Installation Instructions for Hot Fix A5T002

Hot fix **A5T002** addresses the issue(s) in *Compliance Solutions 7.1* as documented in the *Issue(s) Addressed* section of the hot fix download page:
http://ftp.sas.com/techsup/download/hotfix/HF2/A5T.html#A5T002

A5T002 is a "container" hot fix that contains the following "member" hot fixes which will update the software components as needed.

A5Q002 updates **SAS Compliance Solutions Mid-Tier 7.1**
A5R002 updates **SAS Compliance Solutions Server 7.1**
A6A002 updates **SAS Compliance Solutions LASR Configuration 7.1**
A6H002 updates **SAS Compliance Solutions Mid-Tier LASR Configuration 7.1**

See What is a container hot fix? in the Hot Fix FAQ for more information about container hot fixes.

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, A5T002pt.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 A5T002pt.zip on each machine or save it in a network location that is accessible to all machines.
Do NOT extract the contents of A5T002pt.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, daemons, spawners and servers 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 A5T002 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 7.1 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 A5T002pt.zip, follow the instructions for applying hot fixes in the **SAS Deployment Wizard and SAS Deployment Manager 9.4: User's Guide**.

Please review the CONFIGURATION Important Note 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_2011-10-31-13.18.21.log. Each attempt to apply a hot fix results in the creation of a new log file giving detailed information regarding the installation process.

Postexec log files are created after the installation is completed and identifies the files that were added, backed up, changed and removed. These log files include the 'member' hot fix id in the name of the file and are also written to the *<!SASHOME>/InstallMisc/InstallLogs* directory. There is one postexec log for each 'member' hot fix applied (member hot fixes are listed at the top of these instructions).

The content of this hot fix is listed in the hot fix manifest.

Post-Installation Instructions:

A5R002 Updates SAS Compliance Solutions Server 7.1

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%
```

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.

Important Note: The **A5R002** hotfix comprises all changes made for hotfix 1 (A5R001), as well as new changes made for hotfix 2 (A5R002). If you previously installed and executed these steps for hotfix1, and are just now installing hotfix 2, you should ignore all the hotfix 1 steps listed in this document after the keyword **HF1**. If you are installing both hotfix 1 and hotfix 2 at the same time, you need to execute all the steps, including those marked by the keywords **HF1** and **HF2**.

Hotfix 1 (HF1) delivers Customer Due Diligence for the first time. It contains data model changes that, when executed, will drop the tables listed below. Do not execute HF1 database steps if HF1 has already been installed. All data in the tables will be deleted, and the tables will be created again with new table definitions. This is a destructive process and if these tables contain data from previous releases of CDD, your data should be backed up before these steps are executed.

FCFKC.FSK_CDD_RULE
FCFKC.FSK_CDD_RULE_PARAMETER
FCFKC.FSK_CDD_RULE_GROUP
FCFKC.FSK_CDD_SCORING_EVENT

The following tables will be created when the DDL is executed:
FCFKC.FSK_CDD_REVIEW
FCFKC.FSK_CDD_REVIEW_EVENT
FCFKC.FSK_CDD_EDD_REVIEW

The following table will be altered:
FCFKC.FSK_RC_FORM_CONFIG

Hotfix 2 (HF2) only alters existing tables, so no data model changes will result in data loss. The following tables will be altered:
   FCFKC.FSK_RC_REPORT
   FCFKC.FSK_CASE

The **A5R002** hotfix contains changed files that need to be applied to every business unit that is configured; for example: FCFBU1, FCFBU2, and FCFBU3. The following steps must be repeated for each business unit, substituting the business unit name wherever you see 'FCFBU1' in the steps below. Execute these steps for the first business unit, then change to the second business unit's **config** folder and execute the steps for the second business unit. Repeat as necessary until all business units have been configured.

1. It is vitally important that you back up your business unit databases.

2. It is vitally important that you back up your business unit folder before you proceed with the next step.

   For UNIX, back up $SASCONFIG/Applications/SASComplianceSolutions/FCFBU1 with its subdirectories.

   for Windows, back up %SASCONFIG%\Applications\SASComplianceSolutions\FCFBU1 with its subdirectories.

   Repeat this backup procedure for each business unit in the system.

3. Change the current directory to the $FCFBASE/**FCFBU1**/config folder.

   Copy the updated build.xml file from SASHOME:
   for UNIX:
   ```
   cp
   $SASHOME/SASFoundation/9.4/misc/antimnycmn/deploy/script/build.xml .
   ```
   for Windows:
   ```
   copy
   %SASHOME%\SASFoundation\9.4\antimnycmn\sasmisc\deploy\script\build.xm
   l .
   ```

4. There should already exist a file named **build.properties** in the current folder, that was used when configuring the system. The file might have been deleted after the business unit was initially configured, if sensitive login passwords needed to be protected. If that is the case, the build.properties file needs to be created according to the instructions provided in the SAS Anti-Money Laundering 7.1 Installation and Configuration Guide, Chapter 5, Post-Configuration, in the section titled "Configure Compute Tier Business Units."

   You will need to provide a value for the following property:
   ```
   jdbc.driver.dir=/install/jdbc/oracle
   ```

   You should not specify the name of the driver in this variable, just the path; the driver name will be appended automatically depending on the DBMS selected.

   In order to connect to the metadata server, you need to provide a value for the following properties:
   ```
   metadata.user=sasadm@saspw
   metadata.password=password
   ```

   To connect to the DBMS and execute the HF1 and HF2 DDL, you need to provide a value for the system account:
   ```
   dbms.system.userid=system
   dbms.system.passwd=password
   ```

5. **HF1: For the first business unit (FCFBU1) only:**

   For this step, the metadata server must be running. To start the metadata server, execute:

   ```
   $SASCONFIG/SASMeta/MetadataServer/MetadataServer.sh start
   ```

   In this step you will deploy hotfix changes that are common to all business unit configurations. This step should be run **only one time** for the first business unit, FCFBU1 or whatever it may be named, and this step must be skipped for successive business units. The metadata server must be running in order for this step to succeed. This step should only be performed if you are configuring hotfix 1 (HF1).

To execute the common code deployment, run **ant** with these parameters:

```
ant hotfix_base -logfile hotfix_base.log
```

When the execution has completed, inspect the hotfix_base.log file and check it for errors. If any errors should occur, please contact SAS Technical Support.

6. **HF1**: In this step you will deploy the hotfix 1 changes to your business unit. This step will replace a large number of files in the business unit configuration folder, including certain files in the custom/source folder, and will execute the hotfix 1 DDL scripts. This step should only be performed if you are configuring hotfix 1 (HF1).

    Execute the hotfix configuration for the current business unit by executing **ant** with these parameters:

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

    When the execution has completed, inspect the hotfix.log file and check it for errors. Also check fcf_update.log and rc_update.log for errors. If any errors should occur, please contact SAS Technical Support.

7. **HF2**: In this step you will deploy the hotfix 2 changes to your business unit. This step will replace a large number of files in the business unit configuration folder, including certain files in the custom/source folder, and will execute the hotfix 2 DDL scripts. This step should be performed if you are configuring hotfix 2 (HF2).

    Execute the hotfix configuration for the current business unit by executing **ant** with these parameters:

    ```
    ant hotfix2 -logfile hotfix2.log
    ```

    When the execution has completed, inspect the hotfix.log file and check it for errors. Also check the rc_update_2.log for errors. If any errors should occur, please contact SAS Technical Support.

8. Start the compute tier servers:

    ```
    ${SASCONFIG}/sas.servers start
    ```

9. Restart the SOLR server after all business units have had the hotfix applied.

    For UNIX, execute:
    ```
    ${SOLR_HOME}/bin/solr restart
    ```

    For Windows, execute:

```
     %SOLR_HOME%\bin\solr.cmd restart -port 8983
```

10. Review the sample program:
    $FCFBASE/FCFBU1/regulatoryConsole/rc_template/rc_fincen_load_sample_data.sas
    Decide if you need to re-execute the program, since the sample data has changed in the
    hotfix delivery.

    Follow the instructions under "Institution and Branch Setup for FinCEN Forms" in Chapter 6,
    "Regulatory Reports and E-Filing" from the SAS Anti-Money Laundering 7.1:
    Administration Guide.

11. For security reasons, you should modify your build.properties file to erase any clear text
    passwords stored in the file.

    For any additional business units, you must repeat all these steps (except #5), for each
    business unit.

    This concludes the compute tier portion of the hotfix configuration.

A5Q002 Updates SAS Compliance Solutions Mid-Tier 7.1

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 **A5Q002** 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: In order 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:
   SAS Compliance Solutions Mid 7.1
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. A backup of the original ear files will be placed in the directory below:
   <SASCONFIGDIR>/Web/Staging/Backup

Step 2: Re-deploy Web Applications

Note: In order 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. Select the following WebApps:
   SAS Compliance Solutions Mid 7.1
7. Verify the information on the Summary screen and select Start

8. Select Finish when the deployment is complete

Step 3: Apply New Groups and Capabilities to Metadata

This hotfix contains changed metadata import data that needs to be applied to the first business unit that was configured when the product was deployed, usually FCFBU1. To configure the mid-tier, you need to execute an Ant script that deploys the antimnylndin.appxml file, token-substitutes it, and then loads it into the SAS Metadata Server. This step needs to be accomplished one time, for FCFBU1.

1. On the mid-tier server machine, create the folder $FCFBASE/**FCFBU1**/configmid, if it doesn't already exist.

2. Copy $SASHOME/SASComplianceSolutionsMidTier/7.1/deploy/script/build.xml there.

3. Create a build.properties file with these contents:
   ```
   sashome.dir=/install/SASHome
   sasconfig.dir=/install/config/Lev1
   jdbc.driver.dir=/install/jdbc/oracle
   metadata.user=sasadm@saspw
   metadata.password=password
   dbms.segkc.userid=FCFBU1
   dbms.segkc.passwd=password
   ```

   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:
   ```
   sashome.dir=C:/install/SASHome
   sashome.dir=C:\\install\\SASHome
   ```

4. Whether you are configuring HF1 only, or HF2 plus HF1, configure the Mid-Tier metadata for FCFBU1 using the command:
   ```
   ant hotfix2 –logfile hotfix2.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:

For UNIX:
```
  cd $FCFBASE/FCFBU2/configmid
  cp
$SASHOME/SASComplianceSolutionsMidTier/7.1/deploy/script/build.xml .
  ant context_xml spring_xml spring_properties –logfile hotfix2.log
```

For Windows:
```
  cd %FCFBASE%\FCFBU2\configmid
  copy
%SASHOME%\SASComplianceSolutionsMidTier\7.1\deploy\script\build.xml .
  ant context_xml spring_xml spring_properties –logfile hotfix2.log
```

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).

For security reasons, you should modify your build.properties file to erase any clear text passwords stored in the file.

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

A6A002 Updates SAS Compliance Solutions LASR Configuration 7.1

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 **A5R002** hotfix contains changed files that need to be applied to every business unit that is configured; for example: FCFBU1, FCFBU2, and FCFBU3. The following steps must be repeated for each business unit, substituting the business unit name wherever you see 'FCFBU1' in the steps below. Execute these steps for the first business unit, then change to the second business unit's **configrpt** folder and execute the steps for the second business unit. Repeat as necessary until all business units have been configured.

1. Create the $FCFBASE/**FCFBU1**/configrpt folder and change directory to that folder:
   For UNIX:
   ```
   mkdir $FCFBASE/FCFBU1/configrpt
   cd $FCFBASE/FCFBU1/configrpt
   ```
   For Windows:
   ```
   mkdir %FCFBASE%\FCFBU1\configrpt
   cd %FCFBASE%\FCFBU1\configrpt
   ```

2. Copy the cslasrc.properties file from <FCFBASE>.
   For UNIX:
   ```
   cp  $FCFBASE/cslasrc.properties  $FCFBASE/FCFBU1/configrpt
   ```
   For Windows:
   ```
   copy  %FCFBASE%\cslasrc.properties  %FCFBASE%\FCFBU1\configrpt
   ```

3. Copy the build.xml file from the SASComplianceSolutionsLASRConfiguration folder:
   For UNIX:
   cp
   $SASHOME/SASComplianceSolutionsLASRConfiguration/7.1/Configurable/deploy/script/build
   .xml .
   For Windows:
   copy
   %SASHOME%\SASComplianceSolutionsLASRConfiguration\7.1\Configurable\deploy\script\bui
   ld.xml

   Create a file in the current directory called **build.properties** and add the following properties to the file:

```
host.name=machine.company.com
```

The host.name value above must refer to the middle tier server.

Because of a defect in the software deployment wizard that causes it to write 8 extra spaces to the value of dbms.segkc.userid in the cslasrc.properties file, you need to provide a property in the build.properties file to override it with a value that contains no trailing spaces:

```
dbms.segkc.userid=FCFBU1
```

If you are configuring an Oracle database, make the following additions to the build.properties:
```
dbms.engine=oracle
dbms.oracle.sid=ORCL
dbms.oracle.servicename=ORCL.COMPANY.COM
dbms.system.userid=system
dbms.system.password=password
dbms.core.userid=FCFCORE
dbms.kc.userid=FCFKC
dbms.segkc.userid=FCFBU1
```

If you are configuring a DB2 database, make the following additions to the build.properties:
```
dbms.engine=db2
dbms.database=database
dbms.system.userid=db2admin
```

If you are configuring a Teradata database, make the following additions to the build.properties:
```
dbms.engine=teradata
dbms.host=dbms.company.com
dbms.database=database
dbms.system.userid=dbc
dbms.teradata.perm.size=1000000000
dbms.teradata.spool.size=50000000
```

If you are configuring a SQLServer database, make the following additions to the build.properties:
```
dbms.engine=odbc
dbms.sqlserver.instance=database
dbms.system.userid=sa
```

If the metadata server is located on a different machine from the mid-tier server, make the following additions to the build.properties file:
```
metadata.host=metadata.company.com
```

If the metadata server operates on a different port from the default, specify the changed port number in the build.properties file:

```
metadata.port=9999
```

4. Execute **ant** to configure the report files and create empty extraction datasets:

```
ant -logfile reports.log
```

5. Validate that the reporting installer created empty report data sets.

You can confirm that the reporting installer ran correctly by looking in $SASCONFIG/AppData/SASComplianceSolutions/FCFBU1/AutoLoad. The following files should be there:

```
active_headers_data.sas7bdat
alert_investigation_extract.sas7bdat
cs_user_info_groups.sas7bdat
jobs_stats_detail.sas7bdat
jobs_stats_summary.sas7bdat
list_report_data.sas7bdat
risk_classifier_report_data.sas7bdat
scenario_audit.sas7bdat
scenario_change_history_data.sas7bdat
scenarios_and_risk_data.sas7bdat
user_group_role_totals.sas7bdat
```

6. Execute $FCFBASE/FCFBU1/AutoLoad/runsas.sh, to upload empty datasets to LASR.

Validate that the Autoload program executed correctly and copied the datasets to LASR. The Autoload log file is located in $FCFBASE/FCFBU1/AutoLoad/Logs.

7. For security reasons, you should modify your build.properties file to erase any clear text passwords stored in the file.

This concludes the LASR configuration portion of the configuration.

A6H002 Updates SAS Compliance Solutions Mid-Tier LASR Configuration 7.1

The **A6H002** hotfix contains an updated version of the AMLReports.spk file located in the following folder:

```
$SASHOME/SASComplianceSolutionsMidTierLASRConfiguration/7.1/Config/De
ployment/Packages
```

From SAS Metadata Console, you need to re-import the AMLReports.spk package. For more detailed information on how to accomplish this, refer to the SAS Anti-Money Laundering 7.1:

Installation and Configuration Guide, under Post-Configuration in the section "Configure Report Tier," step 5.

This concludes the Mid-Tier LASR configuration portion of the configuration.