INSTALLATION INSTRUCTIONS FOR HOT FIX 511RTDM01 ON Solaris 64BIT

BEFORE DOWNLOADING:

The hot fix 511RTDM01 addresses the issue(s) in SAS Real-Time Decision Manager 5.1.1 Software on Solaris 64bit as documented in the "Issue(s) Addressed" section of the hot fix download page:

http://ftp.sas.com/techsup/download/hotfix/rtdm.html#511rtdm01

IMPORTANT NOTE(S):

1. You must have SAS Real-Time Decision Manager 5.1.1 installed on your system before applying this hot fix.

2. It is always recommended that a backup of the original files be made whenever deploying any patch.

3. You must have Administrator Privileges on your CLIENT or SERVER machine.

4. All currently active SAS sessions, daemons, spawners and servers must be terminated before applying this hot fix.

INSTALLATION:

The hot fix package downloaded is a tar file named ***511rtdm01s6.tar***.

1. Extract the contents of 511rtdm01s6.tar to a temporary directory. For example,

```
$  cd /tmp
$ tar -xf 511rtdm01s6.tar
```

This will create a directory named 511rtdm01 which contains the files

511policydesign01s6.tar
contains SAS Real-Time Decision Manager 5.1.1 design server updates on S64

511policyengine01s6.tar
contains SAS Real-Time Decision Manager 5.1.1 engine server updates on S64

511policyconfig01s6.tar
contains SAS Real-Time Decision Manager 5.1.1 SAS connection server updates on S64

511policyadmin01wn.exe
contains SAS Real-Time Decision Manager 5.1.1 plugins for SMC updates on WIN

511rtdm01s6.tar.Z
contains the SAS Foundation updates on S64

Each individual hot fix file should be copied to the appropriate machine(s) where the components to be updated are installed.

2. Use the following instructions to install the individual components that apply to your system:

UPDATING THE DESIGN SERVER
UPDATING THE ENGINE SERVER
UPDATING THE SAS CONNECTION SERVER
UPDATING THE PLUG-INS ON THE SAS MANAGEMENT CONSOLE MACHINE
UPDATING THE SAS FOUNDATION

UPDATING THE DESIGN SERVER:

Installing 511policydesign01s6.tar

The 511policydesign01s6.tar Java installation file contains the following replacement files:

sas.analytics.ph.rt.jar
sas.connection.jar

Perform the following steps on the Design Server machine:

1. Be sure to save a copy of each of the existing files before replacing them with the updated files. The files that should be backed up before continuing are listed in the next step (Step #2).

2. Extract the contents of the tar file into the temporary directory /tmp/511rtdm01.

```
$> cd /tmp/511rtdm01
$> tar -xf ./511policydesign01s6.tar
```

The tar command will extract the following files to the temporary directory:

s64/Setup_Solaris_Sparc
s64/media.inf
s64/setup.jar

3. Verify that Setup_Solaris_Sparc has execute permission. If it does not, use the 'chmod' command to make it executable:

```
$> cd /tmp/511policydesign01s6/s64
$> chmod 755 Setup_Solaris_Sparc
```

4. Initiate the installation wizard

```
$> export DISPLAY=<nodename>:0        <==== set your display
$> cd /tmp/511policydesign01s6/s64
$> ./Setup_Solaris_Sparc
```

This initiates the InstallShield Wizard. Follow the prompts to complete the installation.

5. Verify the installation of the hot fix by confirming that the file(s) in the location(s) below have been updated to the level indicated by the date provided:

<!SASHOME>/SASRealTimeDecisionManager/5.1/Design/war/WEB-INF/lib/
sas.analytics.ph.rt.jar
Date: 05/22/08 (EST)

<!SASHOME>/SASRealTimeDecisionManager/5.1/Design/war/WEB-INF/lib/sas.connection.jar
Date: 05/22/08 (EST)

Post-Installation Instructions to update the SAS Real-Time Decision Design Server:

The SAS Real-Time Decision Manager Design Server provides a script called reconfigure_RTDM_Design.bat to enable you to easily modify the Design Server ear file. The initial install and configuration of the Design Server created a file called install.properties which contains configuration property values specific to the install. The install.properties file must be in the same directory from which the reconfigure_RTDM_Design.sh script is executed.

Note: The Java executable must be present in your path.

Follow these steps to update the Design Server ear:
1. Execute the reconfigure_RTDM_Design script, as follows:
   - Go to the setup directory and run reconfigure_RTDM_Design.sh.
   - The script generates a new sas.analytics.ph.designserver.ear file in the install directory.
2. Stop and uninstall the old ear file in the WebSphere container.
3. Reinstall this new ear sas.analytics.ph.designserver.ear into the WebSphere container.
4. You should store a copy of the install.properties file in a secure location.

The configuration script creates an ear file in the install location of your SAS Real-Time Decision Manager Design Server.

UPDATING THE ENGINE SERVER:

Installing 511policyengine01s6.tar

The 511policyengine01s6.tar Java installation file contains the following replacement files:

sas.analytics.ph.rt.jar
sas.connection.jar

Perform the following steps on the Engine Server machine:

1. Be sure to save a copy of each of the existing files before replacing them with the updated files. The files that should be backed up before continuing are listed in the next step (Step #2).

2. Extract the contents of the tar file into the temporary directory /tmp/511rtdm01.

```
$> cd /tmp/511rtdm01
$> tar -xf ./511policyengine01s6.tar
```

The tar command will extract the following files to the temporary directory:

s64/Setup_Solaris_Sparc
s64/media.inf
s64/setup.jar

3. Verify that Setup_Solaris_Sparc has execute permission. If it does not, use the 'chmod' command to make it executable:

```
$> cd /tmp/511policyengine01s6/s64
$> chmod 755 Setup_Solaris_Sparc
```

4. Initiate the installation wizard

```
$>  export DISPLAY=<nodename>:0        <===== set your display
$>  cd /tmp/511policyengine01s6/s64
$>  ./Setup_Solaris_Sparc
```

This initiates the InstallShield Wizard. Follow the prompts to complete the installation.

5. Verify the installation of the hot fix by confirming that the file(s) in the location(s) below have been updated to the level indicated by the date provided:

<!SASHOME>/SASRealTimeDecisionManager/5.1/Engine/war/WEB-INF/lib/
sas.analytics.ph.rt.jar
Date: 05/22/08 (EST)
<!SASHOME>/SASRealTimeDecisionManager/5.1/Engine/war/WEB-INF/lib/sas.connection.jar
Date: 05/22/08 (EST)

Post-Installation Instructions to update the SAS Real-Time Decision Engine Server:

Engine Server Reconfiguration

The SAS Real-Time Decision Manager Engine Server provides a script called reconfigure_RTDM.sh to enable you to easily modify the Engine Server ear file. The initial install and configuration of the Engine Server created a file called install.properties which contains configuration property values specific to the install. The install.properties file must be in the same directory from which the reconfigure_RTDM.sh script is executed.

Follow these steps to run the reconfigure script:

1. Execute the reconfigure_RTDM script, as follows:
    - Go to the setup directory and run reconfigure_RTDM.sh.
2. The script generates a new sas.analytics.rtdm.j2ee.server.ear file in the install directory.
3. Stop and uninstall the old ear file in the WebSphere container.
4. Reinstall this new ear sas.analytics.rtdm.j2ee.server.ear into the WebSphere container.
5. You should store a copy of the install.properties file in a secure location.

The configuration script creates an ear file in the install location of your SAS Real-Time Decision Manager Engine Server.

UPDATING THE SAS CONNECTION SERVER:

Installing 511policyconfig01s6.tar

Prior to installing the 511policyconfig01s6.tar:

1. Make a copy of the objspawn.cfg file in the [installroot]/SASRealTimeDecisionManager/5.1/ServerConfig directory.
2. Add a Request Queue and a Response Queue for the new Single Data Step version of the SAS Connection Server to your Websphere MQ Server.
3. Add a Request Queue for the Audit Log to your Websphere MQ server.

The 511policyconfig01s6.tar Java installation file contains the following replacement files:

sc_close_queues.sas
sc_connect_queues.sas
sc_echo_test.sas
sc_get_msg.sas
sc_license_check.sas
sc_nexttoken.sas
sc_process_msg.sas
sc_process_input.sas
sc_process_output.sas
sc_programs.sas
sc_put_msg.sas
sc_read_table.sas
sc_single_data_step.sas
sc_variable_test.sas

sc_variables.sas
SCSingleDataStepStart.sas
objspawn.cfg.new

Perform the following steps on the SAS Connection Server machine:

1. Extract the contents of the tar file into the temporary directory /tmp/511rtdm01.

```
$> cd /tmp/511rtdm01
$> tar -xf ./511policyconfig01s6.tar
```

The tar command will extract the following files to the temporary directory:

s64/Setup_Solaris_Sparc
s64/media.inf
s64/setup.jar

2. Verify that Setup_Solaris_Sparc has execute permission. If it does not, use the 'chmod' command to make it executable:

```
$> cd /tmp/511policyconfig01s6/s64
$> chmod 755 Setup_Solaris_Sparc
```

3. Initiate the installation wizard

```
$>  export DISPLAY=<nodename>:0        <===== set your display
$>  cd /tmp/511policyconfig01s6/s64
$>  ./Setup_Solaris_Sparc
```

This initiates the InstallShield Wizard. Follow the prompts to complete the installation.

4. Verify the installation of the hot fix by confirming that the following file(s) have been placed in <!SASHOME>/SASRealTimeDecisionManager/5.1/ServerConfig/SingleDataStep:

sc_close_queues.sas
sc_connect_queues.sas
sc_echo_test.sas
sc_get_msg.sas
sc_license_check.sas
sc_nexttoken.sas
sc_process_msg.sas
sc_process_input.sas
sc_process_output.sas
sc_programs.sas
sc_put_msg.sas
sc_read_table.sas
sc_single_data_step.sas

sc_variable_test.sas
sc_variables.sas
SCSingleDataStepStart.sas
objspawn.cfg.new

Post installation instructions to update SAS Connection Server:

On each SAS Connection Server the following steps must be taken to update your configuration:

1) Edit the objspawn.cfg file found in the
[install root]/SASRealTimeDecisionManager/5.1/ServerConfig directory:

a) Cut and Paste the contents of the objspawn.cfg.new file into the bottom of the objspawn.cfg file.

b) For each of the following tags, replace the tag with the value found in the install.properties file (use search & replace):

- $RTDM_SERVER_SAS_EXECUTABLE$
- $RTDM_SERVER_SAS_CONFIG$
- $RTDM_SERVER_ROOT$
- $RTDM_SERVER_SASMACHINEDNSNAME$
- $RTDM_SERVER_QTRANSPORT$
- $RTDM_SERVER_QTHRESHOLD$
- $RTDM_SERVER_SASQWAIT$
- $RTDM_SERVER_SASQSESSIONMAX$

c) Manually edit the following tags with the correct values:

- $RTDM_SERVER_MQ_QUEUEMANAGER_SDS$ - The name of the queue manager to use for the SAS Connection Single Data Step version. Most commonly will be the same as the queue manager name set higher in the file. (Look for sasQManagerName)
- $RTDM_SERVER_MQ_REQUESTQ_SINGLE_SDS$ - The name of the Request Queue to use for the SAS Connection Single Data Step version. Note: This must be different from the request queue used in the macro (original) version of the SAS Connection Server.
- $RTDM_SERVER_MQ_QUEUEMANAGER_AUDIT_LOG$ - The name of the queue manager to use for the Audit Log. Most commonly will be the same as the queue manager name set higher in the file. (Look for sasQManagerName)
- $RTDM_SERVER_MQ_REQUESTQ_AUDIT_LOG$ - The name of the Request Queue to use for the Audit Log. Note: This must be different from the request queue used in the macro (original) version and the Single Data Step version of the SAS Connection Server.

2) Move the SCSingleDataStepStart.sas file from
[install root]/SASRealTimeDecisionManager/5.1/ServerConfig/SingleDataStep
to
[install root]/SASRealTimeDecisionManager/5.1/ServerConfig and edit the following:

a) For each of the following tags, replace the tag with the value found in the install.properties file (use search & replace):

- $RTDM_SERVER_LIBRARIES$
- $RTDM_SERVER_ROOT$

•$RTDM_SERVER_MQ_CLIENT$
•$RTDM_SERVER_MQ_MSG_TIMEOUT$

b) Manually edit the following tags with the correct values:

• $RTDM_SERVER_MQ_RESPONDQ_SDS$ - The name of the Response Queue to use for the SAS Connection Single Data Step version.

3) New Resources and Activities

With the initial install three SAS Connection Resources were created. These point to the original Macro version of SAS Connection. An additional resource should be created using the RTDM SMC plug-in that points to the queues used for the new Single Data Step version of SAS Connection. Name these queues RequestQSD and ResponseQSD. Use these names in the configuration step above.

Note: These resources correspond to the resources set up on the SAS Connection Server in the objspawn.cfg file. Different queues must be used for each resource however they can all use the same Queue Manager.

In the initial install, an activity called SASGeneralIO is created that points to the macro version of SAS Connection. A second General IO activity must be created that points to the new single data step version of SAS Connection. The SASGeneralIO Activity will be used for updates and inserts and the new activity will be used for reads. Be sure to update the CI process nodes to use the appropriate activity.

Add permissions to the new single data step queues by executing the commands below as the MQ user.

Be sure to substitute the following symbols with the values found from step 1c:
$RTDM_SERVER_MQ_QUEUEMANAGER_SDS$
$RTDM_SERVER_MQ_REQUESTQ_SINGLE_SDS$
$RTDM_SERVER_MQ_QUEUEMANAGER_AUDIT_LOG$
$RTDM_SERVER_MQ_REQUESTQ_AUDIT_LOG$

Substitute $RTDM_SERVER_MQ_RESPONDQ_SDS$ with the value found in step 2b and $RTDM_SERVER_GROUP_NAME$ with the value found in the install.properties file.

```
setmqaut -m $RTDM_SERVER_MQ_QUEUEMANAGER_SDS$ -n
$RTDM_SERVER_MQ_REQUESTQ_SINGLE_SDS$ -t q -g $RTDM_SERVER_GROUP_NAME$
+allmqi
setmqaut -m $RTDM_SERVER_MQ_QUEUEMANAGER_SDS$ -n
$RTDM_SERVER_MQ_RESPONDQ_SDS$ -t q -g $RTDM_SERVER_GROUP_NAME$ +allmqi
setmqaut -m $RTDM_SERVER_MQ_QUEUEMANAGER_AUDIT_LOG$ -n
$RTDM_SERVER_MQ_REQUESTQ_AUDIT_LOG$  -t q -g $RTDM_SERVER_GROUP_NAME$
+allmqi
```

UPDATING THE PLUG-INS ON THE SAS MANAGEMENT CONSOLE MACHINE:

Installing 511policyadmin01wn.exe

The SAS Management Console Plug-In component of the hot fix package is a self-extracting executable named 511policyadmin01wn.exe. The file contains the following replacement files:

sas.connection.jar
sas.analytics.ph.rt.jar
sas.rdm.ui.mgrs.jar
sas.smc.realtimedecisionmgr.jar

Perform the following steps on the SAS Management Console machine:

1. Copy and install the 511policyadmin01wn.exe file on the SAS Management Console machine.

2. Launch the executable to initiate the Java installation wizard, which guides you through the extraction of the updated component(s).

3. Verify the installation of the hot fix by confirming that the file(s) in the location(s) below have been updated to the level indicated by the date provided:

<!SASHOME>\SASManagementConsole\9.1\plugins\sas.analytics.ph.rt.jar
Date: 05/22/08 (EST)

<!SASHOME>\SASManagementConsole\9.1\plugins\sas.connection.jar
Date: 05/22/08 (EST)

<!SASHOME>\SASManagementConsole\9.1\plugins\sas.rdm.ui.mgrs.jar
Date: 05/22/08 (EST)

<!SASHOME>\SASManagementConsole\9.1\plugins\sas.smc.realtimedecisionmgr.jar
Date: 05/22/08 (EST)

UPDATING THE SAS FOUNDATION:

Installing 511rtdm01s6.tar.Z

The name of the tar file is 511rtdm01s6.tar.Z, and it contains the following updated files:

* mmutil.sas7bcat
  the replacement catalog containing the hot fix in !SASROOT/sashelp
* sasmacr.sas7bcat
  the replacement catalog containing the hot fix in !SASROOT/cmacros/policymva

Perform the following steps on the SAS Foundation on S64. In this example, !SASROOT represents the directory where SAS 9.1.3 (9.1 TS1M3) is installed:

/usr/local/SAS/SAS_9.1

1. Back up the existing version of mmutil.sas7bcat and sasmacr.sas7bcat before extracting the contents of this hot fix.

```
$> cd /usr/local/SAS/SAS_9.1
$> cp sashelp/mmutil.sas7bcat sashelp/mmutil.sas7bcat.bak
$> cp cmacros/policymva/sasmacr.sas7bcat cmacros/policymva/sasmacr.sas7bcat.bak
```

2. Extract the contents of the hot fix package.

```
$> pwd
    /usr/local/SAS/SAS_9.1
$> uncompress -c /tmp/511rtdm01/511rtdm01s6.tar.Z  |  tar -xfp -
```

3. Execute the script that will update the hot fix installation history file. This script MUST be executed from the !SASROOT directory.

```
$> pwd
      /usr/local/SAS/SAS_9.1

$> install/admin/hotfix/histupd_511rtdm01
```

This completes the installation of hot fix 511RTDM01 on Solaris.