



SAS[®] Viya[®]: Licensing

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Licensing: Overview

Usage of your SAS software is controlled by a license file.

The license is provided with your deployment assets. Obtain these assets from my.sas.com. When you renew your license, use the **Download Only License** button on my.sas.com to obtain the updated license.

SAS Viya provides the license as a JSON web token file.

During installation, a license is applied to both the CAS in-memory compute engine and the SAS programming run-time environment. Apply a new license to enable new products or to extend expiration dates on existing products.

Licensing: Interfaces

There are several interfaces that you can use to manage and to view SAS license information. The following table lists these interfaces, and the shading indicates the relative amount of SAS license administration that each covers:

Table 1 Interfaces to SAS Viya Licensing

	Command-line interface	(Read-Only) A command-line interface that enables you to query SAS license information.
	SAS Environment Manager	(Read-Only) A graphical enterprise web application used to view SAS license information.

How to Apply a New License

Overview

IMPORTANT Only the administrator of the provider tenant can see the License page.

Applying a new license enables new offerings or extends the expiration date on existing offerings. A **Software License Renewal Confirmation** email is sent to notify you when there is a new license available for an order. The email links to My SAS (my.sas.com), where you can download a new license.

These instructions are for applying the new license without updating the software. If you want to update the software with a patch or version and also apply the new license, see [SAS Viya Operations: Updating Software](#).

The instructions that you need to update your license depends on whether you are using the operator.

Using the SAS Viya Deployment Operator is the recommended method for updating the software. To detect if the operator is in use, see [“Updating and Using the SAS Viya Deployment Operator” in SAS Viya Operations: Updating Software](#).

Note: If you are using the operator, see [“Update Using the Deployment Operator” on page 4](#).

Update Using a Manual Deployment

Note: To perform some elements of this task, you must have elevated Kubernetes permissions.

Be advised that these instructions modify the manifest that is derived from the `kustomization.yaml` file such that the license provided in the initial deployment assets is not applied for subsequent software updates.

IMPORTANT If the `secretGenerator` has a license section in your `kustomization.yaml` file, that license is used regardless of the license included in the deployment assets. Be sure to edit the `kustomization.yaml` file the next time you update the software so that the license provided with updated deployment assets is used.

- 1 From My SAS (my.sas.com), click the order for the deployed software.
 - a Click the **Download** tab. The line above the **Asset Type** table indicates the release cadence and the version of SAS Viya platform software that you will deploy. If you want to deploy a different version, find the listing for that version on the page.
 - b Select **License** from the **Asset Type** table, and then click **Download** to download the license file, which is identified by the `.jwt` extension.
- 2 Save the `.jwt` file in the `$deploy` directory. For more information about the `$deploy` directory, see [“Retrieve Required Files” in SAS Viya: Deployment Guide](#).
- 3 Find the `kustomization.yaml` file most recently used when creating or updating the deployment. It should be located in the `$deploy` directory where the deployment assets were expanded.
 - a If the `secretGenerator` block does not exist in the `kustomization.yaml` file, add the following code immediately before the `configMapGenerator` block:

```
secretGenerator:
- name: sas-license
  type: sas.com/license
  behavior: merge
  files:
  - SAS_LICENSE=new-license-file
```

IMPORTANT Do not keep more than one `secretGenerator` in your `kustomization.yaml` file.

These lines exist in the default `kustomization.yaml`, but are commented out. Uncomment them if required. This file is described in the [Initial kustomization.yaml File](#) topic in *SAS Viya Deployment Guide*.

Note: Never add a second instance of the `secretGenerator` block.

- b If the `secretGenerator` exists in `kustomization.yaml`, and the `sas-license` content is missing, add the preceding lines to `secretGenerator` block. If the block includes `sas-license` content, ensure that it matches the preceding lines.

Note: Do not modify any content outside the `sas-license` content.

- 4 Deploy the software. See [“Deploy the Software” in SAS Viya: Deployment Guide](#).

Update Using the Deployment Operator

Note: The user must have deployed with the operator in order to update the license with the operator.

Note: Applying your license using the SAS Viya Deployment Operator requires an outage for your SAS Viya software. Updating the software as you apply the license requires a longer outage.

IMPORTANT If the `secretGenerator` has a license section in your `kustomization.yaml` file, that license is used regardless of the license included in the deployment assets. Be sure to edit the `kustomization.yaml` file the next time you update the software so that the license provided with the updated deployment assets is used.

IMPORTANT Be sure to check the `kustomization.yaml` file for license information and remove or comment it out. To update the new version manually, see [“Update to a New Version Manually” in SAS Viya Operations: Updating Software](#).

- 1 From My SAS (my.sas.com), click the order for the deployed software.
 - a Click the **Download** tab. The line above the **Asset Type** table indicates the release cadence and the version of SAS Viya platform software that you will deploy. If you want to deploy a different version, find the listing for that version on the page.
 - b Select **License** from the **Asset Type** table, and then click **Download** to download the license file, which is identified by the `.jwt` extension.
- 2 Create the `SASDeployment` custom resource.
 - a To avoid updating your SAS Viya software while applying the license, ensure that the `updatePolicy` field in the custom resource is set to “never” or that the cadence variables are set to the values of the current release. For more information, see [“Manage Updates” in SAS Viya: Deployment Guide](#).
 - b Save the `.jwt` file in the `$license` directory using the same naming strategy that was used with the initial deployment.

IMPORTANT The deployment operator might apply patch updates to your SAS Viya deployment. These updates can potentially cause intermittent outages or longer outages

than the outages that you expect if your SAS Viya deployment is using internal PostgreSQL. To prevent these patch updates from being applied, follow the instructions to create the SASDeployment custom resource in the link below.

- 3 Re-run the command to create the SAS Deployment custom resource as described in “[Create the SASDeployment Custom Resource](#)” in *SAS Viya: Deployment Guide*, ensuring that the license option specifies the name of the new license.
- 4 Apply the custom resource per “[Deployment Using the SAS Viya Deployment Operator](#)” in *SAS Viya: Deployment Guide*.

Licensing: How To View Licenses (SAS Studio)

View SAS Programming Run-Time License Information

- 1 Open a web browser and sign in to SAS Studio with administrator privileges.

Here is an example:

`https://mysasserver.example.com/SASStudio`

- 2 In the programming area, enter the following command:

```
proc setinit; run;
```

- 3 Click .

You should see output similar to the following:

```

1  %studio_hide_wrapper;
77
78  proc setinit;run;
NOTE: PROCEDURE SETINIT used (Total process time):
      real time          0.00 seconds
      cpu time           0.00 seconds

Original site validation data
Current version: V.04.00M0P080520
Site name:      'BUSINESS ANALYTICS SS AT R S'.
Site number:    70180938.
CPU A: Model name='' model number='' serial=''.
CPU B: Model name='' model number='' serial=''.
CPU C: Model name='' model number='' serial=''.
Expiration:     18AUG2021.
Grace Period:   45 days (ending 02OCT2021).
Warning Period: 45 days (ending 16NOV2021).
System birthday: 14AUG2020.
Operating System: LIN X64 .
Product expiration dates:
---Base SAS
Software
18AUG2021 (CPU A)
---SAS/
STAT
18AUG2021 (CPU A)

```

View SAS Cloud Analytic Services License Information

- 1 Open a web browser and sign in to SAS Studio with administrator privileges.

Here is an example:

<https://mysasserver.example.com/SASStudio>

TIP

To obtain license information without running SAS Studio, run the `getLicenseInfo` Action from any CAS programming language client. For more information, see [getLicenseInfo Action](#) in the *SAS Viya: System Programming Guide*.

- 2 In the **Code** tab, enter the following commands:

```
cas casauto;
cas casauto listabout;
```

- 3 Click .

You should see output similar to the following:

```

1  %studio_hide_wrapper;
77
78  cas casauto;
NOTE: The session CASAUTO connected successfully to Cloud Analytic Services
      controller.sas-cas-server-default.chu-ba-ss.svc.cluster.local using port xxxx. The UUID is
      xxxxx-xxxx-xx-xxxx-xxxxxxx. The user is xxxxx and the active caslib is CASUSER(xxxxx).
NOTE: The SAS option SESSREF was updated with the value CASAUTO.
NOTE: The SAS macro _SESSREF_ was updated with the value CASAUTO.
NOTE: The session is using 0 workers.
79  cas casauto listabout;

Section: About
      CAS = Cloud Analytic Services
      Version = 4.00
      VersionLong = V.04.00M0P08052020
      Copyright = Copyright © 2014-2020 SAS Institute Inc. All Rights Reserved.
      ServerTime = 2020-08-26T21:27:58Z

Section: System
      Hostname = controller.sas-cas-server-default.chu-ba-ss.svc.cluster.local
      OS Name = Linux
      OS Family = LIN X64
      OS Release = 3.10.0-957.1.3.el7.x86_64
      OS Version = #1 SMP Thu Nov 29 14:49:43 UTC 2018
      Model Number = x86_64
      Linux Distribution = Red Hat Enterprise Linux release 8.2 (Ootpa)

Section: license
      site = BUSINESS ANALYTICS SS AT R S
      siteNum = 70180938
      expires = 18Aug2021:00:00:00
      gracePeriod = 45
      warningPeriod = 45
      CASHostAccountRequired = OPTIONAL
NOTE: Request to LISTABOUT completed for session CASAUTO.
80
81
82  %studio_hide_wrapper;

```

How To (CLI)

The following examples assume that you have already signed in to SAS Viya at the command line. See [“Command-Line Interface: Preliminary Instructions” in SAS Viya: Using the Command-Line Interface](#).

Example: List site information, which includes the site name, the site number, the operating system name, the release number, the server date, the grace period, and the warning period.

```
sas-viya licenses site-info list
```

Example: List all products in the system whose name contains “Visual Analytics”.

```
sas-viya licenses products list --name-contains "Visual Analytics"
```

Example: List all products in the system that are expired.

```
sas-viya licenses products list --expired
```

Example: List the products in the system that have these identifiers: 827, 921, and 985.

```
sas-viya licenses products list --product-ids 827,921,985
```

Example: List the number of products with a current license that are deployed.

```
sas-viya licenses count --current
```

Example: List the SAS Data Connector products whose licenses are covered within the grace period.

```
sas-viya licenses data-connectors list --grace
```

See Also

[“Command-Line Interface: Overview” in SAS Viya: Using the Command-Line Interface](#)

Licensing: Troubleshooting

Licensed Products page cannot be viewed.

Explanation:

Users without SAS administrator privileges do not have access to the Licensed Products page.

Resolution:

Contact your SAS administrator.