5 Reasons to Swap Spreadsheets
For a Professional Data Analytics Tool

Spreadsheets, like paper, haven't gone away. And we understand why everyone likes using them for analytics. They come along with the office applications you use anyway. They are low-cost and easy to use. Plus, we know how addicted everyone is to pivot tables.

However, the average spreadsheet application was never designed to handle large data sets, record macros, nor provide a level of security that can withstand courtroom questioning. Here are five compelling reasons to consider switching from spreadsheets to using a professional-grade data analytics tool:

#1 Data Acquisition

Challenges:
Spreadsheets are often used to gather data fragments from multiple data sources, but they don't always come together seamlessly. In fact, the clean-up time for large data sets can be tedious and time consuming. Plus, spreadsheets are limited in the number of rows and columns they accept. The clean-up process can also lead to manual errors.

Analytics Solution:
Export and import data from and into a variety of formats including text files (flat files generated from ERP systems), PDFs, MS Access or Excel, SAP, Oracle, SQL, JD Edwards, and others. An infinite number of records can be read and processed in seconds.

#2 Data Integrity

Challenges:
Data values can easily be altered by mistake or deliberately. Formula errors can make the analysis logic prone to mistakes. There are also risks associated with retention and reliability of information as spreadsheets are sent to other users, such as conflicting copies, duplicates or edits.

Analytics Solution:
Source data is protected and data access is read-only, which ensures reliable data. Audit trails keep a record of all changes made and log all operations carried out on a database, including file and format imports, types of analysis performed, and results created. This information resides in the file properties and cannot be changed, giving greater assurance in the results being presented.

"Once imported, analyzing and extraction can be performed easily on the data to target the audit risks. You can manipulate the data without affecting the integrity of the original database and it allows you to search for other anomalies in an entire population, instead of just a sample of the population."

Audit Director and IDEA User

#3 Pre-Built Analytics

Challenges:
Testing within spreadsheets often requires the user to program intricate macros or multiple pivot tables. This can be both time consuming and error prone. Large data sets are limited to sampling.

And we haven't forgotten Pivot Tables. Pivot Table max capacity in IDEA is approximately 50,000 rows and 2,000 columns. MS Excel Pivot Tables are maximized at 256 column items.

Analytics Solution:
Algorithms exist to easily perform tests by selecting a task such as duplicate or gap detection, join, stratify and Benford's Law analysis. Within a ribbon-type interface, users can perform complex equations and enter a few values to receive a result. Additionally, users can examine 100% of data to quantify risks for deeper review and inspection.

Example:
Subtotals: The summarization task allows the user to select multiple fields to match on when calculating a subtotal and the results are clear and concise. In one pass, users can generate a table listing, multiple statistics (besides totals) and provide links to connect back to the original statistic data.

Point-and-Click Analytics Available in IDEA Version Nine

The IDEA ribbon uses 100+ audit-specific commands to quickly perform tasks such as searching for duplicates, detecting gaps in numeric sequences, grouping data by categories, and filtering numerous rows and columns for information in seconds – without programming.
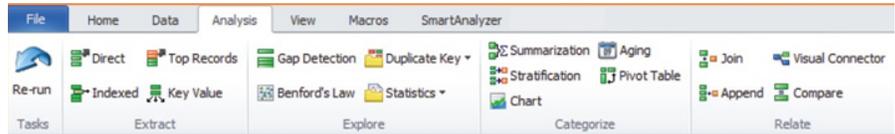
Core Data Analysis Tasks

Tasks	Description	Spreadsheets	IDEA
Append/Merge	Combines two files with identical fields into a single file. For example, merge two years' worth of accounts payable history into one file.	✔	✔
Calculated Field/Functions	Creates expressions or computed fields in order to calculate or recalculate key values. For example, the net pay to an employee could be recalculated using the gross pay field and deducting any withholdings/ taxes.	✔	✔
Cross Tabulate	Allows you to analyze Character fields by setting them in rows and columns. By cross-tabulating Character fields, you can produce various summaries, explore areas of interest, and accumulate Numeric fields.	✔	✔
Export	Creates a new file that can be used in another software format. For example, export information to MS Word.	✔	✔
Extract/Filter	Extracts specified items from one file and copies them to another file, normally using an IF statement. For example, extracting all account balances over a predefined limit.	✔	✔
Index/Sort	Sorts a file in ascending or descending order. For example, sorting a file by social security number to see if any blank or "999999999" numbers exist.	✔	✔
Summarize	Accumulates numerical values based on a specified key field. For example, summarizing travel and entertainment expense amounts by employee to identify unusually high payment amounts.	✔	✔
Aging	Produces aged summaries of data based on established cutoff dates.	✘	✔
Benford's Law	Finds abnormal duplications of specific digits and round numbers in corporate data, based on a deviation from the expected frequencies as inferred from Benford's Law.	✘	✔
Duplicates	Identifies duplicate items within a specified field in a file. For example, identify duplicate billings of invoices within the sales file.	✘	✔
Gaps	Identifies gaps within a specified field in a file. For example, identify any gaps in check number sequence.	✘	✔
Join/Relate	Creates a new data file using a common field to combine two separate data fi les. This task is used to create relational databases on key fields and identify differences between data files.	✘	✔
Sample	Creates random or monetary unit samples from a specified population.	✘	✔
Stratify	Categorizes the data into various strata, or ranges, for a given Numeric field.	✘	✔

#4 Repeatable Analysis

Challenges:
Analysis is difficult to repeat consistently when using spreadsheets. While routine analysis can be built, the process often requires programming knowledge.

Analytics Solution:
Professional data analytics tools, like IDEA, simplify task automation to save time and effort, and standardize audit processes. The Visual Script feature within IDEA can be used to re-run standard analysis processes and build continuous monitoring applications.

IDEAScript is an advanced scripting language that can be used to standardize routine analyses or basic procedures for consistent results. IDEAScripts can address complex processes that are repeated periodically, such as import and normalization of data from different sources to prepare for comparison.

IDEAScript is not limited to working with a cell and can easily work at the table level. Pre-written IDEAScripts are available for supported IDEA users, along with many other resources.

#5 Support

Challenges:
While Microsoft Office products have help features and an online user forum, many of the topics address generic use and troubleshooting issues. If you need personalized help using a spreadsheet feature, you'll probably have to pay for assistance or hunt up the answer.

Analytics Solution:
Professional analytics tools speak the language of audit, but if you need assistance using any feature or function, expert help is just a phone call or email away. One of the great perks of buying IDEA is the ability to contact the IDEA Help Desk to get step-by-step assistance from Audimation's expert tech team.

IDEA is designed solely with the data analyst in mind; be they auditors, accountants, compliance analysts, etc. IDEA comes loaded with numerous help features, tutorials and reminders. In addition to built in support features, the combined content of the Audimation and CaseWare websites is geared specifically to getting you ahead in your work and providing more perks along the way. The CaseWare IDEA Support Site is another great resource for supported users with instructional videos, @functions, IDEAScripts and much more.

While we won't dare argue that spreadsheets are effective tools for data extraction, smaller data sets and sharing results, there are many compelling reasons to opt for a professional data analysis solution.