

# Sqoop2 Manual Setup

This document outlines how to manually build and setup a Sqoop2 installation. It is expected that this setup will eventually be replaced by the assembly setup of Sqoop2 which will automate these steps.

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## Building Sqoop2

Checkout sources:

```
$ svn co https://svn.apache.org/repos/asf/sqoop/branches/sqoop2
```

And build them by doing the following:

```
$ cd sqoop2
$ mvn install
```

For the rest of this document we will refer to the workspace directory as ***sqoop workspace*** where necessary.

## Setup Install Structure

Create another directory outside of Sqoop2 workspace where you will install the system.

```
$ cd ..
$ mkdir s2test
$ cd s2test
```

Within this directory, create subdirectories as noted below

```
$ mkdir bin conf logs repository
$ ls
$ ls -l
total 0
drwxr-xr-x 2 arvind staff 68 May  9 00:26 bin
drwxr-xr-x 2 arvind staff 68 May  9 00:26 conf
drwxr-xr-x 2 arvind staff 68 May  9 00:26 logs
drwxr-xr-x 2 arvind staff 68 May  9 00:26 repository
$
```

## Add Tomcat Server

Download Tomcat version 7.0.X to a convenient location, and untar it in the `s2test` directory and rename the expanded directory to `server`.

```
$ wget http://apache.mirrors.hoobly.com/tomcat/tomcat-7/v7.0.27/bin/apache-tomcat-7.0.27.tar.gz
...
$ tar zxvf apache-tomcat-7.0.27.tar.gz
...
$ rm apache-tomcat-7.0.27.tar.gz
$ mv apache-tomcat-7.0.27 server
```

Now configure the Tomcat server to setup the configuration directory for Sqoop2. This can be done by creating a file called `setenv.sh` under `server` / `bin` directory. This file should contain the setting for Sqoop2 configuration directory as follows:

```
$ # Working directory is s2test created earlier
$ echo "export JAVA_OPTS=-Dsqoop.config.dir=/path/to/s2test/conf" >> server/bin/setenv.sh
$ chmod +x server/bin/setenv.sh
```

**Note:** You must specify the correct path to the `s2test` directory in the above command.

## Setup Configuration

Under the `s2test/conf` directory, setup the bootstrap configuration `sqoop_bootstrap.properties` as follows:

```
# File s2test/conf/sqoop_bootstrap.properties
sqoop.config.provider=org.apache.sqoop.core.PropertiesConfigurationProvider
```

Now setup the main configuration `sqoop.properties` as follows:

```
# File s2test/conf/sqoop.properties
# Log4J system
org.apache.sqoop.log4j.appender.file=org.apache.log4j.RollingFileAppender
org.apache.sqoop.log4j.appender.file.File=/path/to/s2test/logs/sqoop.log
org.apache.sqoop.log4j.appender.file.MaxFileSize=25MB
org.apache.sqoop.log4j.appender.file.MaxBackupIndex=5
org.apache.sqoop.log4j.appender.file.layout=org.apache.log4j.PatternLayout
org.apache.sqoop.log4j.appender.file.layout.ConversionPattern=%d{ISO8601} %-5p %c{2} [%1] %m%n

org.apache.sqoop.log4j.debug=true
org.apache.sqoop.log4j.rootCategory=WARN, file
org.apache.sqoop.log4j.category.org.apache.sqoop=DEBUG
org.apache.sqoop.log4j.category.org.apache.derby=INFO

# Repository
org.apache.sqoop.repository.provider=org.apache.sqoop.repository.JdbcRepositoryProvider
org.apache.sqoop.repository.jdbc.handler=org.apache.sqoop.repository.derby.DerbyRepositoryHandler
org.apache.sqoop.repository.jdbc.transaction.isolation=READ_COMMITTED
org.apache.sqoop.repository.jdbc.maximum.connections=10
org.apache.sqoop.repository.jdbc.url=jdbc:derby:/path/to/s2test/repository/db;create=true
org.apache.sqoop.repository.jdbc.create.schema=true
org.apache.sqoop.repository.jdbc.driver=org.apache.derby.jdbc.EmbeddedDriver
org.apache.sqoop.repository.jdbc.user=sa
org.apache.sqoop.repository.jdbc.password=
org.apache.sqoop.repository.sysprop.derby.stream.error.file=/path/to/s2test/logs/derbyrepo.log
```

**Note:** You must specify the correct path to the `s2test` directory in the above configuration entries where necessary.

## Deploy Sqoop2

To deploy Sqoop2 to the Tomcat, simply copy over the `sqoop.war` file from `sqoop2/server/target/` to the `s2test/server/webapps` directory. It is recommend that when you do this the Tomcat server should not be running and that you delete any exploded webapp directory for sqoop2 if it exists in the Tomcat server.

```
$ cp /path/to/sqoop2/server/target/sqoop.war /path/to/s2test/server/webapps/
$ rm -rf /path/to/s2test/server/webapps/sqoop2/
```

## Start Sqoop2

To start Sqoop2 now, simply start the Tomcat server.

```
$ /path/to/s2test/server/bin/catalina.sh start
```

If everything is fine, you will see logfiles by the name `derbyrepo.log` and `sqoop.log` created under `/path/to/s2test/logs` directory. The contents of the `sqoop.log` should indicate successful startup of the system.

By default the Tomcat server listens on port 8080 and you can access Sqoop2 by going to the URL <http://localhost:8080/sqoop/>.

You can try accessing the version resource by entering the following address in your browser: <http://localhost:8080/sqoop/version>

The output may be something like the following:

```
{"revision":"1238736","protocols":["1"],"date":"Wed May  9 00:23:18 PDT 2012","user":"arvind","url":"https://\n/svn.apache.org/repos/asf/sqoop/branches/sqoop2/common","version":"2.0.0-SNAPSHOT"}
```

To stop Sqoop2, simply stop the Tomcat server. To update Sqoop2 to test out the changes you are working on, you should stop the server and redeploy the freshly generated war file as noted above.