Defining an ODBC Library in SAS® 9.2 Management Console Using Microsoft Windows NT Authentication
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Overview

This document explains how to define an Open Database Connectivity (ODBC) library in SAS® 9.2 Management Console using Windows authentication to access Microsoft SQL Server data. In this scenario, the SAS server is running in a Windows operating environment. Once you define the ODBC library, you can use the library with SAS® Business Intelligence (BI) clients such as SAS® Enterprise Guide® and SAS® Data Integration Studio.

The following prerequisites are necessary before you can define an ODBC library in SAS Management Console.

- Make sure that your user ID (entered in the form domain\user-id) is assigned the user right Log on as a batch job. For details about assigning user rights, refer to your Windows operating-system documentation.
- SAS/ACCESS® Interface to ODBC and the ODBC driver for the Microsoft SQL Server must be installed and configured on the same machine on which your SAS® System runs.

Step 1: Configure an ODBC Data Source Using Microsoft Windows NT Authentication

1. Select Start ► Settings ► Control Panel.

2. In the Control Panel window, select Administrative Tools ► Data Sources (ODBC) to open the ODBC Data Source Administrator dialog box.
3. Click the **System DSN** tab. On that tab, click **Add** to open the Create New Data Source dialog box.

4. Select **SQL Server** in the Create New Data Source dialog box, as shown in the following display:

5. Click **Finish**, and the Microsoft SQL Server DSN Configuration dialog box appears. Enter the name with which you want to refer to your data source and the name of your server. This example uses the values **SqlServerNT** and **BLUEFIN**, respectively, as shown here:
6. Click **Next** to continue to the next page, shown in the following display:

![Create a New Data Source to SQL Server](image)

On this page, specify the following items:

- the method for verifying the login ID
- the network library that is used to communicate with the SQL Server (via the **Client Configuration** button)
- a connection to the SQL Server

7. Click **Next** to continue to the next page, where you can make further server-configuration changes, as necessary.

![Microsoft SQL Server DSN Configuration](image)
8. Click Finish, and the application displays a summary page, similar to the following, that contains the configuration selections that you made:

At this point, you should click Test Data Source to run a test connection and ensure that your configuration is valid. If the test is successful, the following Test Results page is displayed:

9. Click OK to exit this dialog box.

10. Click OK again to exit the ODBC Data Source Administrator dialog box.
Step 2: Create a Library by Submitting a LIBNAME Statement with the ODBC Engine

1. Invoke SAS 9.2.

2. Submit a LIBNAME statement that contains the ODBC engine from the SAS Enhanced Editor. The LIBNAME statement should be similar to the following:

   ```
   libname odbclib odbc noprompt="dsn=SqlServerNT;Trusted_Connection=yes"
   schema=dbo;
   ```

3. After you submit this LIBNAME statement, make sure that you can see your SQL Server tables in the SAS Explorer window. You can also submit a DATASETS procedure similar to the following to display the tables in the SAS log:

   ```
   proc datasets lib=odbclib;
   quit;
   ```

Step 3: Add a User in SAS® Management Console

1. Invoke SAS Management Console and log on with the user ID SASADM or with the ID of any other unrestricted user. The SAS Management Console window displays, as shown in the following partial display:
2. Right-click **User Manager** in the left pane, and then select **New User** from the menu that appears. This selection opens the New User Properties dialog box.

3. Click the **General** tab in the New User Properties dialog box, and add the user name in the **Name** text box, as shown here:

![New User Properties dialog box](image)

4. Click the **Accounts** tab. Then click **New** to open the New Login Properties dialog box, as shown here:

![New Login Properties dialog box](image)
5. Add the Windows user ID (in the form domain\user-id) and password in the New Login Properties dialog box. Then click OK. The user ID and password then appear in the Properties dialog box, as shown in this partial display:

6. Click OK (at the bottom of the dialog box) to return to the main SAS Management Console window.

Step 4: Add the ODBC Server Using the Server Manager Plug-in

1. Right-click Server Manager in the SAS Management Console window, as shown in this partial display:
2. Select **New Server** from the menu that appears. This selection invokes the New Server Wizard:

3. Select **ODBC Server** (under **Database Servers Name**) in the New Server Wizard:
4. Specify a name and a description for the new ODBC server, as shown here:

![New Server Wizard](image1)

5. Click **Next** to continue to the next page, which lists the default property values for the server, as shown here:

![New Server Wizard](image2)

**Note:** Do not change these default values. Just click **Next** to continue to the next page in the wizard.
6. Select the **Connection String** radio button, as shown in the following display, and enter the following string in the text box:

   "dsn=SQLServerNT;Trusted_Connection=yes"

**Note:** The value for the DSN= parameter is the name of the ODBC-system data source that you set up in Step 1.

In addition, select **None** for both **Authentication type** and **Authentication domain**, as shown above.

**Note:** If you do not want to create a data source name, you can connect without using the DSN= parameter. Instead, submit the following LIBNAME statement:

   libname test odbc noprompt='server=bluefin.your-domain.com;driver=sql server;Trusted Connection=yes';

In this case, you enter the following as the connection string in **Connection String** text box:

   'server=bluefin.your-domain,.com;driver=sql server;
   Trusted Connection=yes'
7. Click **Next**, and the wizard displays a summary page with information about the server that will be created:

![New Server Wizard](image)

8. Click **Finish** to return to the main SAS Management Console window.

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**Step 5: Add the ODBC Library with the Data Library Manager**

1. Expand **Data Library Manager** in SAS Management Console.

2. Right-click **Libraries**, and then select **New Library** to open the New Library Wizard.

3. Under the section **Database Libraries**, select **ODBC Library**. Then click **Next** to continue to the next page of the wizard.
4. Specify a name for your library and select the metadata folder location, as shown in this partial display:

![New Library Wizard](image1)

5. Click **Next** (at the bottom of the New Library Wizard page) to continue to the next page of the wizard. Then select the server to which you want to assign the library and click the right arrow button that is between the two text boxes, as shown in this partial display:

![New Library Wizard](image2)
After you select a server, it appears in the **Selected servers** text box, as shown in this partial display:

6. Click **Next** (at the bottom of the wizard page) to continue.

7. Enter a libref in the **Libref** text box, as shown in this partial display:

8. Click **Next** (at the bottom of the page) to continue.
9. Specify the schema name and the database server that you added in Step 4:

![New Library Wizard](image)

10. Click **Next**, and the wizard displays a summary page, as shown in this partial display:

![New Library Wizard Summary](image)

Verify your information. Then click **Finish** (at the bottom of the summary page) to exit the wizard.

At this point, your library is defined. However, to access data from your BI clients, you might need to perform extra steps, for example pre-assigning the library or registering tables. For details about how to register your tables, see "Connecting to Common Data Sources: Registering and Verifying Tables" in the SAS® 9.2 Intelligence Platform: Data Administration Guide.