



SAS[®] Viya[®] 3.3 Administration: Licensing

Licensing: Overview

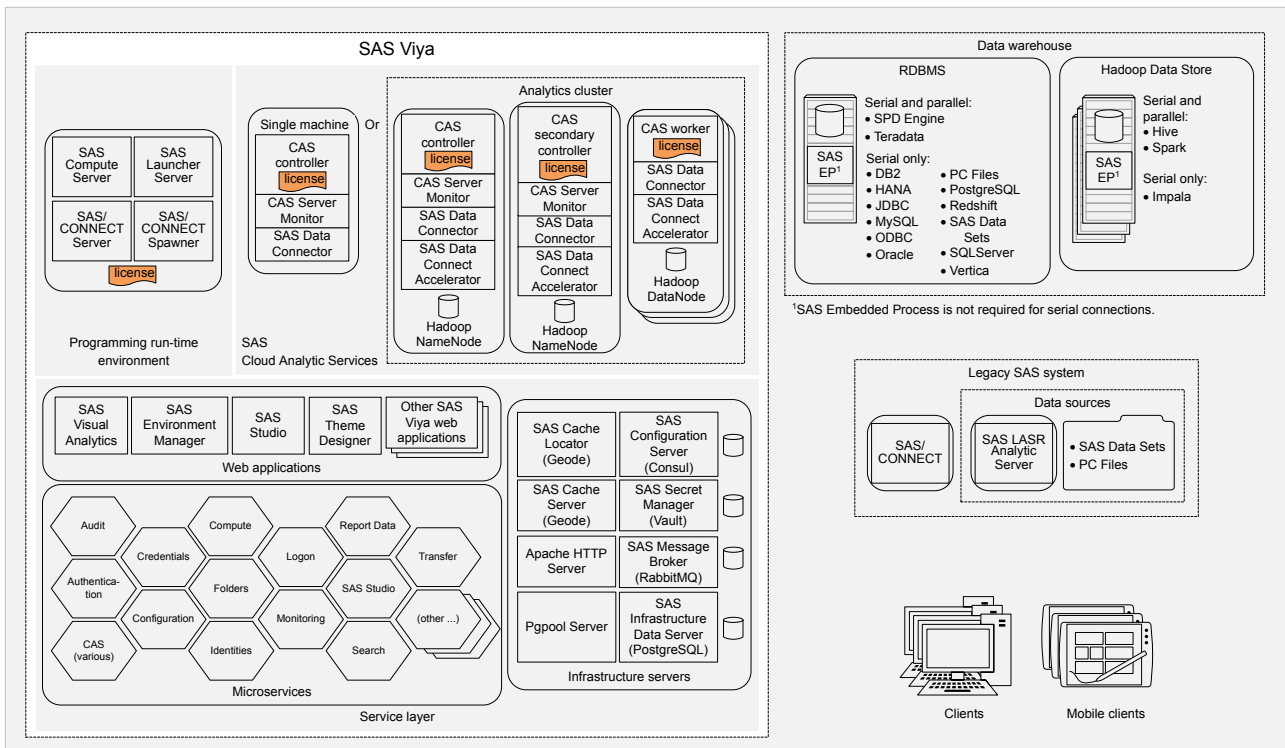
SAS Viya uses a single licensing file. Both SAS Cloud Analytic Services (CAS) and SAS Foundation use the same license.

During installation, a license is applied to both the CAS in-memory compute engine and the SAS Foundation compute engine. You apply a new license to enable new products or to extend expiration dates on existing products.

The following diagram identifies where the license file resides in SAS Viya.

For more information, see [How To on page 3](#).

Figure 1 Where the SAS License File Resides





Licensing: How to (SAS Environment Manager)

Introduction

These instructions explain how to view product license information using [SAS Environment Manager](#).

Navigation

In the applications menu () under **Administration**, select **Manage Environment**. In the navigation bar, click .

The Licensed Products page is an advanced interface. It is available to only SAS Administrators.

Licensed Products Page

Use the Licensed Products page to view and filter license status for one or more SAS products.

For each product, the following icons depict the effective license status:



The SAS license is current.



The SAS license is due for renewal (grace period).

The grace period is a predetermined range of days immediately after the license expiration date.

For example, if the expiration date is 30 June, the grace period might extend 45 days: from 1 July - 14 August.



The SAS license is about to expire (warning period).

The warning period is a predetermined range of days that follows the grace period.

For example, if the expiration date is 30 June, the warning period might extend 56 days: from 15 August - 09 October.



The SAS license has expired.

License expiration occurs immediately after the warning period ends. An expired license means that SAS does not run.

For example, if the warning period ends on 09 October, SAS stops running at 12:00 a.m. on 10 October.

Licensing: How To

View SAS Foundation 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 **Code** tab, enter the following command:

```
proc setinit; run;
```

- 3 Click .

You should see output similar to the following:

```
56      proc setinit;
57
58
59      OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
Original site validation data
Current version: V.03.03M0P040416
Site name:      'smp statistics, ml, data connectors pkg chg 3.30'.
Site number:    70068118.
Expiration:     22MAY2018.
Grace Period:   45 days (ending 06JUL2018).
Warning Period: 56 days (ending 31AUG2018).
System birthday: 24MAR2016.
Operating System:  LIN X64 .
Product expiration dates:
---Base SAS Software          22MAY2018
---SAS/CONNECT                22MAY2018
.
.
.
```

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

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

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

- 3 Click .

You should see output similar to the following:

```
1          OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
72
73          cas casauto;
NOTE: The session CASAUTO connected successfully to Cloud Analytic Services my_host.example.com using port
      5570. The UUID is 00f04dee-41fc-e647-9dcb-b3857f88a662. The user is grraka and the active caslib is
CASUSER(grraka).
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.
74          cas casauto listabout;
      Section: About
      CAS = Cloud Analytic Services
      Version = 3.03
      VersionLong = V.03.03M0P11152017
      Copyright = Copyright © 2014-2017 SAS Institute Inc. All Rights Reserved.
      ServerTime = 2018-04-12T18:40:29Z
      Section: System
      Hostname = my_host
      OS Name = Linux
      OS Family = LIN X64
      OS Release = 3.10.0-327.el7.x86_64
      OS Version = #1 SMP Thu Oct 29 17:29:29 EDT 2015
      Model Number = x86_64
      Linux Distribution = Red Hat Enterprise Linux Server release 7.2 (Maipo)
      Section: license
      site = ZZ-ZZZ-17w47-lax-ML
      siteNum = 12345678
      expires = 12Jul2018:00:00:00
      gracePeriod = 45
      warningPeriod = 45
      maxCPUs = 9999
NOTE: Request to LISTABOUT completed for session CASAUTO.
75
76          OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
89
```

Locate My License File

Your license file resides in the same directory where you have saved and uncompressed the .tgz file, sent to you by SAS.

The license file is named: SASViyaV0300_order-number_Linux_x86-64.txt.

Here is an example: SASViyaV0300_09JNF2_Linux_x86-64.txt.

TIP If your site uses Ansible, the machine on which the license file resides is most likely your Ansible controller.

Apply New Licenses Using Ansible

You apply a new SAS license when your current license has expired, or when you are adding new SAS products to your deployment. If your deployment was performed using Ansible, you can use Ansible to apply a new license. Ansible applies your new license to the CAS controller and also to SAS Foundation.

Note: To add a new license without using Ansible, see [“Apply New Licenses Manually” on page 5](#).

- 1 Move the current license file into a backup location.
- 2 Copy the new license file into your Ansible playbook directory.

For information about where to locate your new license file and how to identify it, see [“Locate My License File” on page 5](#).

- 3 Open `sas_viya_playbook/vars.yml`, locate `LICENSE_FILENAME`, and replace the current license filename with your new license filename.

Here is an example:

```
# The name of the license file on the Ansible machine.
LICENSE_FILENAME: "SASViyaV0300_9BLWC8_Linux_x86-64.txt"
```

- 4 Run the following Ansible command:

```
ansible-playbook apply-license.yml
```

CAS sessions created after you apply the new license automatically update with license information from the new license.

- 5 Verify that your SAS Foundation license has been renewed by following the steps in [“View SAS Foundation License Information” on page 3](#).
- 6 Verify that your SAS Cloud Analytic Services license has been renewed by following the steps in [“View SAS Cloud Analytic Services License Information” on page 4](#).
- 7 Restart the SAS Studio embedded web application server:

```
sudo /etc/init.d/sas-viya-sasstudio-default restart
```

Apply New Licenses Manually

You apply a new SAS license when your current license is about to expire, or when you are adding new SAS products to your deployment. You must apply your license to the CAS controller and also to SAS Foundation.

Note: To add a new license using Ansible, see [“Apply New Licenses Using Ansible” on page 5](#).

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1 Sign in as the SAS Installer user to the machine where SAS Foundation is deployed.

2 Move the current license file into a backup location.

For information about where to locate your current license file and how to identify it, see [“Locate My License File” on page 5](#).

3 SAS recommends that you perform the following steps in case your site decides to use Ansible in the future:

a Copy the new license file into your Ansible playbook directory.

b Modify your Ansible playbook to point to the new license file.

Open `sas_viya_playbook/vars.yml`, locate `LICENSE_FILENAME`, and replace the current license filename with your new license filename.

Here is an example:

```
# The name of the license file on the Ansible machine.  
LICENSE_FILENAME: "SASViyaV0300_09JNF2_Linux_x86-64.txt"
```

4 Run the following command to apply the license to your SAS Foundation software:

```
sudo su -s "/bin/sh" -c  
"/opt/sas/spre/home/SASFoundation/utilities/bin/apply_license  
/path/SASViyaVrelease-number_order-number_Linux_x86-64.txt" sas
```

where *path* is the location where the new license file resides.

Here is an example:

```
sudo su -s "/bin/sh" -c  
"/opt/sas/spre/home/SASFoundation/utilities/bin/apply_license  
/opt/sas/installfiles/SASViyaV0300_09JNF2_Linux_x86-64.txt" sas
```

You receive a message that your license has been applied.

5 Verify that your SAS Foundation license has been renewed by following the steps in [“View SAS Foundation License Information” on page 3](#).

6 Restart the SAS Studio embedded web application server:

```
sudo /etc/init.d/sas-viya-sasstudio-default restart
```

7 Log on as the SAS Installer user to your CAS controller machine.

8 Copy the new license file to your CAS controller machine.

Here is an example:

```
sudo cp /opt/sas/installfiles/SASViyaV0303_09JNF2_Linux_x86-64.txt  
/opt/sas/viya/config/etc/cas/default/
```

9 Update the symbolic link for `/opt/sas/viya/config/etc/cas/default/sas_license.txt` to point to the new CAS license file.

Here is an example:

```
cd /opt/sas/viya/config/etc/cas/default  
ln -sf SASViyaV0303_09JNF2_Linux_x86-64.txt sas_license.txt
```

CAS sessions created after you apply the new license automatically update with information from the new license file.

10 If you have a distributed CAS server, repeat [Step 7](#) – [Step 9](#) for each CAS worker node machine.

- 11 If you have deployed a CAS backup controller (also referred to as a secondary controller), then perform [Step 8 – Step 9](#) on your backup controller machine.
- 12 Verify that your SAS Cloud Analytic Services license has been renewed by following the steps in [“View SAS Cloud Analytic Services License Information”](#) on page 4.

Licensing: Troubleshooting

Licensed Products page cannot be viewed.

Explanation:

Users without SAS administrator privileges and intra-tenant administrators do not have access to the Licensed Products page.

Resolution:

Contact your SAS administrator.

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

●	Ansible	A software orchestration tool that provides the only interface for renewing a license.
●	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.
●	CAS Server Monitor	(Read-Only) A graphical web application that is embedded in the CAS server. Used to view CAS license information.

