

UPDATE FROM SAS

MATTHEW JOYCE, SAS CANADA



SAS[®] Visual Statistics

Predictive analytics. Redefined.

Try it now 

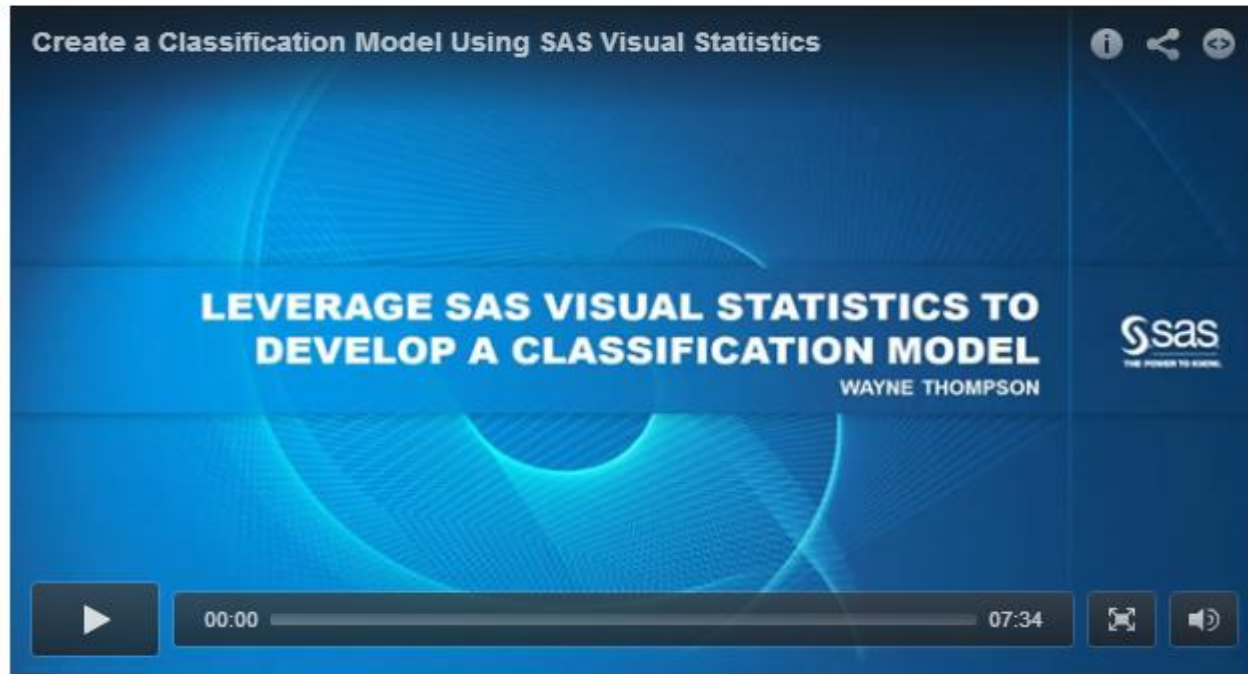


Features



- **Interactive data exploration and modeling environment.** Quickly identify predictive drivers among multiple exploratory variables, and interactively discover outliers and data discrepancies through integration with [SAS Visual Analytics Explorer](#). And create powerful descriptive and predictive models with a simple drag-and-drop interface.
- **Descriptive modeling.** Visually explore and evaluate segments for further analysis using k-means clustering, scatter plots and detailed summary statistics.
- **Predictive modeling.** Build predictive models using techniques such as linear regression, generalized linear modeling, logistic regression and classification trees.
- **Dynamic group-by processing.** Concurrently build models and process results for each group or segment without having to sort or index data each time.
- **In-memory analytical processing.** Build models faster on diverse sets of data, [including Hadoop](#). There's no need to write data to disk or perform data shuffling, and you can instantly see the impact of changes (e.g., adding new variables or removing outliers).
- **Model comparison and assessment.** Generate model comparison summaries, such as lift charts, ROC charts, concordance statistics and misclassification tables on one or more models.
- **Model scoring.** Generate SAS DATA step code, and apply it to new data.
- **Platform support.** Supports [Hadoop distributed file system](#) (Cloudera or Hortonworks distributions), as well as Teradata, Greenplum (Pivotal) and Oracle databases.

Interactive Predictive Modeling With
SAS® Visual Statistics



SAS[®] Model Risk Management

Reduce model risk and increase business value



Centralize model information management.

Establish a centralized model inventory that supports your internal policies and procedures across all business units. The solution's robust infrastructure includes permissions, version control and data mining capabilities. And you can import attributes and metadata – e.g., model limitation scoring, validation results, criticality ratings, etc. – from any type of model developed in any technology.

Gain greater insight into model risk concentrations.

Analyze thousands of data point – using both quantitative and qualitative data – to gain greater insight into your organization's model risk concentrations. Interactive visualizations tell your model risk story clearly and accurately to broaden institutional awareness and facilitate appropriate board-level oversight. And users can easily drill down through reports to learn more.

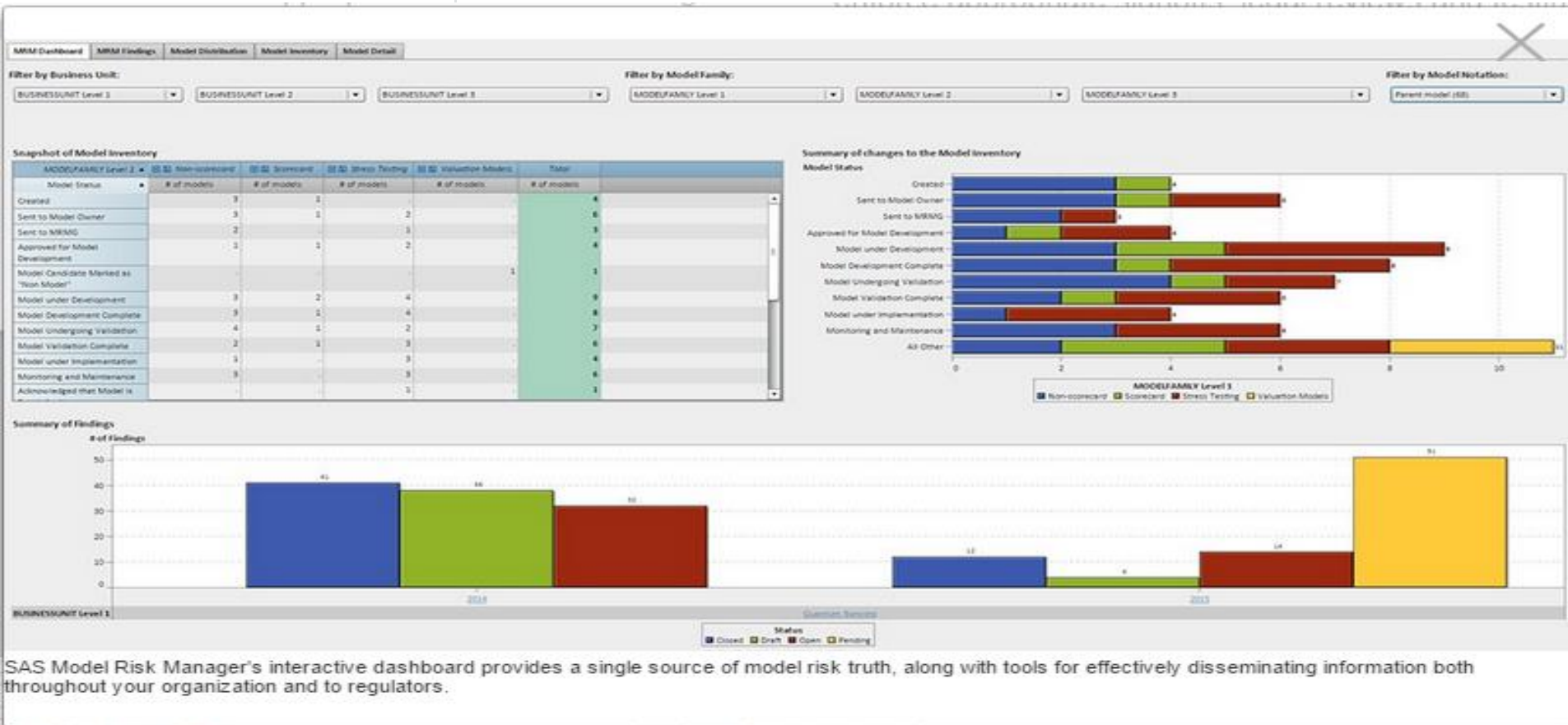
Document and track models throughout the model life cycle.

Effectively track model issues, concerns, challenges and remediation with a rigorous model review and validation process that satisfies regulatory principles and expectations. A single source of model documentation consistently records the review and validation process, which can be examined at various levels, including model lineage, version, business line, model owner and more.

Keep pace with changing risk policies and regulations.

Quickly tune your model review and validation practices to stay on top of ever-changing risk policies and regulatory requirements. Governance tools help enforce appropriate signoffs, legal reviews and testing on a consolidated platform.

SAS GLOBAL FORUM THE BIG ANNOUNCEMENTS: MODEL RISK MANAGEMENT



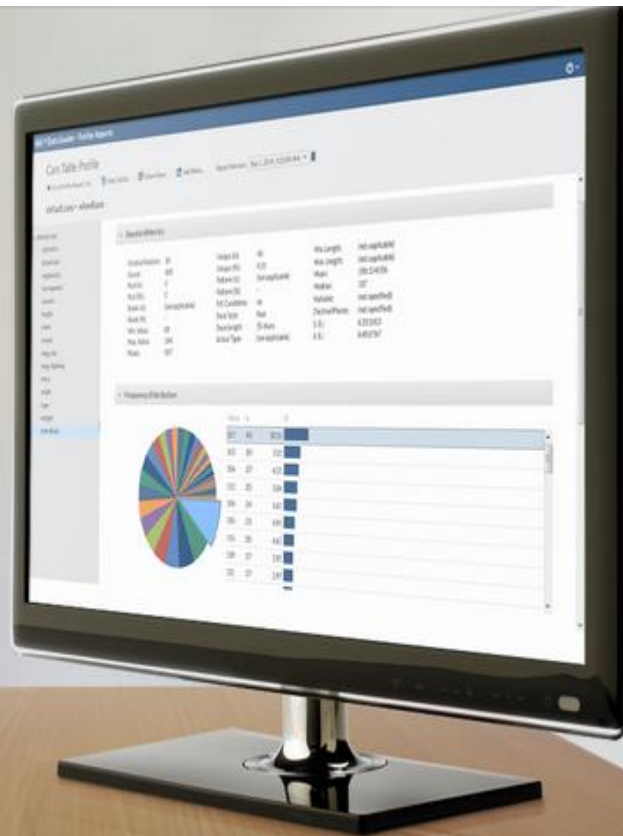
SAS Model Risk Manager's interactive dashboard provides a single source of model risk truth, along with tools for effectively disseminating information both throughout your organization and to regulators.

SAS® Data Loader for Hadoop

Manage big data on your own terms with self-service data integration and data quality

[Get free trial >](#)

[Get price quote >](#)



Manage data without specialized skills.

No need to outsource anything. You know what you need from your data, and you can do it yourself. SAS Data Loader for Hadoop makes it easy for business users or data scientists to perform data integration, data quality and data preparation tasks without writing complex MapReduce code or asking for outside help.

Free up IT for more technical tasks.

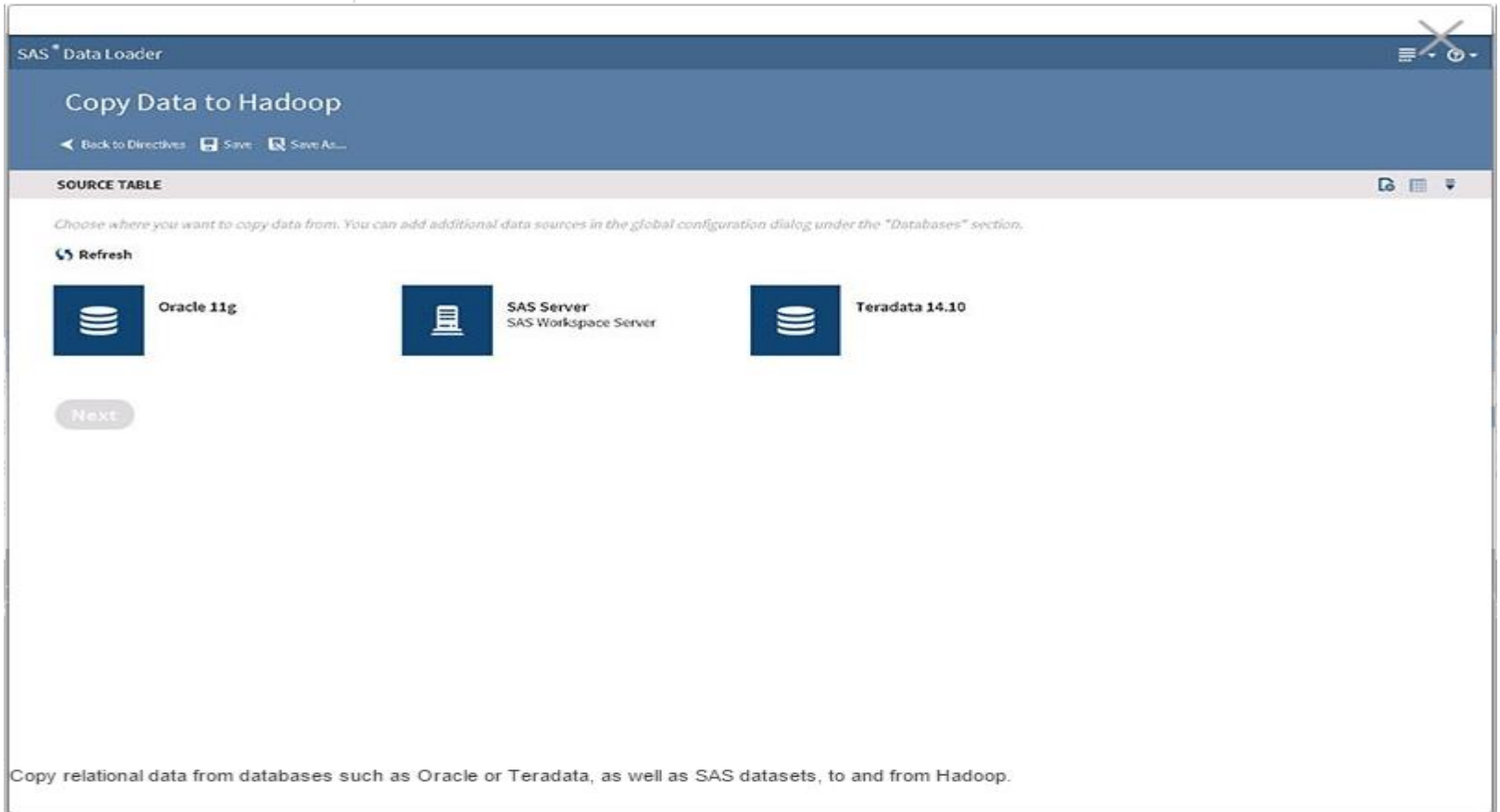
When the data scientists on your team are weighed down with basic data management duties, their advanced skills go underused – and business takes a hit. SAS Data Loader for Hadoop frees up IT to focus on making your systems better, faster and more powerful.

Improve scalability and performance.

While business users appreciate the solution for its ease of use, data scientists and SAS coders like how it improves speed, efficiency and agility. A code accelerator makes it possible to run code in parallel on the Hadoop cluster for faster performance. Plus, you can improve data quality without moving your data.

Derive more value from your big data.

It's easy to load data from relational data sources or SAS data sets to and from Hadoop – and put your big data to work. There are endless opportunities for advanced analytics and other technologies that have the potential to transform your organization.



SAS Data Loader

Copy Data to Hadoop

< Back to Directives Save Save As...

SOURCE TABLE

Choose where you want to copy data from. You can add additional data sources in the global configuration dialog under the "Databases" section.

Refresh

Oracle 11g SAS Server SAS Workspace Server Teradata 14.10

Next

Copy relational data from databases such as Oracle or Teradata, as well as SAS datasets, to and from Hadoop.

FOR MORE INSIGHT...

- www.sas.com
- [SAS Global Forum Proceedings](#) (see handout)
- <http://sasgf.v.sas.com/> (on-demand videos: keynotes, how-to's, interviews, demos, etc.)

FREE STUFF!



Image courtesy of [Goldmine Magazine](#)

SAS ANALYTICS U ... NOT JUST FOR STUDENTS!

- Leverages the SAS Studio interface and includes SAS/ACCESS, SAS/IML, SAS/STAT and Base SAS
- Even some ETS included (TIMEDATA, TIMESERIES, ARIMA forecasting procedures)
- Totally free!
- Great way to practice/sharpen SAS skills outside of the office
- Huge online support community of instructors/professionals
- Download and install from the web, run locally
- Reach out to [@SASAcademicCA](#) for support/insight



FREE TRAINING!

SAS Programming 1: Essentials

[Overview](#)[Prerequisites](#)[Course Outline](#)

This course is for users who want to learn how to write SAS programs. It is the entry point to learning SAS programming and is a prerequisite to many other SAS courses. If you do not plan to write SAS programs and you prefer a point-and-click interface, you should attend the [SAS Enterprise Guide 1: Querying and Reporting](#) course.

This course can help prepare you for the following certification exam(s): [SAS Base Programming Exam for SAS 9](#), [SAS Certified Clinical Trials Programmer Using SAS 9](#).

Formats available



Classroom:

Duration

3.0 days



Live Web Classroom:

6 half-day sessions

[System Requirements](#)

[View demo](#)



e-Learning:

24 hours/1-yr license

[System Requirements](#)

[View demo](#)

Need a practice version of SAS? Get a [free learning version](#) for academic and adult learners.

FREE TRAINING!

Statistics 1: Introduction to ANOVA, Regression, and Logistic Regression

Overview

Prerequisites

Course Outline

This introductory course is for SAS software users who perform statistical analyses using SAS/STAT software. The focus is on t tests, ANOVA, and linear regression, and includes a brief introduction to logistic regression. This course (or equivalent knowledge) is a prerequisite to many of the courses in the statistical analysis curriculum. A more advanced treatment of ANOVA and regression occurs in the [Statistics 2: ANOVA and Regression](#) course. A more advanced treatment of logistic regression occurs in the [Categorical Data Analysis Using Logistic Regression](#) course and the [Predictive Modeling Using Logistic Regression](#) course.

This course can help prepare you for the following certification exam(s): [SAS Certified Clinical Trials Programmer Using SAS 9](#), [SAS Statistical Business Analysis Using SAS 9: Regression and Modeling](#).

Learn how to

- generate descriptive statistics and explore data with graphs
- perform analysis of variance and apply multiple comparison techniques
- perform linear regression and assess the assumptions
- use regression model selection techniques to aid in the choice of predictor variables in multiple regression
- use diagnostic statistics to assess statistical assumptions and identify potential outliers in multiple regression
- use chi-square statistics to detect associations among categorical variables
- fit a multiple logistic regression model.

SAS TUTORIALS

Free SAS Tutorials

View SAS training "how to" videos, tutorials, and demos to learn tips and tricks for working with SAS software.



The image shows a screenshot of a video player interface for a SAS tutorial. The video player has a title bar with three window control buttons (minimize, maximize, close) in the top right corner. The main content area is divided into two sections. On the left, there is a video thumbnail with the following text: "SAS Tutorial", "Getting Started with the SAS® Windowing Environment", and the SAS logo. The thumbnail also features a play button icon and a "run;" code snippet. On the right, the video title "Getting Started with SAS Windowing Environment" is displayed above a description: "Learn how to perform basic programming tasks in the SAS Windowing Environment." Below the description is a blue "View Now" button. Navigation arrows (left and right) are positioned on the left and right sides of the video player frame.

SAS TUTORIALS

New to SAS

Visual Analytics

Analytics

Foundation Tools

Business Intelligence

Solutions

Getting Started

- [Using SAS](#)
- [Getting Started with SAS Studio](#)
- [Working in SAS Studio](#)
- [Getting Started with SAS Enterprise Guide](#)
- [Getting Started with SAS Windowing Environment](#)
- [Writing a Basic SAS Program](#)

Accessing Data

- [Accessing Data in SAS Libraries](#)
- [Creating a SAS Table from an Excel-Generated CSV File](#)
- [Reading and Generating CSV Files Using SAS Studio](#)

Managing and Manipulating Data

- [Creating a New Column in SAS](#)
- [Performing Conditional Logic in SAS](#)
- [Formatting Values in SAS](#)
- [Filtering SAS Tables](#)
- [Merging SAS Tables with a Matching Column](#)

Creating Graphs

- [Creating a Scatter Plot Using SAS Studio](#)
- [Creating a Series Plot Using SAS Studio](#)
- [Creating a Histogram Using SAS Studio](#)
- [Creating a Bar Chart Using SAS Studio](#)
- [Creating a Bar-Line Chart Using SAS Studio](#)

Performing Statistical Analyses

- [One-Sample \$t\$ Test Using SAS Studio](#)
- [Paired-Sample \$t\$ Test Using SAS Studio](#)
- [Two-Sample \$t\$ Test Using SAS Studio](#)
- [Summary Statistics Using SAS Studio](#)
- [Distribution Analysis Using SAS Studio](#)
- [One-Way Frequency Analysis Using SAS Studio](#)
- [Correlation Analysis Using SAS Studio](#)
- [Table Analysis Using SAS Studio](#)
- [One-Way ANOVA Using SAS Studio](#)
- [Nonparametric One-Way ANOVA Using SAS Studio](#)
- [Simple Linear Regression Using SAS Studio](#)
- [Multiple Linear Regression Using SAS Studio](#)
- [Simulating One-Way ANOVA Data Using SAS Studio](#)
- [Simulating Linear Regression Data Using SAS Studio](#)

ASK THE EXPERTS

Find Your Answers

Watch Live or OnDemand.



Hear it from the experts. SAS experts will hold live events presenting a variety of topics. For the opportunity to ask a specific question, you can register to participate in the live sessions. You can also view previously recorded sessions on-demand at your own convenience to get in-depth information about a particular topic.

Additional live event dates and on-demand videos coming soon!

[New to SAS](#)

[Visual Analytics](#)

[Analytics](#)

[Foundation Tools](#)

[Business Intelligence](#)

[Administrator](#)

ASK THE EXPERTS

Hidden Gems in SAS Enterprise Guide

This session looks at both new and existing functionality of SAS Enterprise Guide to help both novice users and long-time programmers. Learn about filtering options, task and code templates, prompts, computed columns, subqueries, adding SAS code to a process flow and more.

[Register for live event](#) >

A Deeper Dive into SAS Enterprise Guide Reporting

This session will review creating a simple row and column report, creating a graph or chart, adding a prompt and combining reports together in the report builder.

[Register for live event](#) >

Top 10 Ways to Optimize Your SAS Code

In this session, learn tips and tricks to make your SAS code run more efficiently. There are at least six ways to do most things in SAS, so understanding some coding guidelines can help to guide efficient decisions. Some tips include: limiting the amount of data read, index usage, and efficient conditional processing.

[Register for live event](#) >

Exploring SAS Stored Processes

In this session, using SAS Enterprise Guide we will illustrate how to access and analyze data. Creating SAS Stored Processes from a SAS Enterprise Guide project. Creating SAS Stored Processes from existing SAS programs. Accessing SAS Stored Processes from a variety of SAS client applications.

[Register for live event](#) >

What's New in 9.4 Foundation for Programmers

In this session, you will learn about the new features and functionality of SAS 9.4.

[Register for live event](#) >

THANK YOU

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