example:

- Switch IT resources to cover peaks in customer demand before performance is affected
- Send offers to customers identified as being in-store
- Re-route freight because of weather, traffic, or other new information

#### SPOTFIRE IS BETTER BECAUSE...

- *It answers the next question quickly and easily with a minimal number of clicks, responds quickly to user requests, and provides appropriate answers without the need for complex programming or preparation.*
- *It integrates and analyzes data from multiple sources to make decisions and trigger actions in response to events and trends, and works with other technologies in the TIBCO platform.*
- *It provides fast, convenient access to insights on PCs, mobile devices, or in the cloud.*

#### WORK WITH EXCEL, NOT AGAINST IT.

Having outlined five good reasons why we think Spotfire is better than Excel for data analytics, we don't suggest giving up on Excel altogether. It may not cut it as a BI tool, but for other tasks Excel is hard to beat, in particular for collecting, organizing, and preparing data for offline analysis.

While Spotfire makes business analytics accessible, it relies on other applications, including Excel, to collect and manage data. As the perfect partner for getting the best from your data, Spotfire will continue to support the venerable Microsoft spreadsheet for as long as users like you want to use it.

But don't just take our word for what Spotfire can do, [sign up for a free trial](#) to see for yourself. And [attend one of our live Spotfire demos](#) to see just how easy it is to get more from, not just your Excel spreadsheets, but other data sources besides.

TIBCO Spotfire. The only business analytics and data discovery tool you need on your journey to sustained competitive advantage.



**Global Headquarters**  
 3307 Hillview Avenue  
 Palo Alto, CA 94304  
 +1 650-846-1000 TEL  
 +1 800-420-8450  
 +1 650-846-1005 FAX  
[www.tibco.com](http://www.tibco.com)

**TIBCO Software** empowers executives, developers, and business users with Fast Data solutions that make the right data available in real time for faster answers, better decisions, and smarter action. Over the past 15 years, thousands of businesses across the globe have relied on TIBCO technology to integrate their applications and ecosystems, analyze their data, and create real-time solutions. Learn how TIBCO turns data—big or small—into differentiation at [www.tibco.com](http://www.tibco.com).

©2016, TIBCO Software Inc. All rights reserved. TIBCO and the TIBCO logo, and Spotfire are trademarks or registered trademarks of TIBCO Software Inc. or its subsidiaries in the United States and/or other countries. All other product and company names and marks in this document are the property of their respective owners and mentioned for identification purposes only.

01/25/16