

# Configuration Instructions

## SAS<sup>®</sup> 9.1.3 Service Pack

### Overview

Certain SAS products require configuration after they have been updated by the SAS 9.1.3 Service Pack. If your original installation included one of the products listed below, then you should follow the instructions in this document to reconfigure those products after the SAS Service Pack has been installed.

- SAS/ACCESS Interface to ODBC (UNIX users only)
- SAS/ACCESS Interface to MySQL (UNIX users only)
- SAS/ACCESS Interface to Sybase (AIX users only)
- SAS Enterprise Miner
- SAS Information Delivery Portal
- SAS/IntrNet
- SAS Marketing Automation
- SAS Marketing Optimization (release 4.1 only)
- SAS Metadata Server
- SAS OnlineDoc for the Web and SAS Remote Help for z/OS
- SAS OpRisk VaR
- SAS Sourcing Data Quality
- SAS Sourcing Strategy
- SAS Spend Analysis
- SAS Web Infrastructure Kit

This document contains the required configuration steps, organized by the product name.

### SAS/ACCESS Interface to ODBC

UNIX users may require post-installation steps after applying the SAS Service Pack, depending on the ODBC driver and the version of that driver that is being utilized. Please see <http://support.sas.com/techsup/unotes/SN/015/015615.html> for detailed information.

## SAS/ACCESS Interface to MySQL

The SAS/ACCESS Interface to MySQL executable uses shared libraries, referred to in UNIX as shared objects. You must add the location of the MySQL shared libraries to the shared library path environment variable specific to your operating system. Due to the way MySQL Client libraries are distributed, on most operating systems you will need to link the SAS ACCESS to MySQL module against the MySQL client libraries on your system using the following process.

1. Set the following environment variables:

**MYSQL\_CLIENT\_DIR**= directory location for the newly linked MySQL client module; needs to be set on your shared library load path described in the table below so SAS can load the module (variable not needed on Linux for Intel Architecture and Linux for Itanium-based Systems)

**MYSQL\_LIBDIR**= MySQL Client Install location (use location of dynamic client libraries – by default, /usr/lib, on Linux for Intel Architecture and Linux for Itanium-based Systems)

**SASROOT**= SAS installed directory location (variable not needed on Linux for Intel Architecture and Linux for Itanium-based Systems)

For example, if you have installed MySQL in the directory /usr/local/mysql/4.1.7, and SAS is installed in /usr/local/sas then you would need to do the following:

<b>AIX, HP-UX, and Solaris</b>	
Bourne Shell	<pre>\$ MYSQL_LIBDIR=/usr/local/mysql/4.1.7/lib \$ export MYSQL_LIBDIR  \$ SASROOT=/usr/local/sas \$ export SASROOT  \$ MYSQL_CLIENT_DIR=/usr/local/sas_lib \$ export MYSQL_CLIENT_DIR</pre>
C Shell	<pre>\$ setenv MYSQL_LIBDIR /usr/local/mysql/4.1.7/lib  \$ setenv SASROOT /usr/local/sas  \$ setenv MYSQL_CLIENT_DIR /usr/local/sas_lib</pre>
<b>Linux for Intel Architecture and Linux for Itanium-based Systems</b>	
Bourne Shell	<pre>\$ MYSQL_LIBDIR=/usr/lib \$ export MYSQL_LIBDIR</pre>
C Shell	<pre>\$ setenv MYSQL_LIBDIR /usr/lib</pre>

2. Modify the shared library variable based on the host and shell you are using, according to the table below.

<b>AIX</b>	
Bourne Shell	<pre>\$ LIBPATH=\$MYSQL_CLIENT_DIR:\$LIBPATH \$ export LIBPATH</pre>
C Shell	<pre>\$ setenv LIBPATH \$MYSQL_CLIENT_DIR:\$LIBPATH</pre>
<b>HP-UX</b>	
Bourne Shell	<pre>\$ SHLIB_PATH=\$MYSQL_CLIENT_DIR:\$SHLIB_PATH \$ export SHLIB_PATH</pre>

C Shell	\$ setenv SHLIB_PATH \$MYSQL_CLIENT_DIR:\$SHLIB_PATH
<b>Solaris</b>	
Bourne Shell	\$ LD_LIBRARY_PATH=\$MYSQL_CLIENT_DIR:\$LD_LIBRARY_PATH \$ export LD_LIBRARY_PATH
C Shell	\$ setenv LD_LIBRARY_PATH \$MYSQL_CLIENT_DIR:\$LD_LIBRARY_PATH
<b>Linux for Intel Architecture and Linux for Itanium-based Systems</b>	
Bourne Shell	\$ LD_LIBRARY_PATH=\$MYSQL_LIBDIR:\$LD_LIBRARY_PATH \$ export LD_LIBRARY_PATH
C Shell	\$ setenv LD_LIBRARY_PATH \$MYSQL_LIBDIR:\$LD_LIBRARY_PATH

3. Once you have set up the environment variables you need to run the link command, as necessary, based on your operating system. This command will produce the file name `libmysqlclient_<os>` in the directory that was set as the `MYSQL_CLIENT_DIR`. You must have write permissions to this directory. You can confirm that the link ran successfully by bringing up SAS and assigning a libname to MySQL. If you get the following error message then you will need to double-check your link command.

```
ERROR: The SAS/ACCESS Interface to MySQL cannot be loaded. The
libmysqlclient
      code appendage could not be loaded.
ERROR: Error in the LIBNAME statement.
```

### AIX

```
ld -berok -b64 -bM:SRE -bexpall -e _nostart
-o $MYSQL_CLIENT_DIR/libmysqlclient_aix $SASROOT/misc/dbi/obj/r64myl.o
-lpthread -L$MYSQL_LIBDIR -lmysqlclient -lm -lc
```

### Linux for Itanium-based Systems

A link is not required for Linux for Itanium-based Systems because it supports the MySQL dynamic library.

### Linux for Intel Architecture

A link is not required for Linux for Intel Architecture because it supports the MySQL dynamic library.

### HP-UX

```
ld -b -o $MYSQL_CLIENT_DIR/libmysqlclient_hp
$SASROOT/misc/dbi/obj/h64myl.o
-L$MYSQL_LIBDIR -lmysqlclient -lc -lm
```

### Solaris

You must include the location of the linker in the `LD_LIBRARY_PATH` environment variable (this is usually found in the libraries listed in the example, below):

Bourne Shell	\$ LD_LIBRARY_PATH=/usr/lib/sparcv9:/usr/ucblib/sparcv9:\$LD_LIBRARY_PATH \$ export LD_LIBRARY_PATH
C Shell	\$ setenv LD_LIBRARY_PATH /usr/lib/sparcv9:/usr/ucblib/sparcv9:\$LD_LIBRARY_PATH

Then use the link command:

```
ld -64 -G -o $MYSQL_CLIENT_DIR/libmysqlclient_sun
$SASROOT/misc/dbi/obj/s64myl.o -L$MYSQL_LIBDIR -lmysqlclient
```

## SAS/ACCESS Interface to Sybase

AIX users must complete the following steps in order to configure SAS 9.1.3 to work with the Sybase Open Client 12.5.x on AIX 5.x.

**Note:** *Ensure the SYBASE environment variable is defined. If it is not defined, the makefile will fail. For example,*

```
export SYBASE=/usr/local/sybase/1252
```

**Note:** *You should replace !SASROOT in these instructions with the actual directory path where SAS was installed.*

1. Change to the directory !SASROOT/sasexe using the following command:

```
cd !SASROOT/sasexe
```

2. Use the following command to change permissions of the executable "syr64125":

```
chmod +w syr64125
```

3. Use the following command to remove the symbolic link "sassyb":

```
rm sassyb
```

4. Change to the directory !SASROOT/misc/dbi/ using the following command:

```
cd !SASROOT/misc/dbi/
```

5. Restore the !SASROOT/misc/dbi/sassyb.tar file:

```
tar -xvf sassyb.tar
```

After the files have been extracted, the !SASROOT/misc/dbi/sassyb\_obj/ directory structure containing libraries and object files for linking will be created.

6. Run the makefile to build the image "syr64125" in !SASROOT/sasexe:

```
make -f sassyb.mak
```

This will create "syr64125" image in !SASROOT/sasexe as well as a copy named "sassyb" which points to the "syr64125" image.

7. After executing the makefile link, you may encounter the following error:

```
ld: 0706-006 Cannot find or open library file: -l m_r Ld: open(): A
file or directory in the path name does not exist. Make: 1254-004
The errorcode from the last command is 255.
```

To resolve this problem, have your System Administrator install the "Application Development Toolkit" and then perform the SAS/ACCESS link again.

## SAS Enterprise Miner

After applying the SAS Service Pack to your installation of SAS Enterprise Miner, you should apply all the Enterprise Miner hot fixes, listed under “Data Mining,” that support the version that you are using. The hot fixes and the instructions for applying them can be found at the Technical Support Hot Fixes Web page, located at

[http://ftp.sas.com/techsup/download/hotfix/op\\_home.html](http://ftp.sas.com/techsup/download/hotfix/op_home.html).

## SAS Web Infrastructure Kit and SAS Information Delivery Portal

If your original installation includes SAS Web Infrastructure Kit or SAS Information Delivery Portal, then you may need to rebuild the application's WAR files and will need to redeploy them after the SAS Service Pack has been applied. You will also need to restart the SAS Services application. Follow the instructions in this section to reconfigure those products.

1. Stop and undeploy the SASTheme\_default, SASPreferences, SASDoc, Portal, SASStoredProcess, and sasweb web applications from the servlet container. Also be sure to stop and undeploy any additional themes that may have been deployed.
2. Stop the servlet container and SAS services application.
3. Remove any remaining temp or cache files from the web application deployment directory.

*If your original installation was configured using the SAS Configuration Wizard, you should skip steps 4 and 5.*

4. If your original installation was configured manually (instead of by using the SAS Configuration Wizard), run the configure\_wik utility to update the SAS Services application and create new Portal.war, SASPreferences.war, SASStoredProcess.war, and sasweb.war files.
5. Explode the war files using the instructions in "Step 11: Deploy Web Application Files into the Servlet Container" of your SAS Web Infrastructure Kit readme document. Note that the destination directories should have the same names as the web applications (such as Portal or SASPreferences, etc.).
6. Log on to SAS Management Console on the mid-tier as the unrestricted user (sasadm, usually).
7. In the left pane, expand the Foundation Services Manager by clicking on the plus sign to the left of its node.
8. Select and delete **ID Portal Local Services** and **Remote Services**.
9. Right-click on **Foundation Services Manager** and select **Import Service Deployment**.
10. In the **Import Service Deployment** window, click the **Add** button.
11. Navigate to the directory where your SAS configuration files reside. Windows users should go to <config-directory>\Lev1\web\Deployments\Portal, while UNIX users should go to <config-directory>/Lev1/web/Deployments/Portal, where <config-directory> is the root directory of your SAS configuration.
12. Select and highlight sas\_services\_idp\_local\_omr.xml and sas\_services\_idp\_remote\_omr.xml files.
13. Select **Open**.
14. Click the **OK** button in the **Import Service Deployment** window.

15. If your original installation was configured manually, then you must manually configure the SASDoc.war file to enable the Help and Documentation Software. Follow the instructions in the section below labeled "Configuring SAS OnlineDoc for the Web and the SAS Help System Software".
16. Start the SAS services application and your servlet container, and deploy the new versions of the web applications using the instructions in "Step 11: Deploy Web Application Files into the Servlet Container" of your SAS Web Infrastructure Kit readme document. This file is located at !SASHOME/Web/Portal2.0.1/wik\_readme.html.

In addition, once you have applied the service pack, it will be necessary to migrate any custom themes that you have deployed. The full instructions for this procedure may be found at [http://support.sas.com/rnd/itech/doc9/portal\\_dev/themes/dg\\_themes\\_migrate.html](http://support.sas.com/rnd/itech/doc9/portal_dev/themes/dg_themes_migrate.html).

Finally, note that with the application of this service pack, queries and reports against Information Maps require that the client user have Read permission. Setting the permissions can be performed either at the map level or at the folder level. You may find that setting permission at the folder level is the most manageable approach. But for row-level security and other situations where the security settings must be specifically customized, setting permission on the map itself might be required.

The easiest procedure is to perform a single permissions change. Open the SAS Management Console and then open **Authorization Manager**→**Resource Management**→**By Application**→**BIP Service**. Navigate to the highest-level folder that contains all your maps, such as /BIP Tree/ReportStudio/Maps. Right-click on that folder and select **Properties**. In the **Properties** dialog, select the **Authorization** tab. On that tab, select or add the group to which you wish to give Read permissions (either PUBLIC or SASUSERS). If the **Grant** column's checkbox for **Read** is not checked, then check it. If it is checked already, it is either already directly set (indicated by a light background around the **Grant** checkbox) or is being inherited (indicated by a darker background). Click **OK** to save your changes and exit.

## SAS/IntrNet

The SAS 9.1.3 Service Pack includes a new WEB tar file that replaces the one in your existing installation. The Web server components are available in the CGI Tools for the Web Server. If your Web server is not on the z/OS system, go to the SAS download Web site (located at <http://www.sas.com/apps/demosdownloads/setupintro.jsp>) to find CGI Tools for the Web Server and instructions appropriate for your Web server host.

If your Web server is hosted on a z/OS system, you can use the CGI Tools tar archive found in the data set &prefix.WEB.TAR. You will need to copy the member to the hierarchical file system using the OPUT command from a TSO prompt as shown in the following example:

```
OPUT '&prefix.WEB.TAR(WEBSRV)' '/u/local/tmp/websrv.tar' BINARY
```

**Note:** *A different destination path can be chosen in place of the user-defined directory /u/local/tmp/, but the directory path should already exist.*

Use the following commands from the UNIX System Services environment to extract the contents of the tar archive:

```
cd /u/local/tmp          <use the path from the OPUT command above>
tar -xvof websrv.tar    <use the filename from the OPUT command above>
```

Follow the instructions found in the readme.txt file you just unpacked to install the CGI Tools. for the Web Server.

# SAS Marketing Automation

## Deployment Group

After applying the SAS Service Pack, you need to set up the second deployment group for the stored process server (first location). Find `<remote_services_dir>/WEB-INF/conf/sas_metadata_source_server.properties`. In that file, after the first deployment group, add the following line:

```
deployment_group_2=BIP Stored Process Service
```

Ensure there is not a space at the end of the line or the change will not take effect.

## Merge Service Configuration

Before following these steps, ensure that you have performed all of the configuration steps listed in the “SAS Web Infrastructure Kit and SAS information Delivery Portal” section, beginning on page 5.

1. Log on to SAS Management Console on the mid-tier as the unrestricted user (sasadm, usually).
2. In the left pane, expand the Foundation Services Manager by clicking on the plus sign to the left of its node. Then expand the Remote Services Node and then the BIP Remote Services Node.
3. Highlight **BIP Information Service** and right-click **Merge Service Configuration...**
4. From the file dialog, choose `C:\Program Files\SAS\SASMarketingAutomationCore\4.1\MAInformationServiceFactory.xml` and click **Open**.

## SAS Marketing Optimization 4.1

After applying the SAS Service Pack to your installation of SAS Marketing Optimization 4.1, you should apply a hot fix, listed under “Customer Relationship Management,” to the server that supports that solution. The hot fix and the instructions for applying it can be found at the Technical Support Hot Fixes Web page, located at [http://ftp.sas.com/techsup/download/hotfix/op\\_home.html](http://ftp.sas.com/techsup/download/hotfix/op_home.html). Select the SAS Marketing Optimization 4.1 link. Later releases of SAS Marketing Optimization do not require this hot fix.

## SAS Metadata Server

### Upgrading Repositories

SAS Management Console’s Upgrade Metadata function allows you to apply changes to the metadata repositories required by new releases of SAS, including applications of the SAS Service Pack. Because the changes are applied to all repositories on the active server, you must be an unrestricted user in order to run the utility.

To update the repositories on the active server, follow these steps:

1. In the SAS Management Console navigation tree, expand the **Metadata Manager** node, then select **Active Server**.
2. Select **RMB** or **Actions**→**Upgrade Metadata**. If the user is not specifically defined as an unrestricted user, an error message appears and the repositories are not updated. If the user is defined as an unrestricted user, the updates are applied to all repositories on the active

server. If the repositories have already been upgraded, the message "All repositories up-to-date" appears.

3. When the process is complete, the message "The metadata server has been successfully updated" appears.

## Information Maps LIBNAME Engine Nickname

After you apply SAS 9.1.3 Service Pack 4, add a nickname for the SAS Information Maps LIBNAME Engine. The engine nickname (INFOMAPS) is not defined by default in SAS 9.1.3 Service Pack 4. This needs to be done only for the operating systems supported by the Information Maps engine: AIX, Solaris, HP-UX for the Itanium Family Processor Architecture, and Windows (32-bit systems).

You can add the engine nickname to your SAS catalog using the following SAS code:

```
proc nickname cat=sashelp.core;
  add nickname=infomaps
  module=sasioime
  release="9"
  desc="SAS Information Maps LIBNAME Engine"
  preferred
  engine;
run;
quit;
```

If you need information about starting a SAS session in order to use this code, Windows users should see <http://support.sas.com/onlinedoc/913/getDoc/en/hostwin.hlp/startsas.htm>, while UNIX users should go to <http://support.sas.com/onlinedoc/913/getDoc/en/hostunx.hlp/a000224757.htm>.

## Configuring SAS OnlineDoc for the Web and the SAS Help System Software

**Note:** The following instructions also pertain to configuring SAS Remote Help for z/OS.

If your original installation was configured manually (instead of by using the SAS Configuration Wizard), then you should follow the instructions in this section to reconfigure the SAS OnlineDoc and SAS Help System after the SAS Service Pack has been installed. If you configured your original installation with the SAS Configuration Wizard, then no further configuration of these products is necessary following the application of the SAS Service Pack.

The SASDoc.war file was updated when SAS 9.1.3 Service Pack was applied. You will need to edit the web.xml file for SASDoc and replace the blank value in the DOCLOC <context-param> to point to the documentation directory where the documentation files physically reside on your system.

1. Locate the SASDoc.war file in your installation directory.
2. Manually check that the DOCLOC parameter in the web.xml is configured correctly:
  - Unzip the SASDoc.war file and locate the web.xml file in the WEB-INF directory. Open the web.xml file using a text editor such as Notepad.
  - Ensure that the DOCLOC <context-param> points to the documentation directory where the documentation files physically reside on your system. For example,

**On Windows:** If you installed the files to C:\Program Files\SAS\Documentation\9.1, the DOCLOC option should appear as follows:



```
<context-param>
<param-name>DOCLOC</param-name>
<param-value>file:\C:\Program Files\SAS\Documentation
\9.1\</param-value>
</context-param>
```

**On UNIX:** If you installed the files to /usr/local/SAS/Documentation/9.1, the DOCLOC option should appear as follows:

```
<context-param>
<param-name>DOCLOC</param-name>
<param-value>file:/usr/local/SAS/Documentation/9.1/</param-
value>
</context-param>
```

- Zip the files to re-create the SASDoc.war file with the modified web.xml file.
3. Deploy the updated SASDoc.war file to your Servlet container.
  4. For more information, refer to the complete instructions for installing and deploying SAS OnlineDoc by navigating to the following URL at the support.sas.com website:  
<http://support.sas.com/documentation/installcenter/misc/webdoc913-install.pdf>.

## SAS OpRisk VaR

After applying the SAS Service Pack to your SAS OpRisk VaR installation, you should apply a hot fix to all the machines that have SAS OpRisk VaR client software on them. The hot fix and the instructions for applying it can be found at <http://oster.us.sas.com/blind/orv25.html>.

## SAS Sourcing Data Quality

### Verifying WAR File

UNIX users should check the SAS Sourcing Data Quality configuration directory to verify that the Lev1/web/webapps/exploded/sas.solutions.sdq.app.war folder has been updated after applying SAS 9.1.3 Service Pack 4. If it has not been updated, then copy this folder from the SAS Sourcing Data Quality installation directory.

For example, if \$SAS\_HOME\$/SASSourcingDataQuality/3.5/Commodity Classification is your installation directory and /home/sdq/SAS/SRMOnebox is your configuration directory, then verify that folder Lev1/web/webapps/exploded/sas.solutions.sdq.app.war in your configuration directory has been updated after applying the SAS Service Pack. If it has not, then copy it from the installation directory, \$SAS\_HOME\$/SASSourcingDataQuality/3.5/Commodity Classification/sas.solutions.sdq.app.

## Deployment Group

If you have not already done so for SAS Sourcing Strategy or SAS Spend Analysis, you need to set up the second deployment group for the stored process server (first location). Find `<remote_services_dir>/WEB-INF/conf/sas_metadata_source_server.properties`. In that file, after the first deployment group, add the following line:

```
deployment_group_2=BIP Stored Process Service
```

Ensure there is not a space at the end of the line or the change will not take effect.

## SAS Sourcing Strategy

If you have not already done so for SAS Sourcing Data Quality or SAS Spend Analysis, you need to set up the second deployment group for the stored process server (first location). Find `<remote_services_dir>/WEB-INF/conf/sas_metadata_source_server.properties`. In that file, after the first deployment group, add the following line:

```
deployment_group_2=BIP Stored Process Service
```

Ensure there is not a space at the end of the line or the change will not take effect.

## SAS Spend Analysis

### Hot Fix

After applying the SAS Service Pack to your installation of SAS Spend Analysis, you should apply a hot fix to the Web server that supports that solution. The hot fix and the instructions for applying it can be found at the Technical Support Hot Fixes Web page, located at [http://ftp.sas.com/techsup/download/hotfix/op\\_home.html](http://ftp.sas.com/techsup/download/hotfix/op_home.html). To apply the hot fix, select the **SAS Supplier Relationship Management** link, located under “Supplier Relationship Management,” then select the **SAS Spend Analysis 3.0** link, located under “SAS Supplier Relationship Management Spend Analysis.”

## Deployment Group

If you have not already done so for SAS Sourcing Data Quality or SAS Sourcing Strategy, you need to set up the second deployment group for the stored process server (first location). Find `<remote_services_dir>/WEB-INF/conf/sas_metadata_source_server.properties`. In that file, after the first deployment group, add the following line:

```
deployment_group_2=BIP Stored Process Service
```

Ensure there is not a space at the end of the line or the change will not take effect.

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