SAS® Visual Analytics 7.3

Getting Started with Data on Windows

SAS® Documentation

The correct bibliographic citation for this manual is as follows: SAS Institute Inc. 2015. *SAS® Visual Analytics 7.3: Getting Started with Data on Windows*. Cary, NC: SAS Institute Inc.

SAS® Visual Analytics 7.3: Getting Started with Data on Windows

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August 2015

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Using This Book

Audience

This book helps you provide data for reports and explorations. It is for an on-premises deployment of SAS Visual Analytics 7.3 on Windows, with a non-distributed SAS LASR Analytic Server. Differences in feature support in the 7.1 and 7.2 releases of SAS Visual Analytics are noted.

This book provides prescriptive guidance and omits advanced features and special cases. The instructions use general-purpose SAS resources. For example, data is loaded to the general-purpose LASR library, Visual Analytics Public LASR, which is preconfigured for maximum availability and ease of use.

You can use this book as a complement to *SAS Visual Analytics: Getting Started with Exploration and Reporting* or as a supplement to *SAS Visual Analytics: User's Guide*. See the SAS Visual Analytics documentation page at support.sas.com.

Key Terms

This book makes specialized use of the following terms:

delimited file	a text file that contains data that is separated by commas, tabs, or custom delimiters. Autoload support for custom-delimited files and tab-delimited files begins in the 7.2 release.
LASR	the SAS in-memory analytic and data functionality that SAS Visual Analytics uses. LASR is an adjective. LASR is not an acronym.
SAS data set	a table that is in the SAS7BDAT file format.
server	a non-distributed SAS LASR Analytic Server. The term refers to a software process, not a machine or other computer hardware.
spreadsheet	Microsoft Excel Workbook (XLSX, XLSM, and XLSB) files and Microsoft Excel 97-2003 Workbook (XLS) files. Autoload support for XLSB and XLSM files begins in the 7.2 release.

1

Orientation

Overview of Tasks for Providing Data 1
Availability Cycle: Methods by Data Type 2
Acquire or Verify Your Windows Privileges 3
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Overview of Tasks for Providing Data

Task	Details
Acquire privileges.	Providing data involves interacting with your Windows operating system and your SAS resources. Before you can provide data, you must have certain privileges in each environment.
Make data available.	Your data is not directly used in reports and explorations. Instead, you load a copy of your data to memory in the server. In-memory data (in the form of LASR tables) is the only data source for reports and explorations. Here are the basic load methods: import — point and click to create LASR tables from any supported type of data. autoload — schedule a recurring process to create LASR tables from your spreadsheets, delimited files, and SAS data sets.
Keep data available.	A LASR table is an in-memory copy of your data, so data availability is interrupted if someone unloads a LASR table or stops the server. To keep data available, ensure that unloaded LASR tables are reloaded in a reasonable amount of time. Here are the reload methods: manual reload — for tables that were imported from a server. After you point and click in SAS Visual Analytics Administrator, the data is available again. reload-on-start — for tables that were imported as local files or from Facebook, Google Analytics, or Twitter. After the server restarts, the data is available again. autoload — for tables that were autoloaded. After a specified time interval elapses, the data is available again. Autoload requires additional setup.

To reliably provide data, you manage the following cycle of data availability:

```
initial load → unload ⇄ reload
```

First, new data is made available through import or autoload. When LASR tables are unloaded (because the server stops or someone manually unloads a LASR table), the data is unavailable. After a manual or automatic reload, the data becomes available again. The unload-reload sequence occurs repeatedly.

Availability Cycle: Methods by Data Type

Data Type	Cycle of Data Availability
SAS data set	`import local → unload ⇄ reload-on-start`
	`import server → unload ⇄ manual reload`
	`autoload → unload ⇄ autoload`
Delimited file or spreadsheet	`import local → unload ⇄ reload-on-start`
	`autoload → unload ⇄ autoload`
Database table	`import server → unload ⇄ manual reload`
Google Analytics, Twitter, or Facebook	`import other → unload ⇄ reload-on-start`

For each spreadsheet, delimited file, or SAS data set, you have a choice of methods. The suggested practice is to use the *import local* method whenever possible. With *import local*, data reloads when the server restarts. No additional configuration is necessary. If you can't access your data from your web browser, or your files are too big to upload through your web browser, the suggested practices are as follows:

- For SAS data sets, use the *import server* method (in the 7.2 release) or autoload (in earlier releases).
- For spreadsheets and delimited files that are not accessible from your web browser, use autoload.
- For spreadsheets and delimited files that are larger than 4 GB, convert it to ZIP format and import it as a local text file. If the ZIP file is larger than 4 GB, use autoload.

To update a LASR table that was created using *import local*, you must import the data again. Reload-on-start does not reflect updates to your original data. Reload-on-start retrieves a backing store copy of your original data. The copy is created during import.

Note: Manual reload does reflect updates to your original data. To retrieve your data from its original location, manual reload uses a job or query (a set of instructions that are created during import).

Note: Reload-on-start support for Facebook and Google Analytics begins in the 7.2 release.

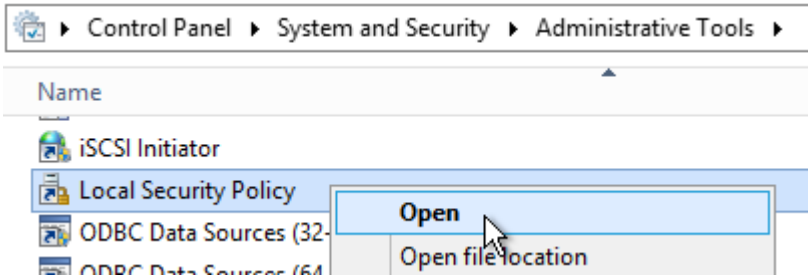
Note: For supported databases, see "Import a Database Table" in the 7.1, 7.2, or 7.3 edition of the *SAS Visual Analytics: User's Guide*.

Acquire or Verify Your Windows Privileges

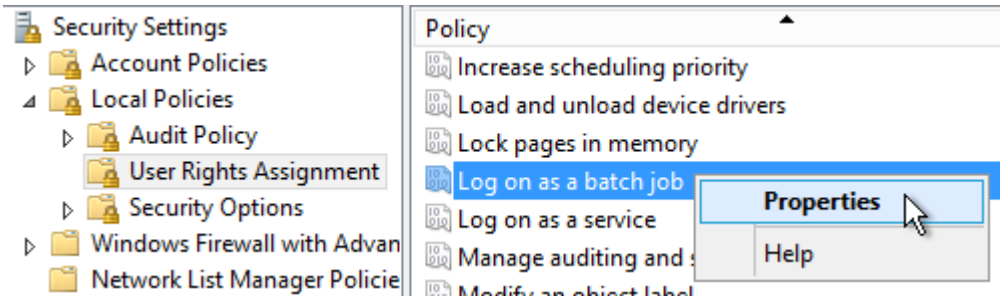
1. On your SAS Visual Analytics computer, navigate to **Start** ▶ **Control Panel** ▶ **System and Security** ▶ **Administrative Tools**.

2. Right-click **Local Security Policy**, and select **Open**.

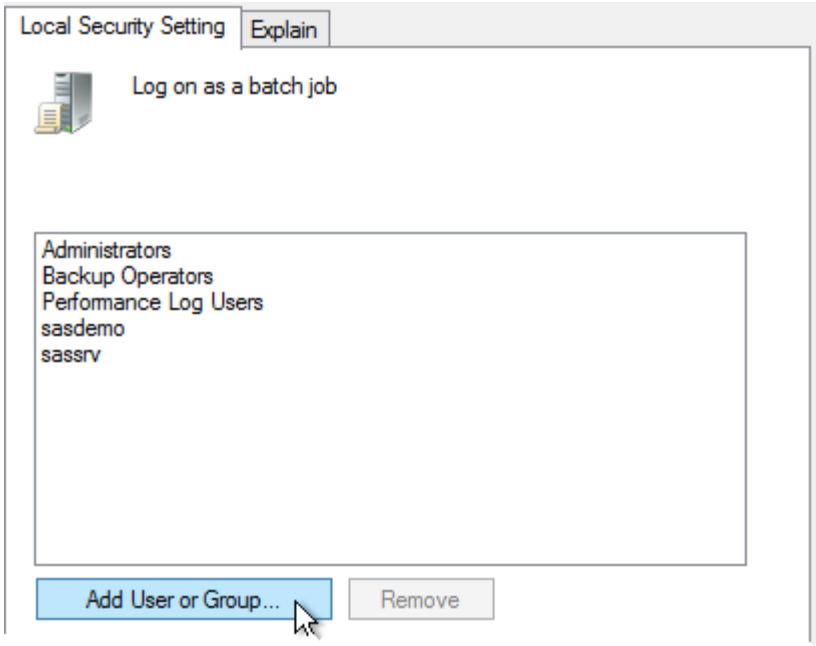
   Note: If you cannot open **Local Security Policy**, ask your Windows system administrator for assistance.



3. In the **Local Security Policy** window, expand **Local Policies**, and select **User Rights Assignment**. On the right, right-click **Log on as a batch job**, and select **Properties**.



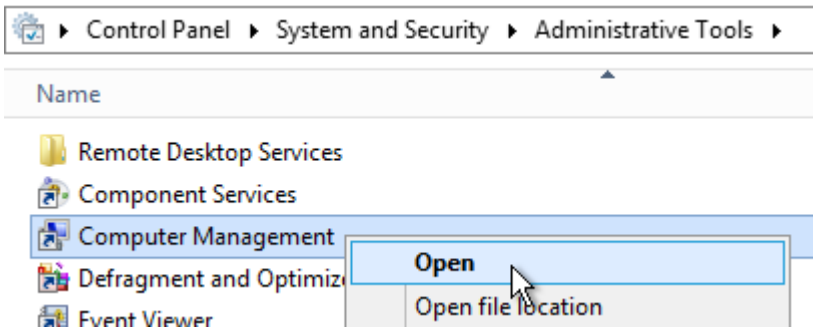
4. If neither your Windows user ID nor **SAS Server Users** is listed in the Log on as a batch job Properties window, add yourself to the list. To make the change take effect, log off, and then log back on.



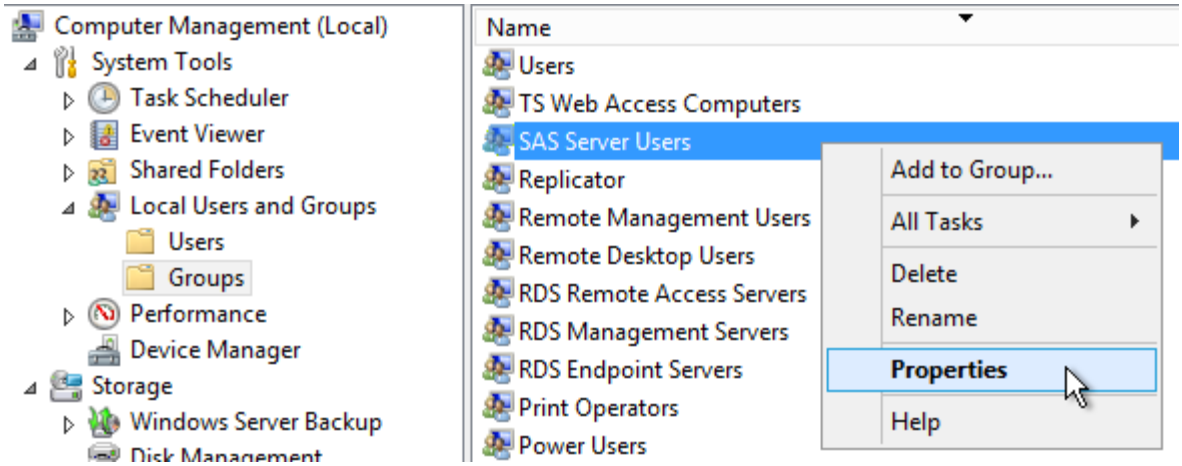
5. If your Windows user ID is listed in the Log on as a batch job Properties window, no action is needed.

6. If the **SAS Server Users** group is listed in the Log on as a batch job Properties window, make sure that you are a member of that group:

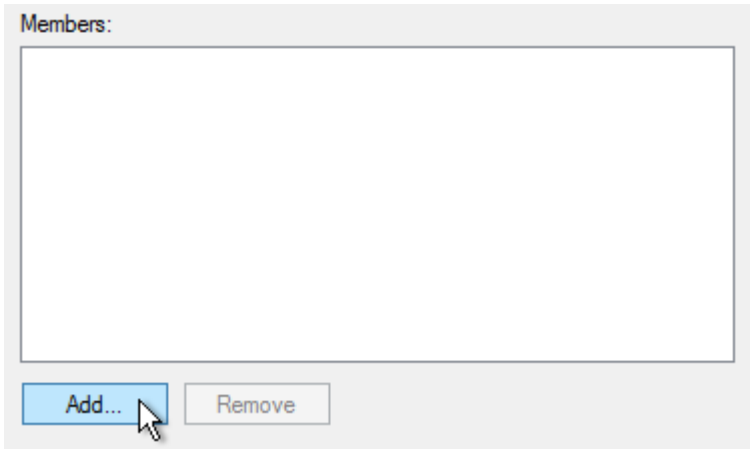
   a. Under **Control Panel** ▸ **System and Security** ▸ **Administrative Tools**, right-click **Computer Management**, and select **Open**.



b. Expand **Local Users and Groups**, and select **Groups**. Right-click **SAS Server Users**, and select **Properties**.



c. In the SAS Server Users Properties window, add yourself as a member if your Windows user ID is not already listed. To make the change take effect, log off, and then log back on.



7. Make sure that you have Read and Write access to your equivalent of the following directories:

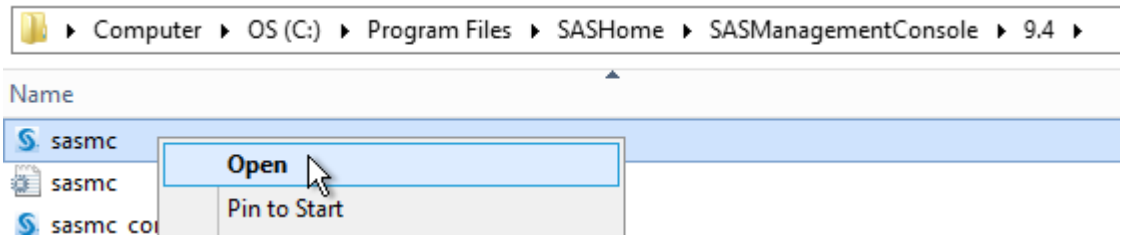
```
C:\SAS\Config\Lev1\...
...AppData\SASVisualAnalytics\VisualAnalyticsAdministrator\sigfiles
...Applications\SASVisualAnalytics\VisualAnalyticsAdministrator\Monitoring
...Applications\SASVisualAnalytics\VisualAnalyticsAdministrator\Monitoring\Logs
...Applications\SASVisualAnalytics\VisualAnalyticsAdministrator\Monitoring\PIDs
```

Acquire or Verify Your SAS Privileges

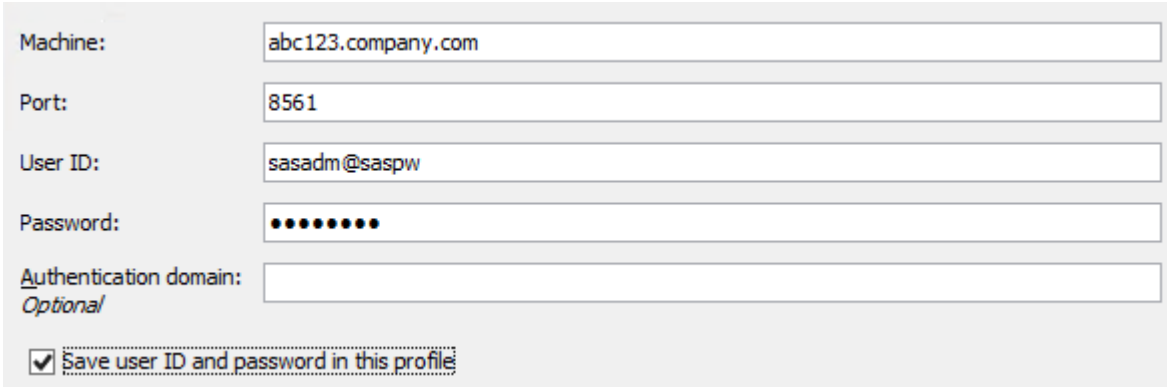
1. On your SAS Visual Analytics computer, navigate to your equivalent of the following directory:

```
C:\Program Files\SASHome\SASManagementConsole\9.4
```

2. Right-click sasmc.exe, and select **Open**.

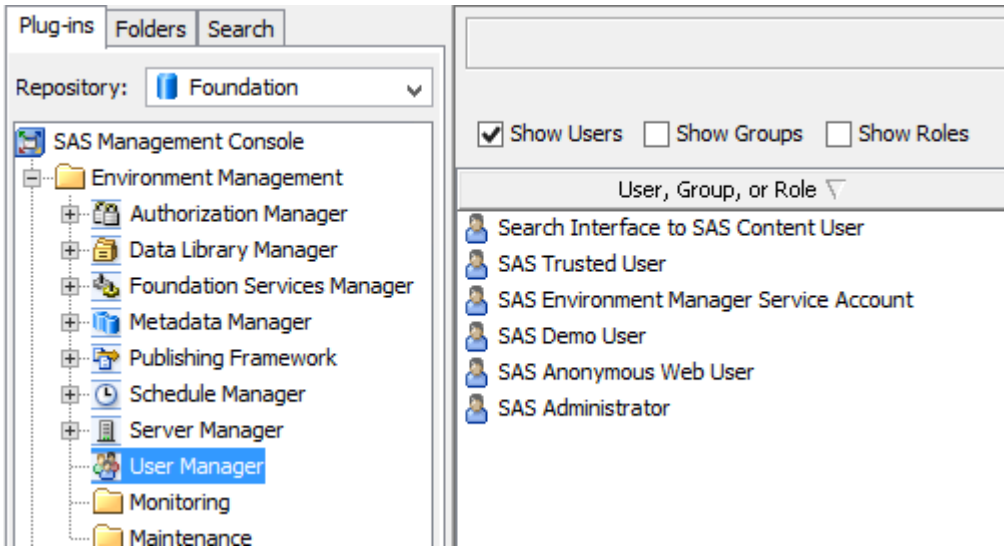


3. Log on to SAS Management Console as the SAS Administrator. Here is an example of the necessary connection information:

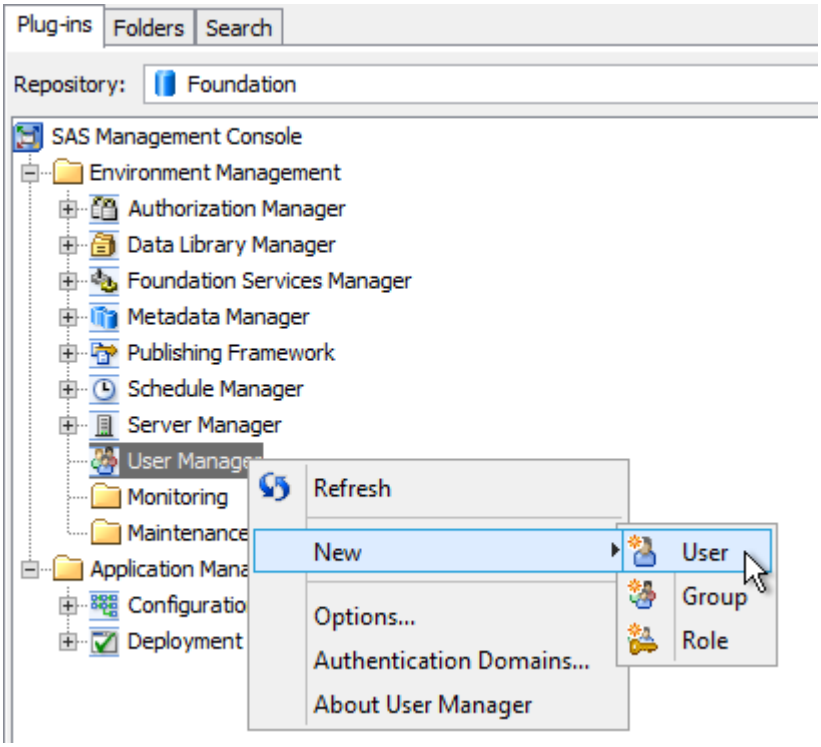


4. On the **Plug-ins** tab, select **User Manager**.

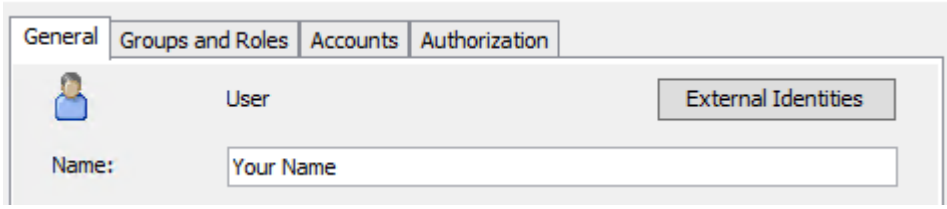
5. On the right, clear the **Show Groups** and **Show Roles** check boxes.
   - If you are not listed, go to the next step.
   - If you are listed, double-click your name, and make sure that your properties are as described in the remaining steps. No further action is needed.



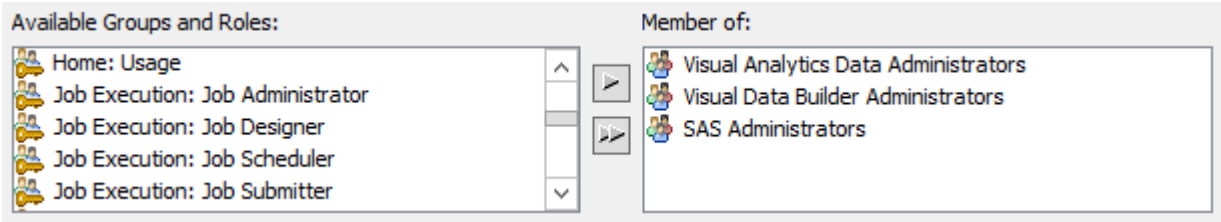
6. On the **Plug-ins** tab, right-click **User Manager**, and select **New** ▸ **User**.



7. On the **General** tab, enter your name.



8. On the **Groups and Roles** tab, move the **Visual Analytics Data Administrators**, **Visual Data Builder Administrators**, and **SAS Administrators** groups to the **Member of** list.



Note: For the purpose of this book, the **Visual Analytics Data Administrators** group provides all necessary SAS privileges. The other group memberships are optional.

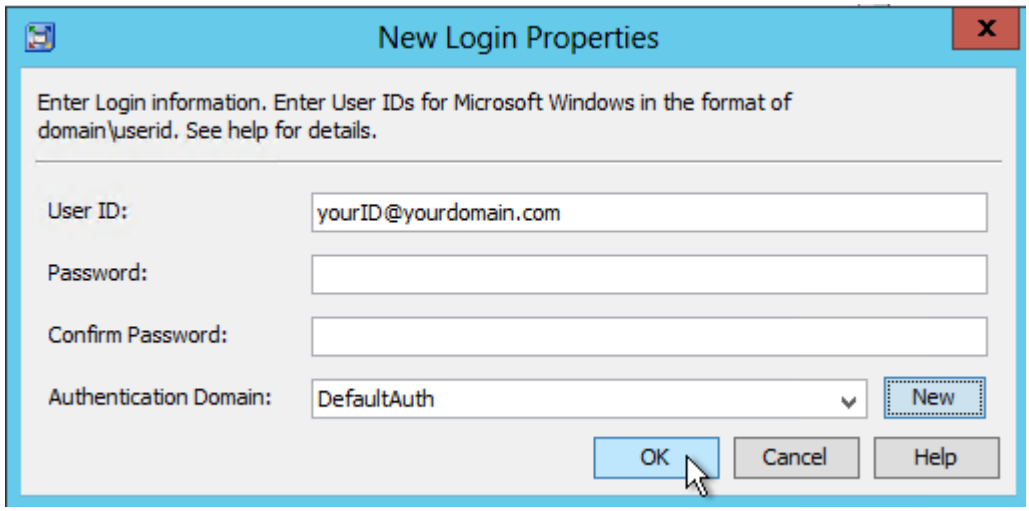
9. On the **Accounts** tab, click **New** to add a login.

   a. Enter your Windows user ID in its fully qualified format (*userID@domain.extension*, *domain\userID*, or *machine\userID*).

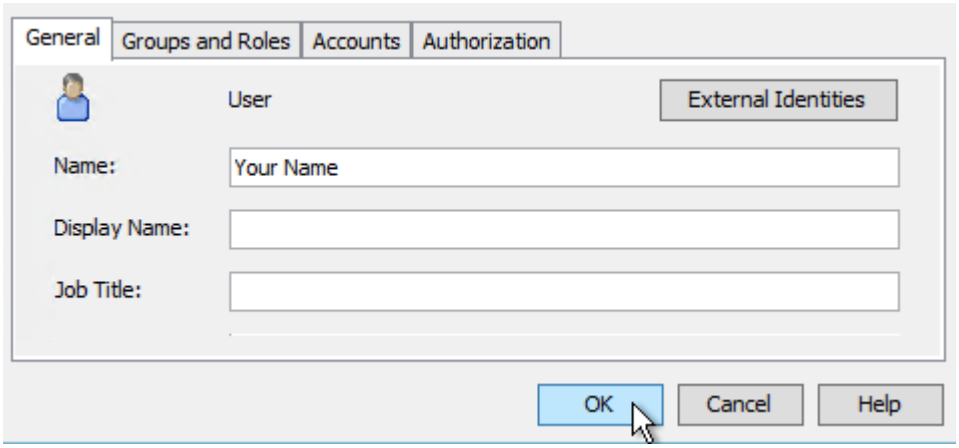
   b. Do not enter a password.

   c. Select the **DefaultAuth** authentication domain.

d. In the New Login Properties window, click **OK**.



10. In the New User Properties window, click **OK**.



2

Demonstrations

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Prepare

This chapter demonstrates three examples of the availability cycle. Each example consists of a task sequence that includes a load action (import a local file, import from a server, or autoload), a manual unload action, and a reload action. Here are some important details:

- For the purpose of demonstration, each task sequence begins with the server stopped. In practice, you do not stop the server before your load data.
- For maximum availability and ease of use, the task sequences use default, general-purpose output locations.

To get started, complete the following steps:

1 Open a web browser to your equivalent of the following URL:

http://*your.computer.name*/SASVisualAnalyticsAdministrator

For your exact URL, open the file Instructions.html, and search for `SAS Visual Analytics Administrator`. This file is in your equivalent of the directory `C:\SAS\Config\Lev1\Documents\`.

2 In the **Sign In to SAS** window, enter the user ID and password for your Windows account. Click **SIGN IN**.

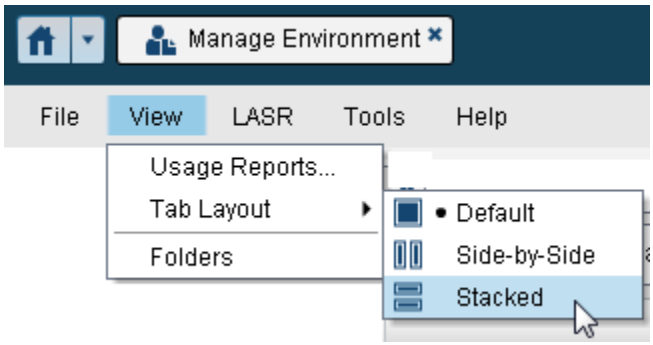
> **TIP** Do not sign in using an internal account, such as sasadm@saspw. Internal accounts cannot perform tasks that interact with Windows resources.

3 Set up the suggested display.

a If the **LASR Servers** tab is not already open, select **LASR** ▸ **Manage Servers** from the main menu.

b If the **LASR Tables** tab is not already displayed, select **LASR** ▸ **Manage Tables** from the main menu.

c From the main menu, select **View** ▸ **Tab Layout** ▸ **Stacked**.



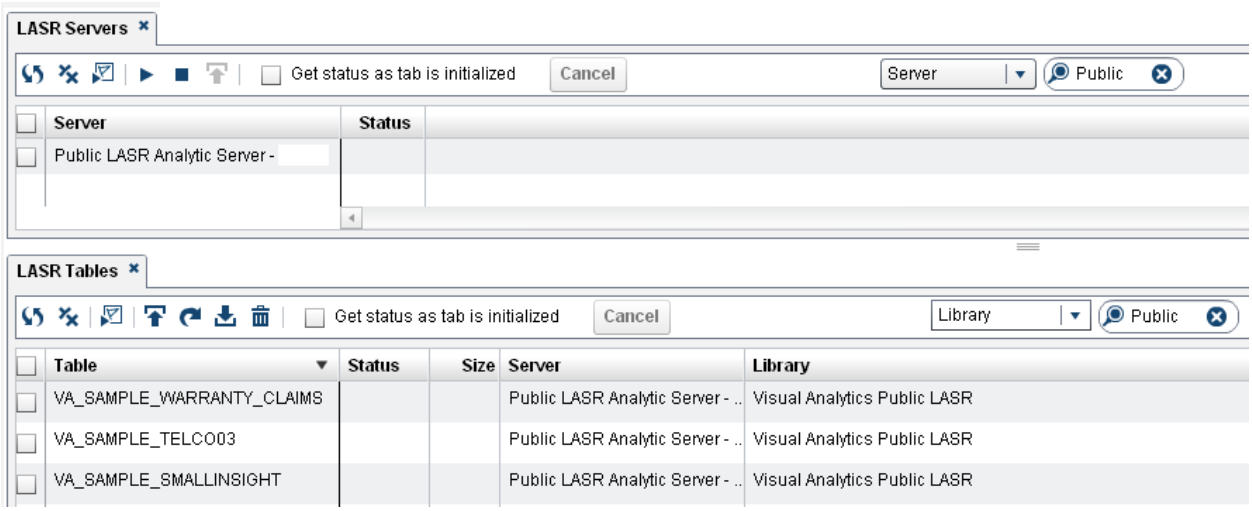
d Filter the **LASR Tables** tab. Select **Library** from the drop-down list, and then enter `Public` in the search field.

e If you have a lot of servers, filter the **LASR Servers** tab. Select **Server** from the drop-down list, and then enter `Public` in the search field.

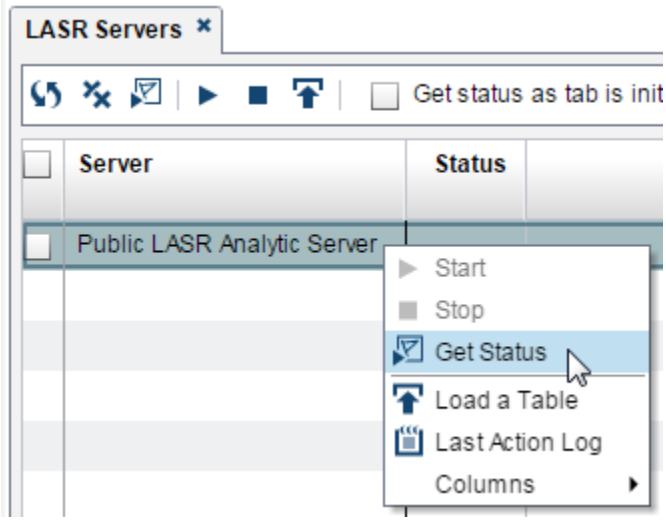
f (Optional) Size, hide, and reorder columns on the **LASR Servers** and **LASR Tables** tabs. To hide or show columns, right-click on any column heading.

Note: Support for hiding columns and remembering your changes begins in the 7.2 release.

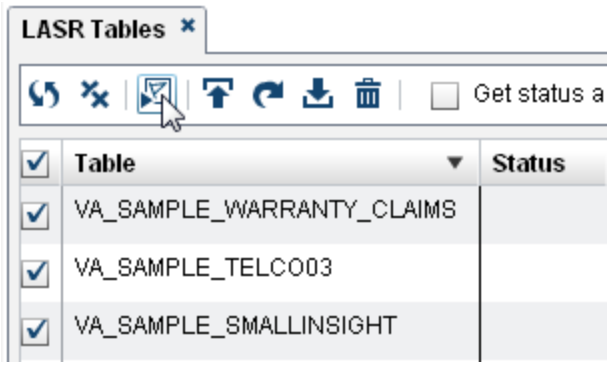
Here is an example of the suggested display:



4 On the **LASR Servers** tab, right-click **Public LASR Analytic Server**, and select **Get Status**.

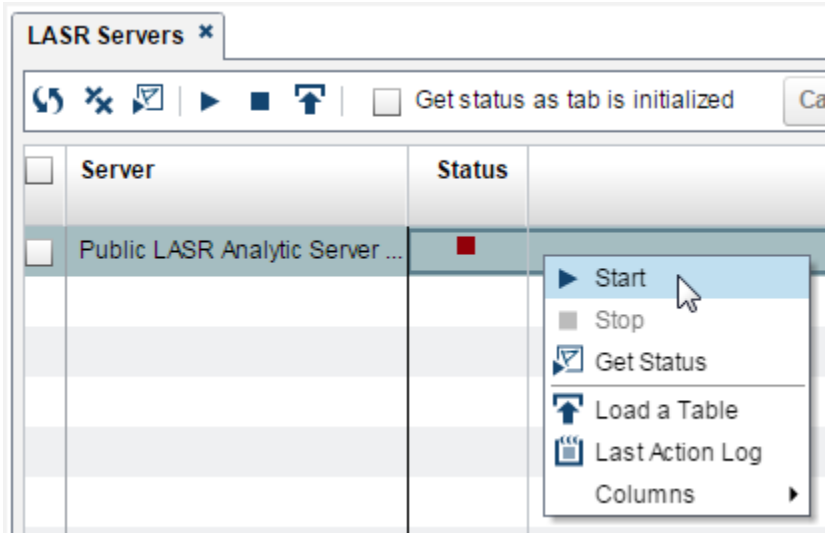


5 On the **LASR Tables** tab, select the check box at the top of the first column. Make sure that all listed tables have a checked check box, and then click .



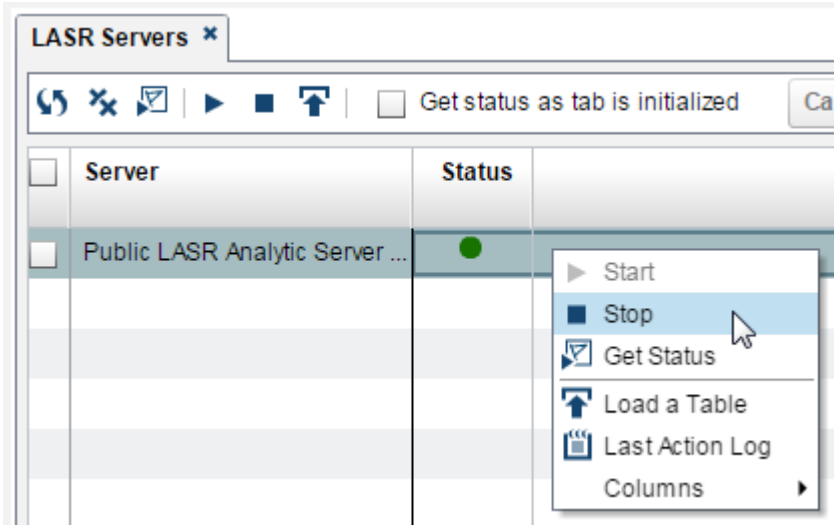
6 Verify that you can start and stop the **Public LASR Analytic Server**.

a If the **Public LASR Analytic Server** is not running, right-click on it, and select **Start**.



b Right-click **Public LASR Analytic Server**, and select **Stop**.

CAUTION! Stopping the server unloads all tables. Stop the server only at a time when other users will not be disrupted.



Cycle for Locally Imported Data

1 On your computer, create a text file named demoLocalCars.txt with the following content:

```
make,model,quantity
ford,fusion,232323
toyota,camry,454545
```

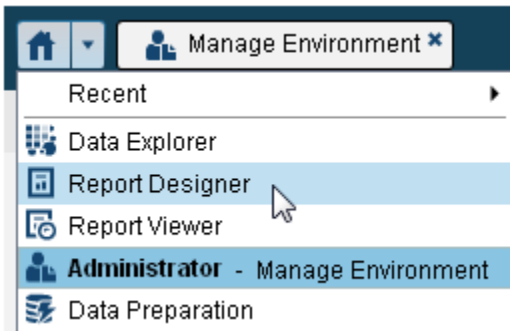
2 In SAS Visual Analytics Administrator, set up the suggested display.

3 If the **Public LASR Analytic Server** is running, right-click on it, and select **Stop**.

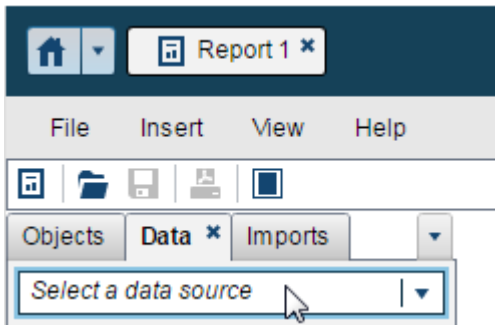
CAUTION! Stopping the server unloads all tables. Stop the server only at a time when other users will not be disrupted.

4 Import a local file.

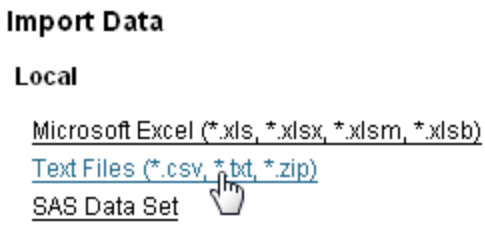
a From the drop-down list in the banner, select **Report Designer** to switch to SAS Visual Analytics Designer.



b On the **Data** tab, click **Select a data source**.

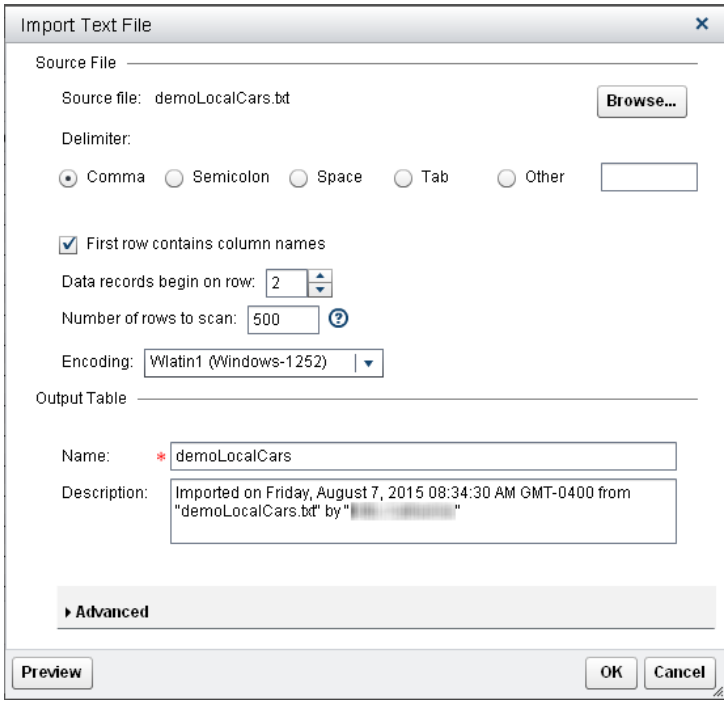


c In the **Import Data** panel, click **Text Files**.



d Select the demoLocalCars.txt file that you created in step 1. Click **Open**.

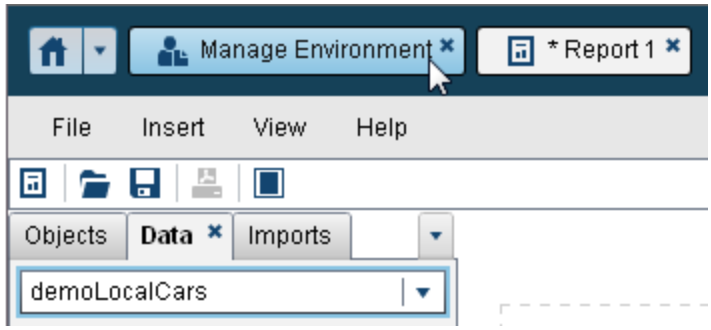
e In the Import Text File window, click **OK**.



Note: When the import is completed, the **Data** tab is populated.

5 Review the results.

a To switch back to SAS Visual Analytics Administrator, click **Manage Environment** in the banner.



b On the **LASR Servers** tab, select **Public LASR Analytic Server**, right-click, and select **Get Status**. Notice that the server is running. The import request triggered the server to start.

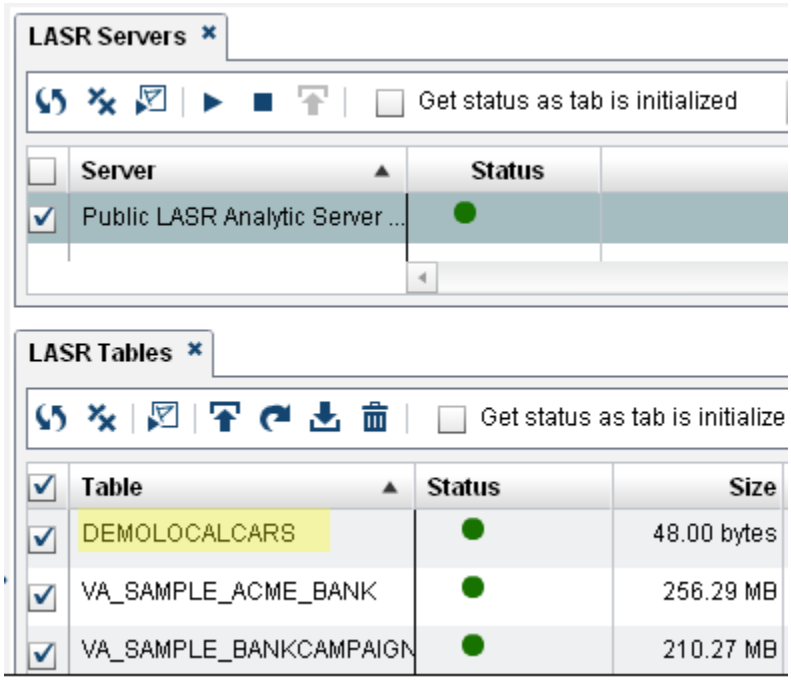
> **TIP** The associated LASR library, Visual Analytics Public LASR, is preconfigured to autostart on demand for requests to import, load, or reload data.

c On the **LASR Tables** tab, click . Notice that the new table **DEMOLOCALCARS** is listed.

d On the **LASR Tables** tab, make sure that all check boxes are selected, and then click . Notice that any tables that participate in reload-on-start are available again.

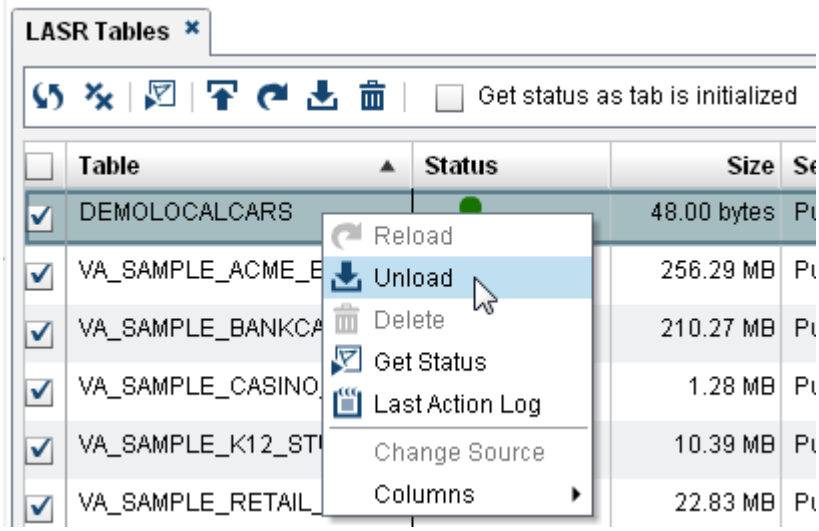
> **TIP** The associated LASR library, Visual Analytics Public LASR, is preconfigured to support reload-on-start.

Here is a depiction of the results:

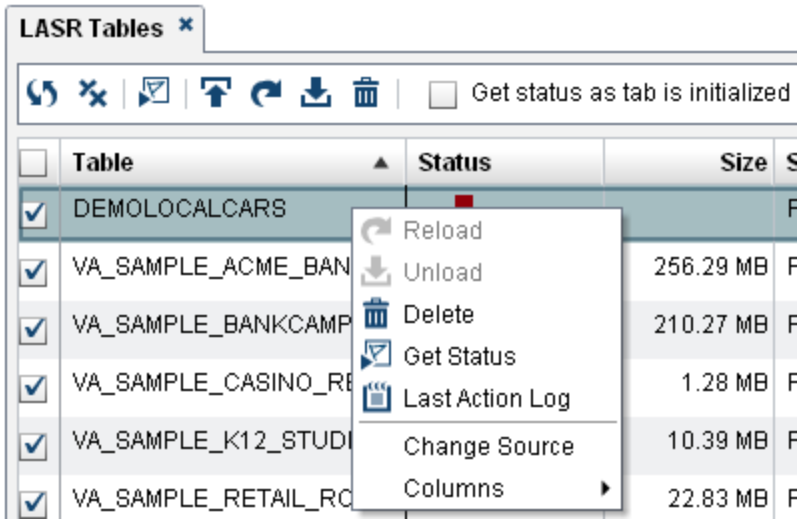


6 Examine reload behavior.

a On the **LASR Tables** tab, right-click **DEMOLOCALCARS**, and select **Unload**.

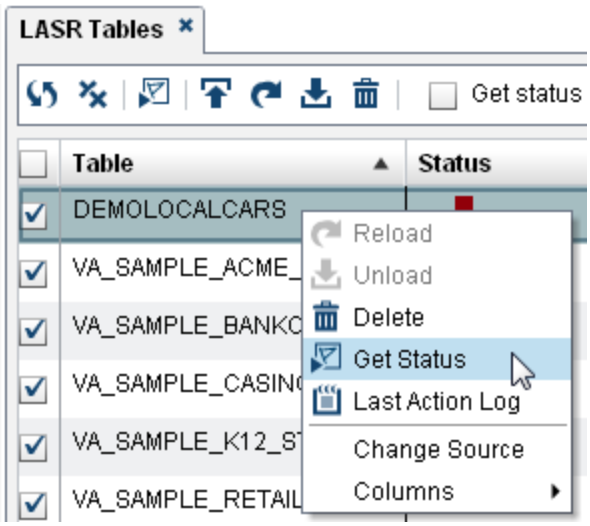


b Right-click **DEMOLOCALCARS** again. Notice that you cannot reload the table manually.

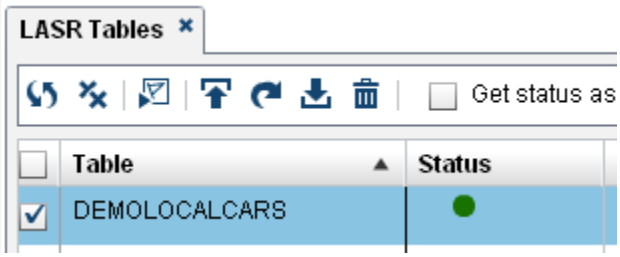


c On the **LASR Servers** tab, stop, and then start the **Public LASR Analytic Server**.

d On the **LASR Tables** tab, right-click **DEMOLOCALCARS**, and select **Get Status**.



e Notice that the table reloaded after you restarted the server.



Note: If a lot of tables are being reloaded, there might be a slight delay.

TIP For more information, see "Importing Local Data Files" in the 7.1, 7.2, or 7.3 edition of the *SAS Visual Analytics: User's Guide*.

Cycle for Data from a Server

1 In SAS Visual Analytics Administrator, set up the suggested display.

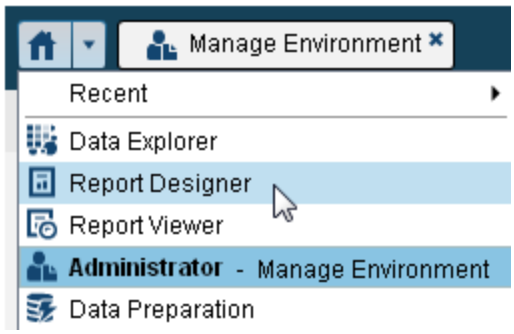
2 If the **Public LASR Analytic Server** is running, right-click on it, and select **Stop**.

CAUTION! Stopping the server unloads all tables. Stop the server only at a time when other users will not be disrupted.

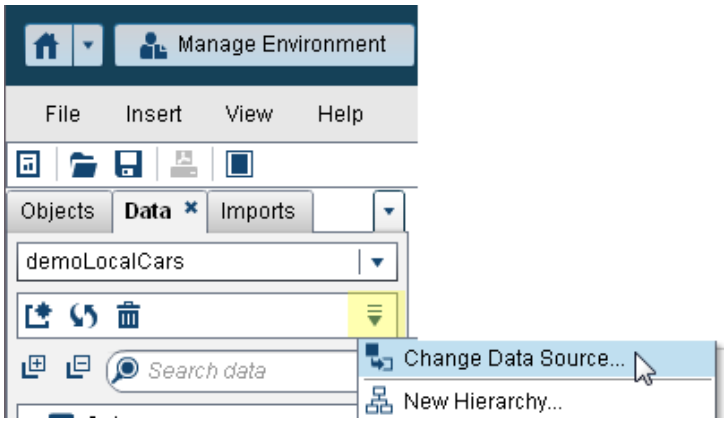
3 Import a SAS data set from a server.

a In the SAS Visual Analytics Administrator banner, click a report to switch to SAS Visual Analytics Designer.

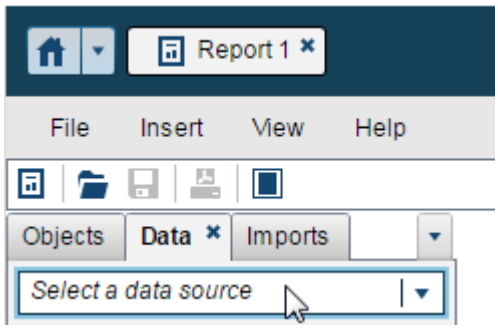
Or, select **Report Designer** from the drop-down list in the banner.



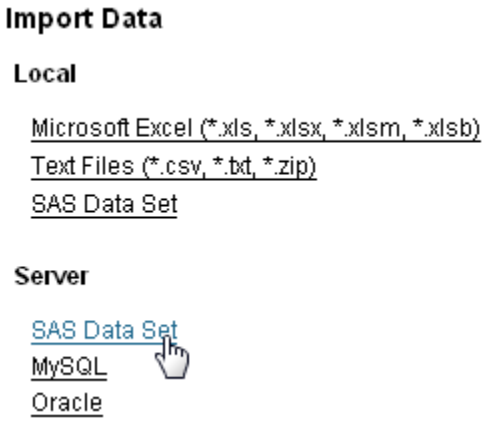
b On the **Data** tab, select **Change Data Source** from the drop-down list in the toolbar.



Or, click **Select a data source**.



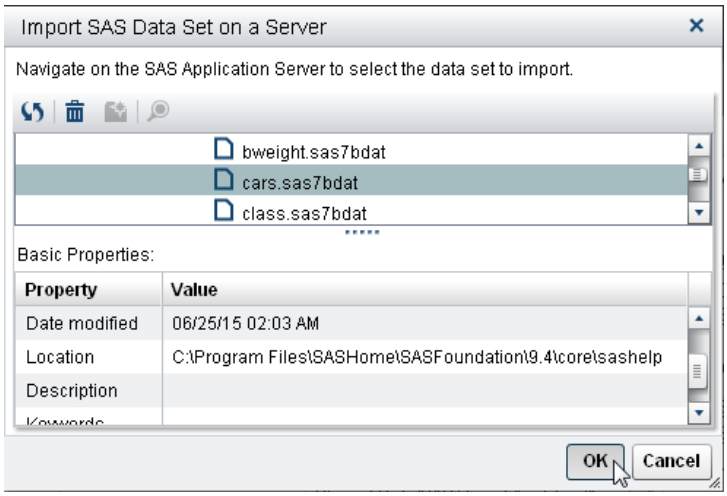
c In the **Server** section of the **Import Data** panel, click **SAS Data Set**.



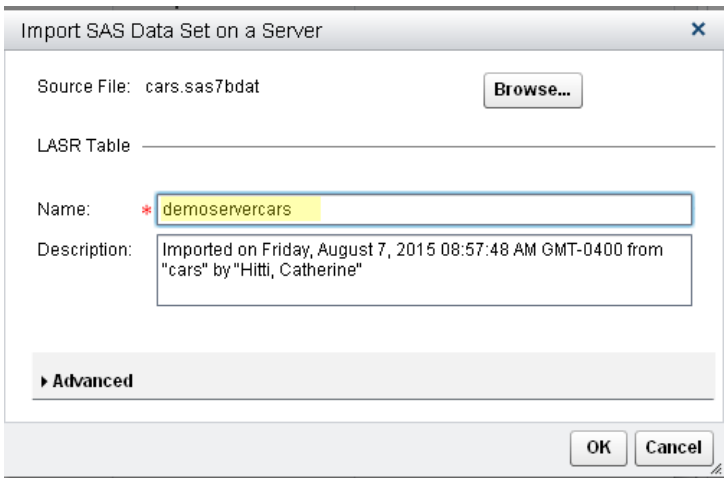
d In the Import SAS Data Set on a Server window, select cars.sas7bdat. Click **OK**.

The data set is on the SAS Application Server machine in your equivalent of the following directory:

```
C:\Program Files\SASHome\SASFoundation\9.4\core\sashelp
```



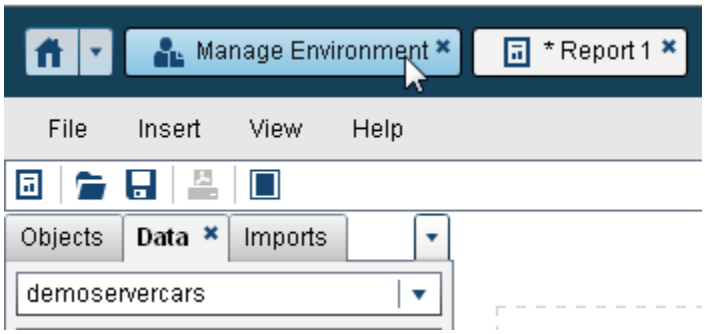
e In the **LASR Table** section, change the name of the output table to `demoservercars`. Click **OK**.



Note: When the import is completed, the **Data** tab is populated.

4 Review the results.

a To switch back to SAS Visual Analytics Administrator, click **Manage Environment** in the banner.

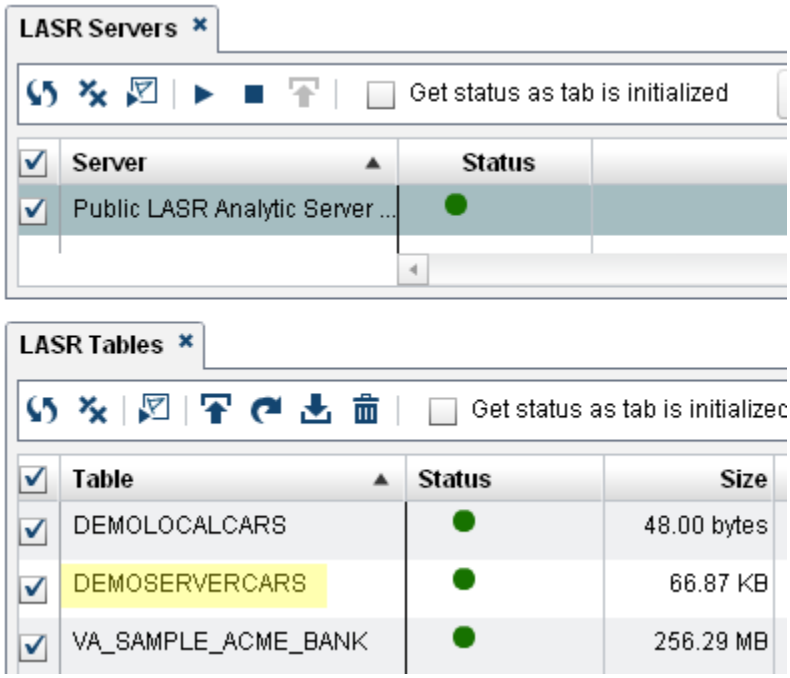


b On the **LASR Servers** tab, select **Public LASR Analytic Server**, right-click, and select **Get Status**. Notice that the server is running. The import request triggered the server to start.

c On the **LASR Tables** tab, click . Notice that the new table **DEMOSERVERCARS** is listed.

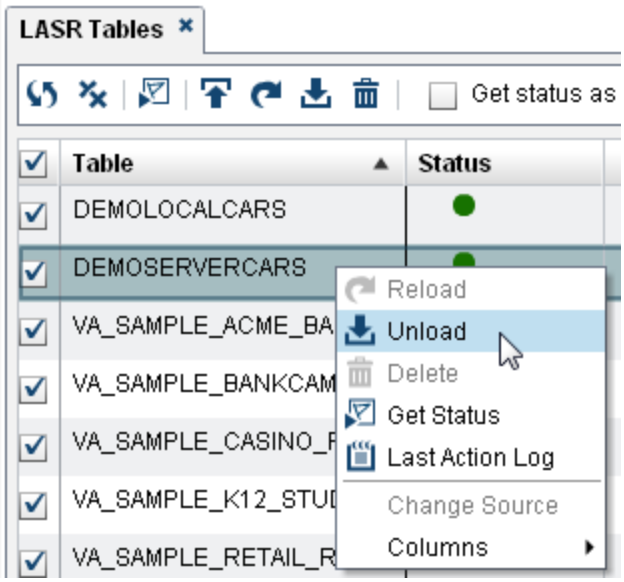
d On the **LASR Tables** tab, make sure that all check boxes are selected, and then click . Notice that any tables that participate in reload-on-start are reloaded.

Here is a depiction of the results:

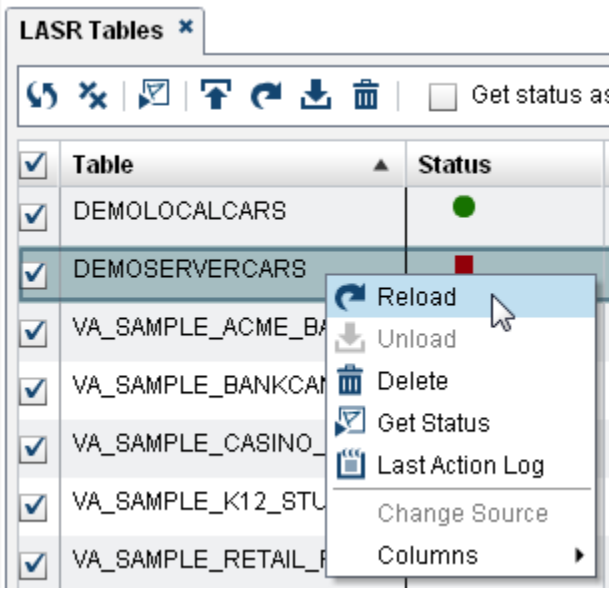


5 Examine reload behavior.

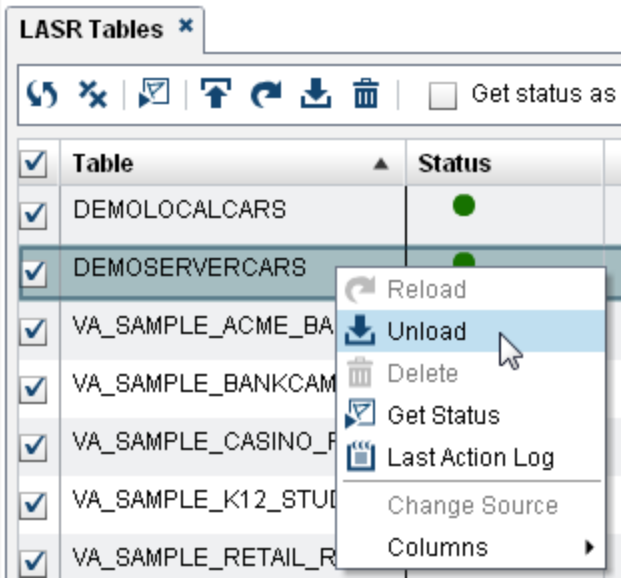
a On the **LASR Tables** tab, right-click **DEMOSERVERCARS**, and select **Unload**.



b Right-click **DEMOSERVERCARS** again. Notice that you can reload the table manually. Reload the table.



c Right-click **DEMOSERVERCARS** again. Unload the table.



d On the **LASR Servers** tab, stop, and then start the **Public LASR Analytic Server**.

e On the **LASR Tables** tab, right-click **DEMOSERVERCARS**, and select **Get Status**. Notice that the table did not reload after you restarted the server. To reload a table that was imported from a server, you must perform a manual reload.

TIP For more information, see "Importing Data from Servers" in the 7.1, 7.2, or 7.3 edition of the *SAS Visual Analytics: User's Guide*.

Cycle for Autoloaded Data

This demonstration is applicable if you have configured and started autoload.

1 In SAS Visual Analytics Administrator, set up the suggested display.

2 If the **Public LASR Analytic Server** is running, right-click on it, and select **Stop**.

CAUTION! Stopping the server unloads all tables. Stop the server only at a time when other users will not be disrupted.

3 On the computer where SAS Visual Analytics is installed, copy the data set cars.sas7bdat from your equivalent of the following directory:

```
C:\Program Files\SASHome\SASFoundation\9.4\core\sashelp
```

to your equivalent of the following directory:

```
C:\SAS\Config\Lev1\AppData\SASVisualAnalytics
\VisualAnalyticsAdministrator\AutoLoad
```

4 After 15 minutes, review the results.

Note: This demonstration assumes a task interval of 15 minutes. If the interval is shorter or if there is a delay between your unload action and your get status action, autoload might load the table in the interim, leading to a different sequence of results.

a On the **LASR Servers** tab, select **Public LASR Analytic Server**, right-click, and select **Get Status**. Notice that the server is running. Autoload triggers the server to start if it is not already running.

b On the **LASR Tables** tab, click . Notice that the new table **CARS** is listed. The **Description** column indicates that the table was autoloaded.

c On the **LASR Tables** tab, get the statuses of all of the listed tables. Notice that tables that use reload-on-start are now loaded.

TIP If autoload starts the server, it also triggers reload-on-start.

5 Examine reload behavior.

a On the **LASR Tables** tab, right-click **CARS**, and select **Unload**.

b Right-click **CARS** again. Notice that you cannot reload the table manually.

c On the **LASR Servers** tab, stop, and then start the **Public LASR Analytic Server**.

d On the **LASR Tables** tab, right-click **CARS**, and select **Get Status**. Notice that the table did not reload after you restarted the server.

e After the scheduled task interval has elapsed, get the status of the **CARS** table again. Notice that the table is now loaded. The most recent run of autoload identified that autoload's drop zone copy of **CARS** was not loaded, so it loaded that table again.

Clean Up

Remove demoLocalCars

1 On the **LASR Tables** tab, click **DEMOLOCALCARS** to get its status. If the table is loaded, right-click on it, and select **Unload**.

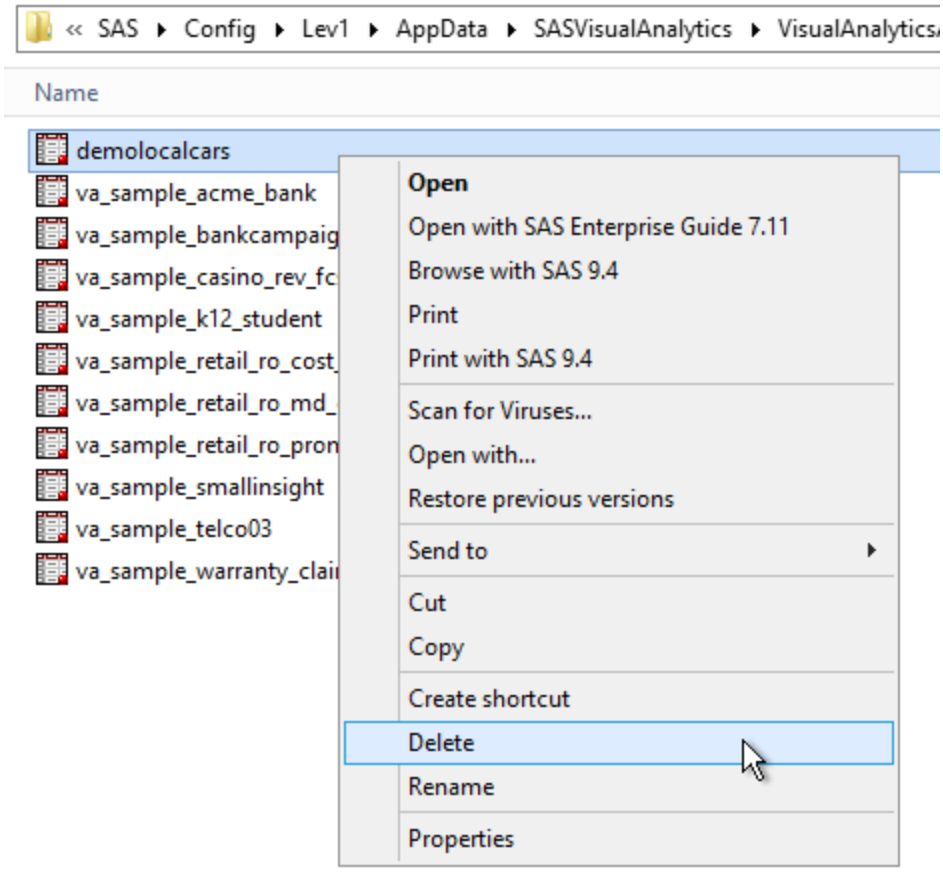
2 On the **LASR Tables** tab, right-click **DEMOLOCALCARS**, and select **Delete**. In the confirmation window, click **Delete**.

3 On your SAS Visual Analytics computer, navigate to your equivalent of the following directory:

```
C:\SAS\Config\Lev1\AppData\SASVisualAnalytics
\VisualAnalyticsAdministrator\PublicDataProvider
```

4 Right-click demoLocalCars, and select **Delete**.

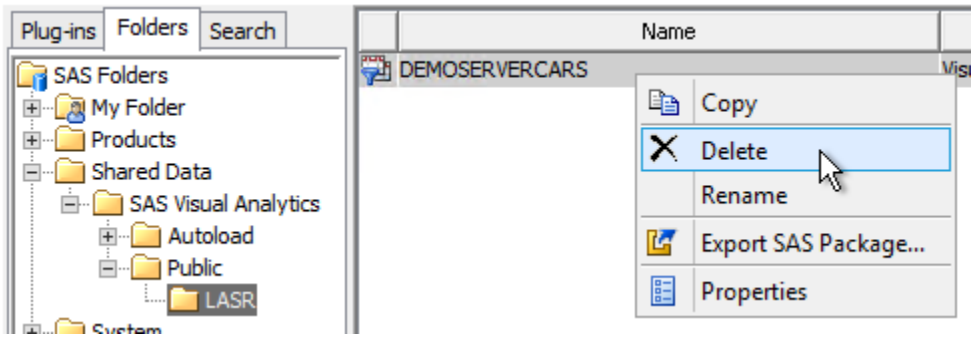
Note: During each import of a local file, SAS creates a data set copy of the source file to support reload-on-start.



Remove demoServerCars

1. On the **LASR Tables** tab, click **DEMOSERVERCARS** to get its status. If the table is loaded, right-click on it, and select **Unload**.
2. On the **LASR Tables** tab, right-click **DEMOSERVERCARS**, and select **Delete**. In the confirmation window, click **Delete**.
3. On the **Folders** tab in SAS Management Console, navigate to **SAS Folders** ▸ **Shared Data** ▸ **SAS Visual Analytics** ▸ **Public** ▸ **LASR**.
4. Right-click the **DEMOSERVERCARS** data query, and select **Delete**. In the confirmation window, click **Yes**.

   Note: During each import from a server, SAS creates a data query or job that contains instructions for accessing the source file to support manual reload.



Remove the Autoloaded Version of CARS

1. On your SAS Visual Analytics computer, navigate to your equivalent of the following directory:

   ```
   C:\SAS\Config\Lev1\AppData\SASVisualAnalytics
   \VisualAnalyticsAdministrator\AutoLoad
   ```

2. Right-click **cars.sas7bdat**, and select **Delete**.

3. On the **LASR Tables** tab, click the autoloaded version of the **CARS** table to get its status. If the table is loaded, right-click on it, and select **Unload**.

4. On the **LASR Tables** tab, right-click the autoloaded version of the **CARS** table, and select **Delete**. In the confirmation window, click **Delete**.

3

Autoload for Beginners

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Who Should Use Autoload?

Introduction

In many cases, import, reload-on-start, and manual reload functionality is sufficient. Before you invest in setting up autoload, make sure that you have a good reason to use autoload and that you understand autoload's limitations.

What Does Autoload Do?

If autoload is running, it periodically makes sure that all of the data in a particular Windows folder is available for use in reports and explorations.

Here are autoload's basic activities:

- If the server is stopped, autoload starts it.
- If a table is not loaded, autoload loads it.
- If the loaded copy of a table is older than the table in the folder, autoload refreshes it, updating the in-memory data to reflect the data in the folder.

For a comprehensive description of autoload functionality, see the *SAS Visual Analytics: Administration Guide*.

Reasons to Use Autoload

Consider using autoload in any of the following circumstances:

- You want the server to start automatically instead of starting only manually (from the **LASR Servers** tab) or indirectly (as a side effect of an import request).
- You want your spreadsheets, delimited files, and SAS data sets to be available on a scheduled, automatic basis.
- You have spreadsheets, delimited files, or SAS data sets that are larger than 4 GB (even in ZIP format).

  Note: For SAS data sets, an alternative is to import from a server.

Limitations of Autoload

Before you set up autoload, review the following limitations:

- Autoload is not a universal method. You cannot autoload ZIP files, database tables, or data from Google Analytics, Facebook, or Twitter.
- For spreadsheets, autoload is less flexible than import. For a spreadsheet that has multiple worksheets, only the first worksheet is loaded. Autoload assumes that the first row contains column headings and begins data import with the second row.
- Autoload requires some manual maintenance. A new autoload log file is generated every time autoload runs. You must periodically empty your equivalent of the following directory:

  ```
  C:\SAS\Config\Lev1\Applications\SASVisualAnalytics
  \VisualAnalyticsAdministrator\Logs
  ```

- Each implementation of autoload provides data to a particular LASR library. To autoload data to another LASR library, you must set up an additional implementation of autoload.

How to Set Up and Start Autoload

Introduction

Use these instructions if you want to autoload data to the general-purpose LASR library, Visual Analytics Public LASR. The Visual Analytics Public LASR library is preconfigured for autoload, so there are only two additional setup tasks:

- Enable an account to schedule and run autoload. Autoload interacts with both your Windows file system and your SAS resources, so it must run as a Windows account that has a corresponding individual SAS identity.
- Start autoload as a scheduled task. SAS provides a batch file that creates and starts a scheduled task for autoload. The task uses Windows Task Scheduler. After you start the task, it runs every 15 minutes (unless you customize the task interval).

Configure the Autoload Scheduler

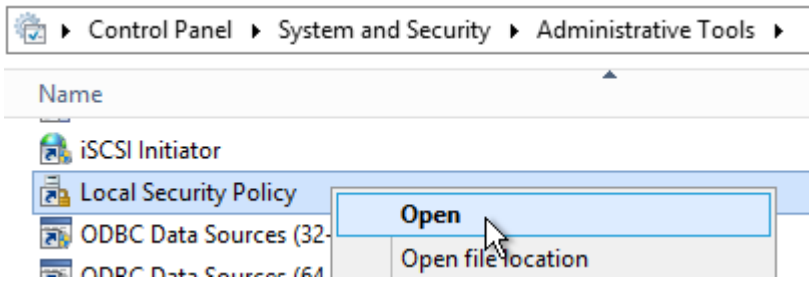
1. Identify the Windows account that installed SAS Visual Analytics on your computer.

   Note: These instructions reuse the account that installed SAS Visual Analytics (the installer) for the autoload scheduler because the account already exists and has the necessary Read and Write access in Windows. If you do not know the account's user ID and password, you can use a different account.

2. Give the account the necessary Windows privileges.

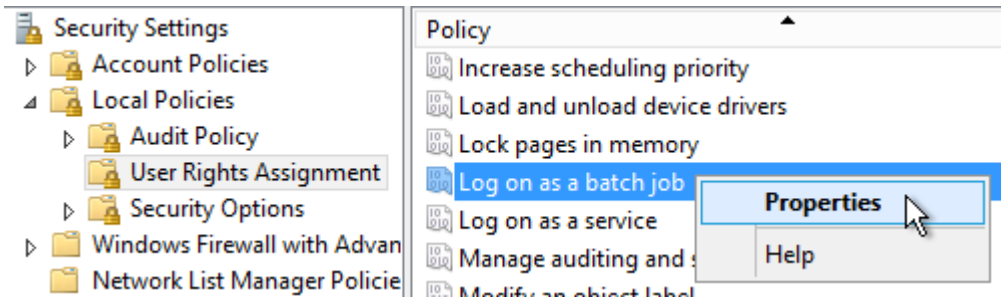
   a. On your SAS Visual Analytics computer, navigate to **Start** ▶ **Control Panel** ▶ **System and Security** ▶ **Administrative Tools**.

   b. Right-click **Local Security Policy**, and select **Open**.

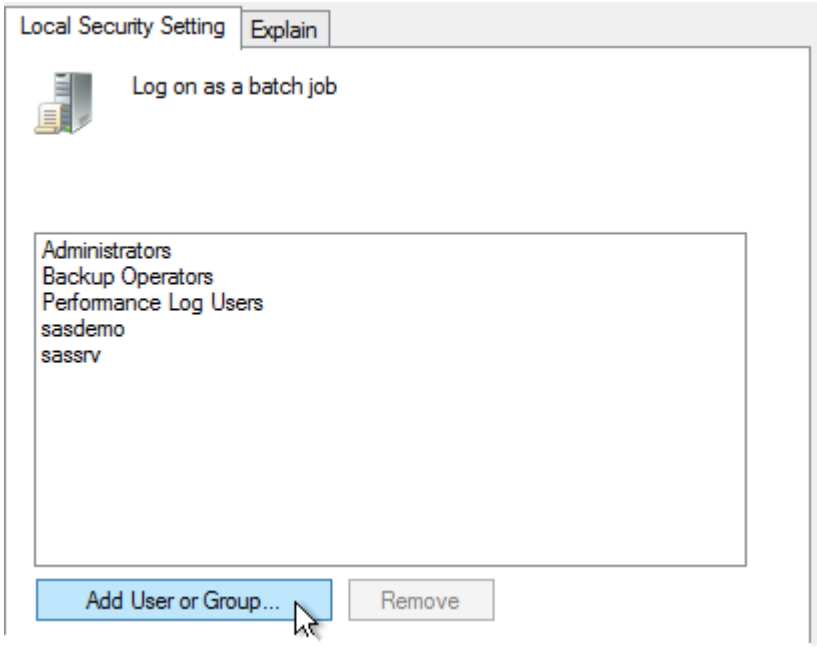


   Note: If you cannot open **Local Security Policy**, ask your Windows system administrator for assistance.

   c. In the **Local Security Policy** window, expand **Local Policies**, and select **User Rights Assignment**. On the right, right-click **Log on as a batch job**, and select **Properties**.



d. In the Log on as a batch job Properties window, add the account to the list of users and groups.



e. Make sure that the account has Read and Write access to your equivalent of the following directories:

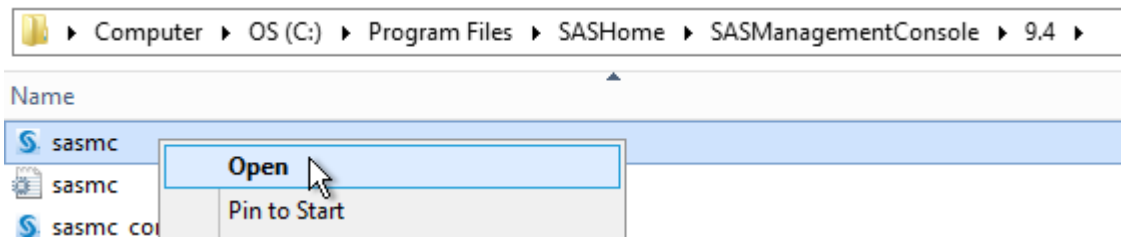
```
C:\SAS\Config\Lev1\...
...AppData\SASVisualAnalytics\VisualAnalyticsAdministrator\AutoLoad
...AppData\SASVisualAnalytics\VisualAnalyticsAdministrator\sigfiles
...Applications\SASVisualAnalytics\VisualAnalyticsAdministrator\
...Applications\SASVisualAnalytics\VisualAnalyticsAdministrator\Monitoring
...Applications\SASVisualAnalytics\VisualAnalyticsAdministrator\Monitoring\Logs
...Applications\SASVisualAnalytics\VisualAnalyticsAdministrator\Monitoring\PIDs
```

3. Set up a corresponding SAS identity for the account.

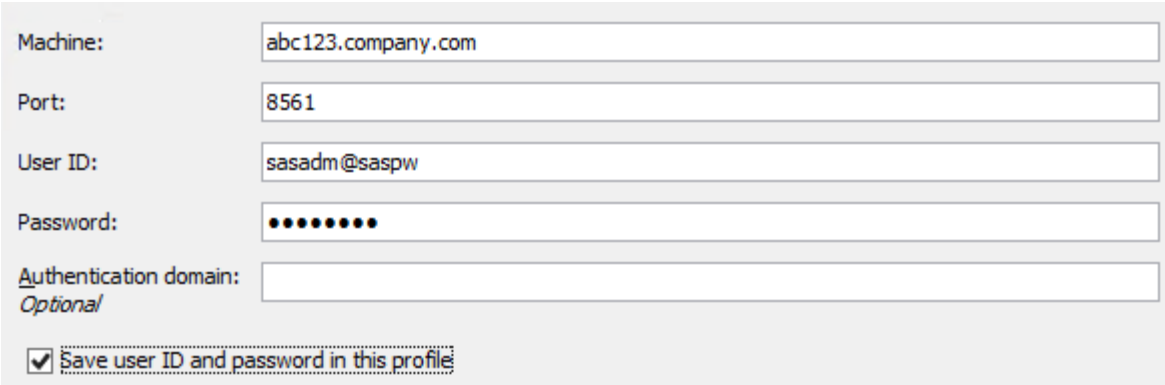
a. On your SAS Visual Analytics computer, navigate to your equivalent of the following directory:

```
C:\Program Files\SASHome\SASManagementConsole\9.4
```

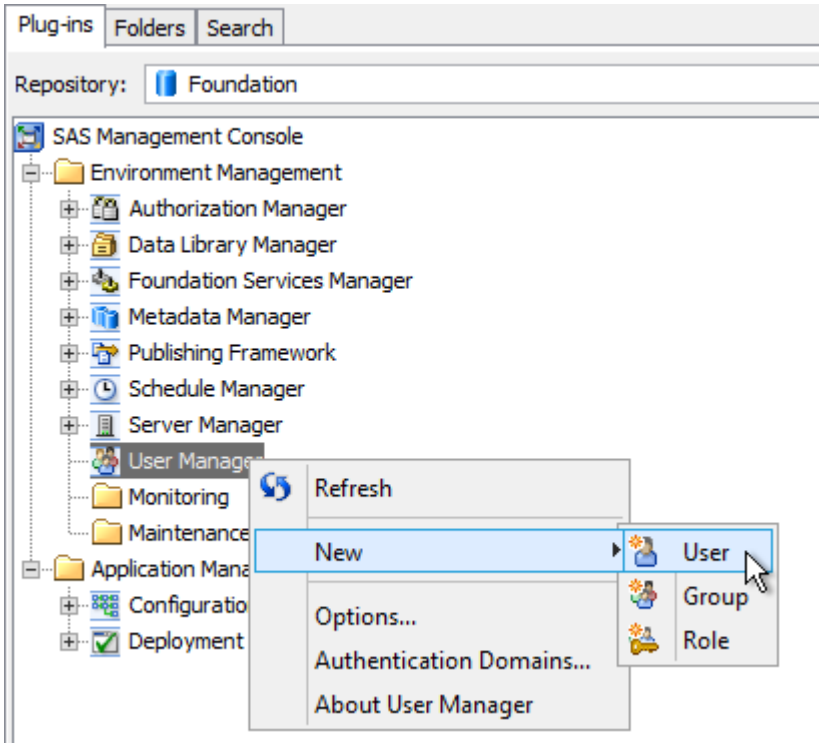
b. Right-click sasmc.exe, and select **Open**.



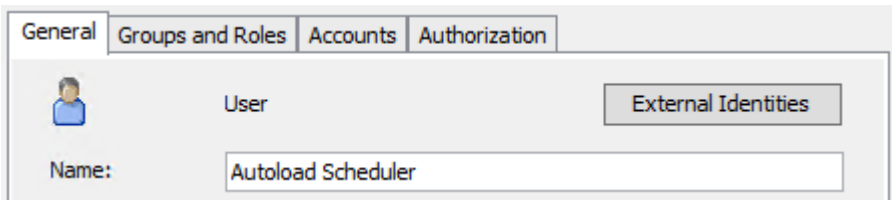
c. Log on to SAS Management Console as the SAS Administrator. Here is an example of the necessary connection information:



d. On the **Plug-ins** tab, right-click **User Manager**, and select **New** ▶ **User**.



e. On the **General** tab, enter a name such as `Autoload Scheduler`.

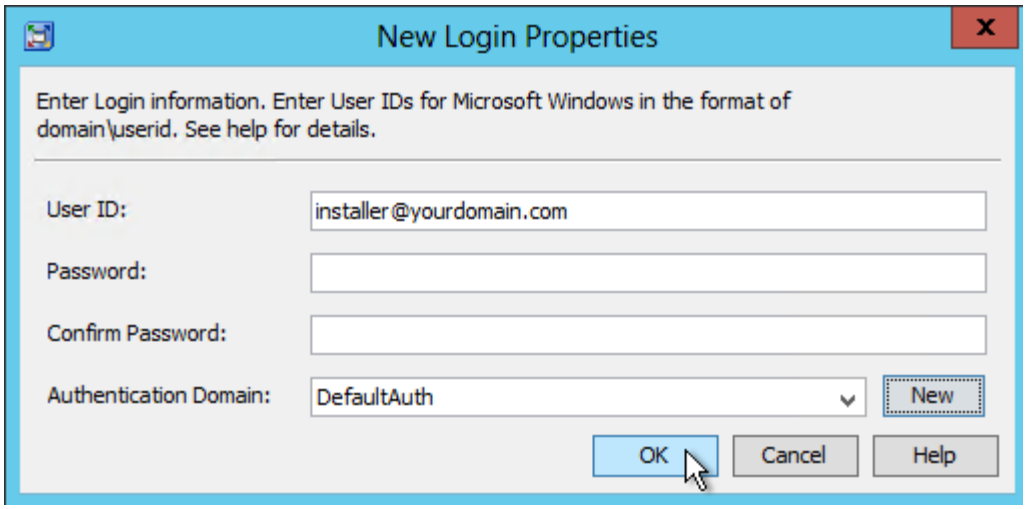


f. On the **Groups and Roles** tab, move the **Visual Analytics Data Administrators** group to the **Member of** list.

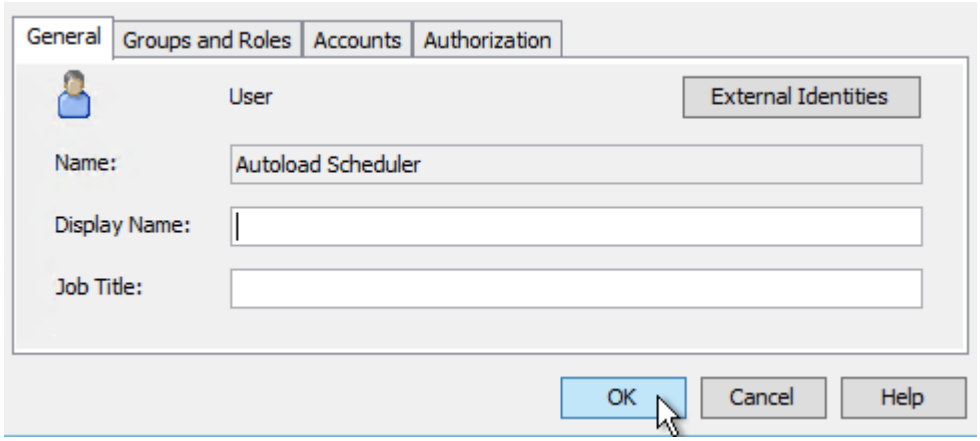
g. On the **Accounts** tab, click **New** to add a login.

- Enter the account's Windows user ID in its fully qualified format (*userID@domain.extension*, *domain\userID*, or *machine\userID*).
- Do not enter a password.
- Select the **DefaultAuth** authentication domain.

In the New Login Properties window, click **OK**.



h. In the New User Properties window, click **OK**.

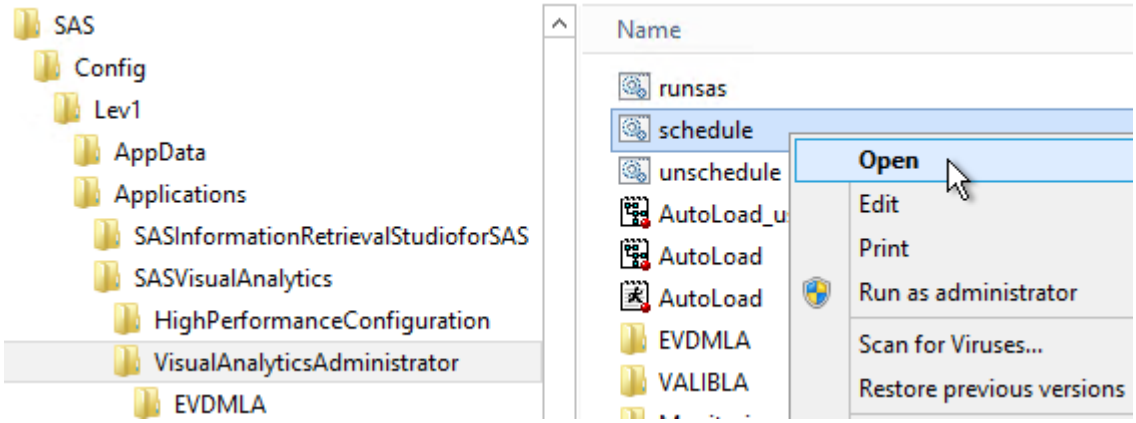


Start the Scheduled Task

1. Log on to your SAS Visual Analytics computer as the autoload scheduler.
2. Navigate to your equivalent of the following directory:

   `C:\SAS\Config\Lev1\Applications\SASVisualAnalytics\VisualAnalyticsAdministrator\`

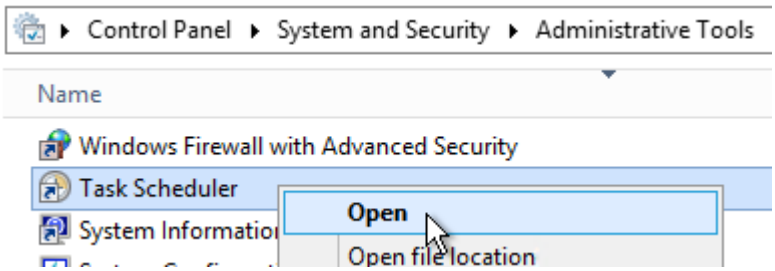
3. Right-click schedule.bat, and select **Open**.



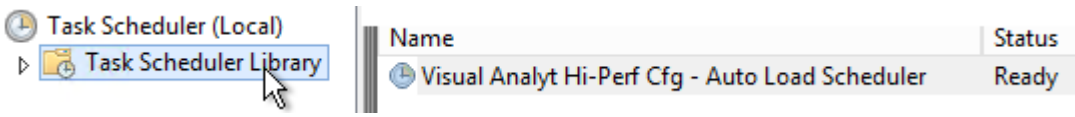
4. Verify that the scheduled task is running.

   a. Select **Start** ▶ **Control Panel** ▶ **System and Security** ▶ **Administrative Tools**.

   b. Right-click **Task Scheduler**, and select **Open**.



   c. In the Task Scheduler window, select **Task Scheduler Library**. Locate the task `Visual Analyt Hi-Perf Cfg - Auto Load Scheduler`, and verify that its **Status** value is **Ready** (or **Running**).



5. Verify that autoload is working.

   a. Copy a spreadsheet, delimited file, or SAS data set to your equivalent of the following directory:

   ```
   C:\SAS\Config\Lev1\AppData\SASVisualAnalytics\VisualAnalyticsAdministrator
   \AutoLoad
   ```

   b. After 15 minutes, use the **LASR Tables** tab to verify that the data is loaded and available as a data source.

Run Autoload More Often or Less Often

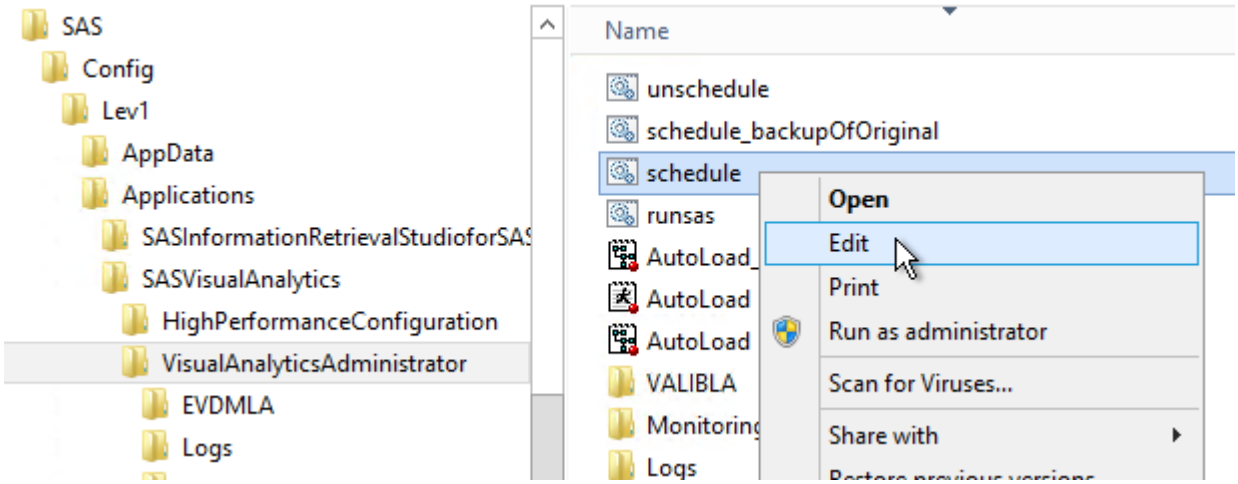
If you are testing autoload, you might want to save time by running the task every two minutes. If you rarely have new data, stop the server, or unload autoloaded tables, you might want to conserve system resources by running the task every 240 minutes (4 hours). To change the task interval, complete the following steps:

1. Navigate to your equivalent of the following directory:

   `C:\SAS\Config\Lev1\Applications\SASVisualAnalytics\VisualAnalyticsAdministrator\`

2. Make a backup copy of schedule.bat.

3. Right-click schedule.bat, and select **Edit**.



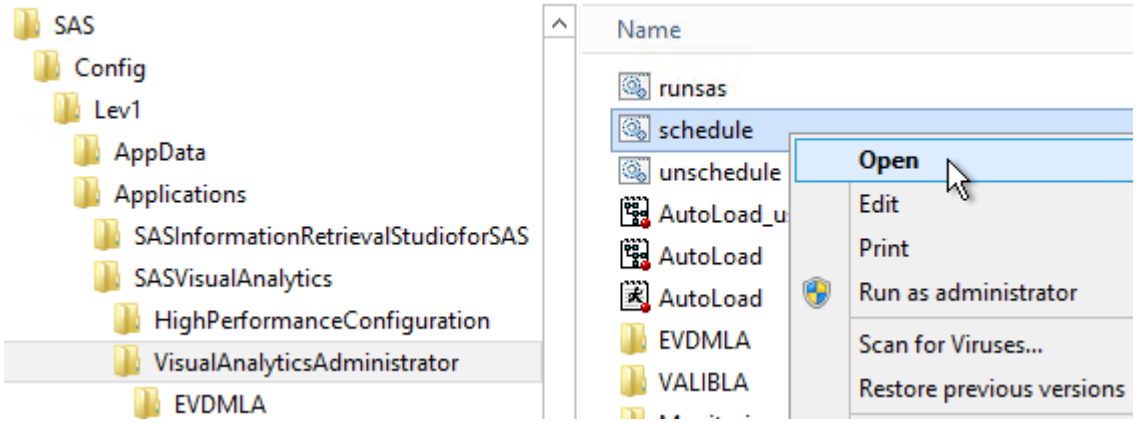
4. Change the value of the TIME_INTERVAL_MINUTES= setting. Save and close the file.

```
@echo off
REM /*-------------------------------\
REM | Schedule AutoLoad.sas          |
REM \-------------------------------*/

set RUNSAS_PATH="C:\SAS\Config\Lev1\Applications\SASVisualAnalytics
\VisualAnalyticsAdministrator\runsas.bat"
set TIME_INTERVAL_MINUTES=15


schtasks /create /f /tn "Visual Analyt Hi-Perf Cfg - Auto Load
Scheduler" /tr "%RUNSAS_PATH%" /sc minute /mo %TIME_INTERVAL_MINUTES%
```

5. To restart autoload with the new interval, right-click schedule.bat, and select **Open**.



6. In the **Triggers** column in Task Scheduler, verify that the new interval is in effect. For example, the trigger details indicate a three-minute interval as follows:

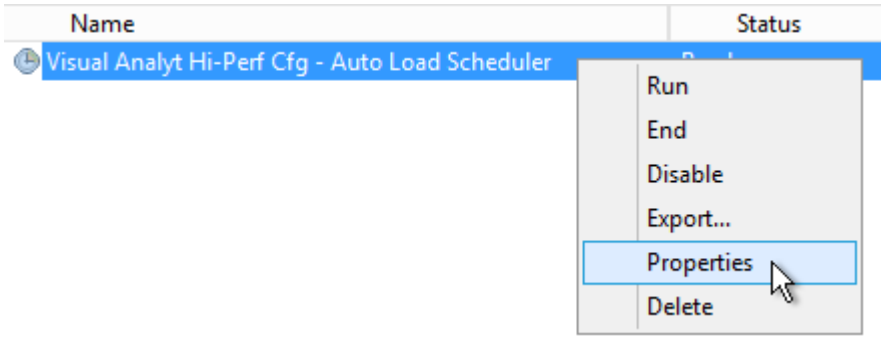
```
After triggered, repeat every 00:03:00 indefinitely.
```

Note: If Task Scheduler is already open, you might need to refresh the display to see the interval change. Make sure that **Task Scheduler Library** is currently selected, and then select **Action** ▸ **Refresh** from the main menu.

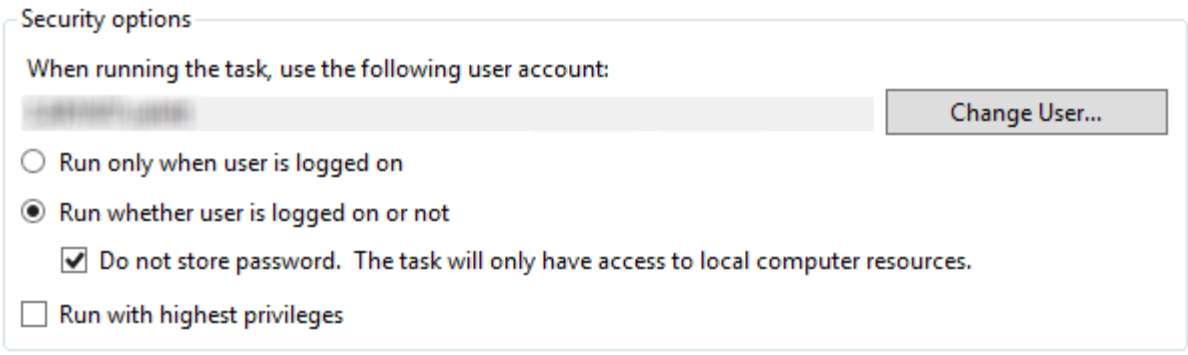
Configure Autoload for Seamless Restart

When your computer stops, autoload stops. After your computer restarts and the autoload scheduler account logs on, autoload starts. If you want autoload to restart seamlessly each time your computer restarts, complete the following steps:

1. In the Task Scheduler window, right-click the autoload task, and select **Properties**.



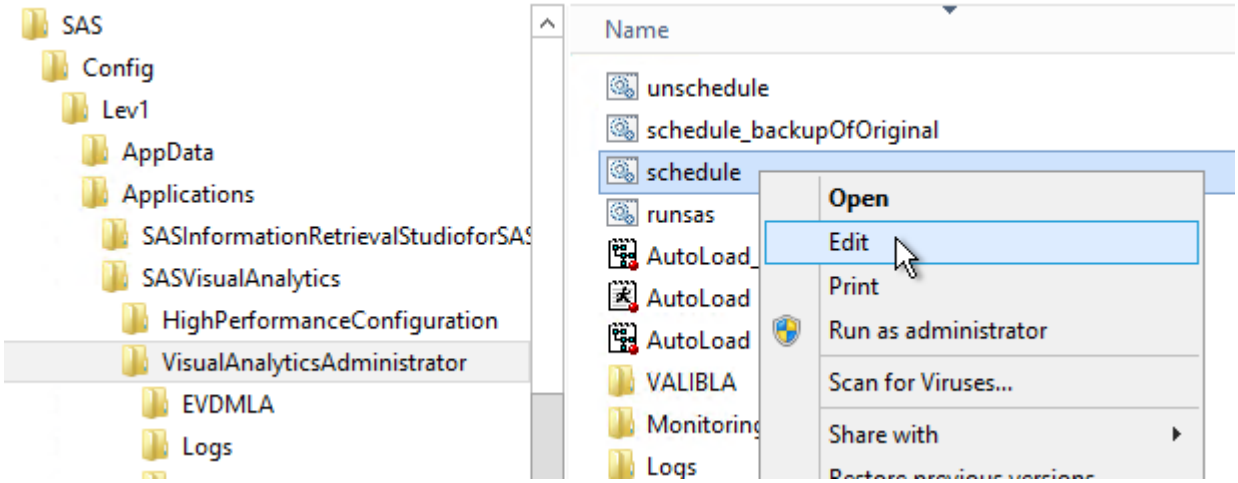
2. On the **General** tab, select **Run whether user is logged on or not**, check **Do not store password**, and click **OK**.



3. Navigate to your equivalent of the following directory:

```
C:\SAS\Config\Lev1\Applications\SASVisualAnalytics\VisualAnalyticsAdministrator\
```

4. Right-click schedule.bat, and select **Edit**.



5. Notice that the batch file does not reflect changes that you made in Task Scheduler. If you modify a task in Task Scheduler, use Task Scheduler to start and stop the task (instead of using the batch file that SAS supplies). For example, to stop a scheduled task in Task Scheduler, right-click on the task, and select **Disable**. To restart the task, right-click on it, and select **Enable**.

6. Verify that autoload is still running successfully. If autoload can no longer access the drop zone, either clear the **Do not store password** check box or set the task to run only when the autoload scheduler account is logged on.

4

Quick Reference

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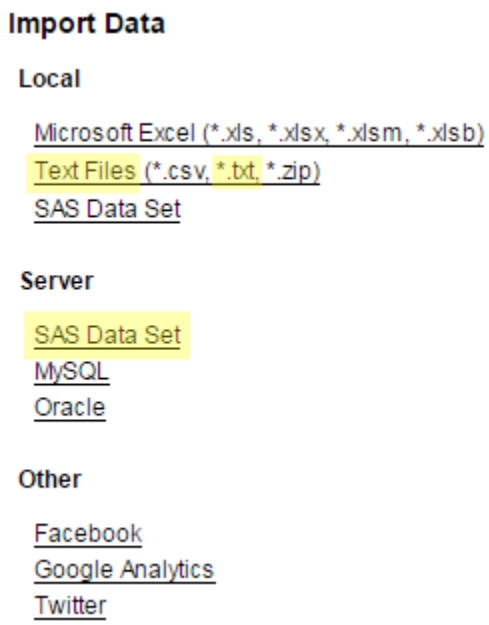
About the Import Data Panel

Here is an example of the **Import Data** panel in SAS Visual Analytics Designer and SAS Visual Analytics Explorer:



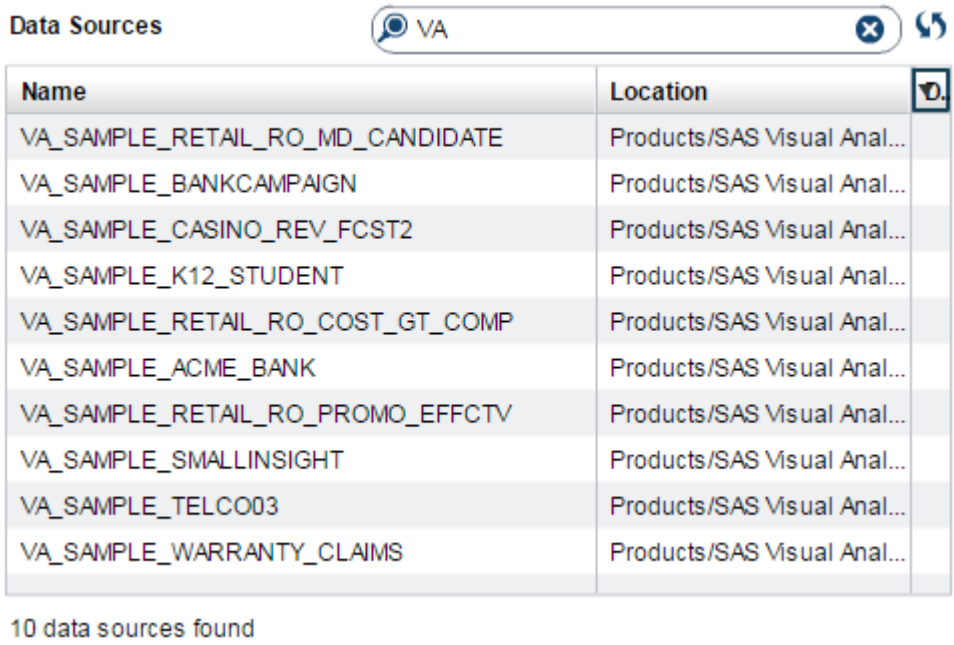
The source types that are used in the first two demonstrations are highlighted.

In addition to SAS data sets, the **Server** list includes any additional data sources that are licensed, configured, and available to you. In this example, the additional data sources are MySQL and Oracle.

For information about supported databases, see "Import a Database Table" in the 7.1, 7.2, or 7.3 edition of the *SAS Visual Analytics: User's Guide*.

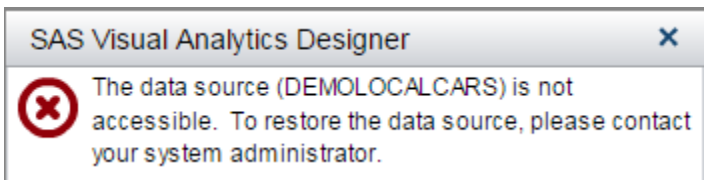
About the List of Data Sources

Here is an example of the list of data sources in SAS Visual Analytics Designer and SAS Visual Analytics Explorer:



Here are some details:

- You can use the search field to filter the list to include only tables that have a name, description, or location value that begins with the characters that you enter.
- The list includes all LASR tables that you have permission to see—regardless of whether the data is loaded or the server is running. If you select a data source that is not currently loaded, and you then click **Add** in the Add Data Source window, an error message indicates that the data source is not accessible.



- The 7.3 release includes sample tables (VA_SAMPLE_*) that participate in reload-on-start.

About SAS Visual Data Builder

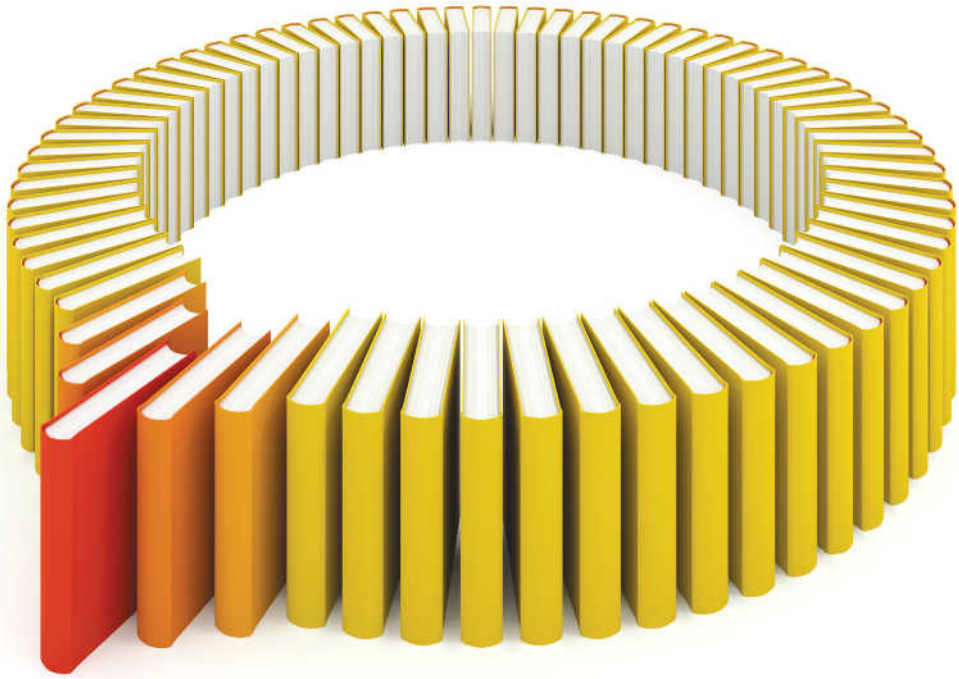
The data import functionality that this document describes is available in SAS Visual Analytics Designer, SAS Visual Analytics Explorer, and SAS Visual Data Builder. SAS Visual Data Builder also enables you to enhance data before it is used in reports and explorations. For example, you can use SAS Visual Data Builder to join tables, create calculated columns, append data, subset data, and sort data.

SAS Visual Data Builder is documented in *SAS Visual Analytics: User's Guide*.

Where to Find Additional Documentation

The most current technical resources for SAS Visual Analytics are available on the SAS Visual Analytics page on support.sas.com.

Your experience with SAS software should be as smooth as possible. Please submit your feedback.



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