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| **L&T Technology Services**  Site Manager Auditing & Reporting Tool (SMART)  Installation Guide  **V4.0** |

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| **Approver Name** | **Title** | **Signature** | **Date** |
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# Introduction

This document will describe the step-by-step process of installation and deployment of Site Manager Audit Reporting and Testing Tool (SMART).

## Target Audience

This document will help to setup, create and deploy SMART at customer location. This will help Developer to do the setup, create SMART package, deploy and test. This will also help QA to do the setup, deploy and test.

## Environment

SMART installer has been developed on Ubuntu OS (Ubuntu 16.04 LTS and above).

# Software specification

The installer will install the following software in the Ubuntu system

* Java (jdk1.8.0\_131)
* Application server (Tomcat)
* Maven (3.2.3)
* MariaDB (Version-10.2.14)
* MongoDB (Version 3.2.22)

The installer will be installing the application server, java and MariaDB, MongoDB.

**NOTE**: [The MariaDB and MongoDB Server will be installed in to localhost]

**Prerequisite**

* To install MariaDB make sure MYSQL is not present in the system

**Steps to uninstall MYSQL**

sudo apt-get remove --purge mysql-server mysql-client mysql-common -y

sudo apt-get autoremove -y

sudo apt-get autoclean

rm -rf /etc/mysql

# SMART Installation Guide for QA

If the user has access to SVN, then download **“SMART.tar.gz”** from central repository-SVN and copy into /home/<user>/.

Untar the SMART.tar.gz file. (sudo tar -xvf SMART.tar.gz)

Go to Installer folder (cd /home/<user>/SMART/Installer)

Provide executable permission to SMARTSetup folder

(sudo chmod -R +x SMARTSetup/)

## To deploy SMART package in to server and start the server

**Step 1**: [Fresh installation of SMART needs java, MariaDB, MongoDB database server, Tomcat web application server]

[NOTE: If java, MariaDB, Tomcat server are already installed then skip step 1 and go to step 2]

Go to SMARTSetup folder

(cd /home/<user>/SMART/Installer/SMARTSetup)

Execute the script **“SMARTConfig.sh”** (bash SMARTConfig.sh demo)

The script will display the following options as mentioned below.

[1] SMART Install - New Installation

[2] Generate SMART Demo Package - Creates SMART package (tar.gz with war,

sql and SMART config folder)

[3] Deploy SMART Demo - Deploy the SMART Package (war, sql and

SMART config folder)

[4] Clean Deployment - Cleans Tomcat Server Deployment

[5] Start Tomcat Server - Start Tomcat server

[6] Stop Tomcat Server - Stop Tomcat Server

[7] Exit - Exits the setup

Select option 1 to install java, Tomcat server, MongoDB and MariaDB. Please provide password when installer will prompt for MariaDB credentials.

Select option 2. This will build the source code and generate a gun zip file SMARTInstallbles.tar.gz. It will contain SMART\_x\_x\_x.tar.gz, executable war file and database dump file.

**Note**: please don’t run 2nd command unless SMARTInstallables.tar.gz is present in the current directory . Please go with 3rd step onwards Take SMARTInstallbles.tar.gz from the svn repository and place inside SMARTSetup demo folder.

**Step 2**: [To deploy the SMART web application]

* Download the **“SMARTInstallbles.tar.gz”** from central repository and copy inside SMARTSetup folder.
* Execute the script **“SMARTConfig.sh”** (bash SMARTConfig.sh demo)
* Select option 3. This will perform SMART tool deployment and will prompt for the MariaDB credentials.

1. Please provide MariaDB ip [Default: localhost]: press enter

(Hit enter if MariaDB is installed locally or provide external server IP where MariaDB is installed.)

1. Please provide MariaDB root password: press enter

(Hit enter to use default password, default password is null or provide external MariaDB server root password)

* On successful deployment, the following message will be displayed,

“SMART web application deployed successfully."

**Step 3**. [To start the server]

* Execute the script **“SMARTConfig.sh”** (bash SMARTConfig.sh demo)
* Select option 4, it will start the Tomcat server
* Open browser (chrome, Firefox) and type in the URL (https://localhost:8060/#/)
* If the installation and deployment is correct then the URL will display the SMART application user login page.

## Stop Tomcat server

* Browse to SMARTSetup folder

(cd /home/<user>/SMART/Installer/SMARTSetup)

* Execute the shell script **“SMARTConfig.sh”** (bash SMARTConfig.sh demo)
* Select option 5 to stop Tomcat server.

## Exit from the script

* Go to SMARTSetup folder

(cd /home/<user>/SMART/Installer/SMARTSetup)

* Execute the shell script **“SMARTConfig.sh”** (bash SMARTConfig.sh demo)
* Select option 6 to exits from the script.

# SMART Installation Guide for Developer

1. If the user has access to SVN, then download **“SMART.tar.gz”** from central repository-SVN and copy into /home/<user>/.
2. Untar the SMART.tar.gz file.

(sudo tar -xvf SMART.tar.gz)

1. Go to Installer folder (cd /home/<user>/SMART/Installer)
2. Provide executable permission to SMARTSetup folder

(sudo chmod -R +x SMARTSetup/)

## To generate and deploy SMART package in to server and start the server:

**Step 1**: [Fresh installation of SMART needs java, Maven, MariaDB and MongoDB database server, Tomcat web application server]

[NOTE: If java, MariaDB, MongoDB, Tomcat server are already installed then skip step 1 and go to step 2]

* Go to SMARTSetup folder

(cd /home/<user>/SMART/Installer/SMARTSetup)

* Execute the script **“SMARTConfig.sh”** (bash SMARTConfig.sh dev)
* The script will display the following options as mentioned below.

[1] SMART Web Software Info - SMART Web Software Info

[2] SMART Install - New Installation

[3] Create SMART Installable Package - Creates SMART package (tar.gz with war, sql and SMART config folder)

[4] Deploy SMART Package - Deploy the SMART Package (war, sql and SMART config folder)

[5] Generate war - Generates SMART war file

[6] Clean Deployment - Deletes Existing SMART setup

[7] Deploy war - Deploy SMART war file

[8] Start Server - Start SMART server

[9] Stop Server - Stop SMART Server

[10] Create MariaDB Dump - Generates MariaDB dump

[11] Restore MariaDB Dump - Restore MariaDB dump

[12] MariaDB Config - MariaDB Ip and Password Configuration for SMART

[13] Exit - Exit

* Select option 2 to install java, Maven, Tomcat server, MongoDB and MariaDB. Provide the password for MARIADB, when it will prompt for the MARIADB credentials.

**Step 2:** [To generate SMART package for the SMART web application]

* + Execute the script **“SMARTConfig.sh”** (bash SMARTConfig.sh dev)
  + Select option 3. This will build the source code and generate a gun zip file SMARTInstallbles.tar.gz. It will contain SMART.tar.gz, executable war file and database dump file.
  + SMARTInstallbles.tar.gz will generate inside SMARTSetup folder, Developer can provide this package to QA for further testing.

**Step 3:** [To deploy the SMART web application]

* Execute the script **“SMARTConfig.sh”** (bash SMARTConfig.sh dev)
* Select option 4. This will perform SMART tool deployment and will prompt for the MARIADB credentials.

1. Please provide MariaDB ip [Default: localhost]: press enter

(Hit enter if MariaDB is installed locally or provide external server IP where MARIADB is installed.)

1. Please provide MariaDB root password: press enter

(Hit enter to use default password, or provide external MARIADB server root password)

* On successful deployment, the following message will be displayed,

“SMART web application deployed successfully and server will start automatically"

## To Clean SMART package from server:

* Browse to SMARTSetup folder

(cd /home/<user>/SMART/Installer/SMARTSetup)

* Execute the shell script **“SMARTConfig.sh”** (bash SMARTConfig.sh dev)
* Select option 6 to clean SMART executable war file from server. This will clean the database, war and configuration Thales folder.

## To Create MARIADB Dump:

* Browse to SMARTSetup folder

(cd /home/<user>/SMART\_Phase\_I\_v1.0.0/Installer/SMARTSetup)

* Execute the shell script **“SMARTConfig.sh”** (bash SMARTConfig.sh dev)
* Select option 10 to generate MariaDB dump. This will create MariaDB dump inside SMARTSetup/ SMARTInstallbles folder.

## To Restore MARIADB Dump:

* Browse to SMARTSetup folder

(cd /home/<user>/SMART/Installer/SMARTSetup)

* Execute the shell script **“SMARTConfig.sh”** (bash SMARTConfig.sh dev)
* Select option 11 to restore MariaDB dump in MariaDB server.

## To Generate SMART executable war:

* Browse to SMARTSetup folder

(cd /home/<user>/SMART/Installer/SMARTSetup)

* Execute the shell script **“SMARTConfig.sh”** (bash SMARTConfig.sh dev)
* Select option 5 to generate the SMART executable war file inside SMARTSetup/SMARTInstallbles folder.

## To Deploy SMART executable war:

* Browse to SMARTSetup folder
* (cd /home/<user>/SMART/Installer/SMARTSetup)
* Execute the shell script **“SMARTConfig.sh”** (bash SMARTConfig.sh dev)
* Select option 7 to deploy the SMART executable war in to server.

## To start/stop Tomcat server:

* Browse to SMARTSetup folder
* (cd /home/<user>/SMART/Installer/SMARTSetup)
* Execute the shell script **“SMARTConfig.sh”** (bash SMARTConfig.sh dev)
* Select option 8 to start Tomcat server.
* Select option 9 to stop Tomcat server.

## Change MariaDB Ip and Password:

* Browse to SMARTSetup folder
* (cd /home/<user>/SMART/Installer/SMARTSetup)
* Execute the shell script **“SMARTConfig.sh”** (bash SMARTConfig.sh dev)
* Select option 12 to change MariaDB ip and password for **SMARTConfig**.

**URL: https://localhost:8060/#/**