



## SAS Drug Development API 1.7.1

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Installation Qualification / Operational Qualification Checklist

Install SDD API 1.7.1

**Version 1.00**  
**Date March 28, 2014**

### Checklist A: “Install SDD API”

**Note:** This checklist assumes you have completed an installation of SDD and are installing or upgrading the SDD API.

| Checklist A: “Install SDD API” |  | Corresponding Document: <i>None</i>        |                |
|--------------------------------|--|--|----------------|
| #                              | Activity   | Expected Results                           | Actual Results |
| A1.                            | Login to an admin PC.  | Windows display appears.                   |                |
| A2.                            | Using the putty tool, create an <b>ssh</b> connection from the admin PC to the <b>web server</b> and login as <b>webtrust</b> .  | You’re prompted for the password.          |                |
| A3.                            | Enter the <i>password</i> for webtrust.  | You’re logged into web server.             |                |
| A4.                            | Use the <b>script</b> command to capture commands that are typed in the Unix window. The syntax is <b>script /var/staging_logs/&lt;servername&gt;_sddapi1.7.1_&lt;date&gt;.txt</b>   | System should indicate script has started. |                |
| A5.                            | From the admin PC, download the <b>SDD API 1.7.1</b> distribution from the SAS Hot Fix site. After the distribution has been downloaded, use the WinSCP2 tool to copy the file to <b>/home/webtrust/Installs</b> on the web server. Transfer it as a <b>binary</b> file using the <b>webtrust</b> userid.<br><br><b>sdd-java-api-server-1.7.1.zip</b><br><br><i>Note:</i> In a clustered web server environment, this file needs to be copied to each web server in the cluster. | The file is transferred to the web server. |                |
| A6.                            | Type <b>cd /sfw/tcServer</b>   | Navigate to that directory.                |                |

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|--------------------------------|--|---|----------------|
| #                              | Activity   | Expected Results  | Actual Results |
| A7.                            | Type <b>./tcruntime-ctl.sh sddserver1 stop</b>   | System displays:<br><br>INFO Instance name: sddserver1<br>INFO Script directory: /apps/tcServer<br>INFO tc Runtime location:/apps/tcServer<br>INFO Instance base: /apps/tcServer<br>INFO Binary dir: /apps/tcServer/tomcat-6.0.35.A.RELEASE<br>INFO Runtime version: 6.0.35.A.RELEASE<br>INFO Script version: 2.6.3.RELEASE<br>Instance is running as PID=29796, shutting down...<br>Instance is running PID=29796, sleeping for up to 60 seconds waiting for shutdown<br>Instance shut down gracefully |                |
| A8.                            | Type <b>ps -ef   grep webtrust</b>   | You should not see the tcserver process running.  |                |
| A9.                            | Type <b>cd sddserver1/logs</b>   | Navigate to the /sfw/tcServer/sddserver1/logs directory.  |                |
| A10.                           | Delete or rename the <b>sdd_info.log</b> and <b>catalina.out</b> files.  | Log files are deleted or renamed.   |                |
| A11.                           | Type <b>ls -al</b>   | Verify that log files have been renamed or deleted.   |                |
| A12.                           | Repeat <b>steps A6 – A11</b> for the remaining tcServers.<br><br><i>Note:</i> You do not have to stop the <b>sddserveradmin</b> server.<br><br><i>Note:</i> In a clustered web server environment, steps A6 – A12 must be performed on each web server in the cluster. | The tcServers are stopped with the exception of the sddserveradmin server.  |                |
| A13.                           | Type <b>cd /home/webtrust/Installs</b>   | Navigate to that directory.   |                |
| A14.                           | Type <b>unzip sdd-java-api-server-1.7.1.zip</b>  | The contents of the zip file are extracted.   |                |
| A15.                           | Type <b>ls -al</b>   | You will see an sdd-java-api-server-1.7 directory that was created in the previous step.  |                |
| A16.                           | Type <b>cd sdd-java-api-server-1.7.1</b>   | Navigate to that directory.   |                |

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|--------------------------------|------------------------------|---|----------------|
| #                              | Activity                     | Expected Results  | Actual Results |
| A17.                           | Type <b>ant deploy</b>       | <p>System displays:</p> <p>Buildfile: build.xml</p> <p>deploy:<br/>[echo] User home = /home/webtrust</p> <p>deploy-server1:</p> <p>do-deploy:<br/>[echo] Deploying distribution to =<br/>/sfw/tcServer/sddserver1/webapps/sdd<br/>[copy] Copying 4 files to<br/>/sfw/tcServer/sddserver1/webapps/sdd/WEB-INF<br/>[copy] Copying /home/webtrust/Installs/sdd-java-api-server-1.7/WEB-INF/lib/sas.hls.drug.api.client.jar to /sfw/tcServer/sddserver1/webapps/sdd/WEB-INF/lib/sas.hls.drug.api.client.jar<br/>[copy] Copying /home/webtrust/Installs/sdd-java-api-server-1.7/WEB-INF/lib/sas.hls.drug.api.server.jar to /sfw/tcServer/sddserver1/webapps/sdd/WEB-INF/lib/sas.hls.drug.api.server.jar<br/>[copy] Copying /home/webtrust/Installs/sdd-java-api-server-1.7/WEB-INF/spring-config/services-config-RAP I.xml to /sfw/tcServer/sddserver1/webapps/sdd/WEB-INF/spring-config/services-config-RAPI.xml<br/>[copy] Copying /home/webtrust/Installs/sdd-java-api-server-1.7/WEB-INF/spring-config/services-remote-config-RAPI.xml to /sfw/tcServer/sddserver1/webapps/sdd/WEB-INF/spring-config/services-remote-config-RAPI.xml<br/>...</p> <p>deploy-server5:</p> <p>deploy-server6:</p> <p>deploy-server7:</p> <p>deploy-server8:</p> <p>BUILD SUCCESSFUL<br/>Total time: 0 seconds</p> |                |
| A18.                           | Type <b>cd /sfw/tcServer</b> | Navigate to that directory.   |                |

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|--------------------------------|---|--|----------------|
| #                              | Activity  | Expected Results   | Actual Results |
| A19.                           | Type <code>./tcruntime-ctl.sh sddserver1 start</code> | <p>System displays:</p> <p>INFO Instance name: sddserver1<br/> INFO Script directory: /sfw/tcServer<br/> INFO tc Runtime location:/sfw/tcServer<br/> INFO Instance base: /sfw/tcServer<br/> INFO Binary dir: /sfw/tcServer/tomcat-6.0.35.A.RELEASE<br/> INFO Runtime version: 6.0.35.A.RELEASE<br/> INFO Script version: 2.6.3.RELEASE<br/> Using CATALINA_BASE: /sfw/tcServer/sddserver1<br/> Using CATALINA_HOME: /sfw/tcServer/tomcat-6.0.35.A.RELEASE<br/> Using CATALINA_TMPDIR: /sfw/tcServer/sddserver1/temp<br/> Using JRE_HOME: /usr/bin/jdk/jdk1.6.0_35<br/> Using CLASSPATH: /sfw/tcServer/sddserver1/bin/tomcat-juli.jar:/sfw/tcServer/tomcat-6.0.35.A.RELEASE/bin/bootstrap.jar<br/> Using CATALINA_PID: /sfw/tcServer/sddserver1/logs/tcserver.pid</p> |                |

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| #                              | Activity  | Expected Results  | Actual Results |
| A20.                           | Type <b>ps -ef   grep webtrust</b>  | <p>System displays:</p> <pre>webtrust 12786  1 99 16:42 pts/1  00:00:41 /usr/bin/jdk/jdk1.6.0_35/bin/java - Djava.util.logging.config.file=/sfw/tcServer/sddserver1/conf/ logging.properties -Xms4g -Xmx4g -Xss256k - XX:PermSize=512m -XX:MaxPermSize=512m - XX:NewSize=1g -XX:MaxNewSize=1g - XX:+UseConcMarkSweepGC -XX:+UseParNewGC - XX:+CMSScavengeBeforeRemark - XX:+CMSParallelRemarkEnabled - XX:CMSInitiatingOccupancyFraction=70 - XX:+DisableExplicitGC -XX:+UseCompressedOops - XX:+UseLargePages -XX:LargePageSizeInBytes=2m - XX:+PrintGCDetails -XX:+PrintGCDateStamps - XX:+PrintFlagsFinal - Xloggc:/sfw/tcServer/sddserver1/logs/gc_sddlight1_03_20_ 2013_1642.log -XX:+HeapDumpOnOutOfMemoryError - Djava.net.preferIPv4Stack=true - Djava.net.preferIPv6Addresses=false - Djgroups.bind_addr=149.173.88.180 - Djava.util.logging.manager=com.springsource.tcserver.servi ceability.logging.TcServerLogManager - Djava.endorsed.dirs=/sfw/tcServer/tomcat- 6.0.35.A.RELEASE/endorsed -classpath /sfw/tcServer/sddserver1/bin/tomcat- juli.jar:/sfw/tcServer/tomcat- 6.0.35.A.RELEASE/bin/bootstrap.jar - Dcatalina.base=/sfw/tcServer/sddserver1 - Dcatalina.home=/sfw/tcServer/tomcat-6.0.35.A.RELEASE - Djava.io.tmpdir=/sfw/tcServer/sddserver1/temp org.apache.catalina.startup.Bootstrap start</pre> |                |
| A21.                           | Type <b>cd sddserver1/logs</b>  | Navigate to the /sfw/tcServer/sddserver1/logs directory.  |                |
| A22.                           | Type <b>tail -f sdd_info.log</b><br><br><i>Note:</i> Depending on how fast your server is, you may need to type <b>tail -300 sdd_info.log</b> | <p>You will see the contents of the log file while the server is starting up. Look for the following lines, indicating success start of process.</p> <pre>2013-03-20 16:43:00,508   INFO   TCIRA   Starting Coyote HTTP/1.1 on http-8001 2013-03-20 16:43:00,520   INFO   TCIRA   Server startup in 14602 ms 2013-03-20 16:43:09,517   INFO   SDIRA     Starting Quartz Scheduler now, after delay of 10 seconds</pre>  |                |
| A23.                           | Hit <b>Ctrl-C</b> to stop viewing this log file.  | You no longer see the output of the log file.   |                |

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|--------------------------------|--|---|----------------|
| #                              | Activity   | Expected Results                                  | Actual Results |
| A24.                           | Repeat <b>steps A18 – A23</b> to start up any additional sddservers.<br><br><i>Note:</i> In a clustered web server environment, steps A13 – A24 must be performed on all web servers in the cluster. | Steps repeated as necessary.                      |                |
| A25.                           | Hit <b>Ctrl-D</b> to stop the script command.  | System indicates script stopped running.          |                |
| A26.                           | Type <b>exit</b>   | The webtrust userid is logged off the web server. |                |

*Signature below indicates completion of Checklist A, items A1 – A26, above.*

Name (print or type): \_\_\_\_\_ Sign-off : \_\_\_\_\_ Date: \_\_\_\_\_