SAS® Analytics Pro
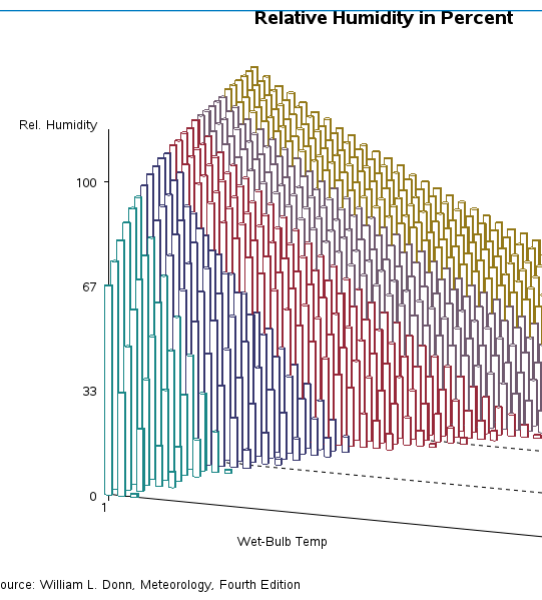
Access, manipulate, analyze and present information with this entry-level package for desktop data analysis and reporting

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Relative Humidity in Percent

Source: William L. Donn, Meteorology, Fourth Edition

What does SAS® Analytics Pro do?

SAS Analytics Pro combines proven tools that enable users to access nearly any data source, analyze it and transform it into meaningful and valuable visualizations that help decision makers gain a quick understanding of critical issues.

Why is SAS® Analytics Pro important?

This offering includes some of the most popular SAS products and components: Base SAS, SAS Studio, SAS/STAT® and SAS/GRAPH®. You get data exploration, statistical analysis, reporting and presentation capabilities – all from one vendor, all in one package.

For whom is SAS® Analytics Pro designed?

It's designed for analysts and statisticians who need to explore, examine and present data in an easily understandable way, and distribute their findings in a variety of formats.

Data sources have gotten so large and varied that the majority of statistical software products can't handle them. On top of that, increasingly advanced statistical methods are needed, along with analyses that can be verified and documented to meet compliance standards.

SAS® Analytics Pro offers an alternative to mixing and matching software by combining Base SAS, SAS/STAT®, SAS Studio, and SAS/GRAPH® into one easy-to-install desktop package.[1]

With SAS Analytics Pro, users have an integrated software stack for the most common data questions – for reading and transforming data, information storage and retrieval, statistical analysis, report writing and visualization. In addition, a powerful macro facility reduces application development and maintenance time.

SAS Analytics Pro improves productivity, providing the tools and methods needed for desktop data analysis.

Benefits

- **Get analysis, reporting and easy-to-understand visualizations from one vendor.** Why piece together niche software packages from different vendors? A consolidated portfolio reduces the cost of licensing, maintenance, training and support, and ensures that consistent information is available across your enterprise.

- **Apply innovative statistical techniques.** SAS statistical techniques use leading-edge methodologies. With more than 40 years of experience developing statistical analysis software, organizations around the world rely on SAS to provide accurate answers to data questions.

- **Take advantage of our technical support and user communities.** When you have a question and need answers quickly, you have choices. Our technical support team is staffed with highly experienced statisticians who provide a level of service and knowledge rarely found with other software vendors. You can take advantage of users' communities on the web to share your questions and thoughts on best practices and experiences.

- **Easily create graphics and reports.** You can build analytical graphs, maps and charts that help decision makers gain a quick understanding of critical issues. Create reports as ebooks or in standard office formats such as RTF, PDF, Microsoft PowerPoint and HTML that can be read on many devices. Produce reports and visualizations of analytics results and deliver them to users on the platforms and applications they use the most.

[1] For server-based processing, SAS Office Analytics is recommended, to provide centralized maintenance.

Overview

SAS Analytics Pro delivers a suite of data analysis and graphical tools in one, integrated package.

An intuitive fourth-generation programming language

SAS Analytics Pro provides a highly flexible and extensible 4GL with easy-to-learn syntax. It includes hundreds of language elements and functions that support programming – from data extraction, formatting and cleansing to data analysis, reporting and information storage. You can code in SAS or Python – whatever you are most comfortable with. The pipefitter package for Python is available as a free download from GitHub at: https://github.com/sassoftware/python-pipefitter.

A rich library of ready-to-use procedures

Prewritten SAS procedures handle many common tasks, including data manipulation and management, information storage and retrieval, statistical analysis and report writing. They encapsulate and deliver significant functionality that can be executed with just a few simple commands, improving productivity and efficiency for programmers.
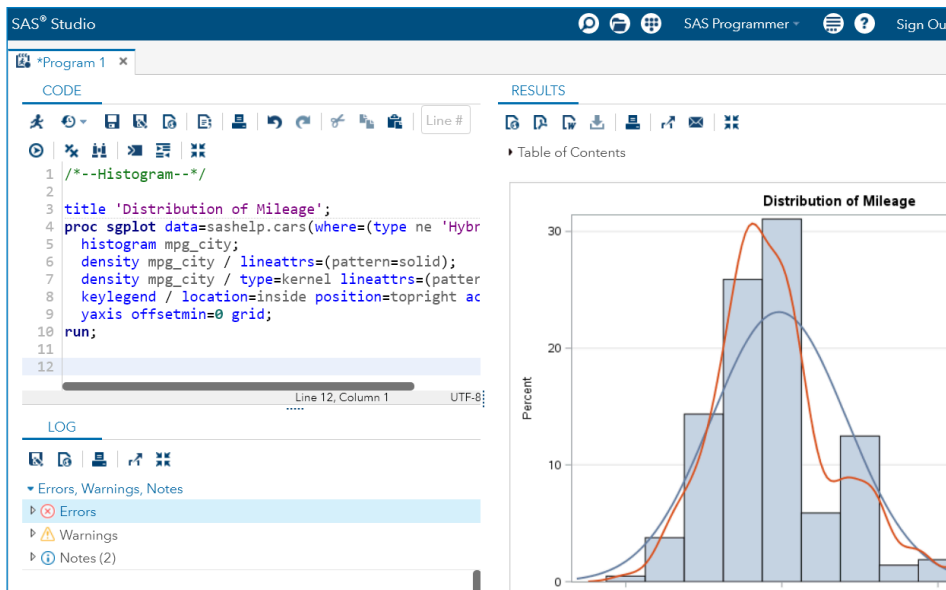
The SAS® macro facility

Included as part of the SAS language, the SAS macro facility lets users extend and customize SAS programs by reducing the amount of coding required for common tasks. Encapsulate small or large amounts of text into units with names and then work with the names rather than the longer text. Development staff can modularize their work for easy reuse and maintenance.
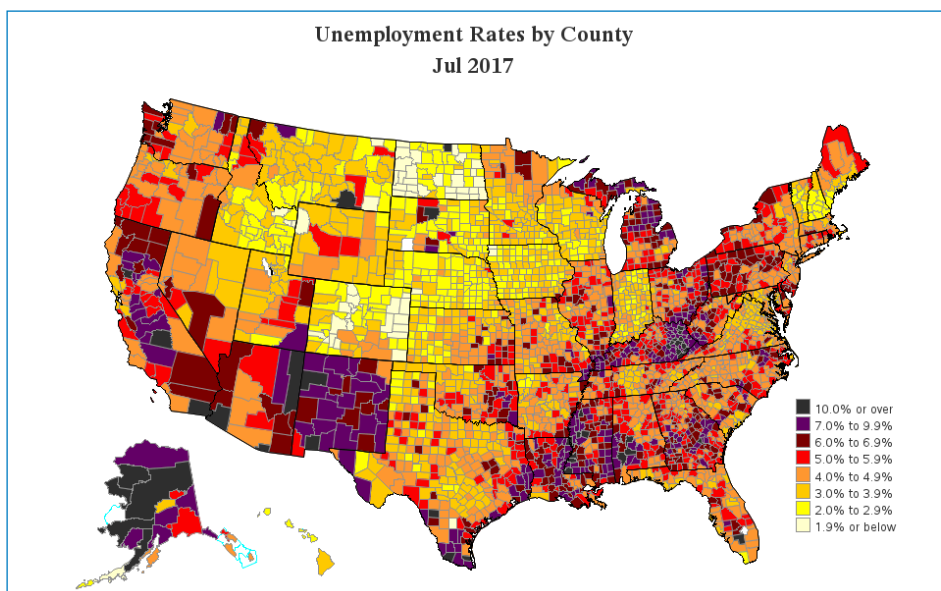
Powerful SAS® Analytics

SAS Analytics Pro provides a wide range of statistical methods. Using statistical software can help you uncover new information for improving processes, driving development and revenues, and retaining valued and satisfied customers. If you aren't familiar with SAS or Python programming, analytics and data manipulations are available as part of a workflow interface, also included with the software.

Meaningful visualizations

SAS Analytics Pro enables users across the enterprise to visually present their ideas and findings using a huge variety of business maps, charts, plots and 3-D relationship graphs. Prism, choropleth, block and surface maps can be created in many colors, and graphic manipulations are flexible. Extensive map data sets are included, along with the ability to geocode both mailing addresses and IP addresses. You can also analyze point data against polygons to determine which polygon each point is in.

SAS Analytics Pro provides a suite of data analysis, graphical and reporting tools in one integrated package.

Built-in mapping capabilities are included.

Data presentation and delivery

Visual components can be created, customized, easily stored in catalogs, retrieved as needed and combined with other graphics and information. Create both static and interactive visuals, even free-form designs, and output them on hundreds of different devices. The software also supports the batch pro¬cessing of high-volume graphics. Results can be delivered across the enterprise via printed reports, email or the web, or embedded in other applications.

SAS® Output Delivery System (ODS)

ODS, a part of Base SAS, provides an almost limitless number of choices for reporting and displaying analytical results with a wide variety of output formats and destinations. While providing an array of options for customizing the output, ODS takes care of arranging the output in the form most appropriate for the chosen format. Programmers can create and deliver accurate and visually appealing reports in less time with reduced programming effort.

Key Features

Powerful 4GL with support for SQL
- Ability to read data in nearly any format, from nearly any kind of file.
- Robust macro language reduces coding for common tasks.
- Runs interactively or in batch mode.
- Includes SAS Studio – a browser-based SAS development environment.
- Windows desktop version includes SAS® Enterprise Guide® for guided tasks and batch analysis.
- If you prefer to code in Python, download the SAS pipefitter for Python package from GitHub.

Data analysis
- Access to almost 100 unique statistical procedures, each with options for robust and accurate answers. Data analysis methods include:
- Analysis of variance.
- Bayesian analysis.
- Categorical data analysis.
- Cluster analysis.
- Discriminant analysis.
- Exact methods.
- Group sequential design and analysis.
- Market research.
- Mixed models.
- Multiple imputation.
- Multivariate analysis.
- Nonparametric analysis.
- Post-fitting inference.
- Power and sample size.
- Psychometric analysis.
- Regression.
- Spatial analysis.
- Structural equations.
- Survey sampling and analysis.
- Survival analysis.
- Statistical graphics.
- Ability to add drill-down capabilities so users can visually explore analyses.
- For a complete list of methods, see the SAS/STAT documentation.

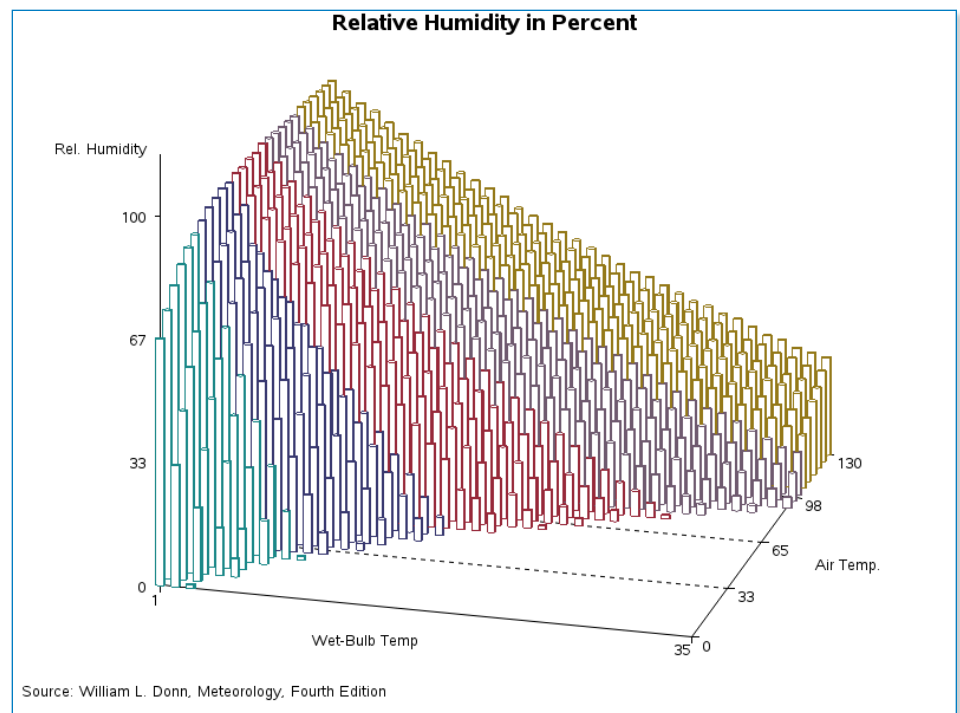## Key Features (continued)

Data visualization, presentation and delivery
- Built-in map data sets (for countries, and US states and counties).
- Ability to geocode mailing addresses and IP addresses.
- Ability to analyze point data against data polygons to see where points are located.
- Broad range of charts and plots, including scatter, line, area, bubble, multiple axis and overlay; bar, pie, donut, star and block; 2-D and 3-D plots with tilting and rotation.
- Customized colors, line styles and symbols.
- Alpha transparency on charts.
- Anti-aliased lines for smoother plot lines.
- Generate static or dynamic interactive (Java or ActiveX) charts and graphs with drill-down capabilities.
- Link graphs to web pages.
- Embed interactive graphics in web pages or Microsoft Office documents.
- Support for virtually all common printers and plotters.
- Graphs are integrated with tables with all output displayed in the same HTML file.

Source: William L. Donn, Meteorology, Fourth Edition

You can produce a wide range of charts and plots, including 3-D graphics with embedded footnotes.

To contact your local SAS office, please visit: sas.com/offices

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