



SAS[®] Viya[®] Platform: Configuration Properties

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Configuration Properties: Overview

Configuration properties of SAS Viya platform servers and services (often referred to as *microservices*) are managed through the following:

- Configuration page in SAS Environment Manager
- `sas-viya` command-line interface (CLI) using the configuration plug-in

Services have default values that are set during the deployment of your SAS Viya platform. You can view and modify these default configurations, as well as add configuration properties.

Using `sitedefault.yaml` File

The `sitedefault.yaml` file is used primarily for the bulk loading of configuration values. The `sitedefault.yaml` file can be used only to set new property values that have not already been set.

After the initial deployment, the `sitedefault.yaml` file cannot be used to modify an existing value and to deploy the software again. Because of this, SAS recommends that you do not use the `sitedefault.yaml` file for the initial deployment of your SAS Viya platform software since incorrect values or syntax errors can cause the deployment to fail. However, you can use a `sitedefault.yaml` file from a previous SAS Viya platform release when updating to a newer version of the software.

The `sitedefault.yaml` file is located in the `$deploy/sas-bases/examples/configuration` directory. For more information, see [“Add a `sitedefault` File to Your Deployment” in SAS Viya Platform: Deployment Guide](#).

Setting SAS Studio Configuration Properties in `sitedefault.yaml` File

Properties that you set for SAS Studio in `sitedefault.yaml` prior to [2025.06](#) do not work as expected when you update to a cadence version of [LTS 2025.09](#) and later. The following code snippet is an example of the syntax that does not work:

```
config/SASStudio/sas.studio/showServerFiles: true
config/SASStudio/sas.studio/fileNavigationCustomRootPath: CUSTOM
```

Explanation

The `sas.studio` configuration definition applies to the following services:

- `sas-studio-app`, which is the web application.

The configuration name is `SASStudio`, which is used in the `sitedefault.yaml` file. Prior to 2026.01, it is displayed in SAS Environment Manager with the label of *Studio*. Starting at 2026.01, it is displayed in SAS Environment Manager as *SAS Studio*.

- `sas-studio`, which is the midtier service for SAS Studio.

The configuration name for this service is *studio* and the label that is displayed for this configuration in SASEnvironmentManager is *Studio Service*.

Starting at 2025.06 and later, you must reference *studio*, the midtier service for SAS Studio, instead of *SASStudio*.

Solution

The preferred method is to use *application* since it affects all consumers and versions of the definition.

Here is an example:

```
config/application/sas.studio/showServerFiles: true
config/application/sas.studio/fileNavigationCustomRootPath: CUSTOM
```

You might need to restart the `sas-studio` pod for the configuration properties to take effect.

Note: This pertains to any property that you are setting in the `sitedefault.yaml` file for SAS Studio. Here is an example: `config/application/sas.studio/sas_studio_property: value`

Configuration Properties: Concepts

Service Configurations

SAS Viya platform servers and services have properties that are configured by default at the time of deployment to ensure that they run properly. You can also add properties (through a configuration instance), or modify an existing property, such as configuring a logging property. To view, modify, or add configuration properties, use the following methods:

- Configuration page in SAS Environment Manager.
See [“Configuration Page” in SAS Environment Manager: User’s Guide](#) for information about using SAS Environment Manager to view and change configuration information.
- `sas-viya` command-line interface (CLI) and the configuration plug-in.
See [“How to \(CLI\)” on page 11](#) for information about using the CLI to manage configuration information.

Configuration Instances and Definitions

A service's configuration consists of *configuration instances* that the service uses. These configuration instances are a collection of name-value pairs (or properties). (These name-value pairs can sometimes be nested.)

Configuration instances are based on a *configuration definition*. A configuration definition is a schema that describes a type of configuration. You create a configuration instance from a configuration definition. There are two types of configuration definitions:

- *service* configuration definition
a configuration definition that applies to one or a small set of services. An example is *sas.reportdata.properties*.
- *system* configuration definition
a configuration definition that applies to any service. Examples are *jvm* and *spring*. See [“System Configuration Definitions” on page 5](#) for a list of system configuration definitions.

A SAS Viya platform service can be affected by one or more configuration instances. Some services have a one-to-one relationship with a configuration instance and some services are associated with more than one configuration instance. It is important to note that some services do not have any configuration instances, other than [“Global Configuration Instances” on page 20](#), but you can specify configuration properties for most of these services.

For a list of services that have only global configuration instances, see [“Services That Have Only Global Configuration Instances by Default” on page 37](#).

To view a list of services and their configurations, or to view a list of service definitions use one of these commands:

- *sas-viya* command-line interface (CLI): `sas-viya configuration configurations list`
For a list of configuration instances for a service: `sas-viya configuration configurations list --service servicename`

For a list of configuration definitions: `sas-viya configuration definitions list`

- SAS Environment Manager Configuration page. It contains two views: **All services** and **Definitions**.

The **All services** view lists all SAS Viya platform services that are currently deployed and those that an administrator has not manually stopped.

The **Definitions** view lists all the SAS Viya platform configuration definitions.

When To Restart a Service After a Configuration Change

SAS Viya platform services (sometime referred to as *microservices*) configuration properties are stored in SAS Configuration Server of SAS Infrastructure Data Server. For configuration property updates or additions, you might need to restart the service to which you are making the update. This is based on whether the service is written in Java or Go.

For services written in Java, changes trigger a refresh, and the new property values are applied to the service. In most situations, no restart of the service is required. Verify that the configuration changes were applied. Restart the service if the change was not applied. For a list of Java services, use this command:

```
kubectl -n namespace get deployments --selector='sas.com/deployment-base=spring'
```

For services written in Go, a restart is required and the restart occurs automatically after configuration changes are applied. For a list of Go services, use this command:

```
kubectl -n namespace get deployments --selector='sas.com/deployment-base=golang'
```

If you need to restart a service, find the associated pod in your SAS Viya namespace and delete it. The pod automatically restarts after it has been deleted. Here is an example:

```
export viya=name-of-namespace
kubectl -n $viya delete pods -l app.kubernetes.io/name=app-name
```

See [“Managing a Specific Server or Service” in SAS Viya Platform: General Management of Servers and Services](#) for more information.

System Configuration Definitions

System configuration definitions can apply to any service (whereas configuration definitions that apply to one or a small set of services are referred to as service configuration definitions). Below is a list of system configuration definitions and their properties that can be configured.

jvm (Java Virtual Machine)

JVM (Java Virtual Machine) options are used to configure the Java Virtual Machine when it is launched.

Starting with [2025.06](#), Viya uses the `XX:MaxRAMPercentage` JVM (java virtual machine) option that was introduced with Java 8 version. This option configures the maximum heap size of the Java application as a percentage of the total memory of a container. This percentage-based value allows you to manage the pod size to tune your deployments. (If the JVM settings are too low, memory that is reserved for the pod is never used. If the JVM settings are too high, the pod is subject to random failures for exceeding memory resource limits.)

The default value for `XX:MaxRAMPercentage` is 75% for most services. Updates to your deployment use these new heap settings. However, if you had modified jvm options in your deployment, your modified settings are maintained across updates.

Note: The `xxmx` option always overrides the `XX:MaxRAMPercentage` option. However, SAS recommends that you begin to use the `XX:MaxRAMPercentage` jvm option when you are tuning your Viya deployment.

To view the services that are configured, use the Configuration page of SAS Environment Manager. Select **Definitions** from the drop-down menu and highlight `jvm`. You might see the `java-option-xxmx` option without a value. Or, a service is listed as being configured for a jvm property, but no option is listed. This signifies that the `XX:MaxRAMPercentage` has been set at start up.

Alternatively, you can use the sas-viya CLI to view services that are configured:

```
sas-viya configuration configurations list --definition-name jvm
```

sas.common.rest.client

Use the `sas.common.rest.client` definition to configure the commons REST client library. The property value for the service is `Global`, which indicates that the configuration instance applies to all services.

Property	Value	Description
Services:	<i>servicename</i>	The name of the service to which this configuration instance applies. Note: The value of <i>Global</i> indicates the configuration instance applies to all services.
A URL that is accessible to clients external to the SAS system:	<i>not set by default</i>	Overrides the external host and port used when generating URLs for accessing this system. Use <code>https://host:port/</code> syntax, where <code>:port</code> is optional.
Bypass HTTP proxy:	<i>not enabled by default</i>	Enables requests to be routed directly to the service rather than through the HTTP proxy.

sas.common.web.security

The `sas.common.web.security` definition contains a set of properties that are used to configure web security. By default, your SAS web applications, such as Data and AI Studio, SAS Environment Manager, Model Studio, and SAS Visual Analytics, are already configured with this configuration instance.

To view the services that are already configured with `sas.common.web.security`, use the Configuration page of SAS Environment Manager. Select Definitions from the View: drop-down menu and highlight **sas.common.web.security**. Alternatively, you can use the `sas-viya` CLI:

```
sas-viya configuration configurations list --definition-name sas.common.web.security
```

Property	Default Value	Description
Services:	<i>servicename</i>	The name of the service to which this configuration instance applies.
content-security-policy:	default-src 'self'; object-src 'none'; frame-ancestors 'self'; form-action 'self';	The string used for the Content-Security-Policy HTTP header.
content-security-policy-enabled:	<i>enabled by default</i>	Sends the Content-Security-Policy header in HTTP responses to prevent injection attacks.

Property	Default Value	Description
x-content-type-options:	nosniff	The string used for the X-Content-Type-Options header for unsecured endpoints.
x-content-type-options-enabled:	<i>enabled by default</i>	Sends the X-Content-Type-Options header in HTTP responses for unsecured endpoints.
x-frame-options:	(not set)	DEPRECATED: Use content-security-policy with the frame-ancestors directive instead. The string used for the X-Frame-Options HTTP header. A restart is required to pick up changes to this property.
x-frame-options-enabled:		DEPRECATED: Use content-security-policy with the frame-ancestors directive instead. Sends the X-Frame-Options header in HTTP responses. A restart is required to pick up changes to this property.
x-xss-protection:	1; mode=block	The string used for the X-XSS-Protection header for unsecured endpoints. Note: The protections brought by this property are largely superseded by a strong content security policy. It is recommended to use the content-security-policy property and to leave the x-xss-protection as its default value.
x-xss-protection-enabled:	enabled by default	Sends the X-XSS-Protection header in HTTP responses for unsecured endpoints. Note: The protections brought by this property are largely superseded by a strong content security policy. It is recommended to use the content-security-policy property and to leave the x-xss-protection-enabled at its default value.

sas.commons.web.security.cookies

The set of properties that are used to configure security related to cookies. Modifying one of these property values requires that the associated service restarts. Some services restart automatically. If an impacted service does not restart after you save your changes, restart it manually.

Property	Value	Description
sameSite:	Unset	The string used to specify whether cookies should be sent only with same-site requests. Valid values are 'Unset', 'Strict', 'Lax', and 'None'.
	same-site cookie attribute is not set.	
	Strict	
	browser prevents sending the cookie in any cross-site request.	
	Lax	
	browser sends the cookie only in same-site requests and cross-site top level GET requests.	
	None	
	same-site cookie attribute is set and the cookie is always sent in cross-site requests.	

sas.commons.web.security.cors

These set of properties are used to configure how the server responds to cross-origin resource sharing (CORS) requests. By default, CORS is not enabled. An example of needing to enable CORS is when you configure SAML as your authentication method. See [“Configure SAML” in SAS Viya Platform: Authentication](#).

For more information about CORS, see [CORS support in Spring Framework](#).

Modifying one of these property values requires that you restart services. Some services restart automatically. If an impacted service does not restart after you save your changes, restart it manually. See [“Managing a Specific Server or Service” in SAS Viya Platform: General Management of Servers and Services](#).

Property	Default Value	Description
allowCredentials:	false	Allows user credentials to be used in cross-origin requests.
allowedHeaders:		The comma-separated list of HTTP headers that a pre-flight request can list as allowed for use during an actual request. The special value <code>***</code> allows actual requests to send any header, but <code>***</code> cannot be used when allowCredentials is set to true.
allowedMethods:	HEAD,GET	The comma-separated list of HTTP methods that are allowed in cross-origin requests. The special value <code>***</code> allows all methods.

Property	Default Value	Description
allowedOrigins:		The comma-separated list of origins that are allowed by default. Note: Prior to 2023.02, if you are modifying this property, make sure that it has the same value that is assigned to the <code>TKHTTP_CORS_ALLOWED_ORIGINS</code> environment variable, if the environment variable is set in the <code>sas.cas.instance.config:settings</code> configuration instance. For more information, see FIX “env.TKHTTP_CORS_ALLOWED_ORIGINS” in SAS Viya Platform: SAS Cloud Analytic Services.
maxAge:		The duration of time in seconds that the response from a pre-flight request can be cached by clients.

sas.common.web.security.csrf

Cross-Site Request Forgery (CSRF) security is enabled by default. SAS Viya protects against CSRF using the following:

- Synchronizer Tokens: Randomly generated tokens that are associated with the user’s current session. CSRF is checked only on requests with authenticated sessions and is always skipped on GET, HEAD, TRACE, and OPTIONS requests. For more information, see [Cross-Site Request Forgery \(CSRF\) Prevention Cheat Sheet](#).
- Header Checking: A filter that checks that the HTTP Referer header has the host and port of the requested URI or matches an optional allowlist of URIs that is configured as a comma-separated list in the `sas.common.web.security.csrf.allowedUris` property.

For more information about CSRF, see [Common application properties](#).

The following property is available for **sas.common.web.security.csrf**:

Property	Description
allowedReferers:	This property is not used.
allowedUris:	The comma-separated list of referer URIs that are allowed by default. The list must contain regular expressions.
failIfNoHeaders:	This property is not used.

Disable Cross-Site Request Forgery (CSRF) Checking

CAUTION

SAS strongly recommends that CSRF is enabled. Disabling CSRF is a security risk and certain functionality of the SAS Viya system might become inoperable. For example, SAS Visual Analytics requires CSRF to be enabled.

- 1 To disable Cross-Site Request Forgery (CSRF) checking, create a new configuration for the **security** definition. On the Configurations page in SAS Environment Manager, highlight **security** from the **View: Definitions** list.
- 2 Click **New Configuration** at the top right of the page.
- 3 In the New security Configuration window, click **+ Add property**.
- 4 Enter the following:
 - **Name:** `enable-csrf`
 - **Value:** `false`
- 5 Click **Save**.
- 6 Modifying this property requires that you restart services. Some services restart automatically. If an impacted service does not restart after you save your changes, restart it manually. See [“Managing a Specific Server or Service” in SAS Viya Platform: General Management of Servers and Services](#).

Spring Boot Properties

Here is the list of third-party, Spring Boot properties that you can configure. For a list of the valid property names and descriptions, see [Common Application Properties](#).

CAUTION

When adding a property, be extremely careful. Entering the wrong property name or an invalid data type can cause SAS Viya to become inoperable.

Property	Description
Endpoints	The set of properties that are used to configure Spring Actuator endpoints.
Flyway	The set of properties that are used to configure Spring Flyway integration.
Liquibase	The set of properties that are used to configure Spring Liquibase integration.
Logging	The set of properties that are used to configure logging.
Logging.Level	The set of properties that are used to configure logging levels.
Management	The set of properties that are used to configure Spring application management.
Multipart	The set of properties that are used to configure Spring multipart handling.

Property	Description
Security	The set of properties that are used to configure Spring security.
Server	The set of properties that are used to configure the embedded Spring server. Use this property to modify the session time-out interval for SAS Viya web applications. You can use either of the following tools to perform this task: ■ <code>sas-viya</code> CLI: “Set Time-Out Interval for SAS Viya Web Applications” on page 18. ■ SAS Environment Manager: “Set Time-Out Interval for SAS Viya Platform Web Applications” in SAS Environment Manager: User’s Guide.
Shell	The set of properties that are used to configure the Spring remote shell.
Spring	The set of properties that are used to configure other Spring features.

Zones

Note: As of release 2023.10 of the SAS Viya platform, application multi-tenancy, which comprises multiple tenants in the same SAS Viya platform deployment, is no longer supported. Customers who support use cases that require separate tenants are encouraged to deploy the SAS Viya platform into more than one namespace on the same Kubernetes cluster.

The set of properties that are used to configure zone information for multi-tenancy. Modifying one of these property values requires you to restart the service.

Property	Description
<code>internal.hostnames:*</code>	The comma-separated list of internal host names that are used to access the provider zone, or that are used in a subdomain to access other zones.

TIP Be sure to specify the base host name without any tenant prefixes.

TIP If you use a load balancer as a front end to the Apache HTTP Server and microservices, you must include the fully qualified domain name of the load balancer in the list of host names.

How to (CLI)

You can use the [sas-viya command-line interface \(CLI\)](#) to view and change configuration information.

As an alternative, you can use SAS Environment Manager to view and change configuration information. For more information, see [“Configuration Page” in SAS Environment Manager: User's Guide](#).

Note: The examples in this section assume that you have already signed in to SAS Viya platform on the command line. See [“Command-Line Interface: Instructions when Downloading the CLI” in SAS Viya Platform: Using the Command-Line Interface](#).

Overview: Configuration Instances

Although the `sas-viya configuration` command provides subcommands to enable you to view several types of configuration information, most of the information is not used when administering your SAS Viya platform.

The command enables you to work with these types of configuration information:

definition

It is a schema that describes the configuration for a service. For example, use this command to show the **`sas.crossdomainproxy`** definition:

```
sas-viya configuration definitions show --name sas.crossdomainproxy -v 3
```

Note: There might be more than one version of the definition. List the versions of definitions to find the latest version: `sas-viya configuration definitions list --name sas.crossdomainproxy`.

Here is an example of the output:

```
Id                : b5e477f4-abf7-42e9-ae26-2f392a7ac607
Name              : sas.crossdomainproxy
Label            :
Description       : The set of configuration properties for the Cross Domain Proxy service.
DefinitionVersion : 3
Services         : [crossdomainproxy geography]
AddressByName     : false
AddressByTenant   : true
AllowUserProperties : false
Properties        :
  allowedDomains:
    Label          :
    Description     : The list of domains (an allowlist) that the cross-domain proxy may access.
                     The value is a regular expression. Use the Or character (|) to separate
                     multiple domains
                     (for example, https?://.*\.sas\.com(:\d+)?|https?://.*\.foo\.bar\.org).
    Type           : string
    DefaultValue   : <nil>
    Values         : []
    AddressByName   : false
    AllowUserProperties : false
    AllowUserValue  : true
    List           : false
```

```

    Required      : false
allowedSystemDomains:
  Label          :
  Description     : Enables the list of trusted domains (if any) required by SAS.
                   If the cross-domain proxy is denied access to one or more of
                   these domains, certain SAS features are disabled:
                   ${info.crossdomainproxy.trustedDomains}.
  Type           : boolean
  DefaultValue   : true
  Values         : []
  AddressByName  : false
  AllowUserProperties : false
  AllowUserValue  : true
  List           : false
  Required       : false

```

configuration

It is a collection of name-value pairs that contains configuration properties and associated values. Use the CLI to modify only the values in a configuration. This is equivalent to an instance in SAS Environment Manager. For example, use this command to show the **crossdomainproxy** service configuration:

```
sas-viya configuration configurations show --id bd835793-00cb-4511-935d-e275838b466a
```

where the id is unique to your environment.

Here is the output:

```

id                : bd835793-00cb-4511-935d-e275838b466a
metadata.isDefault : true
metadata.mediaType : application/vnd.sas.configuration.config.sas.crossdomainproxy+json;version=3
metadata.services  : [crossdomainproxy geography]
allowSystemDomains : true

```

Note that the id for the crossdomainproxy service configuration will be different in your environment. You can run this command to find the unique ids for the service configurations in your environment: `sas-viya configuration configurations list`

fact

It is a set that consists of a service, name, and value, which is used to describe a static aspect of the service. For example, use this command to get the following facts for **info.service.description** for the **crossdomainproxy** service:

```
sas-viya configuration facts list --service crossdomainproxy
```

```

{
  {
    "id": "08622f1c-d4c7-4db7-9912-aa8c51f2983b",
    "name": "info.service.description",
    "service": "crossdomainproxy",
    "value": "Enables access to external web resources via HTTP."
  },
  {
    "id": "d631a02d-3220-4030-8efd-c81b1be7b30a",
    "name": "info.service.legalName",
    "service": "crossdomainproxy",
    "value": "Cross-domain Proxy service"
  }
}

```

List and View Configuration Instances

Use this command to list all configuration instances:

```
sas-viya configuration -output text configurations list
```

The command returns the ID, definition name, configuration instance name, service or services to which the configuration instance applies, and whether the configuration instance is applied by default.

Here is an example of the information returned by the command:

Id	DefinitionName	Services	IsDefault
d11858f5-8c82-4649-be60-1f3682a2eddd	sas.compute	GLOBAL	true
b0544450-1d03-4f50-925a-87dd26cfff25	sas.crossdomainproxy	crossdomainproxy	true
24c41f18-dbb6-461d-8375-80e16d20070b	sas.dataexplorer	SASDataExplorer	true
785b956d-fb8f-4974-9b5e-8621352e06c0	sas.datamanagement	SASDataExplorer	true
9a7fcfcb-fda0-4e3b-86ba-aa688438fc2f	sas.devicemanagement	deviceManagement	true
2e87a571-94cc-4d6b-87f5-25758d389a5c	sas.environmentmanager	SASEnvironmentManager	true
4a14bf92-450f-4942-8344-6d6f1c3c66d3	sas.event	workflow	true
dea80f7c-01c0-4e41-9226-d67f9e2a26eb	sas.featureflags	featureFlags	true
d26813bd-39f1-4114-b61b-1c03e4403ebb	sas.files	files	true
90ad6898-cb3b-49e1-87c7-5f1ac1f750b4	sas.files.extraction	files	true
250839fb-5234-4e7d-a3ac-0eb7dcf5f59a	sas.files.scan	files	true
3a7fbbeb-5bf8-4968-a565-45b6d215f286	sas.files.scan.tenant	files	true
08df7575-648a-4130-9491-599a959b8e9d	sas.identities	identities	true
24dd2ef8-c357-4764-b438-ac7d0510cce2	sas.logon.provider.guest	[SASLogon authorization]	false

Use the configuration ID to run a command to show the contents of a specified configuration instance. This example shows the configuration for the **sas.files** configuration. It uses the ID from the list that was output in the previous example.

```
sas-viya configuration configurations show --id
d26813bd-39f1-4114-b61b-1c03e4403ebb
```

Here are the command results:

```
id : d26813bd-39f1-4114-b61b-1c03e4403ebb
metadata.isDefault : true
metadata.mediaType : application/vnd.sas.configuration.config.sas.files+json;version=5
metadata.services : [files]
allowedCharactersInFileName :
blockedTypes : application/x-msdownload
extractionLimit : 5000
fileVersionLimit : 100
maxFileSize : 0
maxFileSizeMB : 100
webContentTypes : text/html, text/javascript, text/css, application/javascript
```

Update Configuration Properties

Perform the following tasks in order to add or modify configuration properties for a service using the CLI:

- Download the `json` file that contains the current configuration properties.
See [“Download Configurations” on page 15](#).
- Modify property values in the downloaded configuration file.
- Upload the modified file.
See [“Apply Configuration Updates” on page 16](#).

Note: As an alternative, you can use SAS Environment Manager to view and change configuration properties. For information, see [“Configuration Page” in SAS Environment Manager: User's Guide](#).

Download Configurations

If you want to make changes to the configuration properties for a configuration instance, you must first download the current configuration.

Here is an example of downloading the configurations for the **reportDistribution** service to the `/usr/defs/reportdistribution.json` file:

```
sas-viya configuration configurations download --service reportdistribution
--target /usr/defs/reportdistribution.json
```

Here is an example of a snippet of json objects that are returned by the command:

```
"metadata": {
  "creationTimeStamp": "2024-12-18T12:32:23.705Z",
  "createdBy": "sas.reportDistribution",
  "modifiedTimeStamp": "2024-12-18T12:32:23.705Z",
  "modifiedBy": "sas.reportDistribution",
  "isDefault": true,
  "mediaType": "application/vnd.sas.configuration.config.sas.reportdistribution+json;version=1",
  "services": [
    "reportDistribution"
  ]
},
"version": 1,
"custom": {
  "debugPrintReportPackage": "false",
  "forceSynchronousRendering": "false",
  "heartBeatInterval": "10",
  "maximumEmailsPerJob": "50",
  "maximumRenderJobWaitTimeSeconds": "900",
  "maximumRenderingsPerJob": "50"
}
```

Note: Typically, property values are of `string` type. Therefore, the values are surrounded by quotation marks. When you make changes to properties through the **Configuration** page of SAS Environment Manager, you do not use quotation marks as they are automatically added by the interface.

Note: SAS does not support the use of the configuration plug-in to the `sas-viya` command-line interface (CLI) to apply configurations from one environment to another.

Apply Configuration Updates

- 1 Make a copy of the `json` configuration file before you modify the file.
- 2 Modify the configuration properties in the `json` file and save the file.

Note: SAS strongly recommends that you also set the `"isDefault"` to `false`. The `isDefault` flag is used by bootstrapping and backup/restore processes to determine if these are customer-specified values that must be preserved. This is automatically done for you if you use SAS Environment Manager to make the property changes.

- 3 Upload the modified `json` file to apply the configurations to the configuration instance.

Here is example code to upload the configurations for the `reportDistribution` service from the `/usr/defs/reportdistribution.json` file:

```
sas-viya configuration configurations update --file /usr/defs/reportdistribution.json
```

Note: The `sas-viya configuration` CLI provides a command to update configurations. You do not update definitions. The definition includes values that make up the configuration instance, and you are only changing the values for the specified configuration instance.

Note: In some cases, the definition contains allowable values and type constraints, such as `string` or `boolean`. However, some definitions, such as [system configuration definitions on page 5](#), do not have a list of individual key/value properties and type constraints. As an example, see [“Set Time-Out Interval for SAS Viya Web Applications” on page 18](#).

Delete Configuration Properties

CAUTION

Use caution when deleting configuration properties as it can result in inoperability or corruption of the system.

Do not delete configuration properties that are set during the deployment of your SAS Viya platform. Instead, you can modify the default property values. However, you might need to add a new configuration instance for a service or server. In these situations, you can delete the configuration instance if it was not configured properly, or if it is no longer needed. Here are two examples:

- You configure the SAS Logon Manager to use an authentication method that is not the default.
- You configure a logging level for a service that is no longer needed.

Use the following steps to delete a configuration instance.

Determine the ID of the configuration instance that you want to delete.

- 1 Use the following command to return a list of the configurations in your environment:

```
sas-viya --output text configuration configurations list
```

TIP If you know the definition name or the service to which the configuration applies, you can use one of the following options on the command to return a subset of configurations: `--definition-name (-d)` or `--service (-s)`

- 2 Confirm that the ID corresponds to the configuration instance before you delete it. From the output in Step 1, copy the ID of the configuration instance that you want to delete and use the following command to view its properties:

```
sas-viya configuration configurations show --id configuration_id
```

Delete the configuration.

Before deleting a configuration, note the value of `metadata.isDefault` in the output from **Step 2**. If the value is `true`, the configuration was created from system defaults and it is re-created on the next service restart. If the value is `false`, the configuration was either modified by a user or created by a user. Configurations that were originally system defaults but were modified at a later time, are also re-created on a service restart with the original system default values. Only configurations that were newly created by a user and were not bootstrapped as a default are permanently removed.

- 3 Use the following command to delete the configuration instance:

```
sas-viya configuration configurations delete --id configuration_id
```

Verify that the configuration instance is deleted.

- 4 Use the same command from **Step 1**, `sas-viya -output text configuration configurations list`, to verify that the configuration instance is deleted.
- 5 After deleting a configuration, the SAS configuration reconciler automatically detects the change and performs a rolling restart of the affected service within approximately 30 seconds.

If the automatic restart does not occur, you can manually restart the service using the following command:

```
export viya=name-of-namespace
kubectl -n $viya delete pods -l app.kubernetes.io/name=app-name
```

The `app-name` is the Kubernetes Deployment name, or service name.

Note: The service name can be found in the `metadata.services` value that is in the output from this command: `sas-viya configuration configurations show --id configuration_id`

However, this might not be the Kubernetes Deployment name. The Kubernetes Deployment name can include the `sas-` prefix or the `-app` suffix.

If `metadata.services` has a value of `GLOBAL`, the configuration applies to all services and no individual service restart is required.

Note: If you need to recover a configuration instance that you deleted, perform a restore. See [“Backup and Restore: Perform a Restore” in SAS Viya Platform: Backup and Restore](#).

See Also

- [“Create Configuration Instances” in SAS Environment Manager: User’s Guide](#)
- [“Edit Configuration Instances” in SAS Environment Manager: User’s Guide](#)
- [“Update Configuration Properties” on page 15 in How to \(CLI\)](#)
- [“Managing a Specific Server or Service” in SAS Viya Platform: General Management of Servers and Services](#)

Set Time-Out Interval for SAS Viya Web Applications

The session time-out specifies when a user is logged out of a SAS Viya web application because of inactivity. The default global value is 30 minutes (1800 seconds). Perform the following steps to change the session time-out:

- 1 Use the following sample JSON file to create a new `server` configuration with the properties that are required to set the time-out value for SAS Viya web applications.

```
{
  "version": 2,
  "accept": "application/vnd.sas.configuration.config+json",
  "name": "configurations",
  "items": [
    {
      "metadata": {
        "isDefault": false,
        "mediaType": "application/vnd.sas.configuration.config.server
+json;version=1"
      },
      "version": 1,
      "servlet.session.timeout": "3600",
      "http.session.maxAge": "3600"
    }
  ]
}
```

Notes:

- The values for these keys must be expressed as strings and enclosed in quotation marks. (Note that if you use SAS Environment Manager to add or modify the values for a property you do not use quotation marks as they are automatically added by the interface when you save the changes.)
- The `servlet.session.timeout` and `http.session.maxAge` values are expressed as integers that represent the number of seconds. For example, 3600 represents a 60-minute session time-out.
- The property values should be identical so that the time-out value is the same across all services.
- The default global session time-out value is 1800 seconds (30 minutes). If you change this value, SAS recommends that you choose a session time-out value that is between 900 seconds (15 minutes) and 3600 seconds (60 minutes).
- The `server` definition is a special system definition that does not have a list of individual properties and type constraints. The `allowUserProperties` is set to `true`, which allows for properties and values to be entered.

2 Save the JSON file.

3 Use the following command to create the new server configuration. Specify the name and location of the JSON file on the `--file` option in the command.

```
sas-viya --output json configuration configurations create --file path_to_JSON_file/
filename.json
```

4 Modifying Spring Boot properties requires that you restart services. See [SAS Viya Platform: General Management of Servers and Services](#).

Note: As an alternative, you can use SAS Environment Manager to perform this task. For details, see [“Set Time-Out Interval for SAS Viya Platform Web Applications” in SAS Environment Manager: User’s Guide](#).

Service Configuration Properties: Reference

Overview

The following sections display the configuration properties that are applied to services by default at the time of deployment to ensure that the services run properly.

Each configuration instance always has the following two properties:

Property	Default Value	Description
GUID:	<i>unique-identifier</i>	A globally unique identifier for the configuration instance
Services:	<i>servicename/s</i>	The name of the service to which this configuration instance applies. A configuration instance can apply to more than one service. Note: The value of <i>Global</i> indicates the configuration instance applies to all services.

By default, each service has at least three configuration instances that are global. See [“Global Configuration Instances” on page 20](#).

For some services, only the global configuration instances are defined by default. They do not require additional configurations. For a list of these services, see [“Services That Have Only Global Configuration Instances by Default” on page 37](#).

The default configuration properties for services are listed in the following sections:

- [“Configuration Properties: CAS Services” on page 26](#)
- [“Configuration Properties: Programming Run-Time Servers” on page 34](#)
- [“Configuration Properties: Services” on page 37](#)

Note: A property that has an asterisk at the end of its name in SAS Environment Manager signifies that a value must be supplied for the property.

Global Configuration Instances

The following configuration instances are global and apply to all services.

sas.casmanagement.global

The following set of properties is used to configure CAS Management Service global configurations.

Property	Default Value	Definition
caslib:	AppData	The name of the caslib used for application data
casServer:	cas-shared-default	The name of the CAS server used for application work

Property	Default Value	Definition
		Note: The set of properties is used by applications to access shared data and analytics, such as map data.
caslib: Public casServer: cas-shared-default		The name of the default caslib for users The name of the default CAS server for users Note: The set of properties is used to identify the default CAS server for users.
loadedTablesCopiesCount: 1		The number of copies of the table to make for fault tolerance when loading data. Larger values result in slower performance and use more memory, but provide high availability for data in the event of a node failure.
caslib: ReferenceData		The name of the reference caslib Note: The set of properties is used to identify the reference data.
savedTablesCopiesCount: 1		The number of redundant copies to make for the rows when saving data. Larger values provide greater fault tolerance for node failures, but use more memory.
caslib: SystemData casServer: cas-shared-default		The name of the system caslib The name of the system CAS server Note: The set of properties is used by the system for data produced during normal operation, such as audit records and monitoring data.
tempTablesCopiesCount: 0		The number of extra copies of temp tables

sas.compute

The following set of properties is used to configure compute and related servers.

Property	Default Value	Definition
domain.default:	DefaultAuth	The default authentication domain to use for looking up host credentials.
kerberos.enabled:	off	When enabled, compute servers authenticate using Kerberos.
serviceAccount.default:	(not set)	The default service account that should be used to run jobs on the host. It is not set by default.

sas.htmlcommons

The following set of properties is used to configure HTML clients.

Property	Default Value	Definition
blockCommentAttachments:	(not set)	Blocks users from viewing or adding attachments to comments. The button for adding attachments, as well as any previously added attachments, are hidden from the user interface when this property is set to "true".
blockedFileExtensions:	htm html	The list of file extensions (a denylist) that the web applications are allowed to block. The value is a regular expression. Use the OR character () to separate multiple values (for example, js htm html).
disableAutoOpenWhatsNew:	(not set)	Disables the automatic display of the What's New window when the user opens the software for the first time after an application update, when the value is set to "true".
disableWelcomeScreens:	false	Disables the welcome screens in SAS web applications, when the value is set to "true".
EnablePWATimeout:	false	A property whose values control whether Progressive Web Application (PWA) time-out is enabled or disabled. If set to false, the (PWA) time-out is disabled when running a stand-alone application. If set to true, the (PWA) time-out is enabled when running a stand-alone application. If you enable the time-out, then the PWA time-out uses the SAS Viya Web Application time-outs. See Set

Property	Default Value	Definition
		Time-Out Interval for SAS Viya Platform Web Applications" in <i>SAS Environment Manager: User's Guide</i> .

The following configuration property is configured manually for sas.htmlcommons. Click + **Add property** in the sas.htmlcommons Configuration Edit page.

Property	Definition
insecureViewingCommentAttachmentTypes:	The list of file content types that are allowed to be uploaded and viewed in a non-secure sandbox iframe from the Comments Manager. Use the OR character () to separate multiple values. Here are examples of values that you add: <i>text/HTML text/javascript image/bmp application/json text/css text/csv image/gif text/XML image/png</i> The following default values are configured in the source code: ■ application/msword ■ application/vnd.openxmlformats-officedocument.wordprocessingml.document ■ application/vnd.ms-powerpoint ■ application/vnd.openxmlformats-officedocument.presentationml.presentation ■ application/vnd.ms-excel ■ application/vnd.openxmlformats-officedocument.spreadsheetml.sheet ■ application/pdf Note: Any virus content file or non-allowed domain-specific file is not allowed to view even if the file type is defined here.

Services with Default Logging Configurations

Logging and **Logging.level** are the configuration definitions that are used for logging. These definitions are third-party Spring Boot properties. See [Common application properties](#) for more information about logger names that can be used.

To configure logging for a service, "[Specify a Logging Value and Threshold Level for Service Logs](#)" in *SAS Viya Platform: Log Monitoring*.

The following logging properties are configured by default. This varies depending on your product offering. To view a list in your environment, use the following:

- Configuration page of SAS Environment Manager: Select **Definitions** from the View drop-down menu and highlight **logging.level**.
- sas-viya CLI:

```
sas-viya configuration configurations list --definition-name logging.level
```

Service	Logger Name	Logging Level
Advanced Analytics Gateway service	com.sas.analytics	INFO
Data Mining service	com.sas.analytics	INFO
Files service	com.sas.svcs.file	WARN
	org.apache.pdfbox	ERROR
MicroAnalytic Score service	App.license	ERROR
	App.Program	ERROR
	App.SQLServices	ERROR
	App.SQLServices.license	ERROR
	App.TableServices	INFO
	App.TableServices.D2PKG.HTTP	ERROR
	App.TableServices.DS2	ERROR
	App.TableServices.DS2.Config	ERROR
	App.TableServices.DS2.Config.Options	ERROR
	App.TableServices.DS2.Config.Source	ERROR
	App.TableServices.DS2.Config.Version	ERROR
	App.TableServices.DS2.Runtime	ERROR
	App.TableServices.DS2.Runtime.Calls	ERROR
	App.TableServices.DS2.Runtime.Log	ERROR
	App.TableServices.DS2.Runtime.Put	ERROR
	App.TableServices.DS2.Runtime.SQL	ERROR
	App.TableServices.DS2.Runtime.Timing	ERROR
	App.tk.D2PKG	ERROR
	App.tk.D2PKG.JSON	ERROR
	App.tk.Kafka	INFO
	App.tk.Kafka.DS2	INFO
	App.tk.MAS	INFO
	App.tk.MAS.CodeGen	FATAL
	App.tk.MAS.CrossModCall	INFO
	App.tk.MAS.CrossModCall.DS2	INFO
	App.tk.MAS.Datagrid	INFO

Service	Logger Name	Logging Level
	App.tk.MAS.Datagrid.DS2	INFO
	App.tk.MAS.GarbageCollection	INFO
	App.tk.MAS.JNI	INFO
	App.tk.MAS.ParallelExec	INFO
	App.tk.MAS.Python	INFO
	App.tk.MAS.Python.DS2	INFO
	App.tk.MAS.RTrace	INFO
	App.tk.MAS.Service	INFO
	App.tk.MAS.StateSharing	INFO
	App.tk.MAS.StateSharing.DS2	INFO
	App.tk.MAS.SysRsrc	INFO
	App.tk.MAS.Thread	INFO
	App.tk.Redis	INFO
	App.tk.Redis.DS2	INFO
	App.tk.tcp	ERROR
	Audit.Table.Connection	INFO
	MAS_CONFIG	INFO
	MAS_CONTROLLER	ERROR
	MAS_DATA_LOGGER	INFO
	MAS_JOB_LOGGER	INFO
	MAS_MEM.CODE	INFO
	MAS_MEM.NATIVE	INFO
	MAS_MODULE_LOGGER	INFO
	MAS_MONITOR	ERROR
	MAS_PROFILE	INFO
	MAS_SOURCE	ERROR
Report Alerts service	com.sas.report.alert	INFO
Report Data service, Report Packages service	com.sas.bicommon.export.office	INFO
	com.sas.bidata	INFO
	com.sas.bireport	INFO
	com.sas.cas	INFO
	com.sas.reportcache	INFO
	com.sas.reportcommon	INFO
	com.sas.reportcommon.utils.debug.Time	INFO
	com.sas.reportdata	INFO

Service	Logger Name	Logging Level
	com.sas.reportexecution	INFO
	com.sas.reportpackages	INFO
Report Templates service	com.sas.report.service.common	INFO
	com.sas.report.templates	INFO
Report Transforms service	com.sas.report.transform	INFO
Reports Persistence service	com.sas.report.persistence	INFO
	com.sas.report.service.common	INFO
Workflow Definition service	com.sas	WARN
	com.sas.workflow.definition	WARN
	org.springframework	WARN
Workflow service	com.sas.workflow	INFO
	org.flowable	WARN
	org.flowable.engine.impl.persistence.entity	WARN
	org.hibernate	WARN
	org.hibernate.cache	WARN
	org.hibernate.hql	WARN
	org.hibernate.SQL	WARN
	org.hibernate.type	WARN
	org.springframework	WARN
	org.springframework.transaction	WARN

Configuration Properties: CAS Services

The configuration of the CAS server is specified in configuration instances of the cas-shared-default service. These configuration instances contain configuration options, logging options, or Lua code that is executed when the CAS server starts. The configuration instances of cas-shared-default are listed below with their default property values. See [“Edit Configuration Instances” in SAS Viya Platform: SAS Cloud Analytic Services](#) for more information.

Note: All the CAS configuration instances are disabled by default, which means that processing is not enabled for any modifications to the configuration instances in SAS Environment Manager. To allow the SAS administrator to modify the scripts in the configuration instances, set SAS_ALLOW_ADMIN_SCRIPTS to TRUE in the sas-shared-config configMap. For more information, see the README file at \$deploy/sas-bases/overlays/sas-programming-

environment/README.md (Markdown format) or \$deploy/sas-bases/docs/sas-programming-environment-configuration-tasks.htm (HTML format).

cas-shared-default

sas.cas.instance.config: config

Property	Default Value	Description
contents:	<pre>-- CAS configuration script extensions -- -- Lua-formatted script that adds environment variables and/or configuration options to the CAS Server and Sessions. -- env.EXAMPLE_VARIABLE='value' -- Add an environment variable -- cas.example_setting='value' -- Add a configuration option</pre>	The contents of this configuration instance that is read by CAS configuration processing. Note: You must use Lua-formatted syntax.
name:*	config	The targeted CAS configuration instance to apply modifications. Do not change the name of this configuration instance unless consulting SAS Technical Support.

sas.cas.instance.config: delete

Property	Default Value	Description
contents:	<pre># Delete all configuration instances defined for CAS deployment # cas-shared-default. Configuration instances are deleted when # cas-shared-default is shutdown or reset. #Set prior to a shutdown of cas-shared- default when permanently # deleting this CAS deployment resource in Kubernetes. # Set prior to a restart of cas-shared-default to re-initialize</pre>	The contents of this configuration instance that is read by CAS configuration processing. Note: You must use Lua-formatted syntax.

Property	Default Value	Description
	<pre># all configuration instances to their default values. # The presence of the DELETE_CONFIGURATION_INSTANCES variable set to any value # will request that configuration instances be deleted. # Uncomment to delete all configuration instances for cas-shared-default. # export DELETE_CONFIGURATION_INSTANCES='true' -- -- Lua-formatted script that adds environment variables and/or configuration options to the CAS Server and Sessions. -- env.EXAMPLE_VARIABLE='value' -- Add an environment variable -- cas.example_setting='value' -- Add a configuration option</pre>	
name:*	delete	The targeted CAS configuration instance to apply modifications. Do not change the name of this configuration instance unless consulting SAS Technical Support

sas.cas.instance.config: logconfig

Property	Default Value	Description
contents:	<pre><?xml version="1.0" encoding="UTF-8"?> <logging:configuration xmlns:logging="http:// www.sas.com/xml/logging/1.0/"> <!-- Console Structured Logging --> <appender name="Console" class="ConsoleAppender"> <param name="SkipEmpty" value="true"/> <layout type="Json"> <param name="Individual" value="true"/> <param name="version#" value="%S{eventModel.payload.version}"/> <param name="timeStamp" value="%d{LEMZone}"/> <param name="level"</pre>	The contents of this configuration instance that is read by CAS configuration processing.

Property	Default Value	Description
	<pre> value="%S{eventModel.payload.level}"/> <param name="source" value="%S{OSEN.V.LOG_SOURCE cas}"/> <param name="messageKey" value="%K"/> <param name="message" value="%m"/> <param name="properties.thread" value="%t"/> <param name="properties.caller" value="%F:%L"/> <param name="properties.logger" value="%c"/> <param name="properties.pod" value="%S{OSEN.V.LOG_POD_NAME hostname}"/> <param name="properties.appTag" value="%X{Cas.AppTag}"/> <param name="properties.nestLevel" value="%X{Cas.NestLevel}"/> <param name="properties.sessionIndex" value="%X{Cas.SessionIndex MAIN}"/> <param name="properties.sessionPid" value="%X{Cas.ClientPid MAIN}"/> <param name="properties.sessionUser" value="%X{Cas.ClientUser NoUser}"/> <param name="properties.tenant" value="%S{Cas.TenantID}"/> </layout> </appender> <!-- Unix System Facility Appender, writes to unix system log --> <appender class="UNXFacilityAppender" name="UnixSysLog"> <filter class="RepeatMatchFilter"> <param name="AcceptOnMatch" value="false"/> </filter> <layout> <param name="ConversionPattern" value="%-5p [%t] %X{Cas.ClientPid MAIN} %X{Cas.ClientUser NoUser} %X{Cas.SessionIndex MAIN} [%F:%L] - %X{Cas.LogStart} %X{Cas.Separator}%m"/> </layout> </appender> <!-- Administration message logger --> <logger name="Admin" immutability="true"> <level value="Info"/> <appender-ref ref="UnixSysLog"/> </ logger> <!-- Application message logger --> <logger name="App" immutability="true"> <level value="Info"/> </logger> <!-- CAS Action message logger --> <logger name="App.cas.actions"> <level value="Info"/> </logger> <!-- HTTP server access logger --> <logger name="App.tk.http.server.access"> <level value="Error"/> </logger> <!-- Audit message logger --> <logger name="Audit" immutability="true"> <level value="Info"/> </logger> <!-- Audit authorization check message logger --> <logger name="Audit.Authorization.cas.IsAuth"> <level value="Info"/> </logger> <!-- Audit authorization change message logger --> <logger name="Audit.Authorization.cas.ACChange"> <level </pre>	

Property	Default Value	Description
	<pre> value="Info"/> </logger> <!-- Logging Facility logger -- > <logger name="Logging"> <level value="Error"/> <appender-ref ref="UnixSysLog"/> </logger> <!-- Performance/Resource logger --> <logger name="Perf" immutability="true"> <level value="Info"/> </logger> <!-- Root logger --> <root> <level value="Error"/> <appender-ref ref="Console"/> </root> </logging:configuration> </pre>	
name:*	logconfig	The targeted CAS configuration instance to apply modifications. Do not change the name of this configuration instance unless consulting SAS Technical Support.

sas.cas.instance.config: sessionlogconfig

Property	Default Value	Description
contents:	<pre> <?xml version="1.0" encoding="UTF-8"?> <logging:configuration xmlns:logging="http:// www.sas.com/xml/logging/1.0/"> <!-- Example log4sas configuration to enable debug logging for CAS session processes. Session log files are written to /tmp in the sas-cas-server container. The environment variable "CAS_SESSION_LOGGING" must be set to "true" for this CAS session logging configuration to be enabled. --> <!-- File logging --> <appender class="RollingFileAppender" name="ProcessFile"> <param name="Append" value="false"/> <param name="Unique" value="true"/> <param name="ImmediateFlush" value="true"/> <rollingPolicy class="TimeBasedRollingPolicy"> <param name="FileNamePattern" value="/tmp/cas_%d_ %S{hostname}_%S{pid}.log"/> </rollingPolicy> <layout> <param name="HeaderPattern" value="Process owner: '%S{username}', Host: '%S{hostname}', OS: '%S{os_family}', Release: '%S{os_release}', Command: '%S{startup_cmd}'"/> <param name="ConversionPattern" value="%d %-5p [%t] %X{Cas.ClientPid MAIN} %X{Cas.ClientUser NoUser} %X{Cas.SessionIndex MAIN} [%F:%L] - %X{Cas.LogStart}%X{Cas.Separator}%m"/> </ layout> </appender> <!-- Root logger --> <root> </pre>	The contents of this configuration instance that are read by CAS configuration processing.

Property	Default Value	Description
	<code><level value="Debug"/> <appender-ref ref="ProcessFile"/> </root> </logging:configuration></code>	
name:*	sessionlogconfig	The targeted CAS configuration instance to apply modifications. Do not change the name of this configuration instance unless consulting SAS Technical Support.

sas.cas.instance.config: settings

Property	Default Value	Description
contents:	<pre># CAS settings configuration extensions # Bash-formatted script that adds # environment variables # to the CAS Server and Session environment # export EXAMPLE_VARIABLE="value" # export CAS_SESSION_LOGGING="true"</pre>	The contents of this configuration instance that are read by CAS configuration processing. Note: You must use bash-formatted syntax for this configuration instance.
name:*	settings	The targeted CAS configuration instance to apply modifications. Do not change the name of this configuration instance unless consulting SAS Technical Support.

sas.cas.instance.config: startup

Property	Default Value	Description
contents:	<pre>-- CAS session-zero startup script extensions. -- -- Lua-formatted SWAT client code -- that executes specified actions during session-zero prior to -- clients connecting to CAS. -- s:table_addCaslib{ name="sales", description="Sales data",</pre>	The contents of this configuration instance that are read by CAS configuration processing.

Property	Default Value	Description
	dataSource={srcType="path"}, path="/data/sales" }	
name:*	startup	The targeted CAS configuration instance to apply modifications. Do not change the name of this configuration instance unless consulting SAS Technical Support.

CAS Access Management Service

The CAS Access Management service includes [“Global Configuration Instances” on page 20](#).

CAS Formats Service

The CAS Formats service includes [“Global Configuration Instances” on page 20](#).

CAS Management Service

The CAS Management service provides access to shared data for users and applications. The service also provides information about the SAS Viya system for operations such as monitoring and auditing.

The CAS Management service includes [“Global Configuration Instances” on page 20](#) and the following default configuration:

Table 1 *sas.casmanagement*

Property	Default Value	Description
casManager: Configureable values for the CAS Manager job execution provider. Time-based values use W3C XML duration format (for example, P7D = 7 days, PT5M = 5 minutes, PT8H = 8 hours).		
jobHeartbeatInterval:	PT5M	The heartbeat value to use for jobs. Defaults to PT5M (5 minutes). Set to PT0M (0 minutes) to disable the heartbeat check.
jobsExpireAfter:	P7D	The amount of time after job completion until the job is deleted. The default value is P7D (7 days). Set to POD (0 days) to disable job deletion.
fileUploadBufferSize:	4,096	The upload buffer size in kilobytes.

Property	Default Value	Description
fileUploadEnabled:	<i>enabled</i>	Enable datafile upload.
maxFileUploadSize:	25,000	The maximum datafile upload size in megabytes (-1 = no limit). It is highly recommended that a valid limit be set rather than using -1.
supplementalProperties:	Click <i>Add property</i>	Set of user-added advanced properties.

CAS Proxy Service

The CAS Proxy service includes [“Global Configuration Instances” on page 20](#) and the following default configuration:

Table 2 *sas.casproxy*

Property	Default Value	Description
jobExecutionProvider: Configurable values for the CASL job execution provider job.		
casJESExpiresAfter:	<i>not set</i>	The amount of time after job completion before the job execution service deletes the job. Specify time in W3C XML duration format (for example, PT5M = 5 minutes). A null value indicates that job is not deleted.
casJESHeartbeatInterval:	300	The heartbeat value (in seconds) to use with a CASL job execution provider job. A zero or negative value means that the heartbeat is not checked.
supplementalProperties:	Click <i>Add property</i>	Set of user-added advanced properties.

CAS Row Sets Service

The CAS Row Sets service includes [“Global Configuration Instances” on page 20](#).

cas-shared-default-http

The cas-shared-default-http service includes [“Global Configuration Instances” on page 20](#).

Configuration Properties: Programming Run-Time Servers

The configuration for SAS Viya platform programming run-time servers is specified in configuration instances of the following services: Compute service, Launcher service, SAS Batch service, and SAS/CONNECT spawner. These configuration instances contain configuration options, logging configuration, or SAS code that is executed when the associated service starts. See [“Server Configuration Instances”](#) in *SAS Viya Platform: Programming Run-Time Servers* for more information.

Compute Service

The Compute Service enables clients to submit SAS programs and stored procedures in the form of jobs for processing by the SAS Compute server.

For information about these properties, see [“Configuration Instances: Compute Service”](#) in *SAS Viya Platform: Programming Run-Time Servers*.

`sas.compute.server: autoexec_code`

Property	Default Value	Definition
contents:	/* * This configuration instance contains SAS code to be executed at the startup of the Compute session in the SAS Compute Server. * This content can only be edited in SAS Environment Manager. * For more information, search for “Edit Configuration Instances” in the “Programming Runtime Servers” section of the SAS Viya Administration documentation. */	The contents of this configuration instance.
name:*	autoexec_code	The name of this configuration instance. Do not change the name of this configuration instance unless consulting SAS Technical Support.

`sas.compute.server: configuration_options`

Property	Default Value	Definition
contents:	/* * This configuration instance contains SAS configuration options to be processed during the startup of the Compute session in the SAS Compute server. * This content can only be edited in SAS	The contents of this configuration instance.

Property	Default Value	Definition
	Environment Manager. * For more information, search for "Edit Configuration Instances" in the "Programming Runtime Servers" section of the SAS Viya Administration documentation. */	
name:*	configuration_options	The name of this configuration instance. Do not change the name of this configuration instance unless consulting SAS Technical Support.

sas.compute.server: logconfig

Property	Default Value	Definition
contents:	<pre><?xml version="1.0"?> <log4sas:configuration xmlns:log4sas="http://www.sas.com/rnd/ Log4SAS/"> <!-- Console appender writing out JSON for Kubernetes based containers --> <appender name="Console" class="ConsoleAppender"> <param name="SkipEmpty" value="true"/> <param name="ImmediateFlush" value="true"/> <layout type="Json"> <param name="Individual" value="true" /> <param name="version#" value="%S{eventModel.payload.version}" /> <param name="timeStamp" value="%d{LEMZone}" /> <param name="level" value="%S{eventModel.payload.level}" /> <param name="source" value="%S{OENV.SAS_PAYLOAD_SOURCE sas}" /> <param name="messageKey" value="%K" /> <param name="messageParameters{}" value="%S{eventModel.payload.parameters}" /> <param name="message" value="%m" /> <param name="properties.thread" value="%t" /> <param name="properties.caller" value="%F:%L" /> <param name="properties.logger" value="%c" /> <param name="properties.pod" value="%S{hostname}" /> </ layout> </appender> <!-- Administration message logger --> <logger name="Admin" immutability="true"> <level value="Info"/> </logger> <!-- Application message logger --> <logger name="App.ComputeServer" immutability="true"> <level value="Info"/> </logger> <logger name="App.Program" additivity="false" immutability="true"> <level value="Info"/></pre>	The contents of this configuration instance.

Property	Default Value	Definition
	<pre><appender-ref ref="Console"/> </logger> <!-- Audit message logger --> <logger name="Audit" immutability="true"> <level value="Info"/> </logger> <!-- Root logger --> <root> <level value="Error"/> <appender-ref ref="Console"/> </root> </ log4sas:configuration></pre>	
name:*	logconfig	The name of this configuration instance. Do not change the name of this configuration instance unless consulting SAS Technical Support.

sas.compute.server: restricted_options

Property	Default Value	Definition
contents:	<pre>/* * This configuration instance contains SAS restricted options to be processed during the startup of the Compute session in the SAS Compute server. * This content can only be edited in SAS Environment Manager. * For more information, search for "Edit Configuration Instances" in the "Programming Runtime Servers" section of the SAS Viya Administration documentation. */</pre>	The contents of this configuration instance.
name:*	restricted_options	The name of this configuration instance. Do not change the name of this configuration instance unless consulting SAS Technical Support.

sas.compute.server: startup_commands

Property	Default Value	Definition
contents:	<pre>#!/bin/bash -p # #This configuration instance contains environment variables and other commands to be set or executed prior to startup of the SAS Compute server. # #This content can only be edited in SAS Environment Manager.</pre>	The contents of this configuration instance.

Property	Default Value	Definition
	#For more information, search for "Edit Configuration Instances" in the "Programming Runtime Servers" section of the SAS Viya Administration documentation. # # #	
name:*	startup_commands	The name of this configuration instance. Do not change the name of this configuration instance unless consulting SAS Technical Support.

Launcher Service

The Launcher Service is a SAS Viya microservice that provides API endpoints for running a process.

For information about these properties, see ["References" in SAS Viya Platform: Programming Runtime Servers](#).

SAS Batch Service

The sas-batch CLI uses the Batch service to submit SAS programs to the cluster for batch processing. The Batch service launches the batch servers to process the SAS programs.

For information about these properties, see ["References" in SAS Viya Platform: Programming Runtime Servers](#).

SAS/CONNECT Spawner

The SAS/CONNECT Spawner configures the SAS/CONNECT server. For information about these properties, see ["Configuration Instances: SAS/CONNECT" in SAS Viya Platform: Programming Runtime Servers](#).

Configuration Properties: Services

Services That Have Only Global Configuration Instances by Default

The following services have only ["Global Configuration Instances" on page 20](#) defined by default. Note that some of these services are not affected by any configuration values, and these services typically do not require additional configurations.

Note: You might need to configure logging properties. For information, see [“Specify a Logging Value and Threshold Level for Service Logs” in SAS Viya Platform: Log Monitoring](#).

analyticsComponents	jobFlowScheduling
analyticsDataSegmentation	KRM service
analyticsFlows	License service
analyticsLocalization	Links service
analyticsValidation	Localization service
Analytics Events service	Machine Learning Pipeline Automation service
Annotations service	Metering service
arke	Model Management service
boss	Model Publish service
catalogTableBot	Office Addin
Category Execution Service	opendistro
Category Taxonomy Service	opendistroDiscovery
chromiumServer	Parse Execution Service
Cirrus-Builder service	Preferences service
Comments service	Qkb Management service
Configuration Reconciliation service	redis
Configuration service	relationships
Connection Registry service	Report Operations service
Data Agent Content service	Row Sets service
Data Flow service	SAS Code Debugger
Data Mining Models service	SAS Configuration Server
Data Mining Project Settings service	SAS Conversation Designer
Data Mining Results service	SAS Decisions Runtime Builder Service
Data Mining Warehouse service	SAS Graph Builder
Data Quality service	SAS Lineage
Data Sources service	SAS Message Broker
Data Tables service	SAS Workflow Manager
DataAgentServerColocated	sas-data-agent-server-colocated
dataConnections	sas-postgres
dataDiscovery	SASInformationCatalog
dataMiningProjectResources	Score Definition service
DataMiningRiskModels	Search service
Deployment Data service	studioDevelopment
discoveryTableProvider	Templates service
eventMonitor	Theme Content service
Feature Flags service	Themes service
Folders service	transformations
Fonts service	Types Registry service

Format service	unifiedDataLayer
glossary	Webhooks service
eventMonitor	Workflow History service
Graph Templates service	workloadOrchestrator
Import9 service	workloadOrchestrator0
Insights service	workloadOrchestrator1

Activities Service

The Activities service includes [“Global Configuration Instances” on page 20](#) and you can configure additional properties through `sas.activities` configuration definition:

Property	Default Value	Description
<code>supplementalProperties:</code>	Click <i>Add property</i>	The set of user-added, advanced properties.

Advanced Analytics Gateway Service

The Advanced Analytics Gateway service includes [“Global Configuration Instances” on page 20](#) and the following default configurations:

Note: You must supply a value to a property if the property has an asterisk at the end of its name.

`logging.level: com.sas.analytics`

Property	Default Value	Definition
<code>level:*</code>	INFO	Logger level
<code>name:*</code>	<code>com.sas.analytics</code>	Logger name

`sas.analytics.common.auth.service.health`

Property	Default Value	Definition
Health Check Enabled:	true	Enables the retry mechanism during Authorization Service outages.
Health Check Period:	10,000	The minimum amount of time (in milliseconds) between calls to health

Property	Default Value	Definition
		check the authorization service. Retries will still try calling the original URI but if there is a failure and the authorization failed a health check less than <code>healthCheckPeriodMs</code> ago, then the Authorization Service be assumed as down without an actual call to it.
Health Uncertainty Period:	5,000	The amount of time (in milliseconds) to wait after the authorization service has been restored before considering new HTTP request statuses to be accurate.
Retry Backoff Multiplier:	2	Determines the delay before subsequent retries. The delay from a previous retry is multiplied by this Default Value.
Retry Initial Interval:	100	The initial retry interval period in milliseconds.
Retry Maximum Interval:	30,000	The maximum retry interval period in milliseconds. Set this to limit waits if the retry multiplier is set too high.

sas.analytics.gateway

Property	Default Value	Definition
Job Time-to-Live (seconds):	86,400	The default number of seconds to keep a job around after completion. WARNING: If this number is less than the start-to-finish time of a segment execution job, the job might never finish.

sas.analytics.gateway.job.segment.execution

Note: This property is deprecated as of 2023.06.

Property	Default Value	Definition
Consecutive Active Trigger:	1	If maxConcurrentConsumers is greater than concurrentConsumers, and maxConcurrentConsumers has not been reached, specifies the

Property	Default Value	Definition
		number of consecutive cycles when a single consumer was active, in order to consider starting a new consumer. If the consumer goes idle for one cycle, the counter is reset.
Consecutive Idle Trigger:	15	If maxConcurrentConsumers is greater than concurrentConsumers, and the number of consumers exceeds concurrentConsumers, specifies the number of consecutive receive attempts that return no data; after which to consider stopping a consumer.
Initial Concurrent Consumers:	2	The initial number of concurrent consumers for processing segment launching and completion.
Maximum Concurrent Consumers:	2	The maximum number of concurrent consumers for processing segment launching and completion.
Receive Timeout (milliseconds):	100	The time (in milliseconds) that a consumer should wait for data.
Segment Completion Poll Period (seconds):	1	The number of seconds to wait between polls on the job execution service to determine whether a segment execution job is complete.
Start Consumer Minimum Interval (milliseconds):	100	If maxConcurrentConsumers is greater than concurrentConsumers, and maxConcurrentConsumers has not been reached, specifies the minimum time (milliseconds) between starting new consumers on demand.
Stop Consumer Minimum Interval (milliseconds):	100	If maxConcurrentConsumers is greater than concurrentConsumers, and the number of consumers exceeds concurrentConsumers, specifies the minimum time (milliseconds) between stopping idle consumers.

Analytics Execution Service

The Advanced Execution service includes [“Global Configuration Instances” on page 20](#). . These configuration settings are specific to Model Studio. See [“Configuration Properties” in SAS Visual Forecasting: User’s Guide](#) for more information.

Note: The `sas.analytics.execution` definition is configured for the Analytics Execution service. If you need to modify the properties of the configuration instance, make sure that the **Services** field is Analytics Execution service. Depending on the deployed version of your SAS Viya software, it might display *Global* as the default setting. If you do not change the **Service** field from *Global* to *Analytics Execution service*, many services are restarted unnecessarily and this might cause a temporary outage of your Viya system. Regardless, properties of the `sas.analytics.execution` instance are correctly applied to the Analytic Execution service. See [“Pipelines Take a Long Time to Complete” in SAS Visual Forecasting: User’s Guide](#) for more information.

sas.analytics.execution

Property	Default Value	Definition
Component Job Deleted Listener Retry Attempts:	10	The number of retry attempts for the listener of Component Job Deleted events.
Component Job Deleted Listener Retry Delay:	2s	The period to delay before retrying a failed event by the listener of Component Job Deleted events. Valid time units are "ns", "us" (or "µs"), "ms", "s", "m", "h", "d", "w", "y".
Flow Job Deleted Listener Retry Attempts:	10	The number of retry attempts for the listener of Flow Job Deleted events.
Flow Job Deleted Listener Retry Delay:	2s	The period to delay before retrying a failed event by the listener of Flow Job Deleted events. Valid time units are "ns", "us" (or "µs"), "ms", "s", "m", "h", "d", "w", "y".
Flow Job Nodes Created Listener Retry Attempts:	10	The number of retry attempts for the listener of Flow Job Nodes Created events.
Flow Job Nodes Created Listener Retry Delay:	2s	The period to delay before retrying a failed event by the listener of Flow Job Nodes Created events. Valid time units are "ns", "us" (or "µs"), "ms", "s", "m", "h", "d", "w", "y".
Job Cancel Listener Retry Attempts:	10	The number of retry attempts for the listener of Flow Job Cancel events.

Property	Default Value	Definition
Job Cancel Listener Retry Delay:	2s	The period to delay before retrying a failed event by the listener of Flow Job Cancel events. Valid time units are "ns", "us" (or "µs"), "ms", "s", "m", "h", "d", "w", "y".
Job Deleted Listener Retry Attempts:	10	The number of retry attempts for the listener of Job Deleted events.
Job Deleted Listener Retry Delay:	2s	The period to delay before retrying a failed event by the listener of Job Deleted events. Valid time units are "ns", "us" (or "µs"), "ms", "s", "m", "h", "d", "w", "y".
Maximum Concurrent Nodes:	10	Maximum number of concurrently executing nodes for each execution provider within each tenant.
Node Job Created Listener Retry Attempts:	10	The number of retry attempts for the listener of Node Job Created events.
Node Job Created Listener Retry Delay:	2s	The period to delay before retrying a failed event by the listener of Node Job Created events. Valid time units are "ns", "us" (or "µs"), "ms", "s", "m", "h", "d", "w", "y".
The following three properties control the process of selecting pipeline node job requests from a queue to be sent to the Job Execution Service. Do not adjust these properties unless directed to do so by SAS Technical support.		
Node Launcher Cycle Time:	500ms	The frequency at which to send a signal to all the tenant work loops telling them to look for nodes to launch. The value should be at least as large as the value for Node Launcher Rest Period. Valid time units are "ns", "us" (or "µs"), "ms", "s", "m", "h", "d", "w", "y".
Node Launcher Rest Period:	10ms	The period to delay after launching a node before looking for the next node to launch. The value should be no larger than the value of Node Launcher Cycle Time. Valid time units are "ns", "us" (or "µs"), "ms", "s", "m", "h", "d", "w", "y".
Node Lock Timeout:	2m	The duration a node lock is valid. If a node is selected to be executed, and is not started within this time, it is eligible to be selected

Property	Default Value	Definition
		again. Valid time units are "ns", "us" (or "µs"), "ms", "s", "m", "h", "d", "w", "y".
Note: The following four properties are new in 2024.06. Do not adjust these properties unless directed to do so by SAS Technical support. Missing jobs and transient issues with other services can prevent the analytics execution service from handling job state transitions as intended. This can cause the state of a component (node) or pipeline (graph) to remain in a running state long after the associated job has completed. These properties can be used to adjust the timing of fallback processes intended to transition these stuck components and pipelines to an appropriate state.		
Hung Graph Cleanup Task Frequency:	60s	The frequency at which the hung graph cleanup task should be run. This task will locate graph entries that don't have corresponding running JES jobs and transition them the appropriate state. This is a backup process to handle missed JES state change events. Valid time units are "ns", "us" (or "µs"), "ms", "s", "m", "h", "d", "w", "y".
Hung Graph Candidate Not Updated In Previous Time Period:	2m	The minimum time since last update of a graph that should be checked for corresponding running JES jobs. If the job does not exist or is not running and also has not been updated in this amount of time, the graph state will be updated accordingly. This is a backup process to handle missed JES state change events. Valid time units are "ns", "us" (or "µs"), "ms", "s", "m", "h", "d", "w", "y".
Hung Node Cleanup Task Frequency:	30s	The frequency at which the hung node cleanup task should be run. This task will locate node entries that don't have corresponding running JES jobs and transition them the appropriate state. This is a backup process to handle missed JES state change events. Valid time units are "ns", "us" (or "µs"), "ms", "s", "m", "h", "d", "w", "y".
Hung Node Candidate Not Updated In Previous Time Period:	60s	The minimum time since last update of a node that should be checked for corresponding running JES jobs. If the job does not exist or is not running and also has not been updated in this amount of time, the node state will be updated accordingly. This is a backup process to handle missed JES

Property	Default Value	Definition
		state change events. Valid time units are "ns", "us" (or "µs"), "ms", "s", "m", "h", "d", "w", "y".

Application Registry Service

Application Registry service includes [“Global Configuration Instances” on page 20](#) and the following default configuration instances:

sas.appregistry

Property	Default Value	Definition
supplementalProperties:	Click <i>Add Property</i>	The set of user-added, advanced properties.

sas.appregistry.configuration

Property	Default Value	Definition
Application IDs to suppress:		List of application IDs to suppress for all users in the current tenant. Separate IDs with a comma. Application IDs can be found by entering <code>https://prod.example.com/appRegistry/applications</code> in a web browser.
Initial Application		The application ID to open when the user logs on to '/'. Application IDs can be found by entering <code>https://prod.example.com/appRegistry/applications</code> in a web browser. For information, see “Change the Initial SAS Viya Landing Page for SAS Users” in SAS Environment Manager: User’s Guide.

Audit Service

The Audit service provides a framework for reporting on audit events. See [“Audit: Configuration Reference” in SAS Viya: Auditing](#) for information about the properties for the Audit service.

Authorization Service

The Authorization service provides the general authorization system. See [“Configuration Properties: Authorization Service” in SAS Viya Platform: General Authorization](#) for information about these properties.

Business Rules Service

The Business Rules Service is described in [“Business Rules Service Properties” in SAS Intelligent Decisioning: Administrator's Guide](#).

catalog

The catalog service includes [“Global Configuration Instances” on page 20](#) and the following default configuration:

sas.catalog

Property	Default Value	Definition
allowProfanity:	<i>not enabled</i>	Indicates whether profanity is allowed in Tag resources
authTimeLimit:	5	The time limit for enhanced authorization checks in seconds
casEventCleanupOnShutdown:	<i>not enabled</i>	Remove instances for loaded tables when a CAS server shuts down
casEventQueueInterval:	60	The time limit for CAS events to be coalesced for batch processing in seconds
generateIntegrationEvents:	<i>not enabled</i>	Generate integration events for updates to instances and definitions
heartbeatInterval:	30	JES heartbeat interval in seconds
jobExpiry:	7	JES job expiration in days
jobPollInterval:	30	job poll interval in seconds
jobPollMaximumTime:	2	job poll maximum time in hours

Code Debugger Service

The Code Debugger service includes [“Global Configuration Instances” on page 20](#) and the following default configuration:

`sas.codedebugger.session.timeout`

Property	Default Value	Definition
check.interval:	1	Timeout interval (minutes) to check for inactive sessions.
enabled:	<i>enabled by default</i>	Enables session time-out monitoring.
period:	30	Timeout period (minutes) for inactive sessions.

Credentials Service

The Credentials service includes [“Global Configuration Instances” on page 20](#).

SAS Viya platform supports Azure Key Vault as a source of externally stored credentials for users and groups. Configure the following set of properties to map SAS Viya credential domains to Azure key vaults:

`sas.credentials.azure`

Property	Default Value	Definition
keyVault:*		The key vault URI.
name:*		Name of the secret in the key vault. This will become the name of the credential domain in SAS Viya. Secret names can contain only alphanumeric characters and dashes. Do not exceed 100 characters in length.

Note: You must configure single sign-on using OIDC with Microsoft Entra ID in order to enable the connection to the key vault. See [“Scenario: OIDC with Microsoft Entra ID” in SAS Viya Platform: Authentication](#).

Cross-domain Proxy Service

The Cross Domain Proxy service provides access to external web resources over HTTP. The service includes [“Global Configuration Instances” on page 20](#) and the following default configuration:

sas.crossdomainproxy

Property	Default Value	Definition
allowedDomains:	(not set)	The list of domains (an allowlist) that the cross-domain proxy can access. The value is a regular expression. Use the Or character () to separate multiple domains (for example, <code>https?://.*\.sas\.com(:\d+)?/ https?://.*\.foo\.bar\.org</code>).
allowSystemDomains:	enabled	Enables the list of trusted domains (if any) required by SAS. If the cross-domain proxy is denied access to one or more of these domains, certain SAS features are disabled: <code>https?://.*.sas.com(:\d+)?/ https?://.*.arcgis.com/ https?://.*.arcgisonline.com/</code>

TIP SAS recommends that you escape dot (.) characters in regular expressions with a slash (\) (for example, `*\.sas\.com`). Also, add a trailing forward slash (/) with each domain (for example, `*\.sas\.com/`).

sas.crossdomainproxy.system

Note: `sas.crossdomainproxy.system` is not configured by default.

Property	Default Value	Definition
excludeRequestHeaders:		The list of header names (a denylist) that the cross-domain proxy excludes from requests sent to a destination URL. The value is a regular expression. Use the OR operator () to separate multiple header names (for example, <code>cookie Authorization</code>).
outboundHttpProxyUrl:		The proxy that is used for outgoing HTTP requests. This value must be a complete URL (for example, <code>http://proxy.domain.com</code>).

Property	Default Value	Definition
outboundHttpsProxyUrl:		The proxy that is used for outgoing HTTPS requests. This value must be a complete URL (for example, https://proxy.domain.com:3343). Note: You can apply the same value for outboundHttpProxyUrl and outboundHttpsProxyUrl.

Data Mining Service

The Data Mining service includes [“Global Configuration Instances” on page 20](#) and the following default configuration instances:

jvm

Property	Default Value
java_option_xmx:	-Xmx1024m

logging.level: com.sas.analytics

Property	Default Value	Definition
level:*	INFO	Logger level. Possible values are: ALL, DEBUG, ERROR, FATAL, INFO, OFF, TRACE, WARN
name:*	com.sas.analytics	Logger name.

Device Management Service

The Device Management Service provides the means to maintain the server’s device denylist and allowlist tables, including controlling which security model is in place. See [SAS Viya Platform: Mobile Device Administration](#).

The Data Management service includes [“Global Configuration Instances” on page 20](#) and the following default configuration instance:

sas.devicemanagement

Property	Default Value	Definition
allowlistSupportEnabled:	false	Enables allowlist support for mobile device security on the server.
offlineLimitDays:	1	The number of days that the mobile application allows users to access offline data without requiring reauthentication to the server.
passcodeAttempts:	3	The number of passcode attempts allowed within a specified amount of time before a user is locked out of the mobile application. The amount of time is defined by the passcodeTimeoutMinutes property.
passcodeTimeoutMinutes:	15	The number of minutes that a user who is locked out has to wait before they make another attempt to open the mobile application.

Feature Flags Service

The Feature Flags service includes [“Global Configuration Instances” on page 20](#) and the following default configuration instance:

sas.featureflags

Property	Default Value	Definition
supplementalProperties	Click <i>Add property</i>	The set of user-added, advanced properties.

Files Service

The Files service is documented here: [SAS® Viya® Platform: Files Service](#).

Identities Service

The Identities Service retrieves information about identities (users or groups) from your identity provider. It also enables the creation and management of custom groups. For detailed information about this functionality, see *SAS Viya Platform: Identity Management*. For information about the properties for the Identities service, see [“Identities Service” in SAS Viya Platform: Identity Management](#).

jvm

Property	Default Value	Definition
java_option_xmx:	-Xmx256m	See “jvm (Java Virtual Machine)” on page 5 .

sas.identities

Property	Default Value	Definition
cache.cacheRefreshInterval:	12h	The interval used to refresh the identities cache.
cache.enabled:	<i>enabled</i>	Enables caching of identities information.
cache.providerPageLimit:	1,000	The number of identities to process in a given request when loading the cache.
defaultProvider:	local	The default identities provider.
endpoints.secured.groups:	<i>not enabled by default</i>	When enabled, limits non-administrative users' Read access for groups.
endpoints.secured.members:	<i>not enabled by default</i>	When enabled, limits non-administrative users' Read access for group members.
endpoints.secured.memberships:	<i>not enabled by default</i>	When enabled, limits non-administrative users' Read access for group and user memberships.
endpoints.secured.users:	<i>not enabled by default</i>	When enabled, limits non-administrative users' Read access for other users.
identifier.disableGids	<i>not enabled by default</i>	When selected, disables the lookup and generation of GIDs for users and groups.
identifier.disallowedUids:*	1001	A comma delimited list of identifier uid values to disallow. Default is 1001 (sas id).

Property	Default Value	Definition
identifier.generateGids:	<i>not enabled by default</i>	When selected, generates GIDs for users and groups.
identifier.generateUids:	<i>enabled by default</i>	When enabled, generates UIDs for users.
identifier.homeDirectoryPrefix:		The path prefix used to determine the home directory of the identifier.

sas.identities.providers

Property	Default Value	Definition
ldap.enabled	<i>enabled by default</i>	Enables the LDAP identity provider.
scim.enabled:	<i>enabled by default</i>	Enables the SCIM identity provider.
scim.filterInactiveUsers:*	<i>enabled by default</i>	Enables filtering out of inactive users from the SCIM identity provider.

sas.identities.providers.ldap

Property	Default Value	Definition
followReferrals:	false	Enables referrals to other servers or domains to be followed automatically.
membershipCacheRefreshInterval:	6h	The interval (in hours) used to refresh the membership cache for the LDAP provider.
pagedResults:	true	Enables pagination when the LDAP server processes requests.
pageSize:	500	The number of identity requests per page to be processed by the LDAP server (if pagination is enabled).
primaryGroupMembershipsEnabled:	false2900	Enables processing of primary group memberships (used only for posixGroup schema).

sas.identities.providers.ldap.connection

Property	Default Value	Definition
anonymousBind:	not enabled	Defines whether Read-Only operations are performed using an anonymous (unauthenticated) context. If enabled, userDN and password are ignored.
customEnvironmentProperties:	Click <i>Add property</i>	The set of user-added, advanced properties for configuring the LDAP client environment.
host:*	ldap.fyi.sas.com	The host name of the LDAP server to connect to.
password:*	*****	The password for logging on to the LDAP server. If anonymousBind is enabled, specify a value of <i>none</i> .
pool.enabled:*	<i>enabled by default</i>	Enables pooling of LDAP connections.
pool.evictionTimePeriodMillis:	240,000	The time in milliseconds that the idle-object evictor sleeps between runs. If the value is non-positive, the idle object evictor does not run.
pool.idleTimeMillis:	480,000	The minimum amount of time in milliseconds that objects can sit idle in the pool before becoming eligible for eviction by the idle-object evictor, if present.
pool.maxActive:	8	The maximum number of active connections of a given type (either read-only or read-write) that can be allocated from the pool at the same time.
pool.maxIdle:	8	The maximum number of active connections of a given type (either read-only or read-write) that can remain idle in the pool without extra connections being released. For no limit, specify a non-positive value.
pool.maxSize:	-1	The maximum number of active connections of all types that can be allocated from the pool at the same time. For no limit, specify a non-positive value.
pool.maxWait:	30,000	The maximum amount of time in milliseconds that the pool waits for a

Property	Default Value	Definition
		connection to be returned before throwing an exception. For no limit, specify a non-positive value.
pool.minIdle:	0	The minimum number of active connections of a given type (either read-only or read-write) that can remain idle in the pool without extra connections being created. To create no extra connections, specify zero.
pool.testOnBorrow:	<i>enabled by default</i>	Enables validation of objects before they are borrowed from the pool. If an object fails validation, it is dropped from the pool and an attempt is made to borrow another object.
pool.testOnReturn:	<i>not enabled by default</i>	Enables validation of objects before they are returned to the pool.
pool.testWhileIdle:	<i>enabled by default</i>	Enables validation of objects by the idle-object evictor, if present. If an object fails validation, it is dropped from the pool.
pool.whenExhaustedAction:	1	An integer that indicates the behavior when the pool is exhausted. Valid values are: 0 (fail), 1 (block), or 2 (grow).
port:*	3,269	The port for connecting to LDAP.
startTLS.mode:	none	If using StartTLS, what mode to enable. Default is <i>none</i> , which corresponds to 'disabled'. Possible values are <i>none</i> and <i>simple</i> .
url:*	ldaps://\$ {sas.identities.providers.ldap.connection.host}: \$ {sas.identities.providers.ldap.connection.port}	The URL for connecting to LDAP.
userDN:*		The distinguished name (DN) of the user account for logging on to the LDAP server. If anonymousBind is enabled, specify a Default Value of <i>none</i> .

sas.identities.providers.ldap.group

Property	Default Value	Definition
accountId:*	sAMAccountName	The field in the LDAP provider that is used to populate the group's ID.
baseDN:*	OU=Groups,DC=na,DC=SA S,DC=com	The point from which the LDAP server searches for groups.
createdDate:*	when created	The field in the LDAP provider that is used to populate the group's account created date.
description:*	description	The field in the LDAP provider that is used to populate the group's description.
distinguishedName:*	distinguishedName	The field in the LDAP provider that is used to populate the group's distinguished name value.
members:*	member	The field in the LDAP provider that is used to populate the members of the group.
memberOf:*	memberOf	The field in the LDAP provider that is used to populate the groups that this group is a member of.
modifiedDate:*	whenChanged	The field in the LDAP provider that is used to populate the group's account last modified date.
name:*	displayName	The field in the LDAP provider that is used to populate the group's name.
objectClass:*	group	The object class value to use when loading groups.
objectFilter:*	(objectClass=group)	The filter to use when searching groups.
searchFilter:*	\$ {sas.identities.providers.ldap.group.accountId}={0}	The filter used for locating a group account in the LDAP provider.

sas.identities.providers.ldap.user

Property	Default Value	Definition
accountId:*	sAMAccountName	The field in the LDAP provider that is used to populate the user's ID.
address.country:*	co	The field in the LDAP provider that is used to populate the user's country.
address.locality:*		The field in the LDAP provider that is used to populate the user's city.
address.postalCode:*	postalCode	The field in the LDAP provider that is used to populate the user's postal code.
address.region:*	region	The field in the LDAP provider that is used to populate the user's region or state.
address.street:*	street	The field in the LDAP provider that is used to populate the user's street address.
baseDN:*	DC=SAS,DC=com	The point from which the LDAP server searches for users.
createdDate:*	whenCreated	The field in the LDAP provider that is used to populate the user's account created date.
description:*	description	The field in the LDAP provider that is used to populate the group's description.
distinguishedName:*	distinguishedName	The field in the LDAP provider that is used to populate the group's distinguished name value.

Property	Default Value	Definition
emailAddress.other.*	otherMailbox	The field in the LDAP provider that is used to populate the user's alternate email address.
emailAddress.sms:		The field in the LDAP provider that is used to populate the user's SMS email address.
emailAddress.work:*	mail	The field in the LDAP provider that is used to populate the group's distinguished name value.
externalId:		The field in the LDAP provider that is used to populate the user's external Id.
memberOf:*	memberOf	The field in the LDAP provider that is used to populate the groups that this user is a member of.
modifiedDate:*	whenChanged	The field in the LDAP provider that is used to populate the user's account last modified date.
name:*	displayName	The field in the LDAP provider that is used to populate the group's name.
objectClass:*	organizationalPerson	The object class value to use when loading users.
objectFilter:*	(&(objectCategory=person)(objectClass=user)(!(userAccountControl:1.2.840.113556.1.4.803:=2))) (on one line)	The filter to use when searching users.
phone.business:*	telephoneNumber	The field in the LDAP provider that is used to populate the user's work phone number.

Property	Default Value	Definition
phone.businessFax: *	facsimileTelephoneNumber	The field in the LDAP provider that is used to populate the user's work fax number.
phone.home:*	homePhone	The field in the LDAP provider that is used to populate the user's home phone number.
phone.mobile:*	mobile	The field in the LDAP provider that is used to populate the user's mobile phone number.
phone.pager:*	pager	The field in the LDAP provider that is used to populate the user's pager number.
searchFilter:*	(&(\$ {sas.identities.providers.ldap.user.accountId}={0 }) (\$ {sas.identities.providers.ldap.user.objectFilter})) (on one line)	The filter used for locating a user account in the LDAP provider so that the user can make a connection using an ID and password.
title:*	title	The field in the LDAP provider that is used to populate the user's title.

spring

Property	Default Value	Description
profiles.active:	identities-local,identities-ldap	The comma-separated list of active profiles.

Job Execution Service

The Job Execution service includes [“Global Configuration Instances” on page 20](#) and the following jvm configuration instance:

jvm

Property	Default Value	Definition
java_option_xmx:	-Xmx512m	See “ jvm (Java Virtual Machine) ” on page 5.

You can configure the `sas.job.execution - expiresAfter` property. For information, see “[Setting Job Instances to Expire](#)” in *SAS Viya Platform: Jobs and Flows*.

List Data Service

List Data Service

Using Redis for List Data

The List Data service uses Redis as its in-memory data store. The following Redis versions are supported:

- Azure Cache for Redis Enterprise
- versions 6.0 through 7.4 of the open-source Redis distribution
- the open-source version of Redis Cluster (beginning with 2025.11)
- Redis Enterprise cluster (beginning with 2026.07)

Third-party Redis versions or extensions that are not listed are not supported.

You are responsible for providing and maintaining your own Redis instances and configuring the List Data service to connect to Redis in your environment. Beginning with 2025.10, you can configure more than one Redis instance for advanced lists by using the `sas.common.redis.server` definition for the SAS Micro Analytic Service in SAS Environment Manager. If you want to configure only one Redis instance, you can continue to use the default `sas.listdata.redis` configuration for the List Data service. The `cluster` property in the `sas.listdata.redis` configuration enables you to specify whether the Redis instance is configured to use Redis Cluster for advanced lists. The `enterpriseCluster` property in the `sas.listdata.redis` configuration enables you to specify whether the Redis instance is configured to use Redis Enterprise cluster for advanced lists. For more information about Redis Cluster and Redis Enterprise cluster, see [Scale with Redis Cluster](#) and [Redis Enterprise clusters \(REC\)](#), respectively.

IMPORTANT You cannot enable the Redis Cluster and Redis Enterprise cluster configurations at the same time. When enabled, Redis Enterprise cluster always takes precedence. For more information about these configurations, see “[sas.listdata.redis](#)” on page 61.

You also are responsible for the following:

- configuring your Redis instances for backup and restore as recommended in the documentation for your Redis provider.

- configuring your Redis instances for high availability as recommended in the documentation for your Redis provider.
- configuring your Redis instances to use an Access Control List (ACL). The List Data service supports ACLs. In Redis, use the `ACL SETUSER` command to create user IDs with the appropriate permissions, as explained in [Redis: ACL](#). For information about the required permissions for List Data operations, see the Security section on the **Details** tab of the [List Data](#) API documentation. If you set up Redis access controls for individual users or groups of users of the List Data service, as explained in the following bullet point, the user ID of the credentials should match the user ID that you created in the Redis ACL. If you have not configured any users, or you want to use the default Redis user, the user ID should be "default".
- setting up Redis access controls for individual users and groups of users of the List Data service. You must specifically add credentials to the ListDataRedis domain. For more information about how to add credentials, see the following resources:
 - ["Add New Credentials" in SAS Environment Manager: User's Guide](#)
 - ["Manage Credentials from the Domains View" in SAS Environment Manager: User's Guide](#)

User IDs that you created in a Redis ACL should match the user ID of the credentials. If you have not configured any users, or you want to use the default Redis user, the user ID should be "default".

Note: Authentication to Redis without a password is not secure and is not supported.

IMPORTANT Data that is masked is stored in Redis unredacted. A client that accesses masked data values directly in Redis rather than through the List Data service gets unredacted data, regardless of configured authorization rules. For information about data masks, see the documentation for your product.

Specific information about sizing your Redis configuration is not available at this time. However, a best practice is to provision storage that is equivalent to the data in your CSV files. For example, you create an advanced list from a 2 GB CSV file. This list uses approximately 2 GB of Redis storage. If you create a new version of that list and add a 1 GB CSV file, you use approximately 3 GB of Redis storage.

sas.listdata.kms

Use this configuration to set up key management service (KMS) integration for advanced lists.

Property	Default Value	Description
provider:		The KMS provider. Set this to azure to enable Azure Key Vault.

sas.listdata.kms.admin

Use this configuration to set up key management service (KMS) integration for advanced lists.

Property	Default Value	Description
keyName:		The name of the encryption key. For example: <code>master-encryption-key</code> .
vaultUrl:		The KMS URL. For example: <code>https://list-data-key-vault.vault.azure.net</code> .

sas.listdirata.redis

Use this default configuration if you want to configure only one Redis instance for advanced lists.

Property	Default Value	Description
address:		The URI for the Redis server that is used by this service. For example: <code>my-redis-host.example.com:6378</code> .
cluster:	false	An <code>on</code> and <code>off</code> toggle to indicate whether the Redis instance is configured to use Redis Cluster. Values are <code>true</code> and <code>false</code> . IMPORTANT If <code>true</code> , the <code>enterpriseCluster</code> property must be <code>false</code> .
db:	0	The Redis database number to be used by this service. This value is an integer between 0 and 15, depending on the Redis server configuration.
enterpriseCluster:	false	An <code>on</code> and <code>off</code> toggle to indicate whether the Redis instance is configured to use Redis Enterprise cluster. Values are <code>true</code> and <code>false</code> . IMPORTANT If <code>true</code> , the <code>cluster</code> property is ignored.
server.FQDN:		The value to verify the host name on the returned certificates. It is also included in the client's handshake to support using an IP address as the host.
useSSL:	true	The value that specifies whether to use TLS for the Redis connection. Values are <code>true</code> and <code>false</code> .

sas.listdirata.validation

Use this default configuration if you want to configure validation for advanced lists.

Property	Default Value	Description
useColumnNameDS2Restrictions:	true	An <code>on</code> and <code>off</code> toggle to indicate whether column name restrictions that are based on DS2 variable name constraints are enforced.

Property	Default Value	Description
maximumStringValueLength:		Specifies the maximum number of characters allowed in a string value. If not specified, the length is unlimited. Negative values are ignored and zero (0) is respected.

sas.common.redis.servers

Use this definition if you want to configure more than one Redis instance for advanced lists.

Property	Default Value	Description
Services:		One or more services to which this configuration instance applies. IMPORTANT Be sure to select List Data service .
Name:		The name that identifies a set of Redis configuration properties that are defined for the List Data service. IMPORTANT Define each Redis instance with a unique, lowercase name. For example: testlistredis .
Host:		The URI for the Redis server that is used by this service. For example: my-redis-host.example.com:6378 .
TLS		A toggle for whether to enable Transport Layer Security (TLS) for securing data transmission for the Redis connection.
supplementalProperties:		A set of user-added, advanced properties. For advanced lists, you add a property that specifies the folders that should use this Redis instance. In the Add Property window, specify the property Name as folders and its Value in the format of a space-separated list of the unique folder IDs that should use this Redis instance. For example: 0266c138-7502-4dcf-bccf-b49843a08932 2439eccf-817f-4044-9c26-fedf5c1eae6f. IMPORTANT The Name must be set to folders so that the List Data service recognizes the property for the folder relationship. Note: If a folder has a specified Redis instance, and its parent has a different Redis instance, the lower-level folder takes precedence.

Mail Service

The Mail Service provides a client the ability to send email to a configured SMTP server using a REST API.

For information on configuring your SMTP mail server, see [“Configure the Connection to the Mail Service” in SAS Viya Platform: Deployment Guide](#).

The Mail service is separate from the SAS language elements that send email. Customizing the Mail service does not change the behavior of SAS code that uses the `FILENAME EMAIL` statement or related system options.

For more information about SAS language elements that send email, see [“SMTP Email” in SAS Programmer’s Guide: Essentials](#).

For more information about REST APIs, see [REST APIs at developer.sas.com](https://developer.sas.com).

management.health.mail

Property	Default Value	Description
enabled:	<i>not enabled</i>	Enables a health check for the Mail service.

sas.mail

Property	Default Value	Definition
allowAllSenders:	<i>not enabled</i>	Override the restrictions on the ‘from’ mail address that is allowed to send mail.
customProperties:		Optional custom properties set on the remote mail server.
defaultEncoding:	UTF-8	The default encoding to use for mail when not otherwise specified.
fromAddress:	<i>noreplies@company.com</i>	The ‘from’ mail address to use when mail is sent directly from a service. This is a required property. The domain for this address should not be blocked by your SMTP server.
fromPersonalName:	Service	The default personal name to use when mail is sent directly from a service.
host:*		The mail server host. The SMTP server must have TLS configured.

Property	Default Value	Definition
multipleMail:	false	Send separate mail for each mail type.
password:		The optional password for connection to the mail server.
port:*	25	The mail server port.
properties:	mail.debug=false	(Deprecated) Optional properties set on the remote mail server.
sizeLimit:	20	The maximum size of mail sent to the configured mail server, in megabytes.
username:		The optional user name for connecting to the mail server.

Maps Service

The Maps Service retrieves geometry (such as region polygons, centroid coordinates, and polylines) for geographic maps.

About Third-Party Maps Services

SAS Viya supports several third-party map services. The HTTP or secured HTTP (HTTPS) protocol that is used depends on the specific map service:

- OpenStreetMap
Controlled by the `defaultOSMCommunicationProtocol` configuration property.
- ArcGIS Online
Controlled by SAS Visual Analytics, which always uses HTTPS.
- ArcGIS Enterprise (formerly known as Esri ArcGIS portal)
Controlled by the URL that is specified for the server *protocol://host-name:port/path*. The specified protocol is used.

IMPORTANT SAS Viya currently supports only token-based authentication for Esri. For example, an Esri server that is configured for Integrated Windows Authentication (IWA) is incompatible with SAS Viya.

Note: When maps are rendered internally within SAS Visual Analytics, no data is exchanged. SAS Visual Analytics sends requests for tile numbers in a URL format to the third-party map service. Map images are returned to SAS Visual Analytics. This applies to all of the third-party map services that SAS Viya supports:

- OpenStreetMap
- ArcGIS Online
- ArcGIS Enterprise (formerly known as Esri ArcGIS portal)

Default Configuration Properties

The Maps service includes “[Global Configuration Instances](#)” on page 20 and the following default configuration instances:

sas.maps

Note: The sas.maps configuration instance applies to geography, Maps service, reportExecution, Report Packages service, and Web Data Access service.

Property	Default Value	Definition
customOSM: The following three custom configuration properties are for OpenStreetMap server settings.		
maxResolution:	156,543.0339	The maximum resolution in meters per pixel of each map tile. The value must be a decimal number.
numResolutions:	18	The number of tile levels configured on the tile servers. The value must be a positive integer.
servers:		A comma-separated list of servers, with paths to tiles (for example, http://myhost1.myorg.com/tiles/, http://myhost2.myorg.com/tiles/).
defaultOSMCommunicationProtocol:	https	The protocol (HTTP, HTTPS) that is used for the default OpenStreetMap servers.
Esri ArcGIS portal home URL:		The URL for the Esri ArcGIS portal. The URL consists of a protocol, host, and path (for example, http://myserver/ourportal/home/ or https://mycompany.maps.arcgis.com/home/).
Esri ArcGIS portal requires authentication:	not enabled	Specifies whether the Esri ArcGIS portal requires an authentication token for access.
Esri ArcGIS portal services URL:		The URL for Esri ArcGIS portal services. The URL consists of a protocol, host, and

Property	Default Value	Definition
		path (for example, http://myserver/arcgis/rest/services/). Note: If your on-premises Esri servers use a different network domain than your SAS Viya system, then you must add the necessary map URLs to the allowlist of domains that the cross-domain proxy is allowed to access. For more information see “sas.crossdomainproxy” on page 48.
Esri ArcGIS portal SSO AppID:		Specifies the App ID that is provided by the Esri ArcGIS portal when registering a SAS application for single sign-on.
localEsriGeocodeServicesUrl:		The URL for Esri ArcGIS portal Geocoding services. The URL consists of a protocol, host, port, and path (for example, http://myserver:6080/arcgis/rest/services/myService/GeocodeServer).
localEsriGeoEnrichmentUrl:		The URL for Esri ArcGIS portal GeoEnrichment services. The URL consists of a protocol, host, port, and path (for example, http://myserver:6080/arcgis/rest/services/myService/GeoEnrichmentServer).
localEsriRoutingUrl:		The URL for Esri ArcGIS portal Routing services. The URL consists of a protocol, host, port, and path (for example, http://myserver:6080/arcgis/rest/services/myService/NAService).
preferCrossDomainProxy	false	Automatically enables the use of the cross-domain proxy for many requests, such as tile requests for the map service.
supplementalProperties:	Click Add Property	The set of user-added, advanced properties. Note: Do not specify a property name-value pair unless it is recommended by SAS Technical Support.
useArcGISOnlineMaps:	enabled	Enable access to background maps from the Esri ArcGIS Online catalog.

sas.maps.system

Property	Default Value	Definition
maxCacheSizeMB:	(not set)	The maximum amount of memory, in megabytes, that can be used for caching geographic data. The value must be an integer between 0 and 100. If you specify a value greater than 100 or less than 0, the service uses a value of 100. (100 is the default value.) Specify a value of 0 (zero) to disable caching.
supplementalProperties:	Click Add property	The set of user-added, advanced properties. Note: Do not specify a property name-value pair unless it is recommended by SAS Technical Support.

Micro Analytic Score Service

The Micro Analytic Score Service is described in [“Micro Analytic Score Service Properties” in SAS Intelligent Decisioning: Administrator’s Guide](#).

The service includes [“Global Configuration Instances” on page 20](#) and the following default configuration instances:

jvm

Property	Default Value
java_option_xmx:	Xmx1024m
java_option_xss:	-Xss512k

logging.levels

The Micro Analytic Score service has default logging configurations by. For a list of its logging levels and loggers, see [“Services with Default Logging Configurations” on page 23](#).

sas.microanalyticsservice.properties

Property	Default Value	Definition
autocommit:	<i>enabled</i>	If true, every sql statement executed is immediately committed to the database. If false, the system waits until the execution of the top level MAS step finishes

Property	Default Value	Definition
		execution and then commits all outstanding sql statements. Requires service restart to take effect.
connectionpool:		
		A map of the configuration properties for SAS Micro Analytic Service Connection pool. Requires service restart to take effect.
connectioncheckstatement:		SQL query executed to verify if the connection is valid, during reconnect attempts. If this is not set, Micro Analytic Service does not attempt to reconnect if the database connection is lost. Requires service restart to take effect.
maxconnections:	0	Maximum number of database connections for this tenant. If this is set to less than 1 or more than the number of core threads, Micro Analytic Service creates as many connections as there are core threads. Requires service restart to take effect.
core:		
		A map of the configuration properties for SAS Micro Analytic Service Core.
connectionstring:		FEDSQL Connection string used to connect to a database. Requires service restart to take effect.
historyharvester:		
		A map of the configuration properties for SAS Micro Analytic Service controlling the tasks that extract and publish the history records.
maxrecordsinmessage:	100	Maximum number of history records that are included in a message.
ratemilliseconds:	5,000	Milliseconds to wait between extracting history records.
service:		
		A map of the tenant configuration properties for Micro Analytic Service rest service.
archive:		
		A map of the configuration properties for the archival service for SAS Micro Analytic Service.
enabled:	<i>not enabled</i>	Set true to enable archive service. Requires service restart to take effect.
metrics:		
		A map of the configuration properties for the metrics for SAS Micro Analytic Service.

Property	Default Value	Definition
scorevariables:	Click <i>Add property</i>	A list of score variables to monitor.
supplementalProperties:	Click <i>Add property</i>	The set of user-added, advanced properties.

sas.microanalyticsservice.system

Property	Default Value	Definition
asynchronousexecution:		
A map of the configuration properties for SAS Micro Analytic REST asynchronous execution		
corepoolsize:	5	Number of core worker threads for asynchronous requests.
maxpoolsize:	10	Number of maximum worker threads for asynchronous requests.
queuecapacity:	100	Maximum number asynchronous requests that can be queued for execution.
core:		
A map of the configuration properties for SAS Micro Analytic Service Core. Requires service restart to take effect.		
dbconnretries:	10	The number of times the system tries to connect to a database.
dbconnretryintervalseconds:	5	The amount of time the system waits before retrying to connect to a database.
ds2maxrecompilecount:	0	The maximum number of times the system tries to recompile DS2 code if there is an error due to failing database connections.
gcintervalseconds:	60	The garbage collection interval in seconds for MAS Core.
graceperiodseconds:	10	The grace period for garbage collection in seconds for MAS Core.

Property	Default Value	Definition
nativebuffersize:	512	The size of the buffer in bytes to exchange data between the REST Service and MAS Core.
numthreads:	4	The number of threads that MAS Core is started with. If zero, then the number of threads is calculated internally using the number of CPU cores available to MAS. Requires service restart to take effect.
historyscheduler:		A map of the configuration properties for SAS Micro Analytic REST service controlling extraction and publishing of contact history records.
poolsize:	5	Number of threads available for scheduling the extraction and publishing jobs.
service:		A map of the configuration properties for SAS Micro Analytic REST Service.
defaultmasuserctxname:	defaultMASUserCtxName	Default value of the user context name if tenant name is not used.
moduleidgeneration:		A map of the configuration properties for SAS Micro Analytic REST Service.moduleIdGeneration
factorytype:	ModuleNameOverridePackage	Strategy to determine the module name from package name and supplied module name.
forcelowercase:	<i>enabled</i>	If true, the module id returned is always lowercase.
sasmode:	<i>enabled</i>	If true, the DS2 code is compiled with ds2_options sas.
supplementalProperties:	Click <i>Add property</i>	The set of user-added, advanced properties.

Model Repository Service

The Model Repository service includes [“Global Configuration Instances” on page 20](#) and the following default configuration:

`sas.modelrepository`

Property	Default Value	Definition
<code>notificationExpires</code>	60	Number of days for a notification to expire.

Model Studio

Model Studio includes [“Global Configuration Instances” on page 20](#) and the following security configuration instance:

`sas.common.web.security`

Property	Default Value	Definition
<code>content-security-policy:</code>	<code>frame-ancestors 'self'; form-action 'none'; default-src 'self'; script-src 'self' 'unsafe-eval' 'unsafe-inline'; style-src 'self' 'unsafe-inline'; object-src 'none'; base-uri 'self'; connect-src 'self' *.sas.com; img-src 'self' data;;</code>	The string used for the Content-Security-Policy HTTP header.
<code>content-security-policy-enabled:</code>	<code>enabled by default</code>	Sends the Content-Security-Policy header in HTTP responses to prevent injection attacks.
<code>x-content-type-options:</code>	<code>nosniff</code>	The string used for the X-Content-Type-Options header for unsecured endpoints.
<code>x-content-type-options-enabled:</code>	<code>enabled by default</code>	Sends the X-Content-Type-Options header in HTTP responses for unsecured endpoints.
<code>x-frame-options:</code>		DEPRECATED: Use content-security-policy with the frame-ancestors directive instead. The string used for the

Property	Default Value	Definition
		X-Frame-Options HTTP header. A restart is required to pick up changes to this property.
x-frame-options-enabled:		DEPRECATED: Use content-security-policy with the frame-ancestors directive instead. Sends the X-Frame-Options header in HTTP responses. A restart is required to pick up changes to this property.
x-xss-protection:	1; mode=block	The string used for the X-XSS-Protection header for unsecured endpoints. Note: The protections brought by this property are largely superseded by a strong content security policy. It is recommended to use the <i>content-security-policy</i> property and to leave the <i>x-xss-protection</i> as its default value.
x-xss-protection-enabled:	<i>not enabled</i>	Sends the X-XSS-Protection header in HTTP responses for unsecured endpoints. Note: The protections brought by this property are largely superseded by a strong content security policy. It is recommended to use the <i>content-security-policy</i> property and to leave the <i>x-xss-protection-enabled</i> as its default value.

Natural Language Generation Service

Natural Language Generation service includes [“Global Configuration Instances” on page 20](#) and the following *jvm* configuration instance:

Property	Default Value
java_option_xmx:	-Xmx384m

Notifications Service

The Notifications service includes [“Global Configuration Instances” on page 20](#) and the following default configuration instances:

sas.notifications

Property	Default Value	Definition
enabled:	enabled	Enables opt-in notifications.

sas.notifications.delivery

Property	Default Value	Definition
mailEnabled:	enabled	Enables opt-in delivery to the mail channel.

sas.notifications.purge

Property	Default Value	Definition
enabled:	true	Enables purging of notification records.
purgeSchedule:	0 0 * * *	The schedule that determines when an purge request is initiated. Specify the value using Cron standard syntax.
retention	30d	The retention period for persisting notification records in postgres. For example, '30d' represents 30 days.

Report Alerts Service

The Report Alerts service issues alerts for reports. For more information, see [“Report Alerts Service” in SAS Visual Analytics: Reference](#).

The Report Alerts service includes [“Global Configuration Instances” on page 20](#) and the following default configuration instances:

logging.level: com.sas.report.alert

Property	Default Value	Definition
level:*	INFO	Logger level.

Property	Default Value	Definition
name:*	com.sas.report.alert	Logger name.

sas.reportalerts.x

Property	Default Value	Definition
allowEvaluationAtStartup:	<i>enabled</i>	Whether evaluation iteration should start immediately after startup of the service. If false, server waits until an explicit service call is made to start evaluating.
disabled:	<i>disabled</i>	Disable report alerting evaluation.
disableDataChangeCheck:	<i>disabled</i>	Disable checking if data has changed.
email: defaultFromAdress:	repliesdisabled@sas.com	Mail requires a from address, and it uses this address. A value is required. This is not necessarily the address that the Mail service uses, but the apparent address on the email received.
email: defaultFromName:	Report Alert Service	The display name of the sender of the output. This can be either a key into the provided message properties, or the text of the name of the sender. This appears as the apparent sender in the received email.
email: defaultViewerUrl:	http://localhost/SASReportViewer	NOT USED. The link to the report in the email is computed by the system.
interval: evalIntervalMilliseconds:*	600,000	The pause inserted between iterations of all alerts for evaluation.
interval: maxEvalTimeMilliseconds:*	180,000	Max allowed evaluation time.

Property	Default Value	Definition
interval: maxWaitForAccessTokenSeconds:*	60	Max wait time for getting data service access token.
interval: maxWaitForEvalCacheLockMilli seconds:*	10,000	Max allowed wait time for locking evaluation cache.
query: maxNumberOfSubscriptions:*	25	The max number of subscriptions to be returned for evaluation; these are the oldest since the last time they were queried.
query: maxWaitToRunSynchronizedQu eryMilliseconds:*	3,000	The max time to wait for running a single query while pausing all other threads.
supplementalProperties: The set of user-added, advanced properties.		
defaultEmailNotificationInterval:	60	
defaultNotificationInterval:	60	
defaultNotificationIntervalUnit:	minutes	
defaultSmsNotificationInterval:	60	
maxRetriesFailedEvaluations:	25	
useDebugEmailTemplate:	no	
threadPool: coreSize:*	10	The pool core size of thread pool.
threadPool: idleTimeoutSeconds:*	600	The max time a thread can be idle before taken off the thread pool.
threadPool: maxSize:*	20	The pool max size of thread pool.
threadPool: queueSize:*	50	The size of queue of thread pool.

Report Data Service

See [“Report Data Service” in SAS Visual Analytics: Reference](#) for the default configuration properties.

Report Distribution Service

The Report Distribution service includes [“Global Configuration Instances” on page 20](#) and the following default configuration instances.

sas.reportdistribution

Property	Default Value
supplementalProperties:	
The set of user-optional, advanced properties for controlling report processing and printing.	
Note: Do not enter a property name-value pair unless you are directed to do so by SAS Technical Support.	
debugPrintReportPackage:	true
forceSynchronousRendering:	false
heartBeatInterval:	10
maximumEmailsPerJob:	500
maximumRenderingsPerJob:	500
Note: You cannot exceed the fallback limits of 50 for the maximumEmailsPerJob and the maximumRenderingsPerJob properties. Administrators need to be aware of this and use care when constructing groups and distributions and the configured limits if you want to generate emails for a large number of users.	
maximumRenderJobWaitTimeSeconds	900

sas.reportdistribution.mail

Property	Default Value	Definition
defaultFromAddress:*	no-reply@example.com	Mail requires a from address, and it uses this address. A value is required. Specifies the address from which reports are distributed. If this value is invalid, the value of the fromAddress property of the Mail service is used. For more information, see “Mail Service” on page 63 .

Property	Default Value	Definition
defaultFromName:*	SAS Visual Analytics Report Distribution	The display name of the sender of the distribution output.
supplementalProperties:	Click <i>Add property</i>	The set of user-added, advanced properties.

Report Images Service

See “[Report Images Service](#)” in *SAS Visual Analytics: Reference* for the default configuration properties.

Report Packages Service

See “[Report Packages Service](#)” in *SAS Visual Analytics: Reference* for the default configuration properties.

Report Renderer Service

See “[Report Renderer Service](#)” in *SAS Visual Analytics: Reference* for the default configuration properties.

Report Templates Service

The Report Templates service includes “[Global Configuration Instances](#)” on page 20 and the following logging configuration instances, by default:

logging.level: com.sas.report.service.common

Property	Default Value	Definition
level:*	INFO	Logger level.
name:*	com.sas.report.service.common	Logger name.

logging.level: com.sas.report.templates

Property	Default Value	Definition
level:*	INFO	Logger level.

Property	Default Value	Definition
name:*	com.sas.report.templates	Logger name.

Report Transforms Service

The Report Transforms service includes [“Global Configuration Instances” on page 20](#) and the following default configuration instances:

logging.level: com.sas.report.transform

Property	Default Value	Definition
level:*	INFO	Logger level.
name:*	com.sas.report.transform	Logger name.

sas.reporttransforms

Property	Default Value	Definition
maxFileSize:	10000000	Used to safeguard the system from running out of resources due to saving very large report.
supplementalProperties:	Click <i>Add property</i>	The set of user-added, advanced properties.

Reports Persistence Service

The Report Persistence service includes [“Global Configuration Instances” on page 20](#) and the following default configuration instances:

logging.level: com.sas.report.persistence

Property	Default Value	Definition
level:*	INFO	Logger level.
name:*	com.sas.report.persistence	Logger name.

logging.level: com.sas.report.service.common

Property	Default Value	Definition
level:*	INFO	Logger level.
name:*	com.sas.report.service.common	Logger name.

sas.reports.config

Property	Default Value	Definition
maxFileSize:	10000000	Used to safeguard the system from running out of resources due to saving very large report.

SAS Data Explorer

SAS Data Explorer includes [“Global Configuration Instances” on page 20](#) and the following default configuration instances:

jvm

Property	Default Value
java_option_xmx:	-Xmx768m

sas.dataexplorer

Property	Default Value	Definition
casSessionImportNumNodes:	0	The number of nodes on which to start up CAS sessions when running import jobs (0 is all nodes).
casSessionInteractiveNumNodes:	20	The number of nodes on which to start up CAS sessions used for browsing data sources (0 is all nodes).
filterAvailableTab:*	<i>not enabled</i>	Specifies whether 'Available' tab should display only loaded tables from the default caslib.

Property	Default Value	Definition
filterAvailableTabByCaslibList:*	<i>not enabled</i>	Specifies whether the caslib filter in "filterAvailableTabCaslibList" should take effect. Includes users' personal caslibs in the filter.
filterAvailableTabCaslibList:		The only caslibs that should show up on the 'Available' tab when the "filterAvailableTabByCaslibList" option is selected. Should be specified as a comma-delimited string with each caslib in the format 'cas-server/caslib'. Use two consecutive commas to escape a comma in a server/library name.
job-execution-provider: Configurable values for the SAS Data Explorer job execution provider job.		
heartbeatInterval:	300	The heartbeat value (in seconds) to use with jobs executed by this service. A zero or negative value means that the heartbeat is not checked.
scheduledJobExpiresAfter:	<i>not set</i>	The amount of time after a scheduled job completion before the job execution service deletes the job. Specify time in W3C XML duration format (for example, PT5M = 5 minutes). A null value indicates that job is not deleted.
maxImageResolution	16000000	Maximum image resolution (in pixels) allowed for uploaded images. If set to 0 or a negative value, the default resolution limit will be applied.
maxImportQueueSize:	100	The maximum number of items that can be submitted in a single import
maxTablePageSize:	10,000	The maximum number of loaded or unloaded tables per caslib to return to the application.
supplementalProperties:	Click <i>Add property</i>	Additional properties for SASDataExplorer
useBatchedQueryForAvailableTab:*	<i>enabled</i>	Specifies whether SAS Data Explorer should use a single batched query instead of multiple parallel queries to populate the Available tab.

sas.datamanagement

Property	Default Value	Definition
columnMetadataLimit:	4,100	The maximum number of columns that will be rendered in the application interface.

SAS Detection Analysis Service

The SAS Detection Analysis service includes [“Global Configuration Instances” on page 20](#).

You can configure the following property for the [“SAS Detection Analysis Service” on page 81](#) and the [“SAS Detection Definition Service” on page 83](#):

sas.detectiondefinition.kafka

Property	Default Value	Definition
broker:		Kafka broker for the transaction repositories.

SAS Detection Definition

The SAS Detection Definition service includes [“Global Configuration Instances” on page 20](#) and the following default configuration:

sas.common.web.security

Property	Default Value	Definition
content-security-policy:	<i>default-src 'self'; script-src 'self' 'wasm-unsafe-eval'; img-src 'self' blob: data;; style-src 'self' 'unsafe-inline'; object-src 'none'; base-uri 'self'; connect-src 'self' *.sas.com; frame-ancestors 'self'; form-action 'self';</i>	The string used for the Content-Security-Policy HTTP header.
content-security-policy-enabled:	<i>enabled by default</i>	Sends the Content-Security-Policy header in HTTP responses to prevent injection attacks.

Property	Default Value	Definition
x-content-type-options:	nosniff	The string used for the X-Content-Type-Options header for unsecured endpoints.
x-content-type-options-enabled:	<i>enabled by default</i>	Sends the X-Content-Type-Options header in HTTP responses for unsecured endpoints.
x-frame-options:	(not set)	DEPRECATED: Use content-security-policy with the frame-ancestors directive instead. The string used for the X-Frame-Options HTTP header. A restart is required to pick up changes to this property.
x-frame-options-enabled:		DEPRECATED: Use content-security-policy with the frame-ancestors directive instead. Sends the X-Frame-Options header in HTTP responses. A restart is required to pick up changes to this property.
x-xss-protection:	1; mode=block	The string used for the X-XSS-Protection header for unsecured endpoints. Note: The protections brought by this property are largely superseded by a strong content security policy. It is recommended to use the <i>content-security-policy</i> property and to leave the <i>x-xss-protection</i> as its default value.
x-xss-protection-enabled:	<i>enabled by default</i>	Sends the X-XSS-Protection header in HTTP responses for unsecured endpoints. Note: The protections brought by this property are largely superseded by a strong content security policy. It is recommended to use the <i>content-security-policy</i> property and to leave the <i>x-xss-protection-enabled</i> as its default value.

SAS Detection Definition Service

The SAS Detection Definition service includes [“Global Configuration Instances” on page 20](#) and the following default configuration:

sas.detectiondefinition.deployment

Property	Default Value	Definition
autoDeployment:	<i>not enabled by default</i>	When set to true, deployment will automatically start when rules are promoted to production.
cdeployTestingRules:	<i>not enabled by default</i>	When set to true, testing rules will be deployed to production where they will execute and fire.
destination:	SDADockerRegistry	Destination of deployment file.
expiresAfter:	14	Specifies after how many days to remove details related to the deployment..
iterateForModelPublishStatus:	10	Specifies how many times to iterate for checking model publish status before quitting.
maxLength:	62,000	Specifies the maximum size of a message.
restartODE:	<i>not enabled by default</i>	When set to true, OnDemand Detection Engine will be automatically restarted after successful model publishing.
waitBeforeAutoDeployment:	20	Specifies how many seconds to wait after rule promotion before deployment starts automatically.
waitForModelPublishStatus:	10	Specifies how many seconds to wait before checking model publish status again.

SAS Detection Message Schema Service

The SAS Detection Message Schema service includes [“Global Configuration Instances” on page 20](#) .

SAS Environment Manager

SAS Environment Manager includes “[Global Configuration Instances](#)” on page 20 and the following default configuration instances:

`sas.common.web.security`

Property	Default Value	Definition
content-security-policy:	<i>default-src 'self'; script-src 'self' 'unsafe-eval'; img-src 'self' *.sas.com blob: data;; style-src 'self' 'unsafe-inline'; object-src 'none'; base-uri 'self'; connect-src 'self' *.sas.com; frame-ancestors 'self'; form-action 'self';</i>	The string used for the Content-Security-Policy HTTP header.
content-security-policy-enabled:	<i>enabled by default</i>	Sends the Content-Security-Policy header in HTTP responses to prevent injection attacks.
x-content-type-options:	<i>nosniff</i>	The string used for the X-Content-Type-Options header for unsecured endpoints.
x-content-type-options-enabled:	<i>enabled by default</i>	Sends the X-Content-Type-Options header in HTTP responses for unsecured endpoints.
x-frame-options:		DEPRECATED: Use content-security-policy with the frame-ancestors directive instead. The string used for the X-Frame-Options HTTP header. A restart is required to pick up changes to this property.
x-frame-options-enabled:		DEPRECATED: Use content-security-policy with the frame-ancestors directive instead. Sends the X-Frame-Options header in HTTP responses. A restart is required to pick up changes to this property.
x-xss-protection:	<i>1; mode=block</i>	The string used for the X-XSS-Protection header for unsecured endpoints. Note: The protections brought by this property are largely superseded by a strong content security policy. It is recommended to use the <i>content-security-policy</i> property and to leave the <i>x-xss-protection</i> as its default value.

Property	Default Value	Definition
x-xss-protection-enabled:	<i>enabled</i>	Sends the X-XSS-Protection header in HTTP responses for unsecured endpoints. Note: The protections brought by this property are largely superseded by a strong content security policy. It is recommended to use the <i>content-security-policy</i> property and to leave the <i>x-xss-protection-enabled</i> as its default value.

sas.environmentmanager

Property	Default Value	Definition
Logs application URL:	<i>specific to your environment</i>	The full URL for the logs application.
Metrics application URL:	<i>specific to your environment</i>	The full URL for the metrics application.

SAS Intelligent Decisioning

SAS Intelligent Decisioning includes [“Global Configuration Instances” on page 20](#) and the following web security configuration instance, by default:

sas.common.web.security

Property	Default Value	Definition
content-security-policy:	<i>frame-ancestors 'self'; form-action 'none'; default-src 'self'; script-src 'self' 'unsafe-eval' 'unsafe-inline'; style-src 'self' 'unsafe-inline'; object-src 'none'; base-uri 'self'; connect-src 'self' *.sas.com; img-src 'self' data;;</i>	The string used for the Content-Security-Policy HTTP header. The default value varies.
content-security-policy-enabled:	<i>enabled by default</i>	Sends the Content-Security-Policy header in HTTP responses to prevent injection attacks.

Property	Default Value	Definition
x-content-type-options:	nosniff	The string used for the X-Content-Type-Options header for unsecured endpoints.
x-content-type-options-enabled:	<i>enabled by default</i>	Sends the X-Content-Type-Options header in HTTP responses for unsecured endpoints.
x-frame-options:	(not set)	DEPRECATED: Use content-security-policy with the frame-ancestors directive instead. The string used for the X-Frame-Options HTTP header. A restart is required to pick up changes to this property.
x-frame-options-enabled:		DEPRECATED: Use content-security-policy with the frame-ancestors directive instead. Sends the X-Frame-Options header in HTTP responses. A restart is required to pick up changes to this property.
x-xss-protection:	1; mode=block	The string used for the X-XSS-Protection header for unsecured endpoints. Note: The protections brought by this property are largely superseded by a strong content security policy. It is recommended to use the <i>content-security-policy</i> property and to leave the <i>x-xss-protection</i> as its default value.
x-xss-protection-enabled:	<i>not enabled</i>	Sends the X-XSS-Protection header in HTTP responses for unsecured endpoints. Note: The protections brought by this property are largely superseded by a strong content security policy. It is recommended to use the <i>content-security-policy</i> property and to leave the <i>x-xss-protection-enabled</i> as its default value.

SAS Job Execution

The SAS Job Execution Web Application is a web-based client that is written in Go and it is used to create, manage, and execute jobs. For information about these properties, see [“Setting Configuration Properties” in SAS Job Execution Web Application: User’s Guide](#).

SAS Job Flow Scheduling service

SAS Job Flow Scheduling service includes [“Global Configuration Instances” on page 20](#) . You can configure the following configuration instance.

For more information, see [“Adjust the File-Status Polling Interval” in SAS Viya Platform: Jobs and Flows](#).

sas.job.flow.scheduling

Property	Default Value	Definition
file.polling.interval:	30	Set to duration between 30 seconds and 1 hour. 30 seconds (30s) is the default and the recommended value. The format is a duration string. Duration string is a signed sequence of decimal numbers with optional fraction and unit suffix. Here are examples: "100ms", "2.3h" or "4h35m".

SAS Logon Manager

SAS Logon Manager provides OAuth2 and OpenID Connect services for authentication, and a user interface for sign-in, sign out, and other related functions. See [“Authentication: Overview” in SAS Viya Platform: Authentication](#).

SAS Logon Manager includes [“Global Configuration Instances” on page 20](#) and the following default configuration instances. For a list of configuration properties that can be configured, see [“SAS Logon Manager: Configurable Properties” on page 89](#).

jvm

Property	Default Value
java_option_xmx:	-Xmx768m

sas.common.web.security

Property	Default Value	Definition
content-security-policy:	<i>default-src 'self'; style-src 'self'; font-src 'self' data;; frame-ancestors 'self'; form-action 'self'</i>	The string used for the Content-Security-Policy HTTP header.
content-security-policy-enabled:	true	Sends the Content-Security-Policy header in HTTP responses to prevent injection attacks.
x-content-type-options:	nosniff	The string used for the X-Content-Type-Options header for unsecured endpoints.

Property	Default Value	Definition
x-content-type-options-enabled:	true	Sends the X-Content-Type-Options header in HTTP responses for unsecured endpoints.
x-frame-options:	(not set)	DEPRECATED: Use content-security-policy with the frame-ancestors directive instead. The string used for the X-Frame-Options HTTP header. A restart is required to pick up changes to this property.
x-frame-options-enabled:		DEPRECATED: Use content-security-policy with the frame-ancestors directive instead. Sends the X-Frame-Options header in HTTP responses. A restart is required to pick up changes to this property.
x-xss-protection:	1; mode=block	The string used for the X-XSS-Protection header for unsecured endpoints. Note: The protections brought by this property are largely superseded by a strong content security policy. It is recommended to use the <i>content-security-policy</i> property and to leave the <i>x-xss-protection</i> as its default value.
x-xss-protection-enabled:	<i>enabled</i>	Sends the X-XSS-Protection header in HTTP responses for unsecured endpoints. Note: The protections brought by this property are largely superseded by a strong content security policy. It is recommended to use the <i>content-security-policy</i> property and to leave the <i>x-xss-protection-enabled</i> as its default value.

sas.identities.providers.ldap.connection

The *sas.identities.providers.ldap.connection* configuration instance is applied to SAS Logon Manager service and identities service. See [“sas.identities.providers.ldap.connection” on page 53](#) for the configuration properties.

sas.identities.providers.ldap.user

The *sas.identities.providers.ldap.user* configuration instance is applied to SAS Logon Manager service and identities service. See “[sas.identities.providers.ldap.user](#)” on [page 56](#) for the configuration properties.

sas.logon.provider.guest

Note: The *sas.logon.provider.guest* configuration instance is applied to SAS Logon Manager service and Authorization service.

Property	Default Value	Definition
enabled:*	<i>not enabled</i>	Enable anonymous guest access to web applications.

SAS Logon Manager: Configurable Properties

The following configuration instances are not configured by default. See “[Configuration Page](#)” in *SAS Environment Manager: User’s Guide* for instructions on adding a configuration instance.

SAS Logon Manager provides OAuth2 and OpenID Connect services for authentication, and a user interface for sign-in, sign out, and other related functions. See “[Authentication: Overview](#)” in *SAS Viya Platform: Authentication*.

sas.logon.callback

Property	Definition
The set of properties that are used to configure the allowlist of URIs for trusted applications.	
allowed.uris:	The comma-delimited list of URIs that users can be redirected to after signing in following a time-out or log off. SAS application URIs and registered client redirect URIs are automatically included in the list.

sas.logon.custom

Property	Definition
The set of properties that are used to provide custom content that is included on the Sign In to SAS page.	

Property	Definition
login:	The URI of the custom content included on the Sign In to SAS page.
logout:	The URI of the custom content included on the Sign In to SAS page when users sign out of the system.
timedout:	The URI of the custom content included on the time-out page.

sas.logon.groups

Property	Definition
The set of properties that are used to customize lookup of group authorities.	
approvalExpirySeconds:	When approving or denying access to a third-party application, specifies the number of seconds that the approval or denial should be remembered.
externalIdentity:	Populate a claim in tokens with a site-specific identifier to be used with row-level security and SUB::SAS.ExternalIdentity.
groupLookupRequired:*	Requires groups to be determined for authentication to succeed.

sas.logon.initial

Property	Definition
The set of properties that are used to initially configure the system.	
IMPORTANT Modifying one of these property values requires you to restart SAS Logon Manager.	
passwordResetLifetime:	The number of milliseconds for which that the password reset code is valid after restart. The default value is 86,400,000.
redirectUri:	The URI to which the initial user should be redirected after resetting the password. The default value is /SASEnvironmentManager/configuration
reset.enabled:	Displays a password reset link for the initial user account at start-up.
user:	The user name for the initial user account. The default value is sasboot.

sas.logon.jasig.cas

Property	Definition
The set of properties that are used to enable sign-ins using a Java in Administration Special Interest Group (Jasig) central authentication server (CAS) provider.	
IMPORTANT Modifying one of these property values requires you to restart SAS Logon Manager.	
autolink:	Automatically open the link to this provider when the login page is displayed.
casServerUrl:*	The URL for the CAS server.
enabled:*	Enable sign-ins using CAS.
keepalive.enabled:	Keep the CAS server session active by obtaining proxy tickets.
keepalive.proxyTicketUrl:	The URL to obtain proxy tickets for keepalive purposes.
linkText:	The hyperlink to display on the sign-in page.
sasLogonUrl:*	The URL of the SAS Logon Manager (for example: https://sas.example.com/SASLogon).
service.artifactParameter:	The request parameter to look for when attempting to see whether a ticket was sent from the server. The default value is <i>ticket</i> .
service.authenticateAllArtifacts:	Process all tickets, including proxy tickets.
service.sendRenew:	Force the server to authenticate the user again, even if the user has previously authenticated.
service.serviceParameter:	The request parameter to send the server for this service. The default value is <i>service</i> .
showLinkText:	Show the link text on the sign-in page.
single.signOn.enabled:*	Enable single sign-on.
single.signOut.enabled	Local sign-out should sign user out of the CAS server also.
single.signOut.logoutParameterName	The parameter name that identifies a back channel single logoff request from the CAS server. The default value is <i>logoutRequest</i> .

Property	Definition
validate.encoding:	Encoding of the ticket validation response from the server. The default value is <i>UTF8</i> .
validate.renew:	Determine whether the ticket validation request should include a renew.

sas.logon.jwt

The logon.jwt configuration specifies how JSON web tokens are issued.

IMPORTANT When a new SAS Viya platform deployment has completed, you must set the external URI of your SAS Viya platform deployment. A JWT signing key and a self-signed certificate are automatically generated by the platform at start-up. If you prefer to apply your own service-provider key and certificate to your environment, you can configure them by updating the **sas.logon.jwt.signingCert** and **sas.logon.jwt.signingKey** properties.

Set the *issuer.uri* property to the external URI of your SAS Viya platform deployment.

- 1 Navigate to the **Configuration** page in SAS Environment Manager.
- 2 Select **Definitions** from the View: drop-down list.
- 3 Highlight **sas.logon.jwt** from the list. (Type *sas.logon* in the Filter window to filter the Definitions list.)
- 4 At the top right of the content pane, click **New Configuration**.
- 5 In the New sas.logon.jwt Configuration window, add the URI of your SAS Viya platform deployment that includes */SASLogon* to the **issuer.uri** property. Here is an example: **https://example.com/SASLogon**
- 6 Click **Save**.
- 7 You must restart SAS Logon Manager:

```
kubectl -n name-of-namespace delete pods -l app=sas-logon-app
```

Note: Previous settings are preserved, but SAS recommends that you perform this post-installation task.

Property	Definition
The set of properties that are used to configure how JSON web tokens are issued.	
IMPORTANT Modifying one of these property values requires you to restart SAS Logon Manager.	
issuer.uri:	The URI of the application, for the issuer claim in tokens (for example, <i>https://host.example.com/SASLogon</i>).

Property	Definition
policy.accessTokenValiditySeconds:	The default number of seconds that access tokens are valid for after being issued in the default zone. Note that the default of 3,600s (1 hour) might not be sufficient for very large models.
policy.global.accessTokenValiditySeconds:	The default number of seconds that access tokens are valid for after being issued in all zones. Note that the default of 3,600s (1 hour) might not be sufficient for very large models.
policy.global.refreshTokenValiditySeconds:	The default number of seconds that refresh tokens are valid for after being issued in all zones. The default value is 1,209,600s (14 days).
policy.refreshTokenValiditySeconds:	The default number of seconds that refresh tokens are valid for after being issued in the default zone. The default value is 1,209,600 (14 days).
refresh.restrictGrant:	This parameter is no longer used.
signingCert:	The Base64-encoded X509 certificate that can be used to validate tokens signed with the private key. Enter a value only if you wish to override the system-generated RSA private key and use JWT client authentication with an external OIDC provider.
signingKey:	The Base64-encoded RSA private key in PKCS #1 format that is used to digitally sign tokens. Enter a value only if you wish to override the system-generated RSA private key.

sas.logon.kerberos

Property	Definition
The set of properties that are used to enable sign-ins using Integrated Windows Authentication (IWA).	
debug:	Enables the debug mode of the JAAS Kerberos login module.
disableDelegationWarning:	Disables the warning message displayed to users when Kerberos credential delegation is not properly configured.
holdOnToGSSContext:*	Enables Kerberos delegation to SAS Cloud Analytic Services.

Property	Definition
impersonate:	Impersonate user credentials using Microsoft S4USELF extension to Kerberos for outgoing connections.
keyTabLocation:	The URL of the keytab file (for example, file:/opt/sas/viya/conf/etc/my_keytab).
servicePrincipal:	The name of the service principal in the keytab.
spn:	The HTTP service principal name (SPN), if different from the principal name in the keytab.
stripRealmForGss:	When enabled, this option strips the realm (@...) from the user name.

sas.logon.oauth.providers

The sas.logon.oauth.providers is configured for OpenID Connect (OIDC) authentication.

See [“Configure OAuth and OIDC” in SAS Viya Platform: Authentication](#) for the properties to configure.

See also [“Configure OIDC Provider Properties for Okta” in SAS Viya Platform: Authentication](#) when you configure OIDC with Okta.

sas.logon.oauth.providers.external_oauth

Note: This configuration definition is no longer supported. Use sas.logon.oauth.providers instead.

sas.logon.pam - No Longer Supported

Note: This configuration definition is no longer supported.

sas.logon.saml - Deprecated

Note: This definition is deprecated. Please use **sas.logon.saml.sp** instead.

sas.logon.saml.providers

The sas.logon.saml.providers is configured to use SAML service provider for authentication.

For the properties to configure, see **Configure the SAS Viya Platform with Information about the SAML IdP** in [“Configure SAML” in SAS Viya Platform: Authentication](#).

sas.logon.saml.providers.external_saml - Deprecated

Note: This definition is deprecated. Use **sas.logon.saml.providers** instead.

sas.logon.saml.sp

The set of SAML service provider properties that are used to enable sign-ins using an external provider.

For the properties to configure, see **Configure the SAS Viya Platform as a SAML Service Provider** in [“Configure SAML” in SAS Viya Platform: Authentication](#).

sas.logon.sas9

Property	Definition
The set of properties that are used to enable sign-ins using SAS®9.4 and later.	
autoLink:	Automatically open the link to SAS®9 when the login page is displayed.
enabled:*	Enable sign-ins using SAS®9 credentials.
linkText:	The hyperlink to display on the sign-in page.
sas9LogonUrl:*	The URL of the SAS®9 Logon Manager (for example, https://sas9.sas.example.com/SASLogon).
showLinkText:	Show the link text on the sign-in page.
single.signOn.enabled:*	Redirect to SAS®9 for single sign-on.
single.signOut.enabled:	Local sign-out should sign user out of SAS®9 also.
viyaLogonUrl:*	The URL of the SAS Viya Logon Manager (for example, https://viya.sas.example.com/SASLogon).

sas.logon.sessions

Property	Definition
The set of properties that are used to configure how concurrent SAS Logon sessions are handled.	
maxConcurrentPrivilegedSessions:	The maximum number of allowed concurrent sessions for privileged users. This property allows the concurrent

Property	Definition
	session control to distinguish between privileged and non-privileged users. This setting has the same options as maxConcurrentSessions, with the addition of the value of -2. The value of -2 is the default value, which turns off the feature and instead uses the value of maxConcurrentSessions for privileged users as well. It is very important that you do not set this value to zero because this prevents any privileged users from launching a session.
maxConcurrentSessions:	The maximum number of allowed concurrent sessions. ■ The value is -1, which disables the feature and allows an unlimited number of sessions. ■ A value of 0 would completely prevent users from logging on, so do not use. ■ A default value of 1 enables the feature and prevents users from having more than one concurrent session. ■ Values of 2, 3, and so on, are permissible and limit the user to that many concurrent sessions. If by policy, you want to permit concurrent sessions, it is simpler to use the value of -1 and disable the feature.
rejectNewSessionsIfMaxExceeded:	Rejects new SAS Logon sessions if the maximum number of sessions is exceeded. If this property is set to Off, when the maximum number of sessions is reached, an existing session is invalidated to allow a new one to be created. By contrast, if the property is set to On, the attempt to create a new session is rejected.

sas.logon.zone

See [“Configure OAuth and OIDC” in SAS Viya Platform: Authentication](#) for the properties to configure.

Property	Definition
	The set of properties that are used to configure zones.
defaultIdentityProvider:	Name of the identity provider to automatically redirect logins to.
idpDiscovery.enabled:	Specify whether to match email domains in order to redirect logins to the appropriate external identity provider.

SAS Model Manager

SAS Model Manager includes “[Global Configuration Instances](#)” on [page 20](#) and the following web security configuration instance, by default:

`sas.common.web.security`

Property	Default Value	Definition
content-security-policy:	<code>frame-ancestors 'self'; form-action 'none'; default-src 'self'; script-src 'self' 'unsafe-eval' 'unsafe-inline'; style-src 'self' 'unsafe-inline'; object-src 'none'; base-uri 'self'; connect-src 'self' *.sas.com; img-src 'self' data;;</code>	The string used for the Content-Security-Policy HTTP header.
content-security-policy-enabled:	<code>enabled by default</code>	Sends the Content-Security-Policy header in HTTP responses to prevent injection attacks.
x-content-type-options:	<code>nosniff</code>	The string used for the X-Content-Type-Options header for unsecured endpoints.
x-content-type-options-enabled:	<code>enabled by default</code>	Sends the X-Content-Type-Options header in HTTP responses for unsecured endpoints.
x-frame-options:	<code>(not set)</code>	DEPRECATED: Use content-security-policy with the frame-ancestors directive instead. The string used for the X-Frame-Options HTTP header. A restart is required to pick up changes to this property.
x-frame-options-enabled:		DEPRECATED: Use content-security-policy with the frame-ancestors directive instead. Sends the X-Frame-Options header in HTTP responses. A restart is required to pick up changes to this property.
x-xss-protection:	<code>1; mode=block</code>	The string used for the X-XSS-Protection header for unsecured endpoints. Note: The protections brought by this property are largely superseded by a strong content security policy. It is recommended to use the <code>content-security-policy</code> property and to leave the <code>x-xss-protection</code> as its default value.

Property	Default Value	Definition
x-xss-protection-enabled:	<i>not enabled</i>	Sends the X-XSS-Protection header in HTTP responses for unsecured endpoints. Note: The protections brought by this property are largely superseded by a strong content security policy. It is recommended to use the <i>content-security-policy</i> property and to leave the <i>x-xss-protection-enabled</i> as its default value.

SAS Data and AI Studio

SAS Data and AI Studio includes “[Global Configuration Instances](#)” on page 20 and the following default configuration instance.

Note: The `sas.studio` configuration definition applies to the following services:

- `sas-studio-app`, which is the web application.

The configuration name is *DataAIStudioService*.

- `sas-studio`, which is the midtier service for SAS Data and AI Studio.

The configuration name for this service is *studio* and the label that is displayed for this configuration in `SASEnvironmentManager` is *Studio Service*.

sas.studio

Note: Modifying one of these property values requires you to restart one or more SAS Viya services.

Property	Default Value	Definition
<code>abandonedSessionTimeout:*</code>	5	When the server has not heard from the browser in the specified number of minutes, the session is timed out.
<code>allowCopyPasteData:*</code>	<i>enabled by default</i>	Allows users to copy and paste from the table viewer.
<code>allowDownload:*</code>	<i>enabled by default</i>	Allows users to download data..
<code>allowExport:*</code>	<i>enabled by default</i>	Allows administrators to restrict users from exporting data
<code>allowGit:*</code>	<i>enabled by default</i>	Allows users to use Git functionality.

Property	Default Value	Definition
allowGitKerberosAuthentication:*	<i>not enabled by default</i>	Enables users to create Git Kerberos profiles.
allowGitPassword:*	<i>not enabled by default</i>	Enables users to create Git profiles that require a password for HTTPS authentication.
allowGitSSHPassword:*	<i>not enabled by default</i>	Enables users to create Git profiles with password protected SSH authentication.
allowGitSSLCertFilepath:*	<i>not enabled by default</i>	Enables users to create Git HTTPS profiles with a specified TLS Certification.
allowPrintData:*	<i>enabled by default</i>	Allows users to print from the table viewer.
allowUpload:*	<i>enabled by default</i>	Allows users to upload data.
defaultTextEncoding:*	UTF-8	Specifies the encoding applied to SAS and text files.
enableAutoCompleteLibraries:	<i>enabled by default</i>	Allows administrators to control autocompletion of libraries when editing code.
enableAutoCompleteTables:	<i>enabled by default</i>	Allows administrators to control autocompletion of tables when editing code.
fileNavigationCustomRootPath:	<i>not set by default</i>	Specifies custom path where file navigation starts.
fileNavigationRoot:*	USER	Specifies where file navigation starts.
flowColumnLimit:*	10,000	Specifies the maximum number of columns retrieved for a table node in a flow
globalShortcuts:	<i>not set by default</i>	Specifies global shortcuts to display in the UI. The format for each shortcut is label, new line, path. Multiple global shortcuts can be specified.
longPollingHoldTimeSeconds:*	30	Specifies the maximum number of seconds to wait for a message from the client.

Property	Default Value	Definition
maxGitFileSize:*	30,000,000	Specifies the maximum size (bytes) allowed for Git files.
maxUploadSize:*	104,857,600	Specifies the maximum size (bytes) allowed for uploading a file.
pwaSessionTimeout:	<i>not set by default</i>	When PWA-enabled application has not registered user activity in the specified duration, the session is timed out. Expressed as a duration.
serverDisplayName:	<i>not set by default</i>	Specifies an alternate display name for the server instead of using the host name.
showServerFiles:	<i>not enabled by default</i>	Allows administrators to show or hide the local file system.
validMemName*	EXTEND	Specifies the rules for naming SAS data sets, SAS data views, and item stores.
validVarName:*	ANY	Controls the type of SAS variable names that can be used or created during a SAS session.

Studio service

The Studio service includes [“Global Configuration Instances” on page 20](#) and the *sas.studio* configuration instance. See [“sas.studio” on page 98](#) for the default configuration properties.

SAS Theme Designer

SAS Theme Designer service includes [“Global Configuration Instances” on page 20](#) and the following web security default configuration instance:

sas.common.web.security

Property	Default Value	Definition
content-security-policy:	<i>default-src 'self'; script-src 'self' 'unsafe-eval'; style-src 'self' 'unsafe-inline'; object-src 'none'; base-uri 'self'; connect-src 'self' *.sas.com;</i>	The string used for the Content-Security-Policy HTTP header.

Property	Default Value	Definition
	<i>frame-ancestors 'self'; form-action 'self'; img-src 'self' blob;;</i>	
content-security-policy-enabled:	<i>enabled by default</i>	Sends the Content-Security-Policy header in HTTP responses to prevent injection attacks.
x-content-type-options:	<i>nosniff</i>	The string used for the X-Content-Type-Options header for unsecured endpoints.
x-content-type-options-enabled:	<i>enabled by default</i>	Sends the X-Content-Type-Options header in HTTP responses for unsecured endpoints.
x-frame-options:		DEPRECATED: Use content-security-policy with the frame-ancestors directive instead. The string used for the X-Frame-Options HTTP header. A restart is required to pick up changes to this property.
x-frame-options-enabled:		DEPRECATED: Use content-security-policy with the frame-ancestors directive instead. Sends the X-Frame-Options header in HTTP responses. A restart is required to pick up changes to this property.
x-xss-protection:	<i>1; mode=block</i>	The string used for the X-XSS-Protection header for unsecured endpoints. Note: The protections brought by this property are largely superseded by a strong content security policy. It is recommended to use the <i>content-security-policy</i> property and to leave the <i>x-xss-protection</i> as its default value.
x-xss-protection-enabled:	<i>not enabled</i>	Sends the X-XSS-Protection header in HTTP responses for unsecured endpoints. Note: The protections brought by this property are largely superseded by a strong content security policy. It is recommended to use the <i>content-security-policy</i> property and to leave the <i>x-xss-protection-enabled</i> as its default value.

SAS Visual Analytics

SAS Visual Analytics includes [“Global Configuration Instances” on page 20](#) and the following default configuration instances:

`sas.common.web.security`

Property	Default Value	Definition
content-security-policy:	<i>default-src *; script-src 'self' 'unsafe-inline' 'unsafe-eval'; style-src 'self' 'unsafe-inline'; img-src * blob: data:; child-src * blob: data: mailto:; frame-ancestors 'self'; form-action 'self';</i>	The string used for the Content-Security-Policy HTTP header.
content-security-policy-enabled:	<i>enabled by default</i>	Sends the Content-Security-Policy header in HTTP responses to prevent injection attacks.
x-content-type-options:	<i>nosniff</i>	The string used for the X-Content-Type-Options header for unsecured endpoints.
x-content-type-options-enabled:	<i>enabled by default</i>	Sends the X-Content-Type-Options header in HTTP responses for unsecured endpoints.
x-frame-options:		DEPRECATED: Use content-security-policy with the frame-ancestors directive instead. The string used for the X-Frame-Options HTTP header. A restart is required to pick up changes to this property.
x-frame-options-enabled:		DEPRECATED: Use content-security-policy with the frame-ancestors directive instead. Sends the X-Frame-Options header in HTTP responses. A restart is required to pick up changes to this property.
x-xss-protection:	<i>1; mode=block</i>	The string used for the X-XSS-Protection header for unsecured endpoints.

Property	Default Value	Definition
		Note: The protections brought by this property are largely superseded by a strong content security policy. It is recommended to use the <i>content-security-policy</i> property and to leave the <i>x-xss-protection</i> as its default value.
x-xss-protection-enabled:	<i>not enabled</i>	Sends the X-XSS-Protection header in HTTP responses for unsecured endpoints. Note: The protections brought by this property are largely superseded by a strong content security policy. It is recommended to use the <i>content-security-policy</i> property and to leave the <i>x-xss-protection-enabled</i> as its default value.

sas.visualanalytics

Note: The *sas.visualanalytics* configuration instance is applied to SAS Visual Analytics and SAS Visual Analytics Administration services.

Property	Default Value	Definition
Background Queries:	0	The extent to which background queries are used when loading reports, on a scale of 0 (no queries) to 5 (maximized use of queries). The default value is 0 .
Disable Automatic outlier detection:	<i>disabled by default</i>	Specifies that the Data pane does not calculate which data items have possible outlier values.
IFrame Sandbox Attribute Value:	allow-forms allow-presentation allow-same-origin allow-scripts	The value of the sandbox attribute for an IFrame element that is used by the web content and data-driven content objects.
Related Measures Limit:	150	The related measures query are not run for data sources that have a measure count that exceeds this limit.
supplementalProperties:	Click <i>Add property</i>	The set of user-added, advanced properties.

SAS Visual Analytics Administration

SAS Visual Analytics includes “[Global Configuration Instances](#)” on [page 20](#) and *sas.visualanalytics* default configuration instance.

See “[sas.visualanalytics](#)” on [page 103](#) for configuration properties.

Scheduler Service

The Scheduler service includes “[Global Configuration Instances](#)” on [page 20](#) . The following set of properties provides customization for scheduler jobs and history:

sas.scheduler

Property	Default Value	Definition
acquireTriggersWithinLock:	not enabled	Provide additional locking when assigning jobs to clustered schedulers.
allowAbsoluteJobURIs:	not enabled	Allow the scheduler to run external URIs.
dstEnabled:	not enabled	Allow Daylight Savings Time functionality in the scheduler.
jobTimeOut:	30	The maximum time a scheduled job is allowed.
misfireThreshold:	60,000	The maximum time a scheduled job is allowed to miss its scheduled execution time before being skipped.
threadPoolMax:	100	The maximum number of threads allocated to the scheduler thread pool.
threadPoolQueue:	25	The number of jobs queued up waiting for available threads used by the scheduler thread pool.
threadPoolSize:	5	The initial number of threads used by the scheduler thread pool.
timeZone:		The time zone that is used by the scheduler. The default value is the underlying operation system's time zone. An example is UTC.

Score Execution Service

See [“Score Execution Service Properties”](#) in *SAS Intelligent Decisioning: Administrator’s Guide* for configuration properties.

Search Index Service

The Search Index service includes [“Global Configuration Instances”](#) on page 20 and the following default configuration instance:

`sas.searchindex`

Property	Default Value	Definition
<code>annotationIndexingEnabled</code>	false	Flag to Indicate whether annotations object indexing is currently enabled. For more information, see “Enable Annotation Object Indexing” in <i>SAS Environment Manager: User’s Guide</i> .
<code>casExceptionTimeInterval:*</code>	6	Interval in hours for delay in displaying detail description in log.
<code>casRecordPushSize:*</code>	300	Number of records to be pushed to CAS for indexing in one go.
<code>indexingDelay:*</code>	15	Interval in minutes to push the first feed when the service is running.
<code>maxAssociatedDataLimitPerRecord:*</code>	200	Number of associated data per records to be pushed to CAS for indexing.
<code>newTypeIndexingExceptionInterval:*</code>	12	Interval in hours for delay in displaying detail description in log if error occurs for new type full feed.
<code>newTypeIndexingInterval:*</code>	20	Interval in minutes to detect any new indexable type and index the same.
<code>notificationCasExceptionInterval:*</code>	12	Interval in hours for delay in sending notification for failure of CAS while indexing.
<code>pushInterval:*</code>	5	Interval in minutes to push incremental data in CAS.

Property	Default Value	Definition
pushLimit:*	300	Numbers of records to be pulled from each indexable type in the REST API call to get indexable records in one go.
scheduledEnabled:*	false	Flag to Indicate if scheduled indexing is enabled or not. Note: To enable search indexing, see “Enable Search Indexing” on page 106.

Enable Search Indexing

Use the following steps to enable search indexing:

Enable scheduledEnabled Property

- 1 Navigate to the **Configuration** page of SAS Environment Manager.
- 2 Enter *Search Index* in the Search field and highlight **Search Index service**.
- 3 Click  to the right of the **sas.searchindex** configuration instance.
- 4 In the Edit sas.searchindex Configuration window scroll to the **scheduledEnabled** property and enable it by clicking the slider.
- 5 Click **Save**.

Once indexing is re-enabled, the incremental feed will restart. However, since the incremental feed is event-driven, it will only index data for which it receives events. Any data that was created, updated, or deleted when indexing was disabled is not indexed through this process. This can cause inconsistencies in search results. To address this issue, the recommended workaround is to initiate a full feed. This process pulls all indexable data and any associated data. During the full feed, any previously indexed content will be discarded to ensure that all relevant data is indexed.

Use the following steps to initiate a full feed:

Run the following command to obtain the access token for the user.

```
1 curl --location 'host-machine:443/SASLogon/oauth/token' \
  --header 'Authorization: Basic c2FzLmVjOg==' \
  --header 'Content-Type: application/x-www-form-urlencoded' \
  --header 'Origin: host-machine:443' \
  --data 'grant_type=password&username=username&password=password'
```

Replace *host-machine* with your environment host machine name.

Run the following command to re-index all objects. Use the access token that is output from the previous command.

```
2 curl --location --request POST 'host-machine/searchIndex/index/jobs' \
  --header 'Authorization: Bearer access-token' \
  --header 'Accept: application/vnd.sas.search.index.feed+json' \
  --header 'Origin: host-machine:443'
```

Replace:

- *host-machine* with your environment host machine name.
- *access-token* with the output from Step 1.

You can also re-index a specific object type. An example is if the object type was not indexed because of a bug or error in that object type's service. Use the following command to re-index an object type. Use the access token that is output from the command in Step 1.

```
3 curl --location --request POST 'host-machine/searchIndex/index/typeJobs/object-type' \
  --header 'Authorization: Bearer access-token' \
  --header 'Accept: application/vnd.sas.search.index.feed+json' \
  --header 'Origin: host-machine:443'
```

Replace:

- *host-machine* with your environment host machine name.
- *access-token* with the output from Step 1.
- *object-type* with the object type that you want to re-index.

Subject Contact Service

The Subject Contact Service is described in detail in [“Subject Contact Service Properties” in SAS Intelligent Decisioning: Administrator’s Guide](#).

Thumbnails Service

The Thumbnails service includes [“Global Configuration Instances” on page 20](#) and the following default configuration instance:

sas.thumbnails

Property	Default Value	Definition
supplemental properties:	Click <i>Add property</i>	The set of user-added, advanced properties. Note: Do not enter a property name-value pair unless you are directed to do so by SAS Technical Support.

Transfer Service

The Thumbnails service includes [“Global Configuration Instances” on page 20](#) and the following jvm configuration instance:

jvm

Property	Default Value
java_option_xmx:	-Xmx1024m

Visual Analytics Service

The Visual Analytics service includes [“Global Configuration Instances” on page 20](#) and the following default configuration instance:

sas.visualanalytics.api.settings

Property	Default Value	Definition
defaultJobTimeoutSeconds:*	600	Default number of seconds before time-out on asynchronous request.
defaultSynchronousWaitSeconds:*	30	Default number of seconds to wait before redirecting back to client on a asynchronous request.
maximumJobTimeoutSeconds:*	3,600	Maximum number of seconds before time-out on asynchronous request.
maximumSynchronousWaitSeconds:*	300	Maximum number of seconds to wait before redirecting back to client on a synchronous request.
minimumJobTimeoutSeconds:*	60	Minimum number of seconds before time-out on asynchronous request.
minimumSynchronousWaitSeconds:*	1	Minimum number of seconds to wait before redirecting back to client on a synchronous request.
supplementalProperties:		The set of user-added, advanced properties.

Web Data Access Service

The Web Data Access service includes [“Global Configuration Instances” on page 20](#) and the *sas.maps* configuration instance. The *sas.maps* configuration instance is applied to the Maps service, Report Packages service and the Web Data Access service. See [“sas.maps” on page 65](#) for its properties.

Web Renderer Service

The Web Renderer service includes [“Global Configuration Instances” on page 20](#) and the following default configuration instances:

sas.webrenderer.properties

Property	Default Value	Definition
supplementalProperties:	(none)	
timeoutMillis:	300,000	The number of milliseconds allowed before the rendering process times out.

sas.webrenderer.system

Property	Default Value	Definition
cacheDuration:	300	The number of seconds allowed before rendered content is deleted from the cache.
defaultBrowser:		Override the default browser.
supplementalProperties:	Click + <i>Add property</i>	The set of user-added, advanced properties.

Workflow Definition Service

The Workflow Definition service includes [“Global Configuration Instances” on page 20](#) and the following default logging configuration instances.

logging.level: com.sas

Property	Default Value	Definition
level:*	WARN	Logger level.

Property	Default Value	Definition
name:*	com.sas	Logger name.

logging.level: com.sas.workflow.definition

Property	Default Value	Definition
level:*	WARN	Logger level.
name:*	com.sas.workflow.definition	Logger name.

logging.level: org.springframework

Property	Default Value	Definition
level:*	WARN	Logger level.
name:*	org.springframework	Logger name.

Workflow Service

The Workflow service includes [“Global Configuration Instances” on page 20](#) and the following default configuration instances.

logging.level: com.sas.workflow

Property	Default Value	Definition
level:*	INFO	Logger level.
name:*	com.sas.workflow	Logger name.

logging.level: org.flowable

Property	Default Value	Definition
level:*	WARN	Logger level.

Property	Default Value	Definition
name:*	org.flowable	Logger name.

logging.level: org.flowable.engine.impl.persistence.entity

Property	Default Value	Definition
level:*	WARN	Logger level.
name:*	org.flowable.engine.impl.persistence.entity	Logger name.

logging.level: org.hibernate

Property	Default Value	Definition
level:*	WARN	Logger level.
name:*	org.hibernate	Logger name.

logging.level: org.hibernate.cache

Property	Default Value	Definition
level:*	WARN	Logger level.
name:*	org.hibernate.cache	Logger name.

logging.level: org.hibernate.hql

Property	Default Value	Definition
level:*	WARN	Logger level.
name:*	org.hibernate.hql	Logger name.

logging.level: org.hibernate.SQL

Property	Default Value	Definition
level:*	WARN	Logger level.
name:*	org.hibernate.SQL	Logger name.

logging.level: org.hibernate.type

Property	Default Value	Definition
level:*	WARN	Logger level.
name:*	org.hibernate.type	Logger name.

logging.level: org.springframework

Property	Default Value	Definition
level:*	WARN	Logger level.
name:*	org.springframework	Logger name.

logging.level: org.springframework.transaction

Property	Default Value	Definition
level:*	WARN	Logger level.
name:*	org.springframework.transaction	Logger name.

sas.event

Property	Default Value	Definition
eventConsumerThreadPoolSize:	5	Event Consumer Threads.

Service Configuration Properties: Visual Investigator Services

SAS Visual Investigator is a SAS Viya platform product. It enables users to manage the end-to-end life cycle of an investigation. Areas of investigation might include alert management, search and discovery tasks, and review of various visualizations to uncover additional investigative details. SAS Visual Investigator might be implemented with other SAS solutions as well. For information, see [SAS Visual Investigator: Administrator's Guide](#).

The following tables display the SAS Visual Investigator configuration properties that are applied to services by default at the time of deployment to ensure that the services run properly.

SAS Visual Investigator

SAS Visual Investigator is a web application for SAS Visual Investigator administrators that is accessed through the Manage Investigate and Search interface of the **Show Applications** menu. You can also access the Manage Investigate and Search interface directly with the following url:

<https://DeploymentDomain.com/SASVisualInvestigator/admin.html>. For information, see [SAS Visual Investigator: Administrator's Guide](#).

The service includes “[Global Configuration Instances](#)” on page 20 and the following default configuration instances:

jvm

Property	Default Value
java_option_xmx:	-Xmx2g

sas.common.web.security

Property	Default Value	Definition
content-security-policy:	<i>default-src 'self'; object-src 'none'; script-src 'self' 'nonce-random' 'unsafe-eval'; frame-ancestors 'self'; form-action 'self'; img-src 'self' * blob: data;; style-src 'self' 'unsafe-inline'; child-src 'self' blob: data: mailto;; font-src 'self' data;;</i>	The string used for the Content-Security-Policy HTTP header.

Property	Default Value	Definition
content-security-policy-enabled:	<i>enabled by default</i>	Sends the Content-Security-Policy header in HTTP responses to prevent injection attacks.
x-content-type-options:	nosniff	The string used for the X-Content-Type-Options header for unsecured endpoints.
x-content-type-options-enabled:	<i>enabled by default</i>	Sends the X-Content-Type-Options header in HTTP responses for unsecured endpoints.
x-frame-options:		DEPRECATED: Use content-security-policy with the frame-ancestors directive instead. The string used for the X-Frame-Options HTTP header. A restart is required to pick up changes to this property.
x-frame-options-enabled:		DEPRECATED: Use content-security-policy with the frame-ancestors directive instead. Sends the X-Frame-Options header in HTTP responses. A restart is required to pick up changes to this property.
x-xss-protection:	1; mode=block	The string used for the X-XSS-Protection header for unsecured endpoints. Note: The protections brought by this property are largely superseded by a strong content security policy. It is recommended to use the <i>content-security-policy</i> property and to leave the <i>x-xss-protection</i> as its default value.
x-xss-protection-enabled:	<i>not enabled</i>	Sends the X-XSS-Protection header in HTTP responses for unsecured endpoints. Note: The protections brought by this property are largely superseded by a strong content security policy. It is recommended to use the <i>content-security-policy</i> property and to leave the <i>x-xss-protection-enabled</i> as its default value.

sas.visual-investigator.free-text-search-capability

Property	Default Value	Definition
enabled:	<i>not enabled by default</i>	Enable 'Perform free text searches in Visual Investigator' capability. If this is disabled, the capability will do nothing. When enabling this capability, please add the 'Perform free text searches in Visual Investigator' capability to all user groups who require access to free text searching.

sas.visual-investigator.print-template-feature

Property	Default Value	Definition
enabled:	<i>not enabled by default</i>	Enable the Print Template feature across the application.

SAS Visual Investigator Indexer

SAS Visual Investigator Indexer is a web application for SAS Visual Investigator users, that is accessed through the Investigate and Search interface of the **Show Applications** menu. You can also access the Manage Investigate and Search interface directly with the following url: <https://DeploymentDomain.com/SASVisualInvestigator>. For information, see [SAS Visual Investigator: Administrator's Guide](#).

SAS Visual Investigator includes ["Global Configuration Instances" on page 20](#) and the following default configuration instance:

jvm

Property	Default Value
java_option_gc_1:	-XX:+UseG1GC
java_option_gc_2:	-XX:+DisableExplicitGC
java_option_gc_upgrade:	-XX:+IgnoreUnrecognizedVMOptions
java_option_oracle_jdbc:	-DallowExceptionForInvalidEncodedData=false
java_option_xmx:	-Xmx8g

Property	Default Value
java_option_xss:	-Xss512k

Visual Investigator Alerts Service

Visual Investigator Alerts service includes [“Global Configuration Instances” on page 20](#) and the following default configuration instance:

jvm

Property	Default Value
java_option_add_opens:	--add-opens=java.base/java.util=ALL-UNNAMED
java_option_xmx:	-Xmx4g
java_option_xss:	-Xss384k

Visual Investigator Data Hub Service

Visual Investigator Data Hub service includes [“Global Configuration Instances” on page 20](#) and the following default configuration instance:

jvm

Property	Default Value
java_option_gc_1:	-XX:+UseG1GC
java_option_gc_2:	-XX:+DisableExplicitGC
java_option_gc_3:	-XX:+ParallelRefProcEnabled
java_option_gc_upgrade:	-XX:+IgnoreUnrecognizedVMOptions
java_option_oracle_jdbc:	-DallowExceptionForInvalidEncodedData=false
java_option_xmx:	-Xmx2g

Visual Investigator Document Generator Adapter

Visual Investigator Document Generator Adapter includes [“Global Configuration Instances” on page 20](#) and the following default configuration instances:

jvm

Property	Default Value
java_option_xmx:	-Xmx2g

logging.level: com.sas.fcs.document.generator.adapter

Property	Default Value	Definition
level:*	WARN	Logger level. Possible values are: ALL, DEBUG, ERROR, FATAL, INFO, OFF, TRACE, WARN
name:*	com.sas.fcs.document.generator.adapter	Logger name.

sas.document.generator.adapter

Property	Default Value	Definition
corePoolSize:*	2	The core pool size.
keepAliveSeconds:*	60	The keep alive seconds.
maxPoolSize:*	5	The max pool size.
queueCapacity:*	2,147,483,647	The queue capacity.

Visual Investigator Feature Service

Visual Investigator Feature service includes [“Global Configuration Instances” on page 20](#) and the following default configuration instance:

jvm

Property	Default Value
java_option_xmx:	-Xmx1g

Visual Investigator Network Analysis Service

Visual Investigator Network Analysis service includes [“Global Configuration Instances” on page 20](#) and the following default configuration instance:

jvm

Property	Default Value
java_option_xmx:	-Xmx1g

Visual Investigator Scenario Administration Service

Visual Investigator Scenario Administration service includes [“Global Configuration Instances” on page 20](#) and the following default configuration instance:

jvm

Property	Default Value
java_option_xmx:	-Xmx2g

Visual Investigator Scorecard Service

Visual Investigator Scorecard service includes [“Global Configuration Instances” on page 20](#) and a configurable jvm option.

Visual Investigator Search and Discovery Service

The Visual Investigator Search and Discovery service includes [“Global Configuration Instances” on page 20](#) and the following default configuration instances:

jvm

Property	Default Value
java_option_add_opens:	--add-opens=java.base/java.util=ALL-UNNAMED
java_option_xmx:	-Xmx2g

sas.svi-sand.analysis

Property	Default Value	Definition
analyzersByLocale:	<i>multiple values</i>	The name of the search analyzer to use for each locale. The key must be a BCP47 language tag and the value must be a valid analyzer name, for example, "en": "english". See also "search".
facet:	sand_not_analyzed	The name of the analyzer to use for filtering and facets. "sand_not_analyzed" is case sensitive. "sand_icu_facet" is case insensitive.
icuFilter:	icu_normalizer	The filter to be used when defining the "sand_icu_search" analyzer. "icu_normalizer" converts the tokens to lowercase and their shortest byte representation. "icu_folding" performs character folding in addition to what "icu_normalizer" does.
languageTagsByLocale:	de: de-DE,de-DE-u-co-phonebk	By default, text values are sorted by the system or tenant locale when the "sort" property is set to "sand_icu_sort". This property allows additional or alternative locales to be specified. The key must be a BCP47 language tag and the value must be a comma separated list of BCP47 language tags, for example, "de": "de-DE,de-DE-u-co-phonebk". See also "sort".
maxShingleSize:	2	The maximum number of tokens to include in each ngram generated by the "sand_icu_shingle" analyzer.

Property	Default Value	Definition
minShingleSize:	2	The minimum number of tokens to include in each ngram generated by the "sand_icu_shingle" analyzer.
phoneticEncoder:	metaphone	The encoder to use when defining the "sand_phonetic" analyzer.
search:	sand_icu_search	The name of the analyzer to use for searching when a language specific analyzer cannot be found that matches the system or tenant locale. See also "analyzersByLocale".
sort:	sand_icu_sort	The name of the analyzer to use for sorting. "sand_icu_sort" sorts based on a configurable list of locales. See also "languageTagsByLocale".
synonymsPath:		The path (relative to the OpenSearch config directory) to the text file containing the list of synonyms.

sas.svi-sand.analytics

Property	Default Value	Definition
concurrencyLimit:	10	The maximum number of concurrent analytics processes per svi-sand service. Additional processes will wait for a previous one to finish. Use a value less than or equal to zero to remove the limit.
enableAutoAliasing:	<i>enabled by default</i>	Whether automatic aliasing is enabled for resolved entities.
languagesByLocale:		The languages supported for text analytics. The key must be a BCP47 language tag and the value must be a comma separated list containing the name and native name of the language as well as the SAS product code for license purposes, for example, "de": "German,Deutsch,307", or, "en": "English,English,1138".

Property	Default Value	Definition
minDocCountForSignificantTerms:	0	The minimum number of documents that significant terms are required to appear in. When the value is less than or equal to zero, the minimum is calculated as 10% of the total number of documents up to a value of 5.
phraseAnalyzer:	stop	The name of the analyzer to use for phrase generation. When the "stop" analyzer is selected, a collection of stop words appropriate to the text analytics language will be used. See also "stopWordsByLocale"
phraseBufferSize:	2,000	The maximum number of phrases of each category to keep in memory.
stopWordsByLocale:	Click <i>Add Property</i>	The stop words to use for each locale when the default stop words need to be overridden. The key must be a BCP47 language tag and the value must be a comma separated list of stop words, for example, "en": "a,an,and,are,as,at".
surnamePositionByLocale:		Surname positioning is used in alias detection for resolved entities. This property specifies whether the surname is typically first or last in names for each locale. Last is assumed unless otherwise configured. The key must be a BCP47 language tag and the value must one of: "first" or "last", for example, "en": "last".

sas.svi-sand.data

Property	Default Value	Definition
activityPropertyCharacterLimit:	4,000	The maximum number of characters for a value on an activity property before the value is split into multiple properties. Note: This should never be greater than the "value_txt" column length in

Property	Default Value	Definition
		the table audit.activity_audit_property.
bulkBatchSize:	1,000	The maximum number of operations to include in each bulk request to OpenSearch.
bulkMaxReports:	100	The maximum number of reports to return from a bulk request to OpenSearch.
coercePolygonsEnabled:	<i>enabled by default</i>	Toggle to coerce incomplete loops in GeoJSON Polygons, MultiPolygons and GeoCollections when importing configuration.
deleteBatchExpiryTime:	60	The number of minutes to wait for a delete by query operation to complete.
deleteBatchSize:	10,000	The maximum number of objects to delete in each batch for a delete by query operation.

sas.svi-sand.field

Property	Default Value	Definition
additionalLabelAnalyzers:	standard	A comma separated list of the names of any additional analyzers to apply to the label field (_label). See also "search.textQueryFields".
additionalSearchAnalyzers:		A comma separated list of the names of any additional analyzers to apply to the default search field (_default). See also "search.textQueryFields".
includeInAllFieldTypes:	double,float,integer,keyword,long,text	A comma separated list of the (OpenSearch) types of field whose values will be used to populate the default search field. The default search field facilitates users performing queries without having to specify which fields to search. See also "search.textQueryFields".

sas.svi-sand.init

Property	Default Value	Definition
applicationSettingsCheckInterval Seconds:	5	The number of seconds between each status check when waiting for another instance of this service to load the application settings.
applicationSettingsWaitSeconds:	120	The total number of seconds to wait for another instance of this service to load the application settings.
dataCenterMode:	master	The data center mode determines what aspects of the tenant configuration are refreshed during start up. In "master" mode, all aspects of the tenant configuration are refreshed. In "slave" mode, only the security rules are refreshed. See also "skipSecurityRefresh".
dependencyCheckMaxAttempts:	5	The maximum number of attempts to get a response from one of the dependant services.
dependencyCheckWaitSeconds:	60	The number of seconds to wait between each attempt to get a response from the dependent services.
skipSecurityRefresh:	<i>not enabled by default</i>	Whether to skip the refresh of the security rules during start up. If the refresh is causing a significant impact to start up times, it can be disabled after the first time it succeeds.
taskRecentlyCompletedMinutes:	15	The number of minutes within which a successfully completed task will not be re-run by starting a new instance or restarting an existing instance of the service.

sas.svi-sand.search

Property	Default Value	Definition
childQueryFieldLength:	150	The maximum permitted length for the field name part of a child query.
childQueryLength:	1,600	The maximum permitted length for the query part of a child query.
defaultHighlightingEnabled:	<i>enabled by default</i>	Whether highlighting snippets are enabled for the default search field.
graphEdgeExpansionLimit:	10,000	The maximum number of new vertices that can be encountered before an edge search is cancelled.
graphExpansionLimit:	2,000	The maximum number of new vertices that can be encountered before a vertex search is cancelled.
graphMetricsAggregationLimit:	-1	The aggregation used to exclude highly connected vertices from the metrics calculation is skipped when the number of leaf vertices exceeds this limit. ■ The default value of -1 signifies that the aggregation always runs. ■ A value of 0 signifies that the aggregation never runs. ■ Positive values cause the aggregation to be skipped when the number of leaf nodes is greater than the limit.
graphMetricsLimit:	5,000	The maximum number of new vertices that can be encountered before calculating metrics is cancelled.
maxEdgesScrollSize:	10,000	The maximum number of edges to retrieve for each scroll search.
maxGraphMetricsScrollSize:	10,000	The maximum number of vertices or edges to retrieve for each scroll search when calculating metrics.

Property	Default Value	Definition
maxTextAnalyticsScrollSize:	500	The maximum number of hits to retrieve for each scroll search when building the text analytics corpus.
maxVerticesScrollSize:	5,000	The maximum number of vertices to retrieve for each scroll search.
minEdgesShardSize:	500	The minimum number of edges to retrieve per shard for each scroll search.
minGraphMetricsShardSize:	1,000	The minimum number of vertices or edges to retrieve per shard for each scroll search when calculating metrics.
minTextAnalyticsShardSize:	50	The minimum number of hits to retrieve per shard for each scroll search when building the text analytics corpus.
minVerticesShardSize:	500	The minimum number of vertices to retrieve per shard for each scroll search.
phoneticEnabled:	<i>not enabled by default</i>	Whether phonetic searching is enabled.
synonymEnabled:	<i>not enabled by default</i>	Whether synonym searching is enabled.
textQueryAllFields:	<i>not enabled by default</i>	Whether all fields are searched (as opposed to the list of fields in "textQueryFields") when text queries do not include any field prefixes. See also "textQueryFields".
textQueryFields:	_default,_label.standard	A comma separated list of fields to search when text queries do not include any field prefixes. The . symbol can be used to refer to an additional analyzer e.g. _default.standard. The ^ symbol can be used to boost particular fields e.g. _label^2. See also "textQueryAllFields".
textQueryLeadingWildcardAllowed:	<i>not enabled by default</i>	Whether leading wildcard searching is enabled.

Property	Default Value	Definition
textQueryUseDisMax:	<i>not enabled by default</i>	Whether an OpenSearch dis_max query is used to score multi-field text queries as opposed to a bool query. The bool query will sum the scores of the field queries whereas the dis_max query will pick the maximum score of the field queries.
type:	dfs_query_then_fetch	The search type to use. "dfs_query_then_fetch" provides more accurate scoring. "query_then_fetch" is more efficient but less accurate.

Visual Investigator Transport Service

Visual Investigator Transport service includes [“Global Configuration Instances” on page 20](#) and the following default configuration instance:

jvm

Property	Default Value
java_option_xmx:	-Xmx1g

sas.svi-transport

Note: Modifying one of these property values requires you to restart one or more SAS Viya services.

Property	Default Value	Definition
Import Threads:	5	The number of imports that can be simultaneously processed. This is the total for all tenants combined. Service must be restarted after changing this property.
Maximum import wait time:	3,600,000	The maximum amount of time in milliseconds to wait for another service to import configuration data. Service must be restarted after changing this property.

Property	Default Value	Definition
Maximum retry times:	5	The maximum retry times when there is a service upgrading.
Maximum retry wait time:	20,000	The maximum amount of time in milliseconds to wait when there is a service upgrading.

Configuration Properties: Troubleshooting

Service fails to start

Explanation:

A service might fail to start for many reasons. One error that can cause start failure is if you recently modified a configuration instance on which the service depends, and either the property name is misspelled or its value is incorrect.

Resolution:

Check any recently modified configuration instances, looking for a property misspelling or incorrect value. To do this, from the Configuration window in SAS Environment Manager, choose **Definitions**. Select the name of the configuration definition that you modified and look for any problems.