# Chapter 1: Getting Started with SAS® Visual Analytics

1.1 Introduction to SAS Visual Analytics

1.2 Exploring the Visual Analytics Course Environment

1.3 Viewing Visual Analytics Reports

#### **Objectives**

- Describe the purpose of SAS Visual Analytics.
- Describe the features of SAS Visual Analytics.
- Describe SAS Cloud Analytic Services (CAS).
- Discuss the SAS Viya architecture.
- List the components of SAS Visual Analytics.





### SAS Visual Analytics: Features

SAS Visual Analytics enables users to perform the following tasks:

- apply the power of SAS analytics to massive amounts of data
- visually explore and find patterns in your data
- quickly create reports or dashboards
- share insights with anyone, anywhere, via the web or a mobile device
- quickly create powerful statistical models\*
- work with factorization machines, forests, gradient boosting, neural networks, and support vector machines\*\*



## Cloud Analytic Services (CAS)



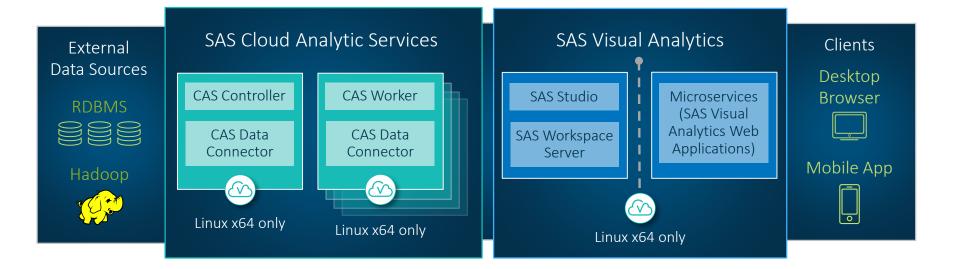
Cloud Analytic Services (CAS) is the server that provides the run-time environment for data management and analytics with SAS Viya.

CAS uses a high-performance, in-memory engine along with a distributed architecture to execute multi-threaded analytic code, rapidly processing requests against data of any size. CAS provides the following features:

- high speed
- resiliency
- scalability
- node-to-node communication
- worker node fault tolerance



### SAS Viya Architecture





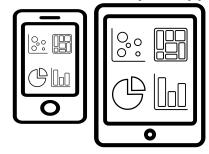
### **SAS Viya Applications**







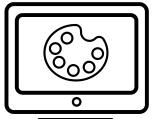
**SAS Visual Analytics App** 





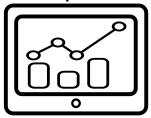








SAS Graph Builder





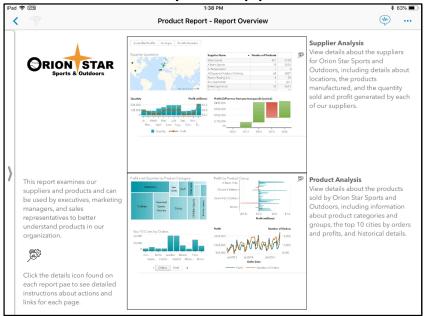
**SAS Data Studio** 

#### Viewing SAS Visual Analytics Reports

#### Report Viewer



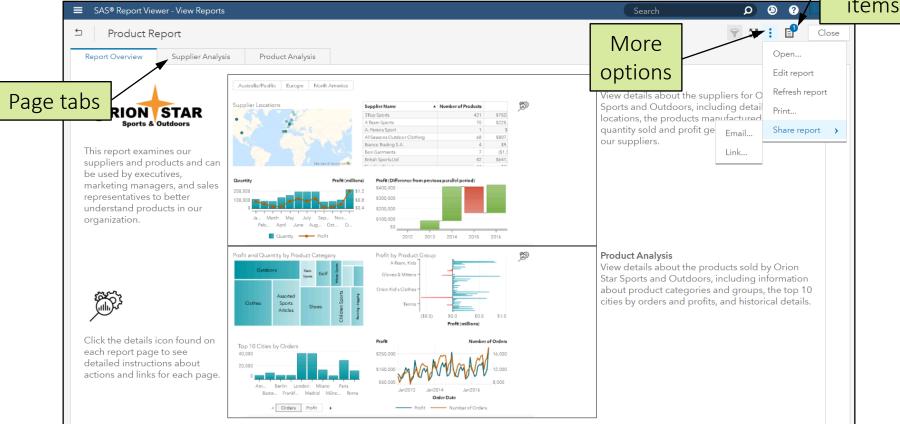
#### SAS Visual Analytics App





# SAS Report Viewer Interface







SAS Report Viewer Interface Expand or collapse 0 0 0 ■ SAS® Report Viewer - View Reports ₽ 23 : P Product Report Report Overview Supplier Analysis Product Analysis Information Australia/Pacific Europe North America Supplier Name ▲ Number of Produ... Supplier Details Supplier Locations 3Top Sports \$752,811,83 Name: 70 A Team Sports \$225,763.55 Supplier Details A. Pereira Sport \$185.50 All Seasons Outdoor Clothing 68 Display rules: Bianco Trading S.A Table Level Bon Garrments Profit British Sports Ltd \$641,644.65 Carolina Sports \$3,798.81 Right to the right of text, with Profit as x CrystalClear Optics Inc. 71 20 (\$600,000.00) ≤ x < \$0.00 Dolphin Sportswear Inc. \$84,919.00 Dutchman Bikes \$0.00 < x < \$400.000.00 pane **EA Sports Limited** 10 \$24,048.92 \$400.000.00 \( \times \times \\$900.000.00 Eclipse Inc 633 Fga Sports Inc 16 Force Sports 85 Fuller Trading Co Profit (Difference from previous parallel period) Quantity Sold and Profit Generated by Month Profit (millions) Quantity 250,000 200,000 150,000 \$1.0 100.000 \$0.8 \$100,000 50,000 Jan... March May July Sept... Nove.. 2014 2016 April June August Octo... De..



Profit (Difference from previous parallel period)

■ Increasing ■ Decreasing

■ Quantity — Profit