

INTEGRATIONSMÖGLICHKEITEN DES SAS® ENVIRONMENT MANAGER IN DAS UNTERNEHMENSWEITE MONITORING

MARKUS TRUNK, SAS® SYSTEMARCHITEKTUR



AGENDA

INTEGRATIONSMÖGLICHKEITEN DES SAS® ENVIRONMENT MANAGER

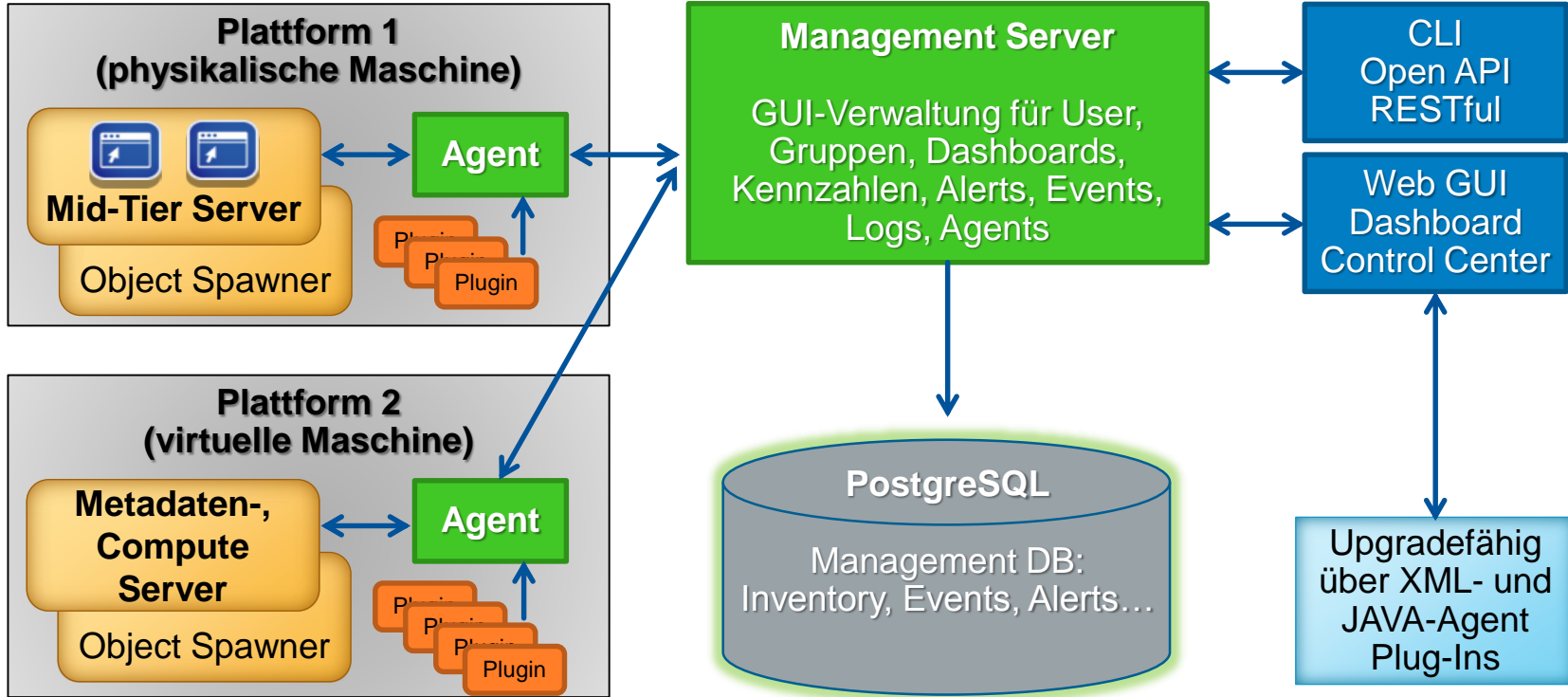
- 1 EV Komponenten, Features und Architektur
- 2 Data Mart & Report Center
- 3 Integrationsmöglichkeiten mit 3rd Party Monitoring Tools
- 4 Live Demo

KOMPONENTEN, FEATURES UND ARCHITEKTUR



- Der SAS® Environment Manager ist eine webbasierte Monitoring- und Administrationsapplikation für SAS® Umgebungen auf Basis von VMware Hyperic HQ Application Performance Manager.
- Mit dem SAS® Environment Manager lassen sich SAS® Plattformen proaktiv überwachen, administrieren und verwalten, inklusive der SAS® Web Applikation Server und des SAS® Foundation Server.
- Komponenten:
 - SAS® Environment Manager Agenten und Plugins auf jedem Server innerhalb der SAS® Plattform.
 - Zentraler Server für Verwaltung und Deployment der EV Plugins.
 - Zentraler Speicher für die operativen Daten (PostgreSQL Datenbank).
 - Berichte und Grafiken zur Charakterisierung der Ressourcenverwendung über die gesamte SAS® Umgebung.

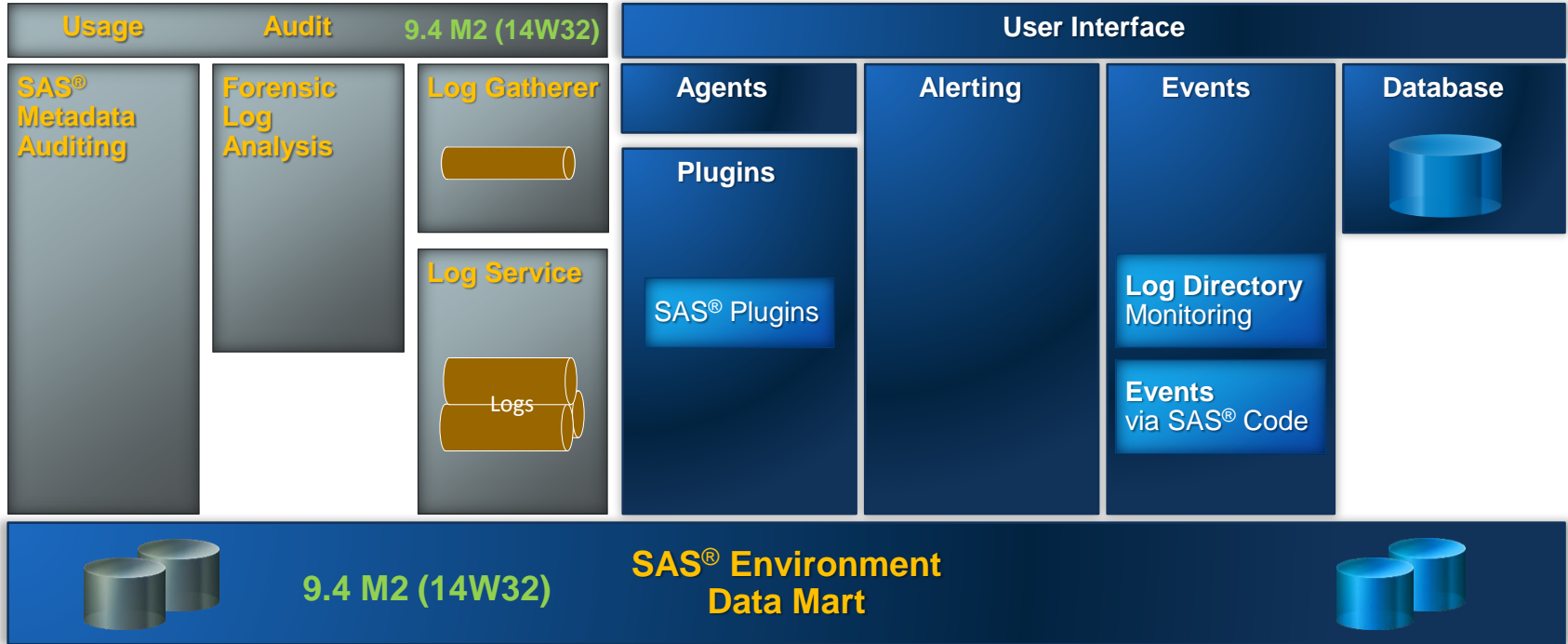
- Vorkonfigurierte Sammlung an KPIs.
- Visualisierung von Server- und Applikationskennzahlen wie z.B. Verfügbarkeit, Auslastung, Performance, Memory, CPU, Disk, etc.
- Automatische Erkennung der Mid-Tier Server und Anwendungen.
- Überwachung von Leistung, Konfiguration und Sicherheitsänderungen.
- Erweiterung des Alerting- und Eskalations-Workflows.
- Administrative Aufgaben wie Server-Neustart oder Mid-Tier Konfiguration.



DATA MART & REPORT CENTER

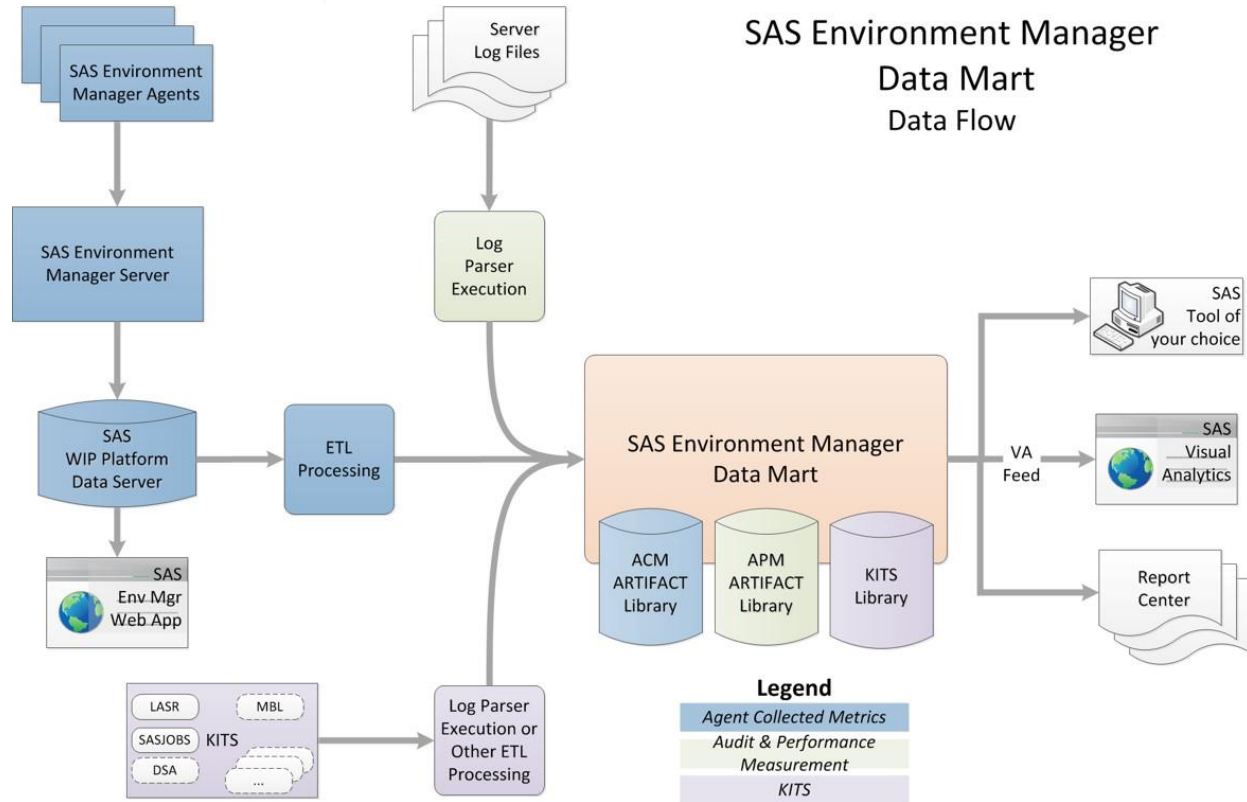


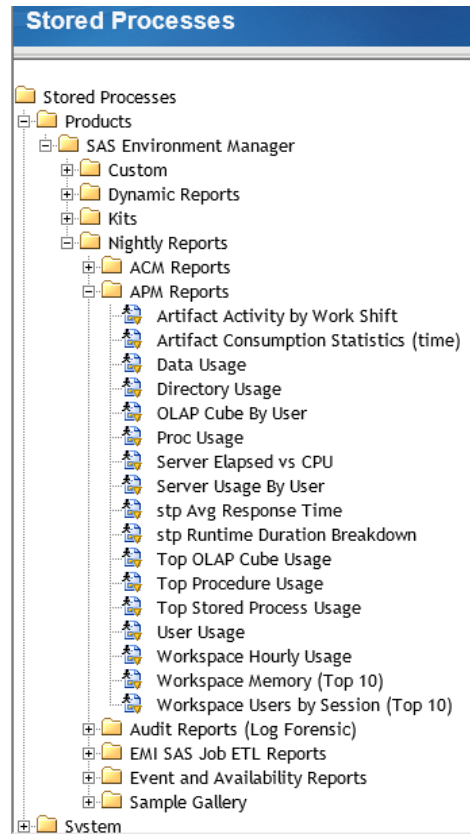
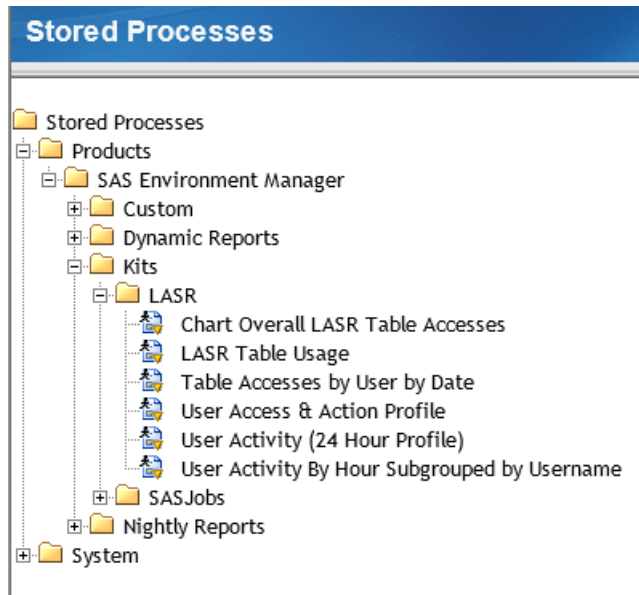
Reports + Analysis Tools



SAS® ENVIRONMENT MANAGER

SAS® ENVIRONMENT MANAGER DATA MART (AB SAS® 9.4 M2)





INTEGRATIONSMÖGLICHKEITEN MIT 3RD PARTY MONITORING TOOLS



1. EVENT EXPORTER (AB SAS® 9.4 M2)

Alle EV Events werden in eine lokale „Export Datei“ geschrieben. 3rd Party Monitoring Tools können dieses File dann auswerten und je nach Eintrag weitere Aktionen auslösen.

Konfiguration Event Exporter (Platform Service):

SAS® Environment Manager

Recent Alerts: (There have been no alerts in the last 2 hours.)

Welcome, H2.Administrator Sign Out Help

Dashboard Resources Analyze Administration Manage

EMI Framework Event Exporter - Gertest047

Please verify that this resource has been enabled for monitoring by following the [directions below](#)

Configuration Properties

Shared

This resource does not have any shared Configuration Properties.

Monitoring

exporter.enable ☒ Enable Event Exporter

exporter.filename C:\EVI\Event_Exporter\Events_Gerte... Events File Name

username sasadm@saspw User Name

password Password

Ok Reset Cancel

SAS Event Exporter

The SAS Event Exporter allows SAS Environment Manager event activity to be exported in a simple flat file format for integration with 3rd party monitoring frameworks.

To configure, enter the following:

- **exporter.enable** - Enables/disables automatic execution of the ETL process
- **exporter.filename** - Fully-qualified path to the etl master driver script
- **username** - Name of SAS Environment Manager User used to query events. Note: This user must be assigned to the Super User Role
- **password** - Password of SAS Environment Manager User used to query events

Eintrag im Log-File (Beispiel):

2015-05-12T14:05:02+0200|NONE|GERTEST047
SASApp - OLAP Server|sasadm@saspw|Stop

2015-05-12T16:26:00+0200|ALERT|GERTEST047
|CPU High|Occurred

2015-05 12T18:05:00+0200|ALERT| GERTEST047
tc Runtime SASServer1_1| Webapp CPU Time in
Garbage Collection >30%|Occurred

2. LOG-EINTRAG VIA (BATCH)SKRIPT

Individuelle Skripte können direkt mit einem EV Alert verknüpft werden. Das Script schreibt dann z.B. einen entsprechenden Eintrag in eine Log-Datei. Externe Monitoring Tools können dieses File dann auswerten und je nach Eintrag weitere Aktionen auslösen.

Beispiel: Definition eines OLAP Alerts mit Script-Aufruf

Condition Set

If Condition: Availability < 100.0%

Enable Action(s): Once every 1 times conditions are met within a time period of 20 minutes.

Edit

[Escalation](#) [Control Action](#) [Notify Roles](#) [Notify Users](#) [Notify Other Recipients](#) [SNMP Notification](#) [Script](#) [OpenNMS](#)

Full path to script

Save Changes Click to Delete This Record

[<< Return to Alert Definitions](#)

May 13, 2015 4:09 PM Central European Summer Time [About](#)

Eintrag in der Log-Datei:

Tue 05/12/2015 14:08:16.35

Fehler001- OLAP Server Error

3. SIMPLE NETWORK MANAGEMENT PROTOCOL (SNMP)

SNMP Traps können direkt mit einem EV Alert verknüpft werden. 3rd Party Monitoring- oder System Management Tools können die Traps dann auswerten und je nach Inhalt weitere Aktionen auslösen.

Beispiel: Definition einer SNMP Trap Konfiguration

Condition Set

If Condition: Cpu Usage > 90.0%

Enable Action(s): Once every 1 times conditions are met within a time period of 20 minutes.

Edit

Escalation Control Action Notify Roles Notify Users Notify Other Recipients **SNMP Notification** Script OpenNMS

(ex: xxx.xxx.xxx.xxx/port)

IP Address: 172.29.0.254/162

Variable Bindings

(ex: 1.2.3.4)

OID: 1.3.6.1.2.1.11.0.6

Value: {snmp_trap.gsp}

Add Another Variable Binding

SET REMOVE

SNMP Trap Receiver

Result Table Trap Receiver x

Operations Tools

| Description | Source | Time | Severity |
|-------------|--------------|---------------------|----------|
| coldStart | 172.29.0.254 | 2015-05-20 09:16:43 | |
| coldStart | 172.29.0.254 | 2015-05-20 09:14:42 | |

Source: 172.29.0.254 Timestamp: 0 millisecond SNMP Version: 1

Enterprise: .1.3.6.1.2.1.11.0.6

Specific: 0

Generic: coldStart

Variable Bindings:

Name: .1.3.6.1.2.1.11.0.6

Value: [OctetString] CPU High: CPU High: GERTEST047.ger.sas.com Cpu Usage (99.9%)

Description: coldStart





SAS® ENVIRONMENT MANAGER

SCREENSHOTS



[Dashboard](#) [Resources](#) [Analyze](#) [Administration](#) [Manage](#)Select a Dashboard [sasadm@saspw](#)

Availability Summary Overall

| Resource Type | Availability |
|---------------|--------------|
|---------------|--------------|

[SAS Metadata Server 9.4](#)

✓ 1

[SAS OLAP Server 9.4](#)

✓ 1

[SAS Object Spawner 9.4](#)

✓ 1

Updated:11:01 AM

Availability Summary Middle-Tier Components

| Resource Type | Availability |
|---------------|--------------|
|---------------|--------------|

[ActiveMQ 5.7](#)

✓ 1

[Apache Tomcat 6.0](#)

✓ 1

[PostgreSQL 9.x](#)

✓ 1

[SpringSource tc Runtime 7.0](#)

✓ 1

[vFabric Web Server 5.2](#)

✓ 1

Updated:11:01 AM

Availability Summary Spawnable SAS Servers

| Resource Type | Availability |
|---------------|--------------|
|---------------|--------------|

[SAS Object Spawner 9.4 SAS Logical Pooled Workspace Server](#)

✓ 1

[SAS Object Spawner 9.4 SAS Logical Stored Process Server](#)

✓ 1

[SAS Object Spawner 9.4 SAS Logical Workspace Server](#)

✓ 1

Metric Viewer WebApp Login Response Time

| | Response Time |
|-----------------------------------|---------------|
| HTTP | 1ms |
| BI Dashboard | 1ms |
| SAS Login | 1ms |
| Stored Process | 1ms |
| Web Report Studio | 1ms |

Updated:11:01 AM

Metric Viewer SASWork Disk Space

| | Use Percent |
|----------------------------------------------------------------------------------|-------------|
| SAS Home Directory 9.4 SAS Directory | 7.0% |
| ptnode20.ptest.sas.com SAS Home Directory 9.4 SAS work directory | |

Updated:11:01 AM

Recent Alerts

| <input type="checkbox"/> Date / Time ▾ | Alert Name | Resource Name | Fixed | Ack |
|--------------------------------------------------------------|--------------------------------|--------------------------------|-------|-----|
| <input type="checkbox"/> 03/30/2013 05:50 AM | Server Launch | ptnode20.ptest.sas.com Obje... | No | |
| <input type="checkbox"/> 03/30/2013 03:32 AM | TCP/IP Support Routine Failure | ptnode20.ptest.sas.com Obje... | No | |
| <input type="checkbox"/> 03/30/2013 12:50 AM | Server Launch | ptnode20.ptest.sas.com Obje... | No | |
| <input type="checkbox"/> 03/29/2013 09:55 PM | Connection | ptnode20.ptest.sas.com SAS... | No | |
| <input type="checkbox"/> 03/29/2013 06:10 PM | Server Launch | ptnode20.ptest.sas.com Obje... | No | |

[Fixed](#)[Acknowledged](#)

Updated:11:01 AM

Internet Explorer provided by SAS Institute

http://qertest063.ger.sas.com:7080/ResourceHub.do?org.apache.catalina.filters.CSRF_NONCE=6F236F43343F535924CF3E14A825143A#

Recent Alerts:
(There have been no alerts in the last 2 hours.)

Welcome, HQ [Sign Out](#) [Help](#)

SAS® Environment Manager

Dashboard Resources Analyze Administration Manage

Platforms > All

Tools Menu

Search: Platform Types: All Groups ☐ Unavailable ☐ Owned by HQ Match: ☐ Any ☒ All

Platforms (2) | Servers (15) | Services (803) | Compatible Groups/Clusters (1) | Mixed Groups (0) | Applications (0)

Show Chart View

| Platform | Platform Type | Description | Availability |
|-------------------------------------------------|-----------------------------|------------------------|--------------|
| qertest063.ger.SAS.com | Win32 | Microsoft Windows 2008 | |
| SAS 9.4 Application Server Tier | SAS Application Server Tier | | |

Group Delete Enable All Alerts Disable All Alerts Total: 2 Items Per Page: 15

Done

Local intranet | Protected Mode: Off

Server Manager D:\ C:\Users\EVAdmin\Desktop Browse Resources - I... SAS Management Consol...

DE 3:38 PM

Dashboard Resources **Analyze** Administration Manage

Select a Dashboard

sas



Search Resources

Resource Name

Platform

Saved Charts

No saved charts to display; to add charts to dashboard press "Save Chart to Dashboard" in the Tools Menu of metric chart view.

Recently Added

No resources to display

Availability Summary

Resource Type

Availability

No resources to display; please click the  icon above to add resources to portlet.

Alert Center

Report Center

Environment

Snapshot

Event Center

Operations Center



Auto-Discovery


No resources to display



Favorite Resources

Resource Name

Res

No resources to display, please click the  icon above to add resources to portlet.

Recent Alerts



Date / Time ▾


Alert Name

Resource I

No recent alerts to display

FIXED

ACKNOWLEDGE



Manage



Authentication/Authorization

Users: [List Users](#)

[New User...](#)

Roles: [List Roles](#)

[New Role...](#)



Server Settings

Settings: [Server Settings](#) - Change settings for email, announcements, data compression, database maintenance and authentication services

[Monitoring Defaults](#) - Define monitoring and alerting policies for the entire environment

[Escalation Schemes Configuration](#) - Define global escalation schemes that can be applied to individual alerts

[Plugin Manager](#) - Manage Hyperic product plugins running in your environment.



Plugins

[Network and Host Dependency Manager](#)

[Groovy Console](#)


[HQ Health](#)

[HQ Web Services Api](#)

[tc Server Command-line Interface](#)



Licenses Usage Status (Current Number Of Platforms / Total Platform Limit)

Platform usage: 2 / 17000 

[Browse](#) > [gertest063.ger.SAS.com](#)[Return to gertest063.ger.SAS.com](#)

Description: Microsoft Windows 2008

Secondary DNS : 172.29.11.171

Vendor Version : 2008

CPU Speed : 8 @ 3192 MHz (2x4)

Architecture : x64

Owner: HQ Administrator ([sasadm@sasgw](#)) - [Change...](#)

Default Gateway : 172.29.0.1

IP Address : 172.29.7.47

OS Version : 6.1

Vendor : Microsoft

Primary DNS : 172.29.0.14

RAM : 32768 MB

Map

Tools Menu

[Monitor](#) [Inventory](#) [Alert](#) [Views](#)Metric Display Range: [Previous Page](#)Last Days

OK

[Show Last 8 Hours](#) | [Advanced Settings](#)☐ Platform Services Health

Avail

[Indicators](#) [Metric Data](#)☐ CPU☒☐ FileServer Mount☒☐ NetworkServer Interface☒☐ Deployed Servers Health

Avail

☐ [gertest063 ActiveMQ 5.7](#)☒☐ [gertest063 HQ Agent 5.0.0](#)☒☐ [gertest063 Hyperic - Apache Tomcat 6.0](#)☒☐ [gertest063 PostgreSQL 9.x localhost:9432](#)☒☐ [gertest063 SAS Config Level Directory 9.4](#)☒Select Resources
above &
click button to view
metrics

View Metrics

Problem Metrics

No metrics to display

[Indicator Charts](#) | [Show Last 8 Hours](#)View: [Update Default](#) 100.0% — Availability☒ Cpu Usage

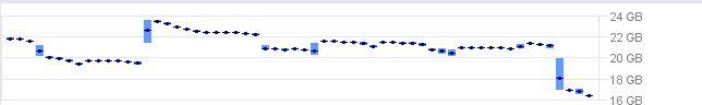
(Win32)

LOW: 4.0% AVG: 6.6% PEAK: 23.6%

☒ Free Memory

(Win32)

LOW: 16.4 GB AVG: 21.1 GB PEAK: 23.9 GB

☒ Percent Free Memory

(Win32)

LOW: 56.4% AVG: 68.8% PEAK: 75.9%



[Browse](#) > [gertest063.ger.SAS.com SASMeta - Metadata Server](#)[Return to gertest063.ger.SAS.com SASMeta - Metadata Server](#)

Description: SAS [Config-Lvl1] SASMeta - Me...

Component Name : SASMeta - Metadata Server

Metadata Resource ID : A5B1BXR3.AZ0000001

Unique IOM ID : 5681af30-c016-47e4-8aa9-5a175a...

Owner: HQ Administrator ([sasadm@saspw](#)) - [Change...](#)

CPU Count : 8

Full Version : 9.04.01M0P06192013

SAS Context : SASMeta

Logical Component Name : SASMeta - Logical Metadata Ser...

Version : 9.4

Map ☐Tools Menu ☐Monitor [Inventory](#) [Alert](#) [Control](#) [Views](#)Metric Display Range: Last Days [Show Last 8 Hours](#) | [Advanced Settings](#)

Services

[Indicators](#)[Metric Data](#)

No health data is available for this resource.

Show All Metrics: ☐Metrics Refresh: [1 min](#) | [2 min](#) | [5 min](#) | [OFF](#)

Host Platform

Avail

[gertest063.ger.SAS.com](#)

Show Metrics of Categories

☒ Availability ☒ Utilization☒ Throughput ☒ Performance

Show Metrics with Value Types

☒ Dynamic ☒ Trends Up☒ Trends Down ☒ Static

Keyword Search:

☐ Availability

Alerts

OOB

LOW

AVG

PEAK

LAST

Collection Interval

☐ [Availability](#)

0

0

-

100%

-

00:05:00 [@](#)☐ [Process End \(Last\) Time](#)

0

0

-

-

09/05/2013 01:50 PM 00:20:00 [@](#)☐ [Process Start Time](#)

0

0

-

-

08/30/2013 04:36 PM 00:20:00 [@](#)

Performance

☐ [Process Page Faults per Minute](#)

0

0

0.4

10.7

549.3

1.5

00:05:00 [@](#)☐ [Process Threads](#)

0

0

36.0

37.1

38.2

38.0

00:05:00 [@](#)☐ [Process Virtual Memory Size](#)

0

0

250.52 MB

273.55 MB

290.23 MB

290.17 MB

00:05:00 [@](#)

Utilization

☐ [Counter: Journal Data Written per Minute](#)

0

0

0 B

11 B

749 B

35 B

00:10:00 [@](#)☐ [Counter: Journal Space Available](#)

0

0

4,096.0 PB

4,096.0 PB

4,096.0 PB

4,096.0 PB

00:10:00 [@](#)☐ [Counter: Journal Transactions Processed per Minute](#)

0

0

0.00

0.01

0.86

0.08

00:10:00 [@](#)☐ [Counter: Journal Transactions Written per Minute](#)

0

0

0.00000000

0.00000000

0.00000000

0.00000000

00:10:00 [@](#)☐ [Current Clients](#)

0

0

59

99

107

101

00:10:00 [@](#)☐ [Current Memory Usage](#)

0

0

87.45 MB

123.52 MB

138.02 MB

137.96 MB

00:10:00 [@](#)☐ [Current Thread Count](#)

0

0

18

22

26

26

00:10:00 [@](#)☐ [Health](#)

0

0

100%

100%

100%

100%

01:00:00 [@](#)☐ [Highest Memory Usage](#)

0

0

105 MB

127 MB

139 MB

139 MB

00:10:00 [@](#)☐ [Highest Thread Count](#)

0

0

18

22

26

26

00:10:00 [@](#)☐ [Process Cpu System Time](#)

0

0

00:00:03.5

00:02:36.8

00:05:56.5

00:05:55.2

00:05:00 [@](#)

sasva SAS Home Directory 9.4: SASWork Capacity: Alert Definition

[<< Return to Alert Definitions](#)

Alert Properties

Name: SASWork Capacity
Description:Priority: !! - Medium
Active: Yes
Date Created: 04/09/2014 05:30 AM
Date Modified: 04/09/2014 06:38 AM[Edit](#)

Condition Set

If Condition: Use Percent > 55.0%
Enable Action(s): Once every 1 times conditions are met within a time period of 1 hours.[Edit](#)[Escalation](#) [Control Action](#) [Notify Roles](#) [Notify Users](#) [Notify Other Recipients](#) [Script](#) [OpenNMS](#)

Escalation Scheme: MailTo MAK

Note: To create a new escalation scheme for this alert definition, please go to the [Escalation Schemes Configuration](#) section.

If the alert is acknowledged: Escalation continued without pausing

If the alert state has changed: Previously notified users are notified of the change

Escalation Scheme Actions: **Action 1 details**Notify Other Recipients via Email: germak@ger.sas.com
Wait time before escalating: 0 minutes[<< Return to Alert Definitions](#)

sasva.demo.sas.com: CPU Usage: Alert Definition

[<< Return to Alert Definitions](#)

Alert Properties

Name: CPU Usage
Description:

Priority: !! - Medium
Active: Yes
Date Created: 04/09/2014 05:32 AM
Date Modified: 04/09/2014 05:35 AM

Edit

Condition Set

If Condition: Cpu Usage > 80.0%
Enable Action(s): Once every 1 times conditions are met within a time period of 1 hours.

Edit

Escalation [Control Action](#) [Notify Roles](#) [Notify Users](#) [Notify Other Recipients](#) [Script](#) [OpenNMS](#)

Escalation Scheme: MailTo MAK Note: To create a new escalation scheme for this alert definition, please go to the [Escalation Schemes Configuration](#) section.

If the alert is acknowledged: Escalation continued without pausing

If the alert state has changed: Previously notified users are notified of the change

Escalation Scheme Actions:

Action 1 details

Notify Other Recipients via Email: germak@ger.sas.com

-----Original Message-----

From: noreply@mailhost.fyi.sas.com [mailto:noreply@mailhost.fyi.sas.com]

Sent: Wednesday, August 06, 2014 1:26 PM

To: Markus Trunk

Subject: [HQ] !! - CPU Usage sasva.demo.sas.com

sasva.demo.sas.com has generated the following alert:

CPU Usage sasva.demo.sas.com Cpu Usage (99.7%)

ALERT DETAIL

- Resource Name: sasva.demo.sas.com
- Alert Name: CPU Usage
- Alert Date / Time: August 6, 2014 7:26:00 AM EDT
- Triggering Condition(s):
 - If Cpu Usage > 80.0% (actual value = 99.7%)
- Alert Severity: !! - Medium

Last Indicator Metrics Collected:

[August 6, 2014 7:26:00 AM EDT] Availability = 100.0%
[August 6, 2014 7:26:00 AM EDT] Cpu Usage = 99.7%
[August 6, 2014 7:25:00 AM EDT] Free Memory = 20.8 GB
[August 6, 2014 7:25:00 AM EDT] Swap Used = 19.1 GB

For additional detail about this resource, go to <http://sasva.demo.sas.com:7080/ResourceCurrentHealth.do?eid=1:10003>

For additional detail about this alert, go to <http://sasva.demo.sas.com:7080/alerts/Alerts.do?mode=viewAlert&eid=1:10003&a=10103>

JOB MONITORING PROZESS MONITORING

Prozess und Job View:

- Process Orchestration Jobs
- Data Management Server Jobs
- Data Integration Studio Batch Jobs

The screenshot displays the SAS Monitoring Center interface. The top section shows a list of jobs with columns for Job Name, Job Type, Platform, Status, % Complete, Start Time, End Time, Run Time, 20 Run Mean, Trend, and User ID. A blue arrow points from the 'Jobs' link in the left sidebar to the 'Jobs > 06_Create_Kunden' view.



Monitoring Center

Jobs > 06_Create_Kunden

Job Path: /Demo/04_case_study/05_Jobs/06_Create_Kunden
Deploy date: 2/18/14 6:11:08 AM Version: 1

Status: ✔ Completed

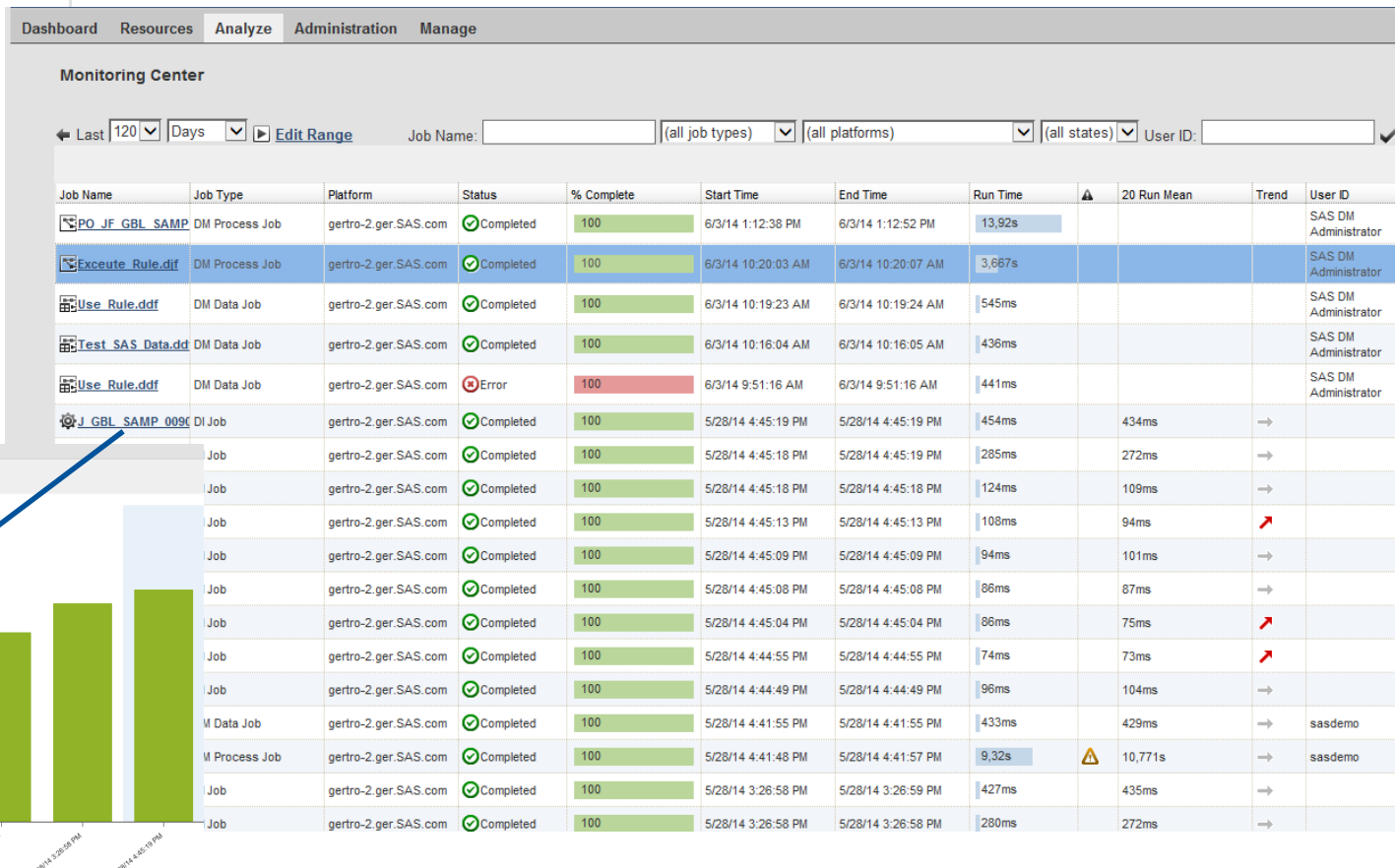
Start time: 2/20/14 7:29:52 AM Run time: 00:02:03.046
End time: 2/20/14 7:31:55 AM 20 run mean: 00:01:43.964

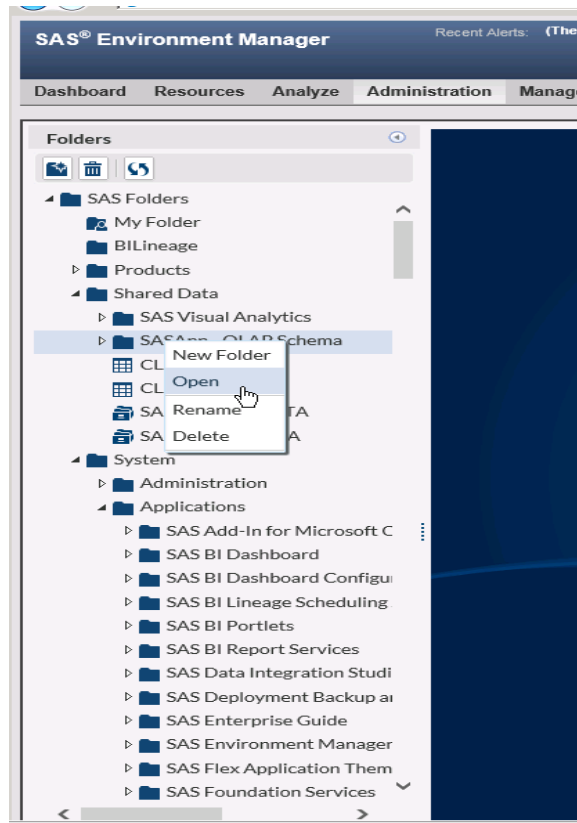
Trend:  Distribution:  Insufficient data

Steps Job History Job Trend Status Messages Log

| Step | Instance | Status | Start Time | End Time | Run Time | 20 Run Mean | Trend | Rows Processed | CPU Time |
|----------------------------------------------|----------|-------------|--------------------|--------------------|--------------|--------------|-------|----------------|----------|
| File Reader | | ✔ Completed | 2/20/14 7:29:52 AM | 2/20/14 7:30:01 AM | 9.172s | 8.601s | → | 0 | 8.674s |
| Apply Lookup Standardization | | ✔ Completed | 2/20/14 7:30:01 AM | 2/20/14 7:30:01 AM | 517ms | 490ms | → | 22780 | 499ms |
| Create Table | | ✔ Completed | 2/20/14 7:30:01 AM | 2/20/14 7:30:19 AM | 17.522s | 13.635s | → | 22780 | 9.36s |
| Create Table | | ✔ Completed | 2/20/14 7:30:19 AM | 2/20/14 7:30:19 AM | 16ms | 12ms | → | 22780 | 31ms |
| DataFlux Data Service | | ✔ Completed | 2/20/14 7:30:19 AM | 2/20/14 7:30:34 AM | 15.265s | 12.019s | → | 0 | 1.919s |
| Create Table | | ✔ Completed | 2/20/14 7:31:55 AM | 2/20/14 7:31:55 AM | 00:01:20.379 | 00:01:09.068 | → | 22780 | 28.065s |

JOB MONITORING MONITORING RUNTIME PERFORMANCE





The screenshot displays the SAS Environment Manager web interface. The browser address bar shows the URL: `sasbi.demo.sas.com:7080/EnvironmentManagerInvoker?org.apache.catalina.filters.CSRF_NONCE=1FF6CEF268632D36221F4`. The page title is "SAS® Environment Manager". The navigation bar includes "Dashboard", "Resources", "Analyze", "Administration", and "Manage". The "Administration" tab is active.

On the left, the "Folders" pane shows a tree structure with "Object Spawner" selected. A context menu is open over "Object Spawner" with options: "New Folder", "Open", "Rename", and "Delete".

The main content area shows the "Object Spawner - sasbi" configuration. The "Authorization" tab is active, displaying a table of effective permissions.

| Identity | ReadMetadata | WriteMetadata | Administer |
|---------------------|--------------|---------------|------------|
| PUBLIC | ⊘ | ⊘ | ⊘ |
| SAS Administrators | ✓ | ✓ | ✓ |
| SAS System Services | ✓ | ✓ | ⊘ |
| SASUSERS | ✓ | ✓ | ⊘ |

Below the table, it states: "To change a setting, click a cell."

The footer shows the date and time: "May 27, 2014 2:37 PM Eastern Daylight Time" and a link to "About".

The screenshot displays the SAS Environment Manager web interface. The top navigation bar includes the title "SAS® Environment Manager", a "Recent Alerts" section showing "12:40 PM - WebServerUp", and user information "Welcome, HQ" with links for "Sign Out" and "Help". Below this is a secondary navigation bar with tabs: "Dashboard", "Resources", "Analyze", "Administration" (which is selected), and "Manage".

The main content area is divided into two panes. The left pane, titled "Folders", contains a hierarchical tree structure:

- System
 - Administration
 - Applications
 - Publishing
 - Secured Libraries
 - Security
 - Access Control Templates (highlighted)
 - New Folder
 - New Access Control Template
 - Open
 - Rename
 - Delete
 - Default ACT
 - Portal ACT
 - Private User Folder A
 - SAS Administrator Se
 - Authentication Domains
 - Roles
 - User Groups
 - Users
- Servers
 - Connect Spawner - sasbi
 - DataFlux Data Management Server - sasbi
 - LASR Analytic Server - sasbi

The right pane, titled "Object Spawner - sasbi", shows the "Authorization" tab. It has sub-tabs for "Basic", "Apply ACTs", and "Summary". The "Summary" sub-tab is active, displaying the text: "Direct controls on this object: No explicit controls. No directly applied access control templates." There is a "Group by type" dropdown menu and a "This page is read-only." message at the bottom.

VIELEN DANK FÜR IHRE AUFMERKSAMKEIT!



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