



## SAS Drug Development 4.5.4

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*September 2, 2016*  
*Upgrade Instructions*

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### **SAS Drug Development 4.5.4, Installation Instructions**

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**Checklist A: “Backup of Customized SDD Files”**

**Note:** This document is intended to assist an administrator in installing *SAS Drug Development (SDD) 4.5.4* from version *4.5, 4.5.1, 4.5.2 or 4.5.3*.

**Prerequisites:** All installation checklists for SDD 4.5 should have been completed prior to completing this checklist.

Checklist A: “Backup of Customized SDD Files”		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 web server and login as <b>webtrust</b> .  Make sure the Enable X11 forwarding option is not set. Setting this option causes the web application to crash occasionally.	You’re prompted for the password.	
A3.	Enter the webtrust <i>password</i> .	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;_454upgrade.txt</b>	System should indicate script has started.	
A5.	If any customizations were made to the SDD 4.5 web application, these files should be copied to another location on this server.  <b>Ex: cp /sso/sfw/tcServer/sddserver1/webapps/sdd/WEB-INF/web.xml /sso/sfw/sdd45_custom</b>	Files are copied as a backup.	
A6.	Repeat <b>steps A1 – A5</b> for any additional sddservers.	Steps repeated as necessary.	

*Signature below indicates completion of Checklist A, items A1 – A6, above.*

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

**Checklist B: “Deploy the SDD 4.5.4 Distribution”**

Checklist B: “Deploy the SDD 4.5.4 Distribution”		Corresponding Document: <i>None</i>	
#	Activity	Expected Results	Actual Results
B1.	<p><b><u>Transfer Files</u></b></p> <p>From the admin PC, download the <b>SDD 4.5.4</b> distribution from the SAS Hot Fix site. After the distribution has been downloaded, use the WinSCP2 tool to copy this file to <b>/sso/sfw/installers</b> on the web server. Transfer this as a binary file.</p> <p><b>sdd-4.5.4.PROD.29.20160912.161710.zip</b></p>	The file is transferred to the web server.	
B2.	<p><b><u>Shutdown tcServers</u></b></p> <p>Type <b>cd /sso/sfw/tcServer</b></p>	Navigate to that directory.	
B3.	Type <b>./tcruntime-ctl.sh sddserver1 stop</b>	<p>System displays:</p> <p>INFO Instance name: sddserver1            INFO Script directory: /sso/sfw/tcServer            INFO tc Runtime location:/sso/sfw/tcServer            INFO Instance base: /sso/sfw/tcServer            INFO Binary dir: /sso/sfw/tcServer/tomcat-6.0.35.A.RELEASE            INFO Runtime version: 6.0.35.A.RELEASE            INFO Script version: 2.6.3.RELEASE            Instance is running as PID=29796, shutting down...            Instance is running PID=29796, sleeping for up to 60 seconds waiting for shutdown            Instance is still running PID=29796, forcing a shutdown</p>	
B4.	Type <b>ps -ef   grep webtrust</b>	You should not see the tcserver process running.	
B5.	Type <b>cd sddserver1/logs</b>	Navigate to the <b>/sso/sfw/tcServer/sddserver1/logs</b> directory.	
B6.	Delete or rename the <b>sdd_info.log</b> and <b>catalina.out</b> files.	Log files are deleted or renamed.	

Checklist B: "Deploy the SDD 4.5.4 Distribution"		Corresponding Document: <i>None</i>	
#	Activity	Expected Results	Actual Results
B7.	Type <b>ls -al</b>	Verify that log files have been renamed or deleted and the .pid file has been deleted.	
B8.	Repeat <b>steps B2 – B7</b> for the remaining tcServers, including stopping the <b>sddserveradmin</b> tcServer. Repeat this for each physical server that has tcServers installed.	There are no tcServer processes running.	
B9.	<b>Unzip and Deploy the Build</b>  Type <b>cd /home/webtrust/Installs</b>	Navigate to that directory.	
B10.	Type <b>rm -rf dist</b>	The dist directory is deleted.	
B11.	Type <b>ls -al</b>	Verify that the dist directory was deleted.	
B12.	Type <b>cp /sfw/installers/sdd-4.5.4.PROD.29.20160912.161710.zip .</b>	The SDD 4.5.4 binary is copied.	
B13.	Type <b>unzip -q sdd-4.5.4.PROD.29.20160912.161710.zip</b>	The contents of the zip file are extracted.	
B14.	Type <b>ls -al</b>	You will see a dist directory that was created in the previous step.	
B15.	Type <b>cd dist/install</b>	Navigate to the /home/webtrust/Installs/dist/install directory.	
B16.	Type <b>ant clean</b>	System displays:  Buildfile: /home/webtrust/Installs/dist/install/build.xml  clean: [delete] Deleting directory /sso/sfw/tcServer/sddserveradmin/webapps/xythosadmin [delete] Deleting directory /sso/sfw/tcServer/sddserver1/webapps/sdd [delete] Deleting directory /sso/sfw/tcServer/sddserver2/webapps/sdd [delete] Deleting directory /sso/sfw/tcServer/sddserver3/webapps/sdd [delete] Deleting directory /sso/sfw/tcServer/sddserver4/webapps/sdd  BUILD SUCCESSFUL Total time: 0 seconds	

Checklist B: "Deploy the SDD 4.5.4 Distribution"		Corresponding Document: <i>None</i>	
#	Activity	Expected Results	Actual Results
B17.	Type <b>ant deploy</b>	<pre> System displays:  Buildfile: /home/webtrust/Installs/dist/install/build.xml  deploy:  deploy-tomcat-1:  do-deploy:   [echo] Deploying to tcServer...   [echo] tcServer home = /sso/sfw/tcServer   [echo] tcServer deployment = /sso/sfw/tcServer/sddserver1/webapps/sdd   [copy] Copying 565 files to /sso/sfw/tcServer/sddserver1/webapps/sdd  deploy-tcserver-2:  ...  deploy-tcserver-8:  deploy-admin-server:   [echo] Configuring administration server /sso/sfw/tcServer/sddserveradmin   [unzip] Expanding: /home/webtrust/Installs/dist/webapps/xythosadmin.war into /sso/sfw/tcServer/sddserveradmin/webapp s/xythosadmin   [copy] Copying 2 files to /sso/sfw/tcServer/sddserveradmin/webapps/xythosadmin/WE B-INF/lib   [copy] Copying 3 files to /sso/sfw/tcServer/sddserveradmin   [copy] Copying 1 file to /sso/sfw/tcServer/sddserveradmin/lib   [copy] Copying 1 file to /sso/sfw/tcServer/sddserveradmin/webapps/xythosadmin/WE B-INF/classes  deploy-admin-embedded:  BUILD SUCCESSFUL Total time: 2 seconds </pre>	

Checklist B: "Deploy the SDD 4.5.4 Distribution"		Corresponding Document: <i>None</i>	
#	Activity	Expected Results	Actual Results
B18.	If you are not installing or updating the JavaAPI, then <b>skip to step B24</b> . Otherwise, type <b>cd ../../</b> .	Navigate to the /home/webtrust/Installs directory.	
B19.	Type <b>unzip sdd-java-api-server-1.7.1.1.zip</b>	The contents of the zip file are extracted.	
B20.	Type <b>ls -al</b>	You will see an sdd-java-api-server-1.7.1.1 directory that was created in the previous step.	
B21.	Type <b>cd sdd-java-api-server-1.7.1.1</b>	Navigate to that directory.	

Checklist B: "Deploy the SDD 4.5.4 Distribution"		Corresponding Document: <i>None</i>	
#	Activity	Expected Results	Actual Results
B22.	Type <b>ant deploy</b>	System displays: Buildfile: build.xml deploy: [echo] User home = /home/webtrust deploy-server1: do-deploy: [echo] Deploying distribution to = /sso/sfw/tcServer/sddserver1/webapps/sdd [copy] Copying 4 files to /sso/sfw/tcServer/sddserver1/webapps/sdd/WEB-INF [copy] Copying /home/webtrust/Installs/sdd-java-api-server-1.7.1.1/WEB-INF/spring-config/services-config-RAPL.xml to /sso/sfw/tcServer/sddserver1/webapps/sdd/WEB-INF/spring-config/services-config-RAPL.xml [copy] Copying /home/webtrust/Installs/sdd-java-api-server-1.7.1.1/WEB-INF/lib/sas.hls.drug.api.jar to /sso/sfw/tcServer/sddserver1/webapps/sdd/WEB-INF/lib/sas.hls.drug.api.jar [copy] Copying /home/webtrust/Installs/sdd-java-api-server-1.7.1.1/WEB-INF/spring-config/services-remote-config-RAPL.xml to /sso/sfw/tcServer/sddserver1/webapps/sdd/WEB-INF/spring-config/services-remote-config-RAPL.xml [copy] Copying /home/webtrust/Installs/sdd-java-api-server-1.7.1.1/WEB-INF/lib/sas.hls.drug.api.server.jar to /sso/sfw/tcServer/sddserver1/webapps/sdd/WEB-INF/lib/sas.hls.drug.api.server.jar ... deploy-server5: deploy-server6: deploy-server7: deploy-server8: BUILD SUCCESSFUL Total time: 1 seconds	



Checklist B: "Deploy the SDD 4.5.4 Distribution"		Corresponding Document: <i>None</i>	
#	Activity	Expected Results	Actual Results
B23.	Repeat steps <b>B9 - B22</b> for each physical server that has tcServers installed.	Additional tcServers are updated.	
B24.	<b><u>Startup tcServer Admin Server</u></b>  Type <b>cd /sso/sfw/tcServer</b>	Navigate to that directory.	
B25.	Type <b>./tcruntime-ctl.sh sddserveradmin start</b>	System displays:  INFO Instance name: sddserveradmin INFO Script directory: /sso/sfw/tcServer INFO tc Runtime location:/sso/sfw/tcServer INFO Instance base: /sso/sfw/tcServer INFO Binary dir: /sso/sfw/tcServer/tomcat-6.0.35.A.RELEASE INFO Runtime version: 6.0.35.A.RELEASE INFO Script version: 2.6.3.RELEASE Using CATALINA_BASE: /sso/sfw/tcServer/sddserveradmin Using CATALINA_HOME: /sso/sfw/tcServer/tomcat-6.0.35.A.RELEASE Using CATALINA_TMPDIR: /sso/sfw/tcServer/sddserveradmin/temp Using JRE_HOME: /usr/bin/jdk/jdk1.6.0_35 Using CLASSPATH: /sso/sfw/tcServer/tomcat-6.0.35.A.RELEASE/bin/bootstrap.jar Using CATALINA_PID: /sso/sfw/tcServer/sddserveradmin/logs/tcserver.pid	

Checklist B: "Deploy the SDD 4.5.4 Distribution"		Corresponding Document: <i>None</i>	
#	Activity	Expected Results	Actual Results
B26.	Type <b>ps -ef   grep webtrust</b>	System displays:  <pre>webtrust 3963 1 0 11:47 ? 00:01:42 /usr/bin/jdk/jdk1.6.0_35/bin/java - Djava.util.logging.config.file=/sso/sfw/tcServer/sddserve radmin/conf/logging.properties -Xss192K -Xms1024M - Xmx1024M -XX:PermSize=320m - XX:MaxPermSize=320m -XX:NewSize=128m - XX:MaxNewSize=256m -XX:+UseConcMarkSweepGC -XX:-UseTLAB -XX:+DisableExplicitGC - XX:+HeapDumpOnOutOfMemoryError - Djava.util.logging.manager=com.springsource.tcserver.s erviceability.logging.TcServerLogManager - Djava.endorsed.dirs=/sso/sfw/tcServer/tomcat- 6.0.35.A.RELEASE/endorsed -classpath /sso/sfw/tcServer/tomcat- 6.0.35.A.RELEASE/bin/bootstrap.jar - Dcatalina.base=/sso/sfw/tcServer/sddserveradmin - Dcatalina.home=/sso/sfw/tcServer/tomcat- 6.0.35.A.RELEASE - Djava.io.tmpdir=/sso/sfw/tcServer/sddserveradmin/temp org.apache.catalina.startup.Bootstrap start</pre>	
B27.	Type <b>cd sddserveradmin/logs</b>	Navigate to the /sso/sfw/tcServer/sddserveradmin/logs directory.	

Checklist B: "Deploy the SDD 4.5.4 Distribution"		Corresponding Document: <i>None</i>	
#	Activity	Expected Results	Actual Results
B28.	Type <b>tail -1000 catalina.out</b>	<p>System displays:</p> <pre> Mar 26, 2012 10:21:56 AM org.apache.catalina.startup.Catalina load INFO: Initialization processed in 736 ms Mar 26, 2012 10:22:35 AM org.apache.catalina.startup.Catalina start INFO: Server startup in 39283 ms [2012-03-26T15:22:35Z] [Par..ing_41] Info ParameterMaster:308 Xyθος WebFile Server Parameter Value Listing WebFile Server Version: 7.2.88.1020 Server last reloaded at: 2012 03 26 10:21:56 EST Xyθος.RunMode = XyθοςStorageServer Command Line or Init File Parameter Values Xyθος.Install=default Xyθος.ServerGroup=default Xyθος.BaseDBType=oracle Xyθος.BaseDBUserName=xgs  Xyθος.BaseJDBCDriverName=oracle.jdbc.OracleDrive r ..... Hosted Virtual Servers default (default) ...  Mar 26, 2012 10:44:27 AM org.apache.catalina.startup.Catalina load INFO: Initialization processed in 729 ms Mar 26, 2012 10:44:35 AM org.apache.catalina.startup.Catalina start INFO: Server startup in 7734 ms </pre>	
B29.	Hit <b>Ctrl-C</b> to stop viewing this log file.	You no longer see the output of the log file.	
B30.	<p><b><u>Startup tcServer sddservers</u></b></p> <p>Type <b>cd /sso/sfw/tcServer</b></p>	Navigate to that directory.	

Checklist B: "Deploy the SDD 4.5.4 Distribution"		Corresponding Document: <i>None</i>	
#	Activity	Expected Results	Actual Results
B31.	Type <code>./tcruntime-ctl.sh sddserver1 start</code>	<p>System displays:</p> <pre> INFO Instance name:  sddserver1 INFO Script directory:  /sso/sfw/tcServer INFO tc Runtime location:/sso/sfw/tcServer INFO Instance base:  /sso/sfw/tcServer INFO Binary dir:  /sso/sfw/tcServer/tomcat-6.0.35.A.RELEASE INFO Runtime version:  6.0.35.A.RELEASE INFO Script version:  2.6.3.RELEASE Using CATALINA_BASE: /sso/sfw/tcServer/sddserver1 Using CATALINA_HOME:  /sso/sfw/tcServer/tomcat-6.0.35.A.RELEASE Using CATALINA_TMPDIR: /sso/sfw/tcServer/sddserver1/temp Using JRE_HOME:  /usr/bin/jdk/jdk1.6.0_35 Using CLASSPATH:  /sso/sfw/tcServer/tomcat-6.0.35.A.RELEASE/bin/bootstrap.jar Using CATALINA_PID: /sso/sfw/tcServer/sddserver1/logs/tcserver.pid </pre>	
B32.	Type <code>ps -ef   grep webtrust</code>	<p>System displays:</p> <pre> webtrust 3963  1 0 11:47 ?  00:01:42 /usr/bin/jdk/jdk1.6.0_35/bin/java - Djava.util.logging.config.file=/sso/sfw/tcServer/sddserver1/conf/logging.properties -Xms1024m -Xmx1024m - XX:PermSize=320m -XX:MaxPermSize=320m - Xss160k -XX:NewSize=128m -XX:MaxNewSize=256m - -XX:+UseConcMarkSweepGC -XX:-UseTLAB - XX:+DisableExplicitGC - Djava.util.logging.manager=com.springsource.tcserver.serviceability.logging.TcServerLogManager - Djava.endorsed.dirs=/sso/sfw/tcServer/tomcat-6.0.35.A.RELEASE/endorsed -classpath /sso/sfw/tcServer/tomcat-6.0.35.A.RELEASE /bin/bootstrap.jar - Dcatalina.base=/sso/sfw/tcServer/sddserver1 - Dcatalina.home=/sso/sfw/tcServer/tomcat-6.0.35.A.RELEASE - Djava.io.tmpdir=/sso/sfw/tcServer/sddserver1/temp org.apache.catalina.startup.Bootstrap start </pre>	

Checklist B: "Deploy the SDD 4.5.4 Distribution"		Corresponding Document: <i>None</i>	
#	Activity	Expected Results	Actual Results
B33.	Type <b>cd sddserver1/logs</b>	Navigate to the /sso/sfw/tcServer/sddserver1/logs directory.	
B34.	Type <b>tail -f sdd_info.log</b>  <i>Note:</i> Depending on how fast your server is, you may need to type <b>tail -300 sdd_info.log</b>	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.  2013-09-06 15:30:16,692   INFO   TCIRA   Starting Coyote HTTP/1.1 on http-8001 2013-09-06 15:30:16,701   INFO   TCIRA   Server startup in 19635 ms 2013-09-06 15:30:24,990   INFO   SDIRA     Starting Quartz Scheduler now, after delay of 10 seconds	
B35.	Hit <b>Ctrl-C</b> to stop viewing this log file.	You no longer see the output of the log file.	
B36.	Repeat <b>steps B30 – B35</b> to start up any additional sddservers. Repeat this for each physical server that has tcServers installed.	Steps repeated as necessary.	
B37.	Hit <b>Ctrl-D</b> to stop the script command.	System indicates script stopped running.	
B38.	Type <b>exit</b>	You're logged off the web server.	

*Signature below indicates completion of Checklist B, items B1 – B38, above.*

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