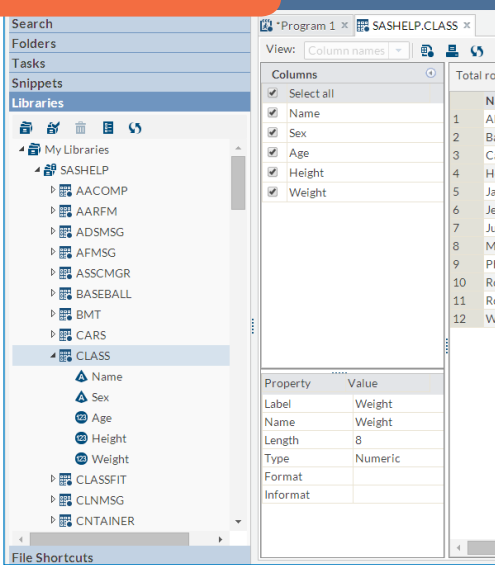


## Fact Sheet



### What does SAS® University Edition do?

SAS University Edition is a free version of select SAS products for teaching and learning statistics and quantitative methods. It also provides easy access to statistical software for research and other courses like economics, social sciences, computer science, business, medical/health and engineering.

### Why is SAS® University Edition important?

Throughout the world both public and private sectors are experiencing a technical analytic skills gap. SAS is helping academia build the statistical knowledge and skills needed to fill this gap so that students can start their careers understanding how to solve problems with analytics - and employers can hire them.

### For whom is SAS® University Edition designed?

SAS University Edition is designed for anyone wanting easy access to statistical software to perform quantitative analysis in an academic setting. This includes undergraduate and graduate students, professors, adult learners, high school students, researchers and postdocs.

# SAS® University Edition

Free statistical software to improve research and launch careers

SAS is known for its commitment to education. To help fill the analytic skills gap employers are facing, SAS offers students, professors, researchers and lifelong learners free SAS software to broaden their knowledge, skills and potential uses of statistical analysis to solve real-world problems.

SAS University Edition is a new offering that provides free access to SAS software faster and easier than ever before. Under the umbrella of SAS Analytics U - a broad education initiative - this offering provides the most up-to-date statistical methods as a subset of SAS products so you can import and export data and perform sophisticated analyses - all while learning the most recent advances in statistical methods and techniques.

Integral to professors and students for statistics, data manipulation and data analysis, this package is relevant to any area where quantitative methods are taught. And SAS makes it easy to download. The package also includes e-learning classes and training videos - as well as access to the SAS Analytics U community, where you can interact with users, share ideas and access more SAS resources.

## Benefits

- **Build your statistical prowess.** With SAS, you can explore and solve important and stimulating problems. Doing so develops analytical skills for instructors to advance statistical research and education, and for students to prepare for rewarding careers in any industry.
- **Download and use SAS software anytime, anywhere.** Once you download it, you can use SAS on a standalone PC, Mac or even a Linux workstation. And students can get it directly through SAS - no need to go through a professor or be enrolled in a class. SAS gives you a consistent user experience across all applications, whether you're working on a class project or doing self-study. And you always have the ability to import and export all common PC file formats.
- **Tap into a wide array of supportive teaching and learning resources.** In addition to the fully functional software, SAS makes it easy for professors, students and researchers to learn, teach and stay connected to SAS:
  - o Registered software users get free introductory videos to learn the basics of SAS programming and statistical analysis and get a jump on using features quickly.
  - o The SAS Analytics U program provides an interactive community for SAS academic users - including chat, support and introductory videos.
  - o Our SAS Global Academic Program offers teaching and curriculum development materials for professors at no cost. Students gain huge benefits by participating in this engaging analytics community and preparing themselves for their futures - whether in academia, commercial industry or the public sector.

## Overview

Available without cost, SAS University Edition is a great way to start using SAS at any level – from basic introductory classes through advanced study. The two e-learning modules – also supplied at no cost – help you get acquainted with the basics. Once you download it to your PC, Mac or Linux workstation, SAS works through virtualization software via your browser in standalone mode.

This bundle gives you everything you need to perform advanced statistical analysis using the most current statistical and quantitative methods available – with unlimited observations and procedures. This includes:

- **Base SAS.** Make programming fast and easy with the SAS programming language, ODS graphics and reporting procedures.
- **SAS/STAT®.** Trust our proven reliability with a wide variety of statistical methods and techniques.

- **SAS/IML®.** Use this matrix programming language for more specialized analyses and data exploration.
- **SAS Studio.** Reduce your programming time with autocomple for hundreds of SAS statements and procedures, as well as built-in syntax help.
- **SAS/ACCESS®.** Seamlessly connect with your data, no matter where it resides.

And for statistical tasks taught in introductory courses – such as linear regression, distribution analysis, correlations and summary statistics – you have the option to use the powerful SAS programming language or select code-generating tasks or process flows through SAS Studio.

SAS maintains rigorous software testing, complete product documentation, and numerical validation of its software. Statistical procedures in SAS are constantly being updated to reflect the latest advances in statistical methodology. In addition, technical support is provided by experienced master's- and doctorate-level statisticians who provide industry-leading service.

## Capabilities

### The SAS® Programming Language - Base SAS®

Base SAS is a powerful, versatile software foundation for all SAS University Edition components. With an intuitive, easy-to-learn and use programming language, it significantly reduces the amount of code required to deliver information – increasing your programming productivity.

This highly flexible and extensible fourth-generation programming language has an easy-to-learn syntax and hundreds of language elements and functions. It supports programming everything from data extraction, formatting and cleansing to data analysis, reporting and information delivery. From small data issues to large complex data problems, users can read, format, analyze and report on data in any format quickly.

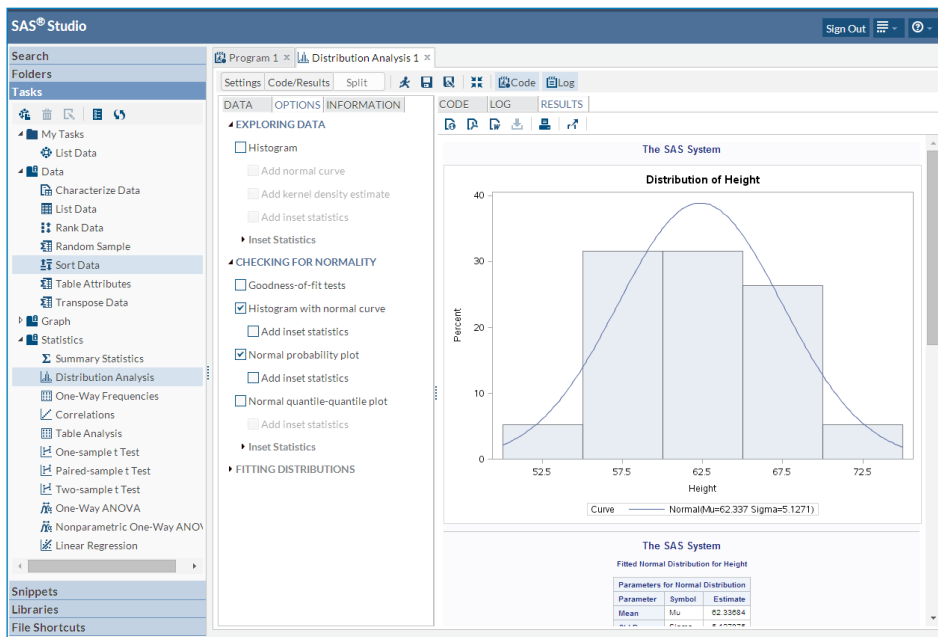


Figure 1: SAS® Studio generates SAS® code through guided interaction with the user – just select tasks for the code you want to create.

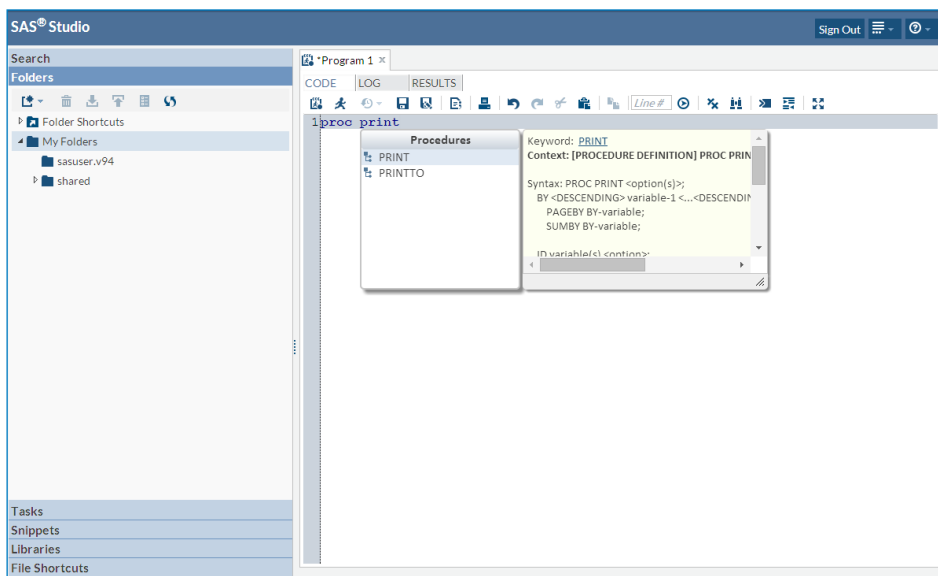


Figure 2: SAS® Studio has several features to help reduce your programming time, including autocomple for hundreds of SAS® statements and procedures, as well as built-in syntax help.

Base SAS provides a rich library of encapsulated programming procedures for data manipulation, information storage and retrieval, descriptive statistics and basic analyses (such as correlation, distribution analysis and table analysis), and report writing. You also get ODS graphics, which includes several procedures designed to create statistical graphics and the Graphical Template Language.

## Reliable Statistical Methods With SAS/STAT®

Statistics is a rapidly expanding discipline, and SAS is leading the way. SAS/STAT provides a comprehensive range of statistical methods that are applicable in higher education, business, research and the public sector. Capabilities include analysis of variance, mixed models, regression, categorical data analysis, Bayesian analysis, multivariate analysis, survival analysis, psychometric analysis, cluster analysis, nonparametric analysis, survey data analysis, multiple imputation, power and sample size computations, and postfitting inference.

Our accelerated release schedule continually delivers more state-of-the-art statistical methods and computational tools, along with numerous enhancements via updates. Documentation with a rich set of introductory examples lets you learn the software quickly and effectively. The clarity and consistency of your statistical output, which includes a wealth of automatically produced graphs, helps you readily understand analysis results. And an extensive process of testing and validation means those results are reliable.

## Matrix Programming With SAS/IML®

SAS/IML gives you a powerful and flexible matrix programming language. You can use SAS products for data manipulation and statistical analysis, and then employ SAS/IML for more specialized analyses and exploration. For example, you can implement a recently devised method that has recently been published in a journal.

## Key Features

### SAS® programming language (Base SAS®)

- Flexible, intuitive 4GL with easy-to-learn syntax.
- SAS Macro Facility reduces coding for common tasks so you can modularize work for easy reuse and maintenance.
- Data analysis: descriptive statistics, correlations, distribution analysis, table analysis.
- Library of prewritten programming procedures for managing, analyzing and presenting data.
- Ability to read data in any format, from any kind of file, including variable-length records, binary files, free-form data and files with messy or missing data.
- Support for Structured Query Language (SQL).

### Statistical methods (SAS/STAT®)

- Extensive statistical capabilities in over 80 procedures:
  - Analysis of Variance
  - Bayesian Analysis
  - Categorical Data Analysis
  - Cluster Analysis
  - Descriptive Statistics
  - Discriminant Analysis
  - Distribution Analysis
  - Exact Methods
  - Group Sequential Design and Analysis
  - Market Research
  - Missing Value Imputation
  - Mixed Models
  - Multivariate Analysis
  - Nonparametric Statistics
  - Power and Sample Size
  - Psychometric Analysis
  - Regression
  - Spatial Analysis
  - Structural Equations
  - Survey Sampling and Analysis
  - Survival Analysis
  - Transformations

### Matrix programming (SAS/IML®)

- Interactive matrix programming language.
- Control statements, matrix functions, linear algebra and statistical functions, time series functions, and numerical analysis functions.
- Extensive set of dynamic mathematical and matrix operators.
- Control statements.
- General matrix functions.
- Linear algebraic and statistical functions.
- Time series.
- Numerical analysis.
- Interactive data analysis.

You can program easily and efficiently with the many features for matrix expression and an extensive library of statistical and numerical methods. Simple syntax makes it easy to translate mathematical formulas into program statements with features for arithmetic and character expressions. Take advantage of automatic memory management and matrix sizing. No need to declare, dimension or allocate storage for a data matrix; SAS/IML software does this automatically.

### An Interactive Interface: SAS® Studio

SAS Studio is the development environment for SAS University Edition; it runs locally within your web browser. Access to Base SAS, SAS/STAT and SAS/IML is provided through SAS Studio. This interface provides an easy way for you to interact with SAS whenever and wherever you are. Write and submit SAS code from any device that supports SAS University Edition – PC, Mac or Linux workstation. It looks the same on all supported devices, which makes it easier to teach and learn.

And if you're not an experienced SAS programmer, or if you need an existing program to help you get started, SAS Studio can help. You can open a table in the table viewer, select which columns to display, and filter and sort the data. Behind the scenes, SAS Studio writes all the code that is needed to display the table and makes that code available to you.

### Access to PC File Formats With SAS/ACCESS®

SAS/ACCESS Interface to PC Files is a simplified approach for accessing data. It comes ready to use, and provides direct and highly optimized data access and integration between SAS and common third-party PC file formats.

## Key Features (continued)

### Interactive interface (SAS® Studio)

- Helpful programming tools increase productivity with interactive feedback and prompts.
- Pop-up syntax help always available.
- Code generating tasks to speed development and increase efficiency.
- Browser-based interface for basic data manipulation and basic statistical tasks to generate SAS code.

### Access to PC file formats (SAS/ACCESS®)

- Interface to several PC file types, such as:
  - Microsoft Excel
  - SPSS
  - JMP®
  - Stata
  - Paradox
  - DBF

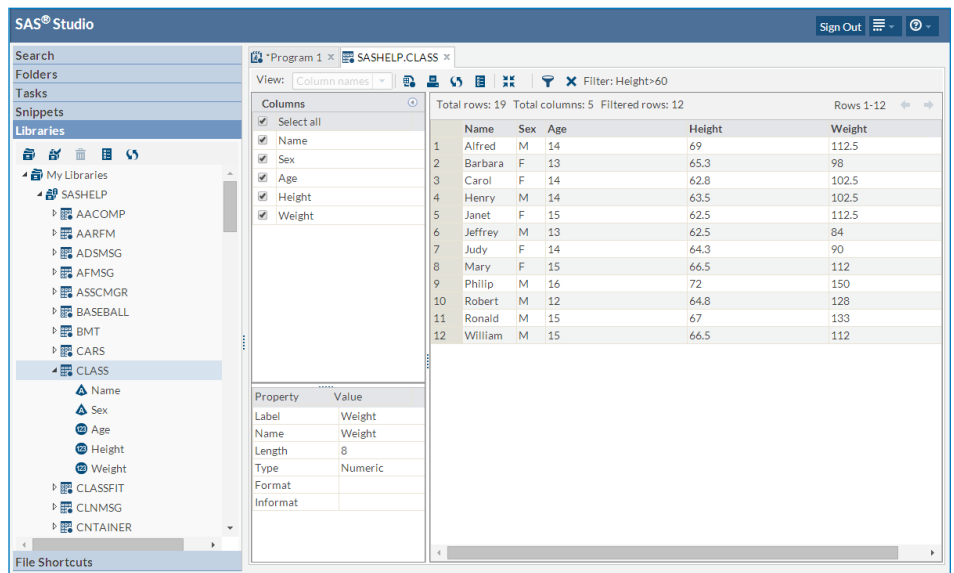


Figure 3: You can open a table in the table viewer, select which columns to display, and filter and sort the data.

You get direct, easy and secure access to data with native interfaces. Import and export popular PC file data such as Microsoft Excel, JMP®, Paradox, SPSS, Stata and DBF. You don't need SQL expertise or custom coding extractions. And there's no need to learn or train on different scripting or query languages.

To learn more and download SAS University Edition, please visit [sas.com/universityedition](http://sas.com/universityedition).