

Draft

Schemation DEM

Installation Guide (Unix)

This document provides instruction on how to install Schemation's Database Environment Manager (DEM)

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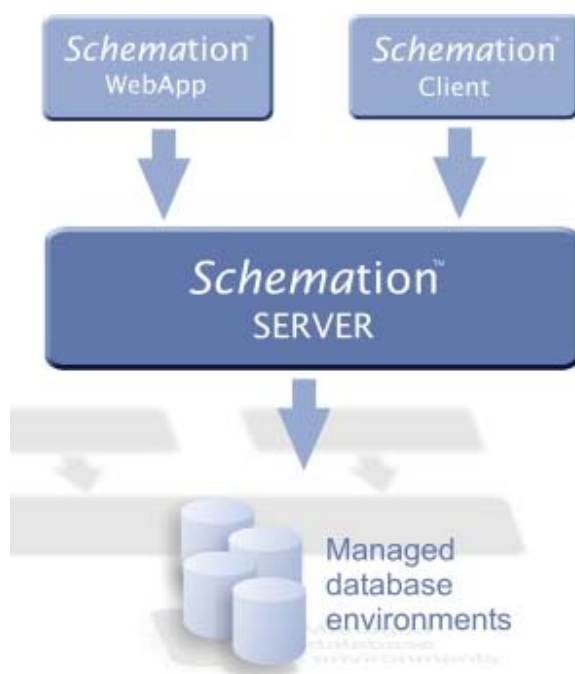
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Introduction

This document describes the installation steps for Schemation's DEMs three main components:

- Section 1: The Schemation DEM server, which performs all the database build operations.
- Section 2: The Web Application that users access via a browser to build and manage their database environments.
- Section 3: The Schemation DEM Client Installation that user can manually or programmatically interact with to build database environment from ddl/sql source code.



1 Schemation Server Install

1.1 Prerequisites

- Install Oracle (See Appendix 1: Oracle Install)

1.2 Installation Steps

1.2.1 Overview

- Create Tablespace
- Install Schemation Repository

1.2.2 Create Tablespace for you Schemation Install

Create SCHEMATION Tablespace using following code, replace DATA_FILE_HOME with location where databases datafile are kept:

```
CREATE TABLESPACE SCHEMATION DATAFILE '<DATA_FILE_HOME>/SCHEMATION_01.dbf'  
SIZE 300M AUTOEXTEND OFF LOGGING EXTENT MANAGEMENT LOCAL UNIFORM SIZE 512K SEGMENT SPACE  
MANAGEMENT AUTO;
```

Create SCH_TEST_100K tablespace using following code, replace DATA_FILE_HOME with location where databases datafile are kept:

```
CREATE TABLESPACE SCH_TEST_100K DATAFILE '<DATA_FILE_HOME>/SCH_TEST_100K_01.dbf'  
SIZE 50M AUTOEXTEND OFF LOGGING EXTENT MANAGEMENT LOCAL UNIFORM SIZE 100k;
```

1.2.3 Creating Repository

Copy and unpack the Schemation DEM distribution to your machine.

```
cp <distmedia>/Release_X_Y_Z.tar.gz <destination dir>/  
cd <destination dir>  
tar zxvf Release_X_Y_Z.tar.gz
```

Change to the database directory and log into sqlplus as follows:

```
cd <destination dir>/release_x_y_z/database  
sqlplus /nolog
```

Run the install Schemation

```
@install_schemation.sql

Please enter the TNS Service Name...

(e.g. nitst)

Please enter the password of the SYS account for that database:

<password>

Enter the name of the account which is to own the Schemation Environment Manager
[SCHEMATION]:

<press enter for default>

Enter the name of the account which is to be the Schemation WWW account [SCHEMATION_WWW]:

<press enter for default>

Enter the name of the account which is to be the Schemation Test account [SCHEMATION_TST]:

<press enter for default>

Enter the name of the account which is to be the Schemation Administration Account
[Sch_ADMIN]:

<press enter for default>

If these accounts already exist on this server, they will all be dropped without further
query.

Are you really sure you wish to do this?: (Y/N) [N]:

Y

Enter the name of the tablespace which is to hold the Schemation Environment Manager
objects:

(e.g. SCHEMATION)

Enter the name of the tablespace which may be used for TEMPORARY storage by Schemation:

(e.g. TEMP)

You get message 'Schemation has now been installed successfully.'
```

2 Schemation WebApp Install

2.1 Prerequisites

- Apache/Tomcat Installed (See Appendix 3:Apache/Tomcat Install)

2.2 Installation Steps

2.2.1 Install Oracle Drivers

If you have not already done so as part of the Apache/Tomcat install, copy the Oracle jdbc (ojdbc14.jar) library from the Oracle client installation directory (\$ORACLE_HOME/jdbc/lib) into the <TOMCAT_HOME>/common/libs directory so that the Schemation application can connect to the database.

```
cp $ORACLE_HOME/jdbc/lib <TOMCAT_HOME>/common/libs/
```

2.2.2 Deploy the Schemation application

Copy the schemation.war file to the <TOMCAT_HOME>/webapps directory. If tomcat is running, the package should be automatically unpacked and deployed.

```
cp <destination dir>/release_x_y_z/web/release_x_y_z.war <TOMCAT_HOME>/webapps/
```

Edit <TOMCAT_HOME>/conf/Catalina/localhost/test_release_1_0.xml

```
<Context reloadable="true" debug="1">
  <Resource name="jdbc/schemation"
    auth="Container"
    type="javax.sql.DataSource"
    factory="org.apache.tomcat.dbcp.dbcp.BasicDataSourceFactory"
    driverClassName="oracle.jdbc.driver.OracleDriver"
    removeAbandoned="true"
    removeAbandonedTimeout="30"
    maxActive="50"
    maxIdle="3"
    maxWait="10000"
    username="@schemation_www@"
    password="@schemation_www_passwd@"
    url="@jdbc_connectstring@"
    accessToUnderlyingConnectionAllowed="true"/>
</Context>
```

Changing the @txt@ field to match your username/password and connect strings for your Schemation installation, for example ...

```
username="SCHEMATION_WWW"  
password="SCHEMATION_WWW"  
url="jdbc:oracle:thin:@localhost:1521:schm"/>
```

2.2.3 Starting the application

Go to:

```
cd <TOMCAT_HOME>/bin/  
./startup.sh
```

For testing the application see 'Testing the Install' section.

Stopping the application

Go to:

```
cd <TOMCAT_HOME>/bin/  
./shutdown.sh
```

2.2.4 Testing the Install

To test the applications go to:

<http://localhost:8080/schemation/> or http://localhost:8080/release_x_y_z/

Login using username/password: SCH_ADMIN/SCH_ADMIN

- Please change your admin password upon logon

3 Schemation Client Install

3.1 Prerequisites

- Installation Perl.

3.2 Installation Steps

3.2.1 Update environment variable file

```
vi <destination dir>/bin/test_envs
```

- SCH_HOME is pointing to your Schemation home
- SCH_DBCON is correct database connect string for your environment
- SCH_PENV is your environment you want to build
- ORACLE_HOME is your correct RDBMS home

e.g.

```
export SCH_HOME=../test
export SCH_DBCON=SCHEMATION_TST/SCHEMATION_TST@<YOUR SID>
export SCH_PENV=SCH_TEST
export SCH_PARALLEL_LOADER=5
export ORACLE_HOME=<YOUR ORACLE_HOME>
```

3.2.2 Build environment

To build use:

```
cd <destination dir>/bin
. ./test_envs
./schemation_build
```

To forcefully build use \-f option:

```
cd <destination dir>\bin
. ./test_envs
./schemation_build -f
```


Appendix 1: Oracle Install

Prerequisites

- None

Installation Steps

Download Oracle 11g or 10g from Oracle site (see appendix), or use Oracle CD

- 11g: <http://www.oracle.com/technology/software/products/database/index.html>
- 10g: <http://www.oracle.com/technology/software/products/database/oracle10g/htdocs/10201winsoft.html>

Follow Oracle install guide to install the database on your server

Minimum requirement is database with Oracle Standard or Oracle Standard One license is

Creating database

Using Oracle database creation instruction, create a vanilla database.

Make sure database listener is running and the database is registered.

Post database creation

Appendix 2: Java Install

Prerequisites

- Install JAVA JDK (not JRE) 1.5.0 or higher

Installation Steps

Software used in section are latest tested version when writing this document, you can find out from Schemation site which other latest version are supported, and download the latest supported Java and Tomcat. Installation notes of the latest versions are not provided, you can get the install notes from the software providers site.

Install Java

Install jdk 1.5.0 (NOT jre) or later for your relevant platform (If not already installed*).

To test if you already have it open a terminal (\$) and type java -version

Depending on your Unix platform and distribution, you may be able install using package management tool like yum, up2date or apt-get.

Post Java Install

Set JAVA_HOME environment variable on middleware user's profile. Similar to below:

```
JAVA_HOME=/usr/java/jdk1.5.0_21
PATH=$JAVA_HOME/bin:$PATH:$HOME/bin
export PATH JAVA_HOME
```

Resources

Java 5.0 download site

- http://java.sun.com/javase/downloads/index_jdk5.jsp
- <http://java.sun.com/javase/downloads/index.jsp>

Appendix 3: Apache/Tomcat Install

Prerequisites

- Install jdk 1.5.0 (NOT jre) or later for your relevant platform (If not already installed*).

Installation Steps

Install Tomcat 5.5 or later by following the instructions at Tomcat Downloads.

Optionally (as this will be covered later again) install the Oracle client drivers.

Copy the Oracle jdbc (ojdbc14.jar) library from the Oracle client installation directory (\$ORACLE_HOME/jdbc/lib) into the <TOMCAT_HOME>/common/libs directory so that the schemation application can connect to the database.

Resources

Tomcat 5.5.27 download site

- <http://archive.apache.org/dist/tomcat/tomcat-5/v5.5.27/bin/>
- <http://tomcat.apache.org/download-55.cgi>

Appendix 4: Perl Install

Perl Install

Follow Perl Installation instructions from ActivePerl

Pre build checks

Make sure that `job_queue_processes` is 10 or more, use following command as system user to check:

```
show parameter job_queue_processes;
```

If change the system to make the `job_queue_processes` 10 or more use following command:

```
alter system set job_queue_processes=10 scope=both;
```