What Do I Need to Know About SAS® Viya® Data Management?

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Vincent Rejany
Director of Data Management Product Management, SAS

Vincent works at the crossroads of multiple divisions, including R&D, marketing, sales and professional services, to gather and prioritize product and customer requirements as well as define product vision. His team focuses on data management related domains including connectivity, data preparation and integration, and data quality and governance.
"The two biggest challenges in data management are centered around data catalogs—finding and identifying data that delivers value, and supporting data governance, data privacy and data security." (Gartner)
SAS Data Management on SAS Viya

An independent and CSP-neutral data management technology for analytics

Connect Everywhere

Process Everyway

Govern Everything

Access Seamlessly to Cloud & On-Premise Data sources

Jump-start Data Preparation & Engineering Efforts

Ignite your Analytics Journey
SAS Data Management on SAS Viya
An independent and CSP-neutral data management technology for analytics

Connect Everywhere

SAS/ACCESS & SAS In-Database
A seamless capabilities for integrating SAS® with any source or platform

Process Everyway

SAS Studio
Jump-start data & analytics efforts with an interactive development environment

Govern Everything

SAS Information Governance
An intuitive self-service data portal to analytics and AI.
SAS/ACCESS & SAS In-Database

Connect Everywhere

Seamless capabilities for integrating SAS® with any source or platform

Transparent  Optimized  Cloud Ready
Cloud Platforms Connectivity Support

- **Oracle Cloud Platform** – Oracle, Oracle MySQL
- **Teradata Cloud**
- **Vmware – Teradata Vantage**

Coming Next

- Azure Data Lake Storage

Coming Next

- Google Cloud Storage

Coming Next

- Through Google BigQuery
Support Storage & Processing Optimization

In-Memory Processing
SAS Cloud Analytic Services (CAS) is a server that provides the cloud-based, run-time environment for data management and analytics with SAS.

In-Database Processing
Shorten the time needed for data quality and analytical processes by performing them within the database.

Cloud Storage Files Management

Cloud Storage Files Management

Parquet
Apache ORC

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SAS Studio

Process Everyway

Jump-start data & analytics efforts with an interactive development environment

- Powerful
- Intuitive
- Integrated
SAS Studio – Unified Integrated Development Environment

SAS Enterprise Guide

SAS Data Integration

Other SAS 9.4 Designers

SAS Studio

Code
Robust SAS code editor with auto-complete and syntax help

Design
Tasks, Queries & Flows

Collaborate
GIT Integration, Shared Tasks & Snippets

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SAS Studio on SAS Viya 4
Integrated Development Environment for Analytics and Data Management

Design reusable advanced data management flows for provisioning, migration, synchronization or other activities.

SAS Studio Engineer

SAS Studio Analyst

SAS Studio

Licensed

Licensed

Built-In

Code, build Queries, Tasks & Basic Flows

Analyze, prepare and deliver Data for analytics

Engineer

Analyst
SAS Studio
Tiers Features Overview

SAS STUDIO

- Code Editor
- GIT Integration
- Tasks, Snippets and Queries
- EG/DI Jobs Migration
- Flow Designer including: Table, File, Import, SAS Program, Query, Sort

SAS STUDIO ANALYST

- SAS Studio
- Extended Flow Designer
- Data Movements (CRUD)
- Data Preparation for Analytics
- Custom Steps Designer
- Prompts
- Data Quality

SAS STUDIO ENGINEER

- SAS Studio Analyst
- SAS Information Governance
- In-DB Technologies
- Extended Flow Designer including ETL dedicated Flow Steps & Options
- Advanced Code Optimization

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The Solution
How are we solving the problem?

SAS Information Governance
is an intuitive self service discovery portal to analytics and AI.

Search & Find  Explore Assets  Take Action

Ignite your analytics journey
## Key Features

### SAS Information Governance

#### General
- User & Admin profiles
- Favorites & Recent items collection
- Integrated with SAS Viya Applications
- Multi locale/language support

#### Discover
- CAS & SAS Libraries
- Tables & Columns
- Metadata, Data Profiling, Semantic Type Inference
- Information Privacy
- Spatial and Temporal

#### Search
- Powered by ElasticSearch
- Natural Language & Advanced Syntax Search

#### Assess
- Metadata Measures
- Descriptive Measures
- Data Quality Measures
- Column level graphs
## Packaging

**SAS Information Catalog & SAS Information Governance**

### INFORMATION CATALOG

<table>
<thead>
<tr>
<th>Default Core Offering</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>NLP Search</td>
<td></td>
</tr>
<tr>
<td>Tables &amp; Columns</td>
<td></td>
</tr>
<tr>
<td>CAS Libraries</td>
<td></td>
</tr>
<tr>
<td>Data Profiling</td>
<td></td>
</tr>
<tr>
<td>Elasticsearch</td>
<td></td>
</tr>
<tr>
<td>PostgreSQL</td>
<td></td>
</tr>
</tbody>
</table>

### INFORMATION GOVERNANCE

<table>
<thead>
<tr>
<th>Advanced Offering</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(Addon to VA, VS)</td>
<td></td>
</tr>
<tr>
<td>SAS &amp; CAS Libraries</td>
<td></td>
</tr>
<tr>
<td>Semantic Type</td>
<td></td>
</tr>
<tr>
<td>Information Privacy</td>
<td></td>
</tr>
<tr>
<td>Egeria Enabled</td>
<td></td>
</tr>
<tr>
<td>Elasticsearch</td>
<td></td>
</tr>
<tr>
<td>JanusGraph/Berkeley DB</td>
<td></td>
</tr>
</tbody>
</table>
LFAI – Egeria Project
The World’s first open-source metadata standard that simplifies sharing and exchanging metadata.

Organizations can share data management and governance across the entire enterprise without reformatting or restricting the data to a single format, platform, or vendor product, through:
• open APIs
• event formats
• types and integration logic so

"As a leader in advanced analytics, SAS understands the value of full transparency related to data provenance and governance“

- Craig Rubendall, Vice President of Platform R&D, SAS.
Python Support @ SAS

- TSMODEL
- SASPy
- DLPy
- ESPPy
- PyMAS
- SWAT
- SCR
- FCMP
- SASOPTPy
- Open Model Manager
- Model Studio
- Pzmm

R SWAT
- IML
- Model Studio
- Open Model Manager
- TSMODEL

SWAT
- Proc Lua
Python Support in Compute/SAS Studio Status Update

Ability to execute Python within SAS Compute and to work on the complete dataset using python code.
Explore Helpful Resources

Ask the Expert
View other user webinars that provide insights into using SAS products to make your job easier.

FREE Training
Learn from home – free for 30 days. Get software labs to practice and online support if needed.

SAS Support Communities
Ask questions, get answers and share insights with SAS users.

SAS Analytics Explorers
An exclusive platform to collaborate, learn and share your expertise. Gain access to a diverse network to advance your career. Special rewards and recognition exclusively for SAS users.

SAS Users YouTube Channel
A plethora of videos on hundreds of topics, just for SAS users.

Newsletters
Get the latest SAS news plus tips, tricks and more.

Users Groups
Meet local SAS users, network and exchange ideas – virtually.

SAS Profile
If you haven’t already done so, create your SAS Profile to access free training, SAS Support Communities, technical support, software downloads, newsletters and more.
Thank you for joining us for this SAS webinar.