



Installation Instructions for Hot Fix 4 (N1H003)

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Overview

Hot fix **N1H003** is a container hotfix that contains the compute tier hotfix **N1F004** and the mid-tier hotfix **N1G004**. It addresses the issue(s) in **Compliance Solutions 7.2** as documented in the *Issue(s) Addressed* section of the hot fix download page:

<http://hotfix.na.sas.com/itp4/cgi-bin/xitp4.pl?N1H003>

N1H003 for SAS Compliance Solutions 7.2

Before applying this hot fix, follow the instructions in [SAS Note 35968](#) to generate a SAS Deployment Registry report, then verify that the appropriate product releases are installed on your system. The release number information in the Registry report should match the 'member' release number information provided above for the software components installed on each machine in your deployment.

The hot fix downloaded, N1H003pt.zip, includes the updates required for all components listed above on all applicable operating systems. To apply this hot fix on multiple machines, you can either save N1H003pt.zip on each machine or save it in a network location that is accessible to all machines.

Do NOT extract the contents of N1H003pt.zip. The hot fix installation process will extract the contents as needed.

IMPORTANT NOTES

1. Files delivered in this hot fix will be backed up during the installation process. However, it is good general practice to back up your system before applying updates to software.
2. You must have Administrator Privileges on your CLIENT or SERVER machine.
3. All currently active SAS sessions must be terminated before applying this hot fix.
4. This hot fix should be installed using the same userid who performed the initial software installation.
5. CONFIGURATION: No automatic configuration scripting is included for this hot fix. If you have previously configured software installed, the SAS Deployment Manager may present a screen where you will see "Apply SAS Hot Fixes" and "Configure SAS Hot Fixes" options. On this screen, you must ensure that the "Configure SAS Hot Fix" option is ***not*** selected. If this option is automatically selected, please de-select it prior to proceeding with the SAS Deployment Manager Screens. Failure to do so could have unintended consequences when applying this hot fix.

INSTALLATION

Hot fix N1H003 must be installed on each machine where the updated components of the product, listed above, are installed. During the installation process you may see references to all operating systems for which updates are provided in the hot fix. The installation process will determine the operating system and which component(s) of Compliance Solutions 7.2 require updating on the machine. See [SAS Note 44810](#) for more details.

The hot fix will be applied using the SAS Deployment Manager. By default, the SAS Deployment Manager will search in the <SASHOME>/InstallMisc/HotFixes/New directory for hot fixes to be applied but will also prompt for a location if you have downloaded hot fixes to a different directory.

After downloading N1H003pt.zip, follow the instructions for applying hot fixes in the [SAS Deployment Wizard and SAS Deployment Manager 9.4: User's Guide](#).

Generally, it is not necessary to shut down any compute tier or metadata servers when executing the hotfix installation and post-installation steps for this hotfix. It is important, however, that SAS is not executing on the compute tier server, because it can lock access to the Compliance Solutions compiled macros library, which cannot be in use when the library gets replaced with the new version. The SAS Deployment Manager will check for files in use by other processes and will issue an error if any are found.

Please review the section **Important Notes #5: CONFIGURATION** above concerning proper selection of the "Configure SAS Hot Fix" option in the SAS Deployment Manager.

The hot fix installation process generates the log file:

```
<SASHOME>/InstallMisc/InstallLogs/IT_date-and-time-stamp.log
```

For example, `IT_2023-10-31-13.18.21.log`. Each attempt to apply a hot fix will result in the creation of a new log file giving detailed information regarding the installation process.

Postexec log files are created in the `<SASHOME>/InstallMisc/InstallLogs` directory after the installation is completed and identifies the files that were added, backed up, changed, or removed. For example:

```
antimnylndin_lax_7.2_N1H003_xx_Install_postexec.log
```

Post-Installation Instructions:

NOTE: If you are installing out of the box, please ensure that you have completed the configuration of the base product prior to performing these Post-Installation Instructions.

Initial Notes

Important Note about **ant**: if there is another, competing installation of **ant** on your system, it may not be suitable for the purposes of this procedure. It may use a version of **ant** that does not match the configuration code delivered with SAS, or it may not be configured to include the **ant-apache-regexp** package, which is needed for proper operation of these steps. If you have another installation of **ant** on your system, you need to temporarily remove it from the PATH and clear out the value of the `ANT_HOME` environment variable, so that the version installed with SAS will be used.

Database Changes by Hotfix

Hotfix 4 Database Changes

There are no database changes for Hotfix 4.

Hotfix 3 Database Changes

Hotfix 3 (HF3) will remove the logical delete indicator column from the `FSK_ALERT_TABLE` and its associated views. Inconsistencies in maintaining the logical delete indicator may result in incorrect alert counts on display pages, and might even prevent cases from being opened where some alerts have been marked as deleted. The `LOGICAL_DELETE_IND` column will be removed from the `FCFKC.FSK_ALERT` table when this hotfix is configured. This is a destructive process and the table data should be backed up before these steps are executed.

Capabilities Changes by Hotfix and Role

There are no capabilities changes for Hotfix 4.

Deploying SAS Visual Analytics Reports

Hotfix 2 (HF2) delivered the SAS Visual Analytics Reports for SAS Anti-Money Laundering 7.2. After completing all the hotfix installation instructions in this document, you can configure SAS Visual Analytics Reports using the instructions provided in the [SAS Anti-Money Laundering 7.2: Installation and Configuration Guide](#), in the Post-Configuration section entitled **Configure SAS Visual Analytics Reports**.

If you are applying Hotfix 4 (HF4) on a deployment that already has Hotfix 2 (HF2) installed, you should not have to execute these steps again for Hotfix 4 (HF4).

N1F004 Updates SAS Compliance Solutions Compute Tier 7.2

Important Note: For ease of completion of post-installation tasks, you can set the following environment variables:

```
UNIX:
# This should be changed to the path where SAS was installed.
export SASHOME=/install/SASHome

# This should be changed to the configuration folder and level for this deployment.
export SASCONFIG=/install/config/Lev1

# This is the base folder where SAS Compliance Solutions and all business units are deployed.
export FCFBASE=${SASCONFIG}/Applications/SASComplianceSolutions

# This will add the location of the SAS ant executable to the PATH.
export PATH=${SASHOME}/SASEnvironmentManagerAgent/2.5/installer/bin:${PATH}

WINDOWS:
# This should be changed to the path where SAS was installed.
set SASHOME=C:\PROGRA~1\SASHOME

# This should be changed to the configuration folder and level for this deployment.
set SASCONFIG=C:\SAS\Config\Lev1

# This is the base folder where SAS Compliance Solutions and all business units are deployed.
set FCFBASE=C:\SAS\Config\Lev1\Applications\SASComplianceSolutions

# This should add the location of ANT executable provided in the SAS installation, to the
PATH.
set PATH=%SASHOME%\SASEnvironmentManagerAgent\2.5\installer\bin;%PATH%
```

Update and Execute the Multiple Business Unit Ant Configuration Script

To configure the mid-tier, you need to execute an Ant script for each business unit in the system.

1. For UNIX, copy the
\$SASHOME/SASFoundation/9.4/misc/antimnycmn/deploy/script/build.xml file to
\$FCFBASE/**FCFBU1**/config, replacing **FCFBU1** with the appropriate business unit name in your
installation.
For Windows, copy the
%SASHOME%\SASFoundation\9.4\antimnycmn\sasmisc\deploy\script\build.xml file to
%FCFBASE%**FCFBU1**\config, replacing **FCFBU1** with the appropriate business unit name in your
installation.
2. To confirm you have the correct version of the build.xml file, open it in an editor and look at the
first line. If the project name is **am172_core_hf4_N1F004** then you have the updated, hotfix 4
version.
3. In the sections below after executing the appropriate Ant targets, in addition to checking the hotfix log files
for errors, make sure to check the fcf_update.log file to ensure there were no errors invoking SAS to
make updates to the SAS data.

If you have the authority to run database DDL

This section is for those who have the authority to run database DDL scripts to update the database and have entered values for the `dbms.system.userid` and `dbms.system.passwd` in the `build.properties` file.

1. If applying Hotfix 4 to the base version, execute the “hotfix” target to apply the compute tier changes to this business unit:

```
ant hotfix -logfile hotfix4.log
```

If applying Hotfix 4 to the Hotfix 1, Hotfix 2, or Hotfix 3 version, execute the “hotfix4” target:

```
ant hotfix4 -logfile hotfix4.log
```

If you do not have authority to run database DDL

This section is for those who do not have the authority to run database DDL scripts to update the database and need to provide the scripts to a database administrator (DBA) for update.

If applying Hotfix 4 to the base version:

2. Execute the “pre_db_from_base” target to apply the hotfix changes to the business unit configuration and prepare the database DDL that you will provide to the database administrator (DBA):

```
ant pre_db_from_base -logfile pre_db_from_base.log
```

After running the command, check the log file to ensure there are no errors.

3. Provide the following database DDL script to your DBA so that they can make the updates to the database, where `xxxxx` is the value of `dbms.engine` from your `build.properties` file:

```
xxxxx_7.2_to_7.2HF3_ddl.sql
```

4. After the database administrator (DBA) runs the database DDL, complete the hotfix configuration by running the following command:

```
ant post_db_from_base -logfile post_db_from_base.log
```

If applying Hotfix 4 to the Hotfix 1 or Hotfix 2 version:

5. Execute the “pre_db_hotfix3” target to apply the hotfix changes to the business unit configuration and prepare the database DDL that you will provide to the database administrator (DBA):

```
ant pre_db_hotfix3 -logfile pre_db_hotfix3.log
```

After running the command, check the log file to ensure there are no errors.

6. Provide the following database DDL script to your DBA so that they can make the updates to the database, where `xxxxx` is the value of `dbms.engine` from your `build.properties` file:

```
xxxxx_7.2_to_7.2HF3_ddl.sql
```

After the database administrator (DBA) runs the database DDL, complete the hotfix configuration by running the following command:

```
ant post_db_hotfix3 -logfile post_db_hotfix3.log
```

Repeat these steps for each business unit in the system.

N1G004 Updates SAS Compliance Solutions Mid-Tier 7.2

Important Note: For ease of completion of post-installation tasks, you can set the following environment variables:

UNIX:

```
# This should be changed to the path where SAS was installed.
export SASHOME=/install/SASHome
```

```
# This should be changed to the configuration folder and level for this deployment.
export SASCONFIG=/install/config/Lev1
```

```
# This is the base folder where SAS Compliance Solutions and all business units are deployed.
export FCFBASE=${SASCONFIG}/Applications/SASComplianceSolutions
```

```
# This will add the location of the SAS ant executable to the PATH.
export PATH=${SASHOME}/SASEnvironmentManagerAgent/2.5/installer/bin:${PATH}
```

WINDOWS:

```
# This should be changed to the path where SAS was installed.
set SASHOME=C:\PROGRA~1\SASHOME
```

```
# This should be changed to the configuration folder and level for this deployment.
set SASCONFIG=C:\SAS\Config\Lev1
```

```
# This is the base folder where SAS Compliance Solutions and all business units are deployed.
set FCFBASE=C:\SAS\Config\Lev1\Applications\SASComplianceSolutions
```

```
# This should add the location of ANT executable provided in the SAS installation, to the PATH.
set PATH=%SASHOME%\SASEnvironmentManagerAgent\2.5\installer\bin;%PATH%
```

The **N1G004** hotfix requires that the WebApps be rebuilt and redeployed. Use the following steps to perform this post-installation task:

Step 1: Re-build Web Applications

Note: For this step to execute correctly, at the very least the Metadata Server must be running. It is okay if all other servers are still running.

1. Invoke the SAS Deployment Manager 9.4.

For UNIX, from `$SASHOME/SASDeploymentManager/9.4`, execute `sasdm.sh`.

For Windows, from `%SASHOME%\SASDeploymentManager\9.4`, execute `sasdm.exe`.

2. Select a language in the Choose Language box.
3. Select *Rebuild Web Applications*.
4. Select *Configuration Directory* or enter the Configuration Directory and Level that needs to be updated.
5. Specify *Connection Information*, including the sasadm User ID and Password.
6. Select the following WebApps: **Compliance Solutions Mid**
7. Verify the information on the Summary screen and select *Start*.
8. Select *Finish* when the deployment is complete.

This process will update the `.ear` files in `<SASCONFIGDIR>/Web/Staging`. The SAS Deployment Manager will back up the original `.ear` files to the directory below:

`<SASCONFIGDIR>/Web/Staging/Backup`

Step 2: Re-deploy Web Applications

Note: For this step to execute correctly, everything should be running: the Metadata Server, the compute tier servers, and all Mid-Tier web application servers.

1. Invoke the SAS Deployment Manager 9.4.

For UNIX, from `$SASHOME/SASDeploymentManager/9.4`, execute `sasdm.sh`.

For Windows, from `%SASHOME%\SASDeploymentManager\9.4`, execute `sasdm.exe`.

2. Select a language in the *Choose Language* box.
3. Select *Deploy Web Applications*.
4. Select *Configuration Directory* or enter the Configuration Directory and Level that needs to be updated.
5. Specify *Connection Information*, including the sasadm User ID and Password.
6. On the *Stopping Application Server Warning* screen, check the box next to **Allow the application server to stop**.
7. Select the following WebApps: **Compliance Solutions Mid**
8. Verify the information on the Summary screen and select *Start*.
9. Select *Finish* when the deployment is complete.

Step 3: Set up the Multiple Business Unit Ant Configuration Script

To configure the mid-tier, you need to execute an Ant script for each business unit in the system.

1. On the mid-tier server machine, create the folder `$FCFBASE/FCFBU1/configmid` (for UNIX), or `%FCFBASE%\FCFBU1\configmid` (for Windows), if it doesn't already exist.
2. For UNIX, copy the `$SASHOME/SASComplianceSolutionsMidTier/7.2/deploy/script/build.xml` file to `$FCFBASE/FCFBU1/configmid`, replacing **FCFBU1** with the appropriate business unit name in your installation.
For Windows, copy the `%SASHOME%\SASComplianceSolutionsMidTier\7.2\deploy\script\build.xml` file to `%FCFBASE%\FCFBU1\configmid`, replacing **FCFBU1** with the appropriate business unit name in your installation.
3. To confirm you have the correct version of the `build.xml` file, open it in an editor and look at the first line. If the project name is `am172_web_hf4_N1G004` then you have the updated, hotfix 4 version.
4. Create a `build.properties` file with these contents:

```
sashome.dir=/install/SASHome
sasconfig.dir=/install/config/Lev1
metadata.user=sasadm@saspw
metadata.password=password
dbms.segkc.userid=FCFBU1
dbms.segkc.passwd=password
```

For SQLServer databases, also add the following property and the correct value for your system:
`dbms.sqlserver.instance=AMLDB`

Note: On Windows platforms, all paths in the ANT property files must use double backslashes, or a single forward slash, in place of the single backslash character. These are both valid examples:

```
sasconfig.dir=C:/install/config/Lev1
sasconfig.dir=C:\\install\\config\\Lev1
```

Note: You may copy the working `build.properties` file from `$FCFBASE/FCFBU1/config/build.properties` as a convenient starting point. It should have all the settings (and more) that you might need for the mid-tier Ant configuration script.

5. Ensure you are in the `$FCFBASE/FCFBU1/configmid` folder.

If applying Hotfix 4 to the base version, execute the "hotfix" target to apply the midtier changes to this business unit:

```
ant hotfix -logfile hotfix4.log
```

If applying Hotfix 4 to the Hotfix 3 version, execute the "hotfix4" target to apply the midtier changes to this business unit:

```
ant hotfix4 -logfile hotfix4.log
```

Step 4: Reapply Business Unit Datasource Definitions

When the Deployment Manager rebuilds and redeploys the web application WAR file, it overwrites all changes made to the following two files:

```
infrastructure_config.xml
spring-config.properties
```

The files are found in the following folder:

```
$SASCONFIG/Web/WebAppServer/SASServer8_1/sas_webapps/sas.financialservices.a
ml.war/WEB-INF/spring-config
```

After the Deployment Manager redeploys the web application, only datasource definitions for the first bank (FCFBU1) will exist in the files listed above. You need to reapply the datasource information for the remaining business units back into the files. To do this, you will need to execute the following commands in every `configmid` folder *except* the one for the first business unit (FCFBU1), which has already been configured by the Deployment Manager:

For UNIX:

```
cd $FCFBASE/FCFBU2/configmid
cp $SASHOME/SASComplianceSolutionsMidTier/7.2/deploy/script/build.xml .
ant context_xml spring_xml spring_properties -logfile cf1.log
```

For Windows:

```
cd %FCFBASE%\FCFBU2\configmid
copy %SASHOME%\SASComplianceSolutionsMidTier\7.2\deploy\script\build.xml
.
ant context_xml spring_xml spring_properties -logfile cf1_web.log
```

Commented [C(T1)]: Should be -logfile

Perform Step 4 for FCFBU2, FCFBU3, and every other business unit except for the first.

When all business units have been reconfigured, restart the Compliance Solutions Mid-Tier web application server (usually SASServer8_1).

Concluding Steps:

For security reasons, after the configuration is complete you should modify your `build.properties` files to erase any clear text passwords stored in the file.

All users, when logging on to the AML application for the first time after the hotfix was applied, should clear the browser cache to make sure that any data that has been cached by the browser is discarded. Clear cache instructions are browser specific and can be found in the browser documentation or in the Help pages.

This concludes the metadata update portion of the mid-tier configuration.