

SAS® GLOBAL FORUM 2017

April 2 - 5 | Orlando, FL

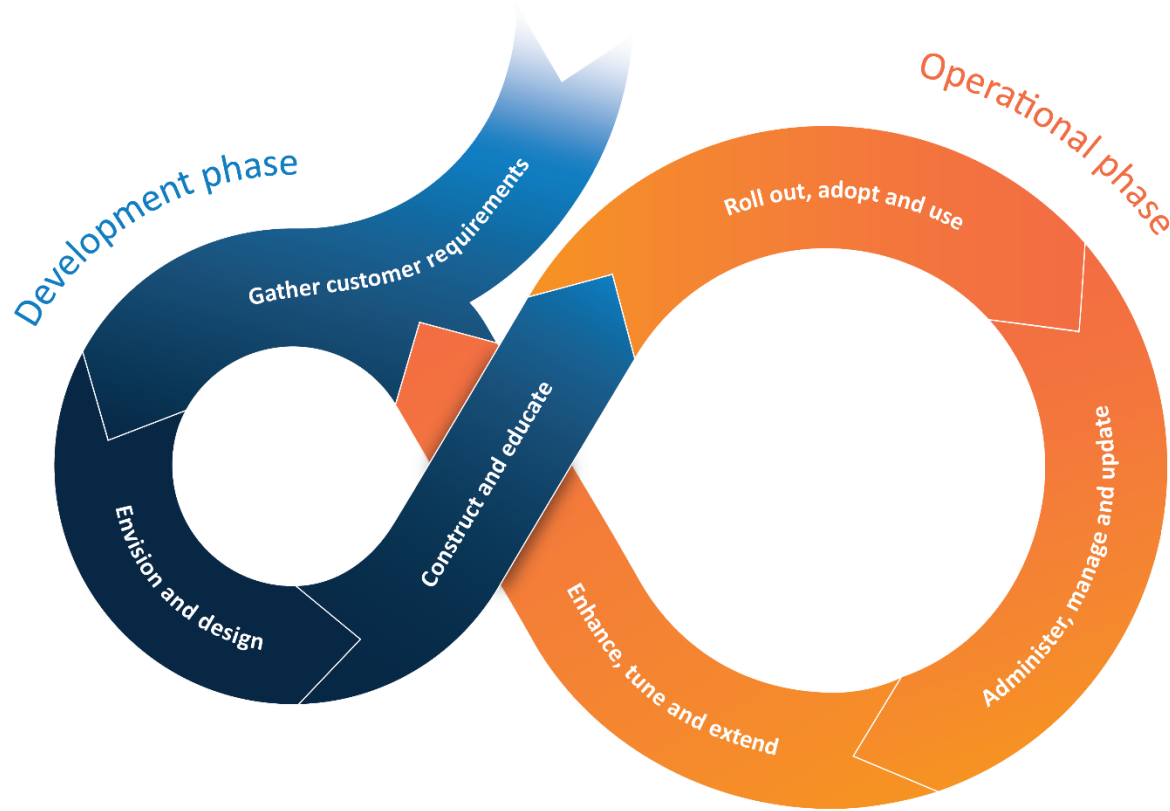
#SASGF

USERS PROGRAM



SGF Administration Track Review

SAS® Administration Lifecycle



Envision and Design

Pillars of a Successful SAS® Implementation with Lessons from Boston Scientific

Brian Bell and David Rice, Boston Scientific;

Tricia Aanderud and Maria Nicholson, Zencos Consulting

1294-2017

1. Company Culture

- Analytic maturity
- Change required by analysts & developers

2. Technology

- Planning Data, Environment, Installation, Maintenance

3. Process

- Workflow
- Discipline / Standards

4. People

- Training
- Feedback

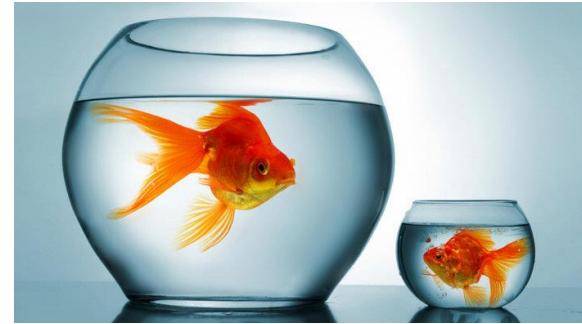


Implementing Capacity Management Policies on a SAS® LASR Platform: Can you afford not to?

Paul Johnson, Sopra Steria

[1105-2017](#)

- Formal DBAs for RDBMS vs. IT Admins & Users for SAS
- Use-case: SAS Grid, thousands of users, multi-tenant, co-located VA
- Capacity Planning
 - Usage and Demand Data
 - On Demand LASR Loading
- LASR Capacity Management
 - Design
 - Coding
 - Loading
 - Housekeeping



Shared File Systems: Determining the Best Choice for your Distributed SAS® Foundation Applications

Margaret Crevar, SAS Institute Inc., Cary, NC

[SAS569-2017](#)

- SAS I/O Characteristics
 - Large block, sequential, many temp files, ...
- Types of shared SAS files used by SAS® Grid Computing
- File System Caching, Metadata, and Network Implications

IBM® Spectrum Scale	NFS
IBM GPFS™ FPO	Common Internet File System (CIFS)
Red Hat® GFS2	Red Hat Gluster Storage
Veritas® Infoscale	Red Hat CEPH Storage
Quantum StorNext®	Oracle CFS
Intel® Enterprise Edition for Lustre®	Parallel NFS

Do You Have a Disaster Recovery Plan for Your SAS® Infrastructure?

Margaret Crevar, SAS Institute Inc.

[SAS565-2017](#)

- Inventory mission-critical applications, data, and jobs
- [SAS Position Statement Regarding Disaster Recovery](#)
- Planning Methodology – 10 areas of consideration
- ID what needs to be replicated
- Backup tools and backup frequency
- Post-restore considerations
- SAS Deployment Backup and Recovery Tool
- Common gotchas
- Customer examples



Construct, Roll Out, Manage, and Update

Platform à la carte: An assembly line to create SAS® Enterprise BI Server instances with Ansible

Javor Evstatiev, EVS; Andrey Turlov, Allianz Managed Operation & Services SE
[0814-2017](#)

- Use Case: 5-tier EBI Environment
- Deployment Process
 - Deliver...Prep...Install...Config...Customize...Verify
- Ansible Provisioning
 - Preflight Check
 - Installation
 - Configuration
 - Post Configuration
 - Validation
- Playbook examples

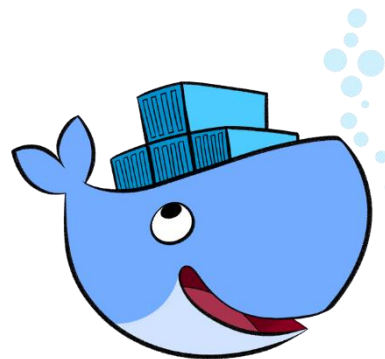


Convergence of Big Data, the Cloud, and Analytics: A Docker Toolbox for the Data Scientist

Donna DeCapite, SAS Institute Inc.

[SAS0687-2017](#)

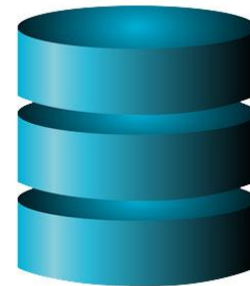
- Containers, VMs, and Cloud
- SAS® Analytics for Containers
 - Building
 - Docker tips and tricks
- Publish/execute models in Hadoop
- Customer use case
- Deployment options
 - Oracle, AWS, Azure, Google Cloud Platform, OpenStack



Best Practices in Connecting External Databases to SAS®

Mathieu Gaouette, Videotron S.E.N.C.

1215-2017



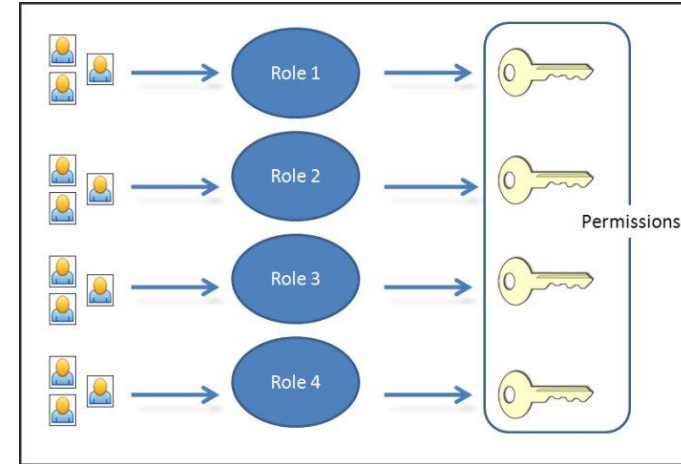
- Connecting DB Schemas to SAS Libraries
- SAS Management Console
 - Server definitions – easy
 - Library definitions – complicated
- Advanced options for performance and functionality
 - Native vs. metadata vs. external pre-assigned libraries
 - Controlling # of DB connections
 - Avoiding locks
 - Optimizing connections

Enterprise Data Access Management in a Multi-Tenant SAS BI environment

Chun-Yian Liew, ING Bank N.V.

0891-2017

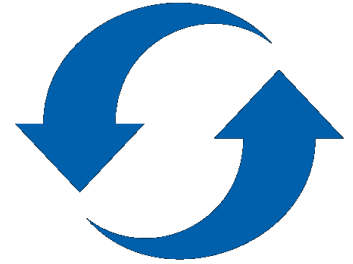
- ING Use Case
- Mapping Data to Tenants
- Role-based Access Control (RBAC)
- SAS Metadata Implementation of RBAC
- LDAP Synchronization
- Challenges with RBAC



Getting the Latest and Greatest from SAS® 9.4: Best Practices for Upgrades and Migrations

Jamie Williams, SAS Institute Inc.

[SAS698-2017](#)

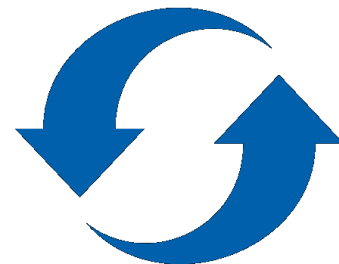


- UIP
 - Limited circumstances like maintenance
- SAS Migration Utility
 - All-inclusive
 - Automated
- Partial Promotion
 - Frequently most viable, especially for changes in topology
 - Manual (time consuming)
- File & Project Migration
 - Data
 - SAS® Enterprise Miner / SAS® Forecast Server

Migrating Large, Complex SAS® Environments: In-Place versus New Build

Chris James, UnitedHealth Group

[1425-2017](#)



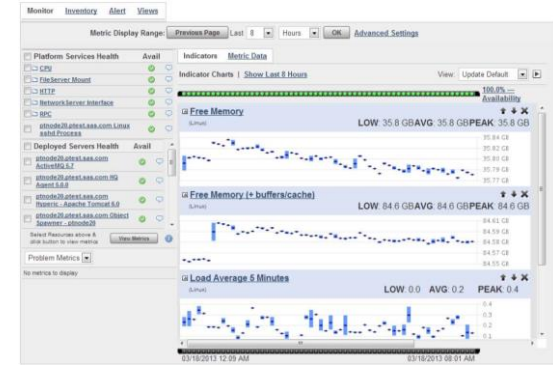
- Enterprise-class Case Study
 - 9.4M1 → 9.4M3
 - Clustered metadata and middle tier
 - SSL
 - LSF-managed Grid
 - SAS Visual Analytics
- UIP vs. Partial Promotion
 - Advantages and pitfalls for both
- **Key Tip:** Use SAS Deployment Manager for configuration changes

Frequently Asked Questions about SAS® Environment Manager on SAS® 9.4

Zhiyong Li, SAS Institute Inc.

[SAS0575-2017](#)

- Tech Support FAQ
- Resources to configure post-install (e.g., Postgres)
- Control actions
- All my resources are down!
- Setting up alerts
- Agent problems (connection, collection, and discovery)
- Security (SSL)
- Roles needed to view resources

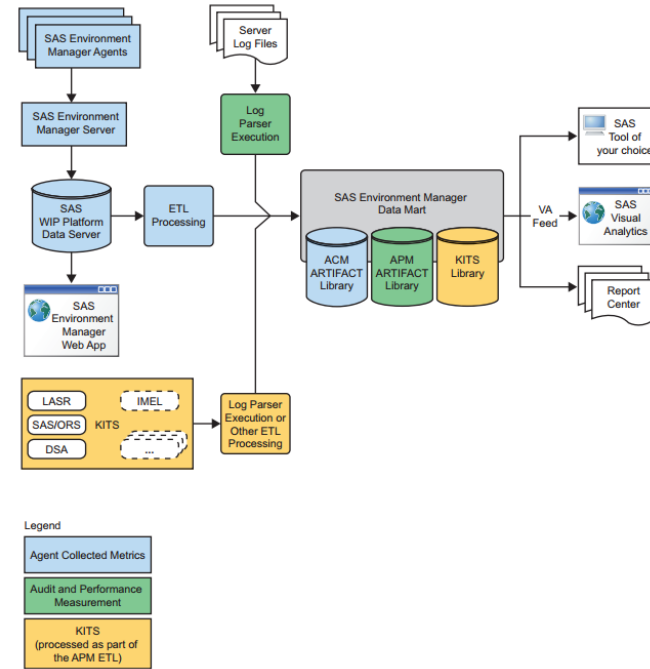


Share the Wealth of Information in SAS® Environment Manager Logs

Jackie Iverson and Marty Flis, SAS Institute Inc.

[SAS705-2017](#)

- Service Architecture Framework
- SAS Environment Manager data flow
- Data Mart
 - Agent Collected Metrics (ACM)
 - Audit, Performance, and Measurement (APM)
 - Solution Kit Framework (KITS)
- Rolling Your Own Reports



What? I am the Linux Administrator for SAS® Visual Analytics?

Nick Welke and Andy Peredery; Zencos Consulting

1393-2017

- Areas of Administration
 - OS
 - SAS Management Console
 - SAS Environment Manager
- Linux primer in the context of SAS paths and files
- Troubleshooting
 - sas.servers
 - Viewing & managing running processes
 - Disk utilization
- Initial steps for a new VA Admin



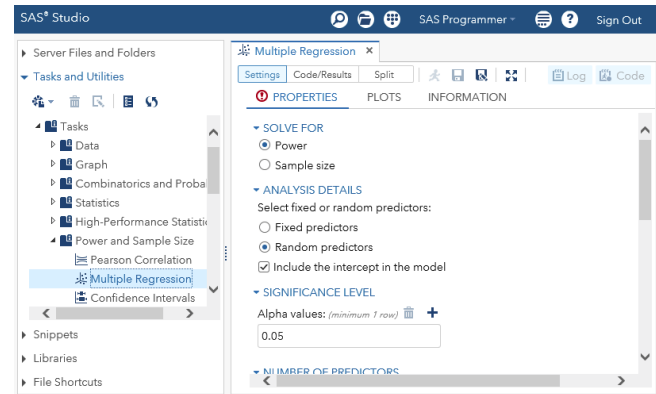
Administration

The Top Ten SAS® Studio Tips for SAS® Grid Manager Administrators

Edoardo Riva, SAS Institute Inc.

[SAS0653-2017](#)

1. Understand SAS Studio Editions
2. Choose Right Load Balancing Algorithm
3. Share SAS Studio Preferences Across Workspace Servers
4. Isolate SAS Studio Preferences per User
5. Keep Track of Where Preferences Were Set
6. Manage Global Settings
7. Global Folder Shortcuts & Repos
8. Tune SAS Grid Manager / SAS Studio
9. Monitor & Manage User Sessions
10. High Availability for SAS Studio

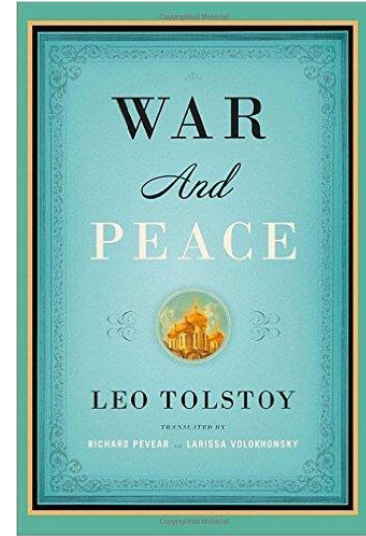


War and Peace: SAS® Platform Support—Can We Make It Easier?

Sergey Iglov, Royal Bank of Scotland

1041-2017

- Easing SAS Platform Support *AND* Staying Up-to-date
- SAS Clients Portal (SCP)
 - Browser-based launcher of Java and Web clients
 - Obfuscates server/connection/version details
 - Windows batch scripts
 - No .NET clients
- Software Currency and Release Management tool (SCARM)
 - Deployment registry inventory
 - SASHFADD
 - Automatic JIRA ticket generation



Enhance, Tune, and Extend

Am I getting the most Value of my SAS installation Dollars?

Seven Areas to explore

Al Cordoba and James Furman, Qualex Consulting Services

[1028-2017](#)

1. Inefficient Data Access
 2. Limited Reporting and Visualization
 3. Poor Data Cleansing
 4. Obsolete Predictive Analysis
 5. Incomplete SAS Solution
 6. Poor Hardware Performance
 7. Lack of Governance
- Next Steps to Take



Twelve Cluster Technologies Available in SAS® 9.4

Rob Collum, SAS Institute Inc.

[SAS0415-2017](#)

- Why Cluster?... Scalability & Availability

SAS Cache Locator	SAS Web Server
SAS® Metadata Server	SAS® LASR™ Analytic Server
SAS Object Spawner	SAS® High-Performance Analytics Server
SAS® OLAP Server	SAS® In-Database Embedded Process
SAS® Web Application Server	SAS JMS Broker
	SAS® Environment Manager Server
	SAS® Web Infrastructure Platform Data Server

Quickish Performance Techniques for Biggish Data

Ryan Kumpfmiller, Ben Murphy, Jaime Thompson and Nick Welke; Zencos Consulting

1401-2017

- Measuring Performance – FULLSTIMER
- Platform Tuning
 - H/W Upgrades
 - Options
 - Other SAS Products
- Coding Tips
 - Compression
 - DB queries with pass-through
 - Indexes
- DB Tuning
 - Partitioning
 - Loading techniques



Optimizing SAS® on Red Hat Enterprise Linux (RHEL) 6 & 7

Barry Marson, Red Hat, Inc.

[1377-2017](#)

- RHEL 6 & 7
- General Tuning
 - File System and SAS file locations
 - Logical volume management
 - Multipath I/O
 - Kernel
 - Examples
- Red Hat Virtualization
- SAS Grid with Red Hat Shared File Systems



Security and Auditing

Getting Started with Designing and Implementing a SAS® 9.4 Metadata and File System Security Design

Angie Hedberg, Philip Hopkins, SAS Institute Inc.

[SAS709-2017](#)

- Authorization Overview
 - Groups/roles
 - Permissions/capabilities
 - ACEs, ACTs, and parent objects
- Metadata vs. File System Content
- Best Practices, e.g.:
 - ACTs over ACEs; define permissions at highest level
 - Deny broadly; grant specifically
 - Use custom groups and ACTs tailored to your business
- 10-step Process to Create Security Model

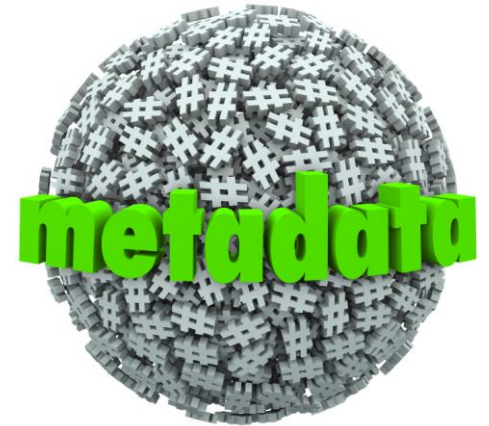


SAS® Metadata Security 201: Security Basics for a New SAS Administrator

Charyn Faenza, F.N.B. Corporation

[1293-2017](#)

- Authentication / Authorization / Audit
- SAS Management Console
- Security Vocabulary
 - Identities
 - ACEs/ACTs
 - Authentication Domains
 - Object Inheritance & Identity Hierarchies
- Essential Security Tasks
 - User/Group Management
 - Folder Management
 - Library Management

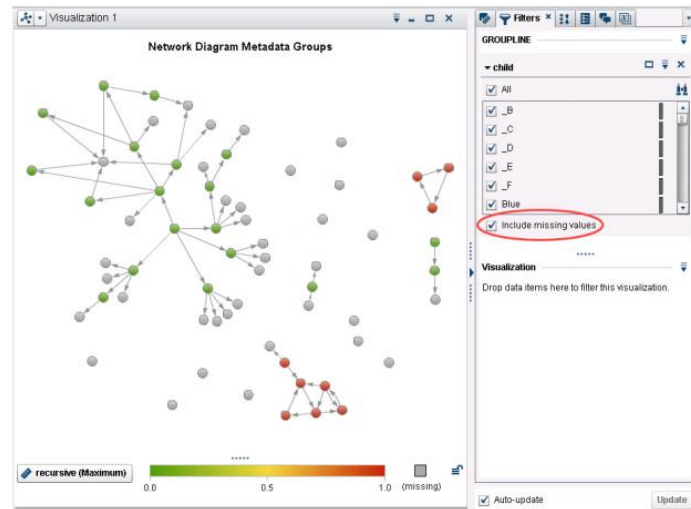


Circular Metadata-Group Membership Can Make You Dizzy!

Greg Lehner and Karen Hinkson, SAS Institute Inc.

[SAS0381-2017](#)

- Circular Groups = Errors & Poor Performance
- Detecting
 - Code to extract groups from metadata
 - SAS Visual Analytics → network diagram
 - Base SAS approach to output groups
- Excellent Code Examples
- Excellent Step-by-Step Instructions
- Appendices:
 - Metadata functions to create table of groups
 - OLAP cube approach



Auditing in SAS® Visual Analytics

Elena Muriel, Amadeus Software Ltd
[1076-2017](#)

- VA Auditing Reports
 - Administrator overview (audit service)
 - Relationship
 - Midtier performance (ACM)
- For each:
 - Enabling
 - Expanding on supplied reports
 - Data sources/archive



SAS® Metadata Security 301: Auditing your SAS Environment

Charyn Faenza, F.N.B Corporation; Michelle Homes, Metacoda

0786-2017

- **Authentication** – Who are you?
- **Authorization** – What are you allowed to do?
- **Auditing** – What did you do?
- **Regulatory Compliance** (e.g., Sarbanes-Oxley)
 - User Access
 - Administrative Privileges
 - Changes to Security
- **Risk Assessment/Remediation**
- **Securing Development**
- **Day-to-Day Requests**

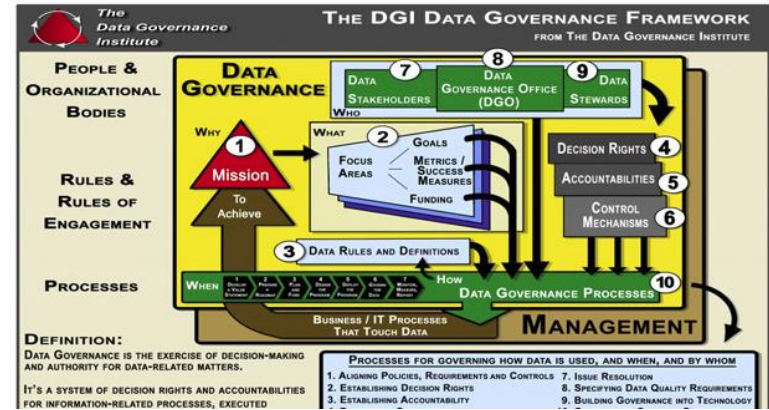


How to Develop a Simple Data Governance Program for a SAS CI Environment in 90 Days

Al Cordoba and James Furman, Qualex Consulting Services

[1147-2017](#)

- Complement to a Customer Intelligence System
- Data Environment Assessment – technical & people/processes
- Standard Data Governance (10 components)
- Data Governance “Lite”
 - Org structure (roles & responsibilities)
 - Processes and decisions
 - Policies
 - Data inventory
 - KPIs
- Operational plan



Kerberos Cross-Realm Authentication: Unraveling the Mysteries

Stuart J. Rogers, SAS Institute Inc.

[SAS0623-2017](#)

- Kerberos Keys
- 2 Phases of Authentication
- Configuration Considerations
- Cross-Realm
 - Authentication steps
 - Requirements (networking, mapping names, principals)
- Cross-Realm with SAS
 - Middle-Tier, Server Tier, and 3rd Party authentication



Transport Layer Security (TLS) Configuration for SAS® 9.4 and SAS® Viya™ Components Made Easy

Heesun Park, SAS Institute Inc.

[SAS0426-2017](#)

- Public Key Cryptography Introduction
 - Stage 1 – asymmetric agreement on symmetric encryption algorithm
 - Stage 2 – symmetric encryption with key from Stage 1
- X.509 Certificates
 - TLS certificate standard
- Active Directory Certificate Service
 - Enterprise TLS config
- TLS Clients and Servers in SAS
 - CAS Server Monitor, SAS Studio, SAS/CONNECT
- Debugging Tips



SAS[®] Viya[™]

SAS® Viya™: What It Means for SAS® Administration

Mark Schneider, SAS Institute Inc.

[SAS644-2017](#)

- SAS Viya Architecture
- Deployment
- SAS Environment Manager
 - Security
 - Configuration
 - User Data and Content
 - Logging / Monitoring
- Batch Interfaces
 - CLIs
 - REST APIs



The Architecture of the SAS® Cloud Analytic Services in SAS® Viya™

Jerry Pendergrass, SAS Institute Inc.

[SAS0309-2017](#)

- Controller and Worker Nodes
- SMP vs. MPP
- Sessions
- Tables & SASHDAT Format
- Caslibs
- Actions
- Fault Tolerance
- Elasticity
- Data Types
- Clients
- Memory Management



Using SAS® Viya™ Microservices Logging for Performance Analysis of SAS® Visual Analytics 8.1 Reports

Scott Sweetland, SAS Institute Inc.

[SAS0472-2017](#)

- Microservice Topology
- SAS Visual Analytics Reporting Microservices
- Configuring with SAS Environment Manager
- Logging
 - Setting Levels
 - Locations
 - Metrics in logs
- Analyzing the Data



SUGA Meet-up



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