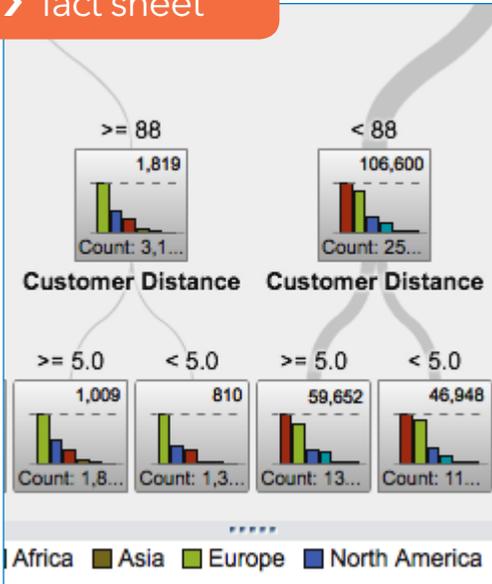


> fact sheet



What does SAS® Visual Analytics do?

SAS Visual Analytics provides a complete platform for analytics visualization, enabling you to identify patterns and relationships in data that weren't evident before. Interactive, self-service BI and reporting capabilities are combined with out-of-the-box advanced analytics so everyone can discover insights from any size and type of data, including text.

Why is SAS® Visual Analytics important?

Users of all skill levels can visually explore data on their own while tapping into powerful in-memory technologies for faster analytic computations and discoveries. It's an easy-to-use, self-service environment that can scale on an enterprisewide level.

For whom is SAS® Visual Analytics designed?

It's designed for anyone in your organization who wants to use and derive insights from data - from decision makers and analysts to statisticians and data scientists. It also offers IT an easy way to protect and manage data integrity and security.

SAS® Visual Analytics

Business visualization driven by high-powered analytics - for everyone

Regardless of size or industry sector, organizations collect all kinds and amounts of data. Unfortunately, traditional architectures and existing infrastructures have difficulty performing the fast analytical processing needed to deliver instantaneous insights.

IT also is swamped with constant requests for data, ad hoc analyses and one-off reports. Decision makers become frustrated because it takes too long - or is even impossible - to get the information needed to quickly answer their questions. And increasingly, they want to be able to access information while they're on the go from mobile devices such as the iPad® or Android tablets, or email.

SAS Visual Analytics combines an easy-to-use, dynamic interface with powerful in-memory technology. All types of users can visually explore data, execute analytics on any size of data within minutes or seconds, understand what the data analysis means, and deliver results quickly wherever needed via the Web, mobile devices or Microsoft Office applications.

Benefits

- **Empower everyone with advanced analytics.** Users of all skill levels can conduct fast, thorough explorations on all available data. Forecast the future. Experiment with different scenarios. Analyze text data. Discover your best options and make more precise decisions. Absolutely no coding is required.
- **Answer complex questions faster and enhance the productivity of your analytical talent.** SAS Visual Analytics uses in-memory analytics to provide extremely fast results. Dramatically improve the productivity of your analytically savvy users by helping them quickly identify areas of opportunity or concern, even among billions of rows of data.
- **Drive collaboration and information sharing.** One of the most powerful ways to encourage conversations around data is to put information where people can easily get to it. In today's world, that means in Microsoft Office applications, on mobile devices or from the Web - with IT maintaining control of the underlying data and security.
- **Deliver self-service capabilities on an enterprisewide level.** SAS Visual Analytics enables many users to visually explore and analyze huge volumes of data - all at one time. This, combined with powerful analytics and high-performance in-memory technologies, gives users across multiple departments and lines of business an unprecedented way to surface new insights and solve complex problems faster than ever. Extensive self-service features are designed for large-level use.
- **Right-size your analytics discovery environment.** Whether you prefer to deploy SAS Visual Analytics on-site using single-server or distributed hardware, in your own private cloud, in a public cloud such as Amazon or in the SAS Cloud environment, we offer options that fit your organization's needs.

Overview

Visualization is critical for quickly understanding what's happening in your data and seeing things you couldn't before. But while data visualization enables you to explore your data, analytic visualization helps you discover insights buried in it. Because of this, analytic visualizations provide more value than simply exploring and using data visualization techniques. While SAS provides both data visualization and analytic visualization, our true differentiation comes with the analytic visualization capabilities, which offer far more value.

Analytic visualizations produce more interesting details that result in further insight and even foresight. For example, an analytic visualization of customer data would show a strong relationship (high correlation) between women and a particular type of boot sold in a specific state. Another analytic visualization could predict the future revenue of boots in a particular geography and help determine growth. Sharing reports and dashboards based on analytics conveys more information about future possibilities and promotes collaboration, which leads to more strategic decision making.

A complete enterprise platform for analytic visualization

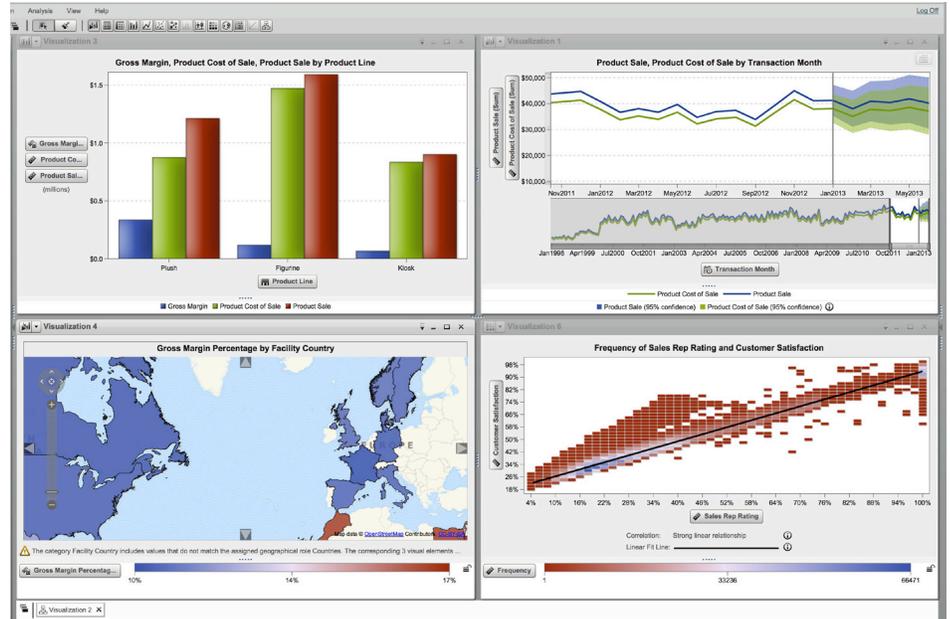
SAS Visual Analytics combines powerful in-memory technologies with an extremely easy-to-use exploration interface and drag-and-drop analytics. No coding is required, and users of all skill levels can produce analytic visualizations and gain new insights from data. They can even include text from Twitter streams or call center logs for more complete analyses. Interactive, self-service reporting and Microsoft Office integration are among its extensive end-user features. In addition, IT gets easy administration and system monitoring. It's one of the few analytic visualization offerings designed to handle big data. And flexible deployment options let you easily scale your system as your data and analytic needs grow.

High-performance in-memory SAS® LASR™ Analytic Server

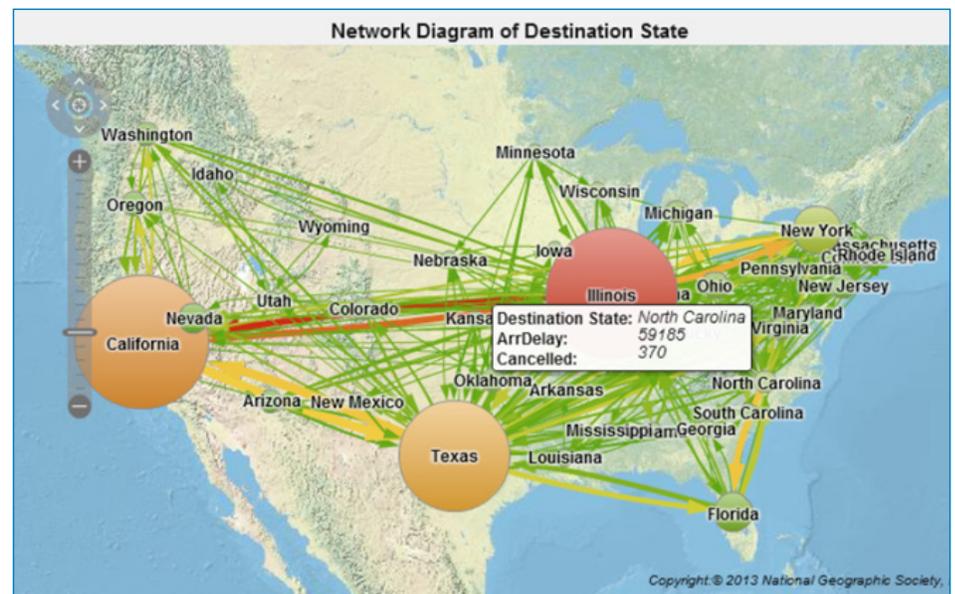
The SAS LASR Analytic Server provides the foundation for this solution and greatly accelerates analytic computations. Its in-memory capabilities provide extremely fast processing of data, right out of the box, regardless of the amount of data to be explored and analyzed.

Visualizations powered by SAS® Analytics

With Web-based exploratory analysis and other easy-to-use features, even users without analytical expertise can use predictive analytics to gain precise insights. Nontechnical users can create and change queries simply by selecting items from a sidebar or dynamically filtering and



Analytic visualizations uncover insights buried in data.



Network diagrams integrated with mapping technologies show interconnected data points with geospatial references.

grouping data items. Autocharting selects the visualization that best suits the type of data chosen. "What does it mean" pop-up boxes provide explanations of complex analytic functions and data correlations, helping everyone understand the data and what the analysis means. Analytically savvy users can use visualization techniques to spot trends and derive deep intelligence quickly and easily. This eliminates much of the everyday trial-and-error process currently used to identify areas that need further analysis.

Easy analytics, including text analysis

Analytic features are tailored for different skill levels so everyone can create analytic visualizations on their own without learning new skills or engaging IT. Self-service auto-loading even lets your users load their own data from Excel spreadsheets and other sources for analysis. Powerful, yet easy-to-use analytics include:

- Automated forecasting that selects the most appropriate forecasting method for the data chosen. Even novice users can forecast reliably.
- Scenario analysis, so you can see how forecasts would be affected by interactively changing variables.
- Decision trees that graphically depict the most likely outcomes.
- Network diagrams that show how complex data is interconnected.
- Integrated mapping technologies so you can see geographic specifics.
- Text analytics. Applying text analysis to Twitter streams or customer comments provides quick insight into the hot topics being discussed. SAS Visual Analytics provides more than simple word clouds that display how many times a word is used. Applying analytics behind the scenes, content categorization determines which topics are most important and warrant further exploration.

Interactive, self-service reporting

A Web-based interface makes report design, creation, viewing and distribution easy for users of all skill levels. Extensive layouts speed report creation, and a

Key Features

Visual data exploration

- Interactive data exploration for all types of users.
- Autocharting capability helps determine the chart best suited to display data based on items selected for analysis.
- Integration with mapping technologies provides an understanding of geospatial data.
- "What does it mean" capabilities explain the relationships between variables.
- Analytic visualizations include box plots, heat maps, bubble charts, animated bubble charts, network diagrams, decision trees and more.
- Queries can be changed by selecting items to be displayed from a sidebar or by dynamically filtering and grouping.
- A resizable overview bar lets you zoom in on selected portions of your big data.

Self-service, easy analytics

- Fast in-memory analysis on data of any size.
- Descriptive, predictive and prescriptive analytics out of the box.
- Data can be easily queried from a seamless set of viewing modes.
- Multidimensional data can be sliced and diced by applying filters on any level of a hierarchy.
- Drillable hierarchies include expandable and collapsible levels.
- Viewable descriptive statistics, such as min, max and mean, provide an overall sense of a particular measure.
- New measures can be calculated and added to any view.
- Forecasts can be generated on the fly with forecasting confidence intervals included.
- The most appropriate forecasting algorithm for specific data is automatically selected.
- Using scenario analysis, see how a forecast would be affected by changing variables.
- Interactively generate decision trees to graphically depict likely outcomes. An expert level allows you to modify certain influencing parameters for the tree generation.
- One-click ability to create time-period based calculations.
- Custom binning and grouping (based on custom categories).
- Text analysis, including word clouds and content categorization.
- Network diagrams with the ability to display networks across a map, including ESRI maps.
- View can be saved as report packages to share with other advanced data exploration users in Web reports, images or SAS mobile apps.

Robust report design, creation and viewing

- Web-based, interactive report-building interface for report authors.
- Design reports once and publish anywhere.
- Data acquisition wizard for previewing, filtering or sampling data prior to creating reports.
- Data can be loaded into SAS® LASR™ Analytic Server from within the report design interface.
- Precision layout capabilities provide flexibility in report layout and design.
- Custom graph templates and mashups.
- On-the-fly hierarchies can be created to add drill-down capabilities to reports.
- Ability to select predefined filters, set groupings and sorting, and override defaults.
- Custom calculations and progressive filters are easily created.
- A variety of charts are included: bar/3-D bar with multiple lines, pie/3-D pie, line, scatter, heat map, bubble, animated bubble, and tile.
- Filtering and selection capabilities can be easily added to reports with common action elements such as drop-down/combination boxes, check boxes and sliders.

comprehensive suite of presentation options enables users to easily incorporate graphics in their reports. Easily design and produce business graphics, apply corporate design standards and publish reports to a Web-based viewer or an iPad or Android tablet. And reports only have to be designed once, regardless of where they will be displayed.

Mobile BI

Decision makers need information no matter where they are. With SAS Visual Analytics, they can quickly view and interact with reports from their iPad or Android tablet. (The mobile BI app can be downloaded free from Apple iTunes® and Google Play.) A new guest mode lets them view reports without even logging in.

Easy collaboration through Microsoft Office integration

As more people have access to data and analytics, it's important to have conversations about the data and results. These conversations are critical for understanding, interpretation and alignment. Seamless integration with SAS Office Analytics or other SAS solutions that include the SAS Add-In for Microsoft Office enables you to include visualizations or reports within Microsoft Office apps. That means users can view and comment on dynamic reports sent to their Outlook mailbox. And all comments are kept with the report, so there's no need to consolidate comments later.

To learn more about SAS Visual Analytics, download white papers, view screenshots and see other related material, please visit sas.com/visualanalytics. Or, try SAS Visual Analytics for yourself at sas.com/vademos.

Key Features (continued)

- Integration with ESRI mapping technology adds geospecific information to reports.
- Range-based or threshold-based alerts let people subscribe to reports and receive notices when a report changes.
- Guest mode for viewing explorations, reports and dashboards without logging in.
- Seamless integration with SAS Office Analytics and SAS Add-In for Microsoft Office lets users open reports from their Microsoft Office applications.

Mobile BI

- Native iPad® and Android apps provide a feature-rich user experience.
- Reports can be viewed securely on mobile devices either online or offline via mobile tethering.
- Comments can be added to reports for better collaboration.
- Ability to annotate, share, email and comment on reports and screenshots with others.
- Alerts can be sent to mobile devices when reports are updated.
- Integration with third-party vendors, such as Good Technologies and Mocana, provides mobile device management.

Collaboration

- Thumbnails of recent and favorite items can be viewed and selected to open them.
- Items can be opened directly from the SAS Visual Analytics Hub, whether they are reports, visualizations or data sources for exploration.
- Integration with Microsoft Office applications: Outlook, SharePoint, Excel and PowerPoint.
- Ability for recipients to add consolidated comments to a report. Mobile users, Microsoft Office users and Web users can all share and view comments in a central location. Comments stay with the reports so everyone can see them.

Easy setup and data administration for IT

- A Web-based interface makes it easy to manage SAS information assets, including users, servers and data.
- User authentication and information authorization is persisted across all solution components to support data governance and IT policy implementation.
- Offers both IT-managed and end-user self-service data loading options.
- Data can be interactively prepared for analysis, including joining tables, defining custom calculated columns and creating custom expressions.

Deployment flexibility

- Designed to run in a single-server mode for smaller organizations and departments.
- Optimized for distributed environments to use the parallel processing capabilities of many nodes to scale as your organization's needs and data grow.
- Integrates with Hadoop for performance optimization and scalability.
- Can be used on commodity hardware, on database appliances, or in a private, public or SAS Cloud.