Test Data Management

Software Version 24.2.1

Installation Guide

opentext™

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Documentation updates

The title page of this document contains the following identifying information:

- Software Version number, which indicates the software version.
- Document Release Date, which changes each time the document is updated.
- Software Release Date, which indicates the release date of this version of the software.

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Contents

TDM Installation

Prerequisites

The Test Data Management (TDM) is an add-on to the Structured Data Manager (SDM) and therefore must install and meet the system specifications of SDM.

TDM verification results with SDM in terms of compatibility are given below.

✓ : Compatible , X: Incompatible

Table 1-1: TDM verification results

	SDM 7.6.6	SDM 7.6.7	SDM 23.2	SDM 24.1
TDM 1.0.0	✓	✓	X	X
TDM 2.0.0	X	✓	✓	X
TDM 2.1.0	X	✓	✓	X
TDM 2.1.1	X	✓	✓	X
TDM 24.1	X	X	✓	✓
TDM 24.2	X	X	✓	✓
TDM 24.2.1	X	X	✓	✓

NOTE:
- When trying to use version 24.2.1 and previous versions together, visual incompatibility may occur.

Installation Steps

The installation process consists of 4 parts. Installations are given below in sequence.

NOTE: Before you begin the installation, for TDM to communicate with TLS 1.3, make sure to configure SDM and PostgreSQL repository with TLS 1.3 protocol.

1. Create DB Schemas and Tables
2. Install TDM Web.

3. SSL Configuration (Optional)
4. Synthetic Data Generation (SDG) Engine Installation (Docker is a prerequisite)

Create DB Schemas and Tables

To create DB Schemas and Tables, follow the steps given below respectively.

1. **SDM** Repository must be installed via **SDM Web Console** priorly.
2. If **SDM** is up and running, you need to stop it.
3. If you are initially installing **TDM**, follow the steps below.
    - Go to the **TDM DB Scripts>TDM Initial Installation** directory.
    - Download the script file of the version you want to install.
    - Connect to the database and run the SQL script to create the **TDM Schemas**.

If you are upgrading TDM from any of the previous versions, follow the steps below.

- Go to **TDM DB Scripts>TDM Upgrade** directory.
- Download the SQL script files starting from your current version to the version you are installing, e.g., if you are using **TDM v1.0.0** and want to install **TDM 24.2**, you need the scripts given below.
    - **TDM_DB_Upgrade_v1.0.0 - v2.0.0**
    - **TDM_DB_Upgrade_v2.0.0 - v2.1.0**
    - **TDM_DB_Upgrade_v2.1.0 - v2.1.1**
    - **TDM_DB_Upgrade_v2.1.1 - v24.1**
    - **TDM_DB_Upgrade_v2.24.1 - v24.2**
- Connect to the database and run them respectively.

TDM WEB Installation

TDM Web installation is explained separately for Windows and Linux. Follow the relevant steps according to the operating system you use for installation.

Windows installation

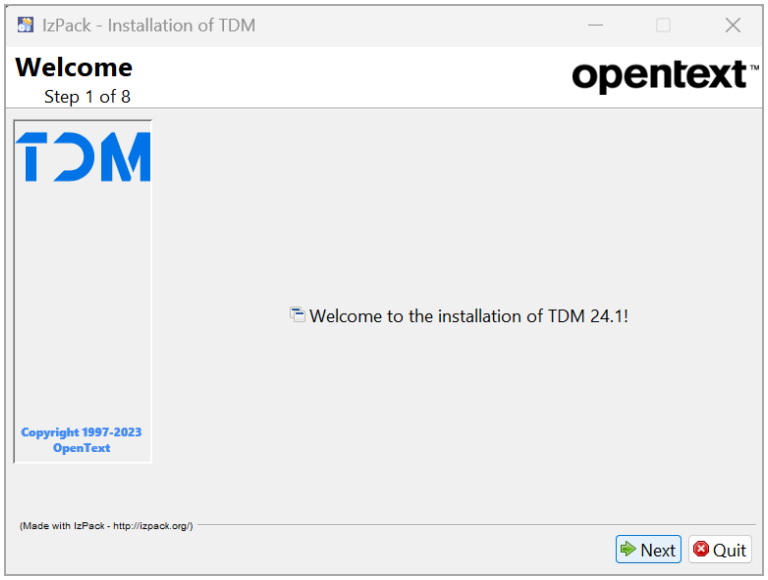
Prepare for Install

To install TDM Web, follow the steps given below respectively.

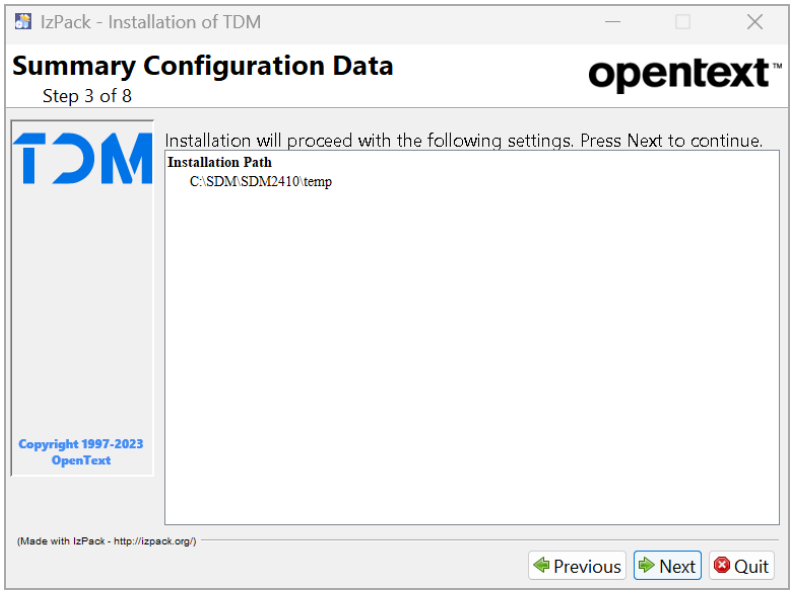
1. Find and download `TDMInstaller.jar` and `TDMInstaller.bat` in the Installation directory.
2. Copy `TDMInstaller.jar` and `TDMInstaller.bat` to `../SDM~/obt/bin` directory.
3. Open the command line/terminal and place to `../SDM~/obt/bin` directory path.
4. Run `TDMInstaller.bat`.
5. After seeing the **Welcome Panel**, head to the **3.1.2. Installation** section.

Installation

1. Check the version of TDM, before starting the installation via the Welcome panel . If it is OK, click **Next**.



2. **Summary Configuration Data** panel shows the installation path of TDM. Click **Next**.



3. Enter **Host**, **Port**, **Database**, **Username**, **Password**, and **SDM Schema** for Postgres database connection.

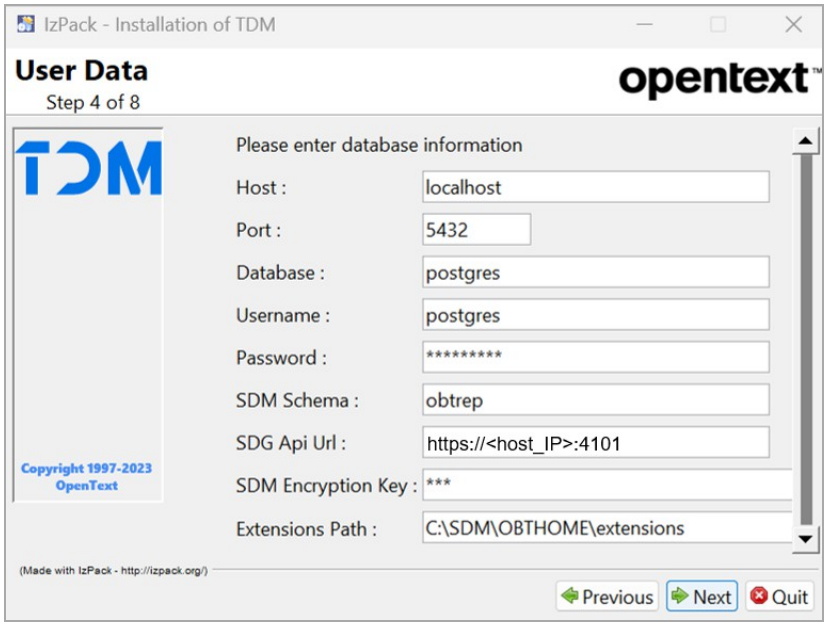
   SDG (Synthetic Data Generation) Api URL must point to the IP of the machine on which the SDG Engine is installed, with port number **4101**. Since SDG Engine supports both HTTP and

HTTPS protocol connections, the SDG Api URL must be entered according to this configuration.

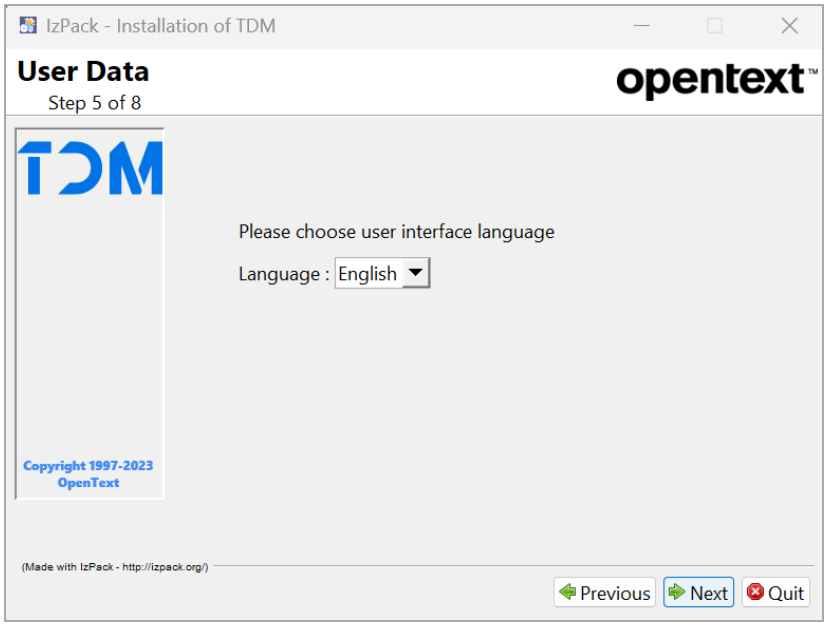
SDM Encryption Key must be the same as the key that was entered when the repository installation was done.

Extensions Path must point to the `SDM\OBTHOME\extensions` directory.

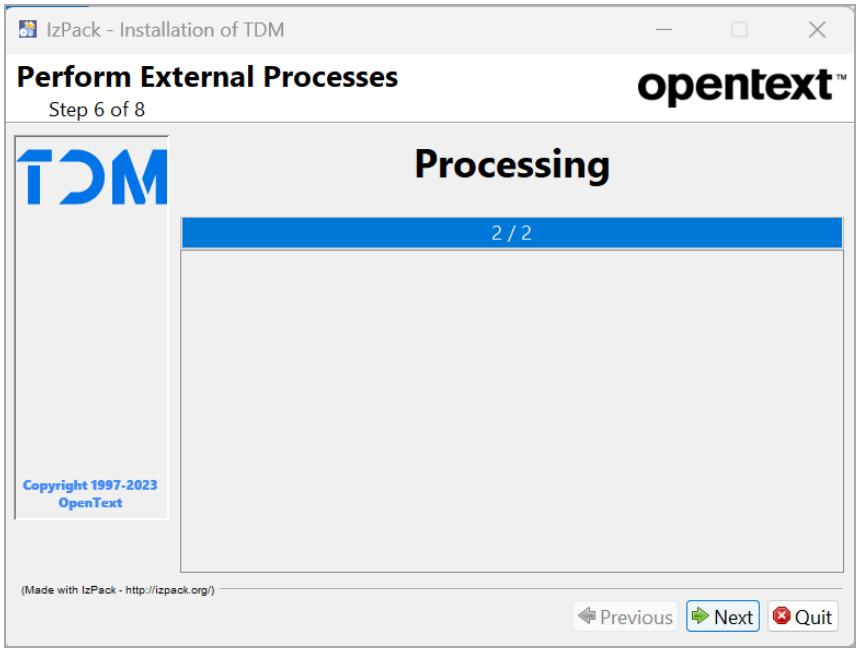
4. Click **Next**.



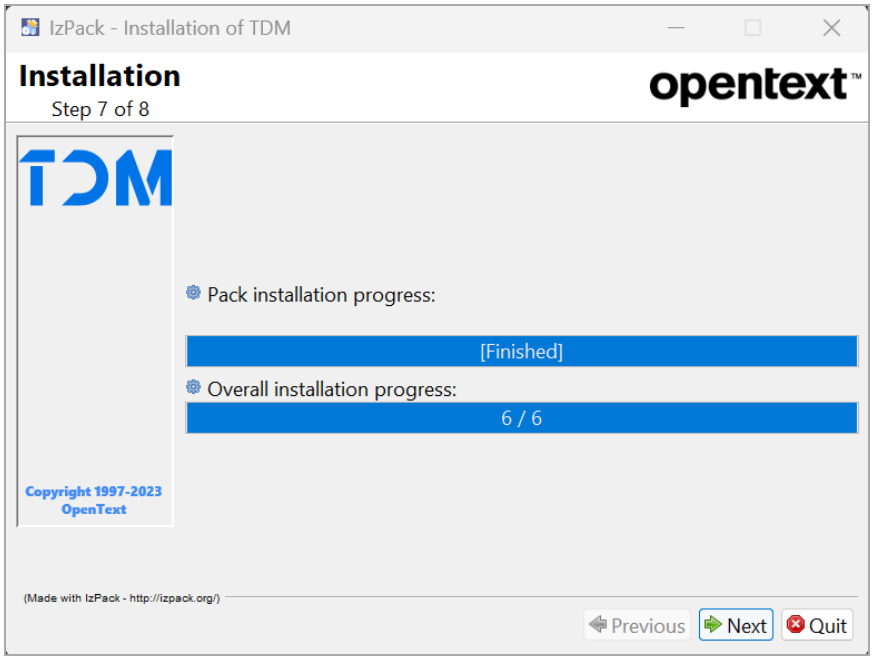
5. Choose the user interface **Language**.
6. Click **Next**.



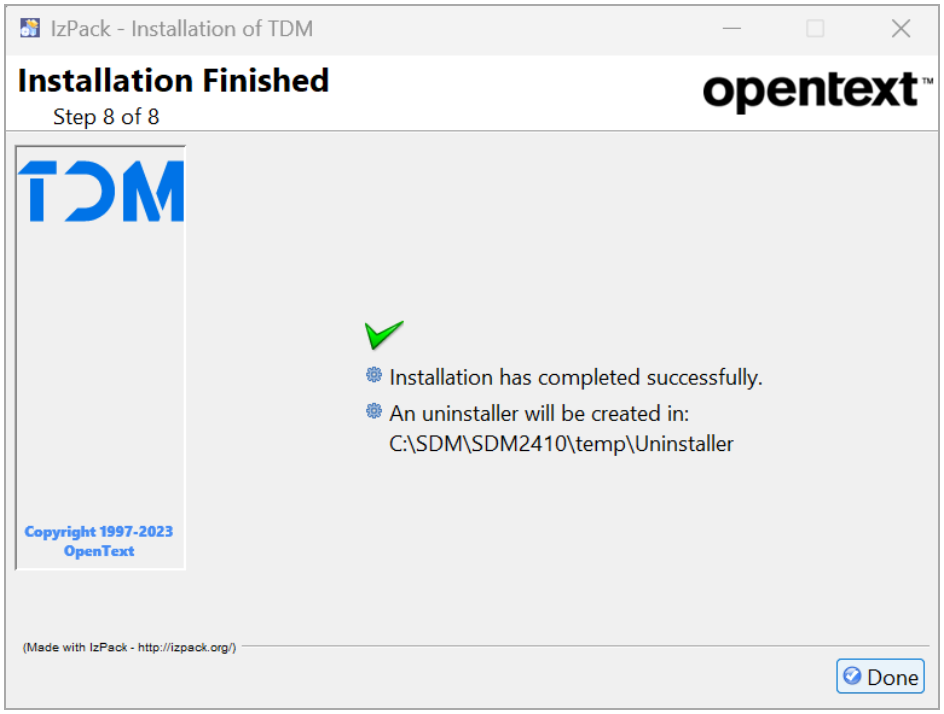
7. The TDM database connection is tested and configured . Click **Next**.



8. On this page, user can observe the progress of the installation process. When the process is completed, click **Next**.



9. Installation Completed, TDM installed into the SDM. Click **Done**.



10. If the installed **SDM** version is 7.6.7 or over the below command must be executed from the terminal/command line. Directory paths in the command must be corrected according to the server that SDM is installed.

    ```
    > copy ....\SDM~SDM~\obt\webconsole\apache-tomcat\webapps\WebConsole\WEB-INF\classes\sql.properties ....\SDM~SDM~\OBTHOME\extensions
    ```

Linux installation

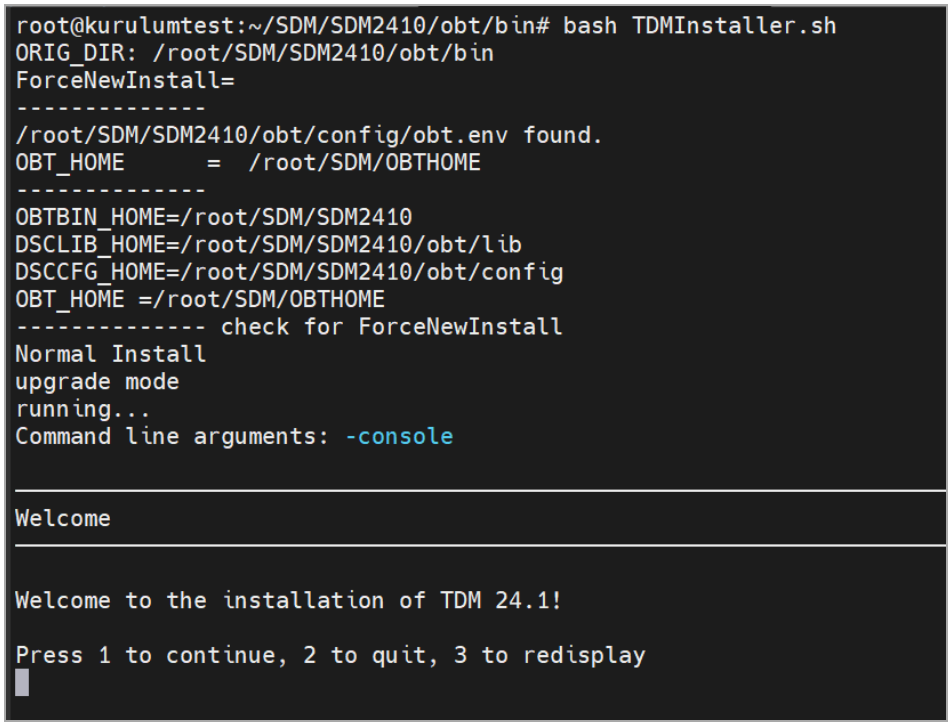
Prepare for install

To install TDM Web on Linux, follow the steps given below respectively.

1. Find and download `TDMInstaller.jar` and `TDMInstaller.sh` (Linux) files in the Installation directory.
2. Copy `TDMInstaller.sh` and `TDMInstaller.jar` to the `../SDM~/obt/bin` directory.
3. Open the command line/terminal and place to `../SDM~/obt/bin` directory path.
4. Run `TDMInstaller.sh`.
5. Once Welcome screen displays, continue with installation in Installation.

Installation

1. Check the version of TDM, before starting the installation via the Welcome screen . If it is OK, press **1**.



2. Type **Host**, **Port**, **Database**, **Username**, **Password**, and **SDM Schema** for Postgres database connection.

   SDG (Synthetic Data Generation) Api URL must point to the IP of the machine on which the SDG Engine will be installed, with port number **4101**. Since SDG Engine supports both HTTP and HTTPS protocol connections, the SDG Api URL must be entered according to this configuration.

   SDM Encryption Key must be the same as the key that was entered when repository installation was done.

   Extensions Path must point the `SDM/OBTHOME/extensions` directory.

3. Press `1` to continue.

```
User Data

Please enter database information

Host : [192.168.185.208]

Port : [5433]

Database : [postgres]

Username : []
postgres

Password :
********

SDM Schema : [obtrep]

SDG Api Url : []
 https://<host_IP>:4101

SDM Encryption Key :
***

Extensions Path :[/root/SDM/OBTHOME/extensions]


Press 1 to continue, 2 to quit, 3 to redisplay
1
```

4. Press `0` to choose **English** as the user interface language.
5. Press `1` to continue.

```
User Data

Please choose user interface language

0  [x] English
Input selection:
```

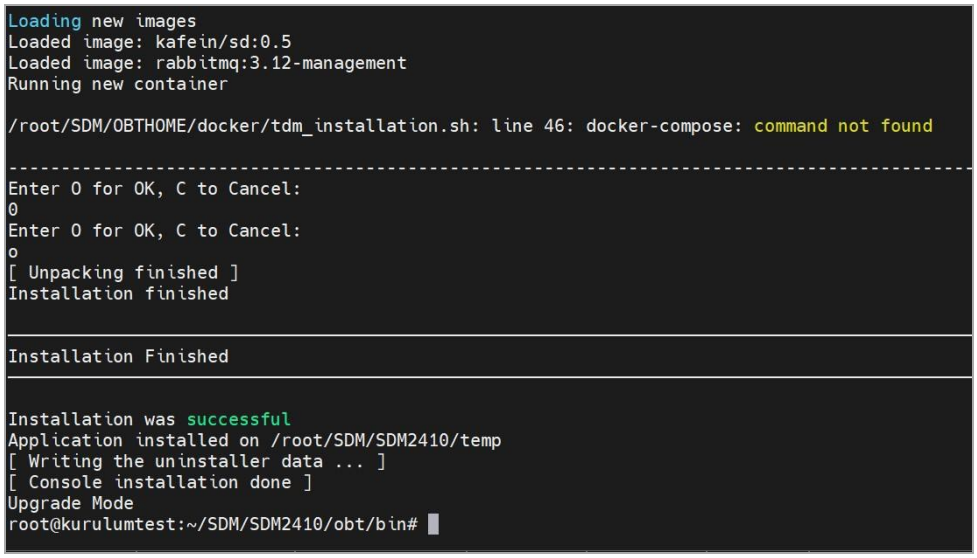
6. On this page, user can observe the progress of the installation process. When the process is complete, **Installation Finished** appears.

```
Perform External Processes

[ Starting processing ]
Starting process setup (1/2)
Starting process setup1 (2/2)

Installation

====================
Installation started
Framework: 1.5.0_08 (Sun Microsystems Inc.)
Platform: ubuntu_linux,version=5.15.0-89-generic,arch=x64,symbolicName=null,javaVersion=1.8.0_372
[ Starting to unpack ]
[ Processing package: core (1/6) ]
[ Processing package: extensions (2/6) ]
[ Processing package: sdg (3/6) ]
[ Processing package: sdmconfig (4/6) ]
[ Processing package: obt (5/6) ]
[ Processing package: docker-files (6/6) ]
```



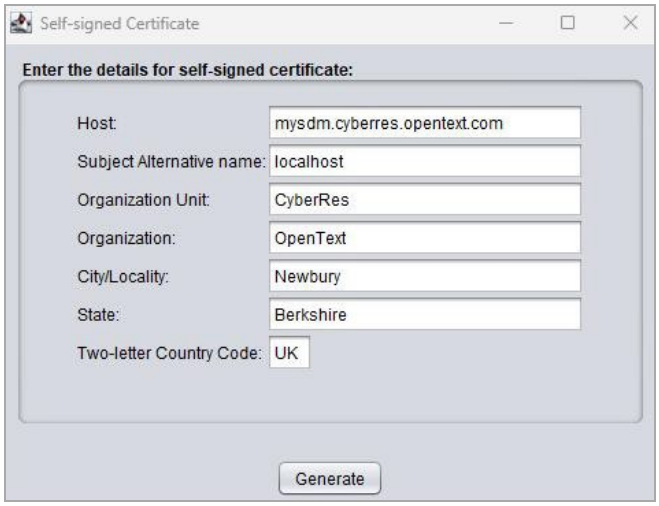
7. If the installed SDM version is 7.6.7 or over, the below command must be executed. Directory paths in the command must be corrected according to the server that SDM is installed.

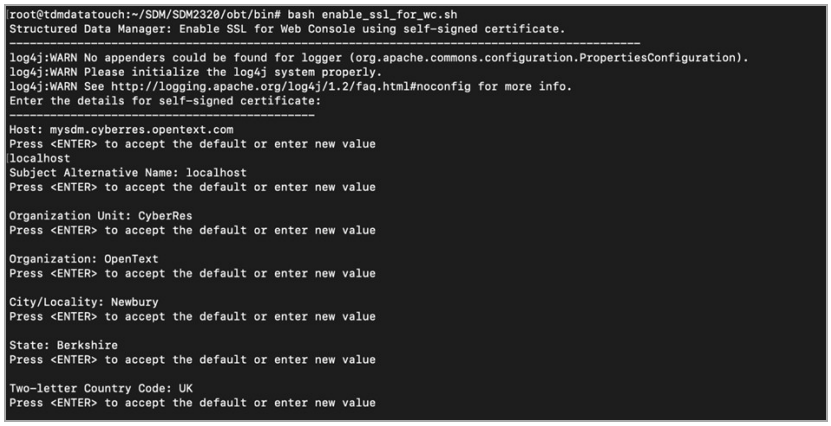
   ```
   $ cp .. /SDM~/obt/webconsole/apache-tomcat/webapps/WebConsole/WEB-INF/classes/sql.properties .. /SDM~/OBTHOME/extensions.
   ```

SSL Configuration (Optional)

If SDM, TDM Web, and TDM WEB-SDG Engine connection will be used with SSL configuration, follow the steps below.

1. Place to `SDM_ install_dir>/obt/bin` directory.
2. Run the utility `enable_ssl_for_wc.bat/sh`.
3. Enter the hostname of the machine to the **Host** field.
4. Enter the hostname of the machine for the **Subject Alternative** name field for **SDM 24.1**.





5. Place to the folder `<SDM_ install_dir>/obt/webconsole/apache-tomcat/conf/`. Open and edit the `server.xml` file like below.
   a. Comment out the following HTTP connector (the port number may vary based on your configuration):

```
<Connector port="8080" protocol="HTTP/1.1" connectionTimeout="60000"
redirectPort="8443"/>
```

b. Add the following HTTPS connector (you can change the port number if needed):

```
<Connector port="8443" protocol="org.apache.coyote.http11.Http11NioProtocol"
maxThreads="150" SSLEnabled="true" scheme="https" secure="true"
clientAuth="false"
sslProtocol="TLS" sslEnabledProtocols="TLSv1.2"
keystoreFile="conf/SDMKeyStore.jks" keystoreType="JKS" keystorePass="
changeit" keyPass="changeit"/>
```

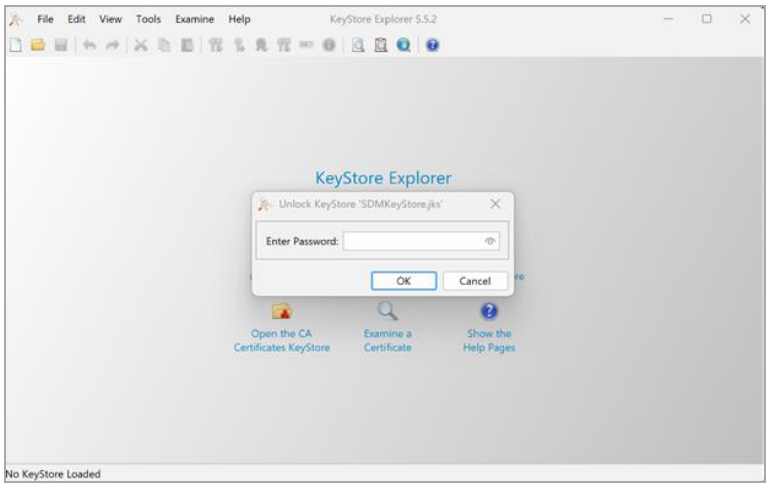
6. Place to `<SDM_ install_dir>/obt/webconsole/apache-tomcat/conf`.

For Windows

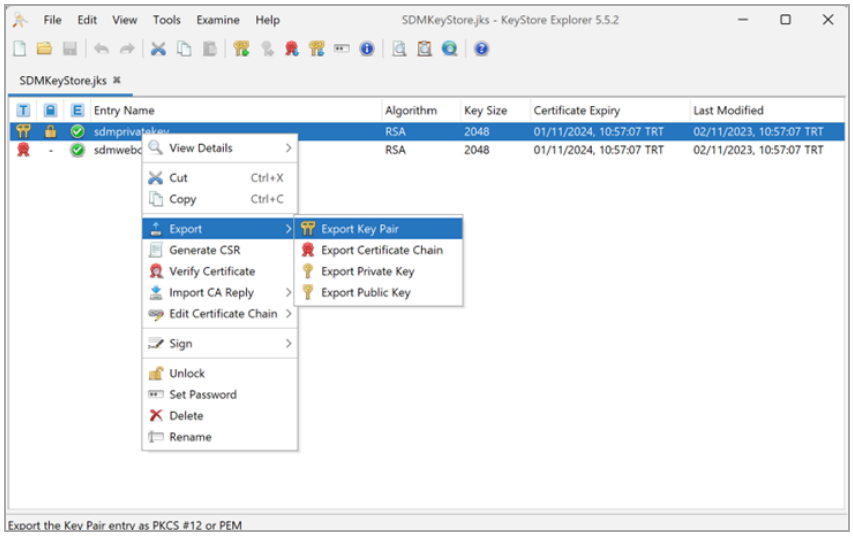
a. Install Key Store Explorer from https://keystore explorer.org/.

b. Open the jks file using **Key Store Explorer**. The jks file `SDMKeyStore.jks` under the folder `<SDM_ install_dir>\obt\webconsole\apache-tomcat\conf\.`

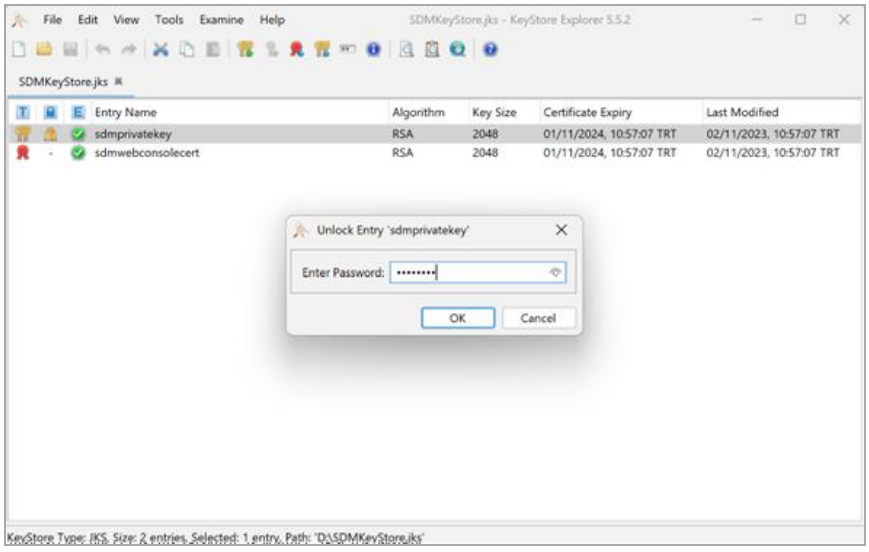
Default password is "**changeit** " (You can change the password from the *keystorePass="changeit"* input section that is added to the `server.xml` file).



c. Select **sdmprivatekey** and right click, select **Export > Export Key Pair** from the menu.



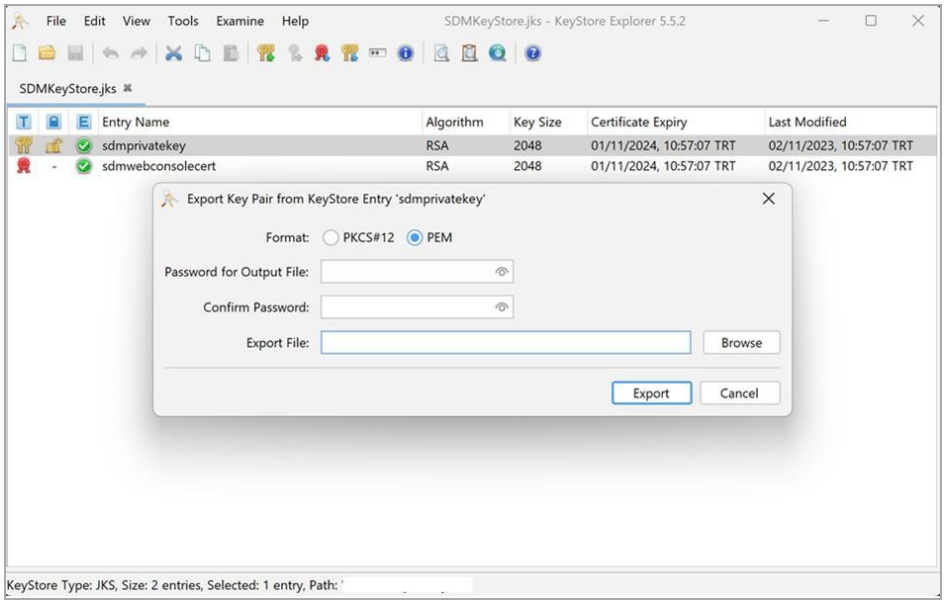
d. Enter the password. Password is “ changeit".

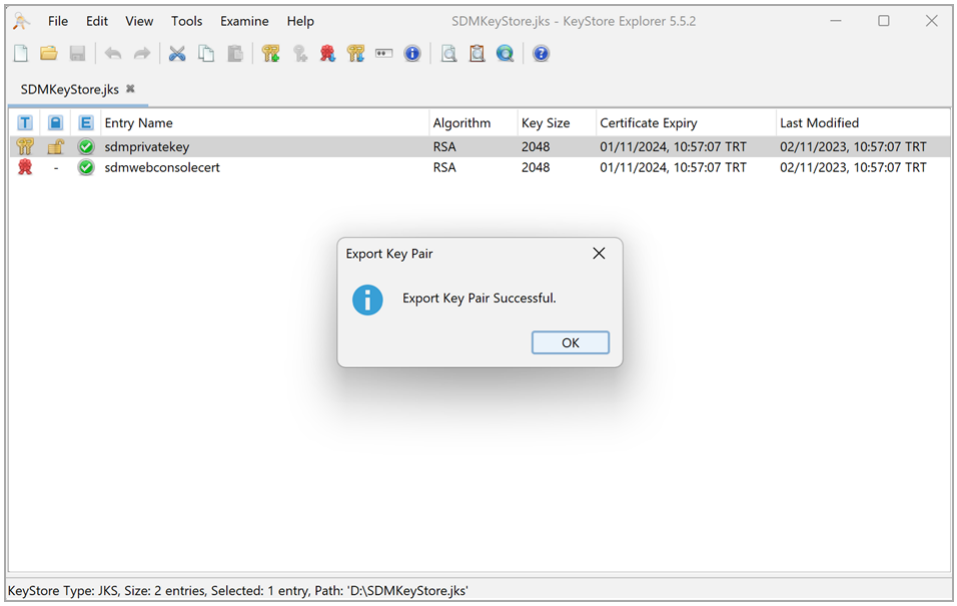


e. Choose the **PEM** format and destination path for the PEM file and click **Export**.

f. Destination path must be `SDM\OBTHOME\extensions\certificates`. If there is no “certificates” folder under `SDM\OBTHOME\extensions\`, you should create it. And the name of the PEM file must be `private_key.pem`.

   Two password fields should not be filled.





g. Place to `SDM\OBTHOME\extensions\certificates`. Please make sure if the `private_key.pem` file contains below pattern.

```
--- BEGIN PRIVATE KEY ---
...
...
...

--- END PRIVATE KEY ---
--- BEGIN CERTIFICATE ---
...
...
```

```
...
--- END CERTIFICATE ---
```

h. Copy `private_key.pem` and rename the file as `certificate_key.pem`.

i. Run SDM.

j. Open the browser and enter URL as **https://<hostmachineIP>:8443/WebConsole**. SDM Login Page must be appear. If it does not appear, please control the steps.

k. Stop SDM.

For Linux

a. Download Open SSL from the OpenSSL website.

b. Place to `SDM/obt/webconsole/apache-tomcat/conf` folder.

c. Create the folder `SDM/OBTHOME/extensions/certificates` and run the below commands respectively.

- `keytool -importkeystore -srckeystore SDMKeyStore.jks -destkeystore SDMKeyStore.p12 -srcstoretype jks -deststoretype pkcs12`
- `openssl pkcs12 -in SDMKeyStore.p12 -nokeys -out certificate_key.pem -legacy`
- `openssl pkcs12 -in SDMKeyStore.p12 -nocerts -nodes -out private_key.pem -legacy`

d. Move `private_key.pem` and `certificate_key.pem` files to the `SDM/OBTHOME/extensions/certificates` folder.

Make sure the files successfully moved to the folder.

e. Run SDM.

f. Open the browser and enter URL as **https://<hostmachineIP>:8443/WebConsole**. SDM Login Page must be appear. If it does not appear, please control the steps.

g. Stop SDM.

Synthetic Data Generation (SDG) Engine Installation

To install the Synthetic Data Generation (SDG) Engine, Docker must be installed. Docker and SDG Engine installation can be done on the same machine (the machine where TDM and SDM are installed) or on a separate machine. Follow the steps below on the machine where this installation will be made.

Docker Installation

1. In case Docker has not already been installed on the machine, download and install Docker from Docker first. For **Windows Virtual Servers**, refer to the **Docker Installation on Windows Virtual Machines** document.
2. Run **Docker** if it is not already running.
3. Open the command line/terminal and test the **Docker Installation** with the hello-world container by executing the "`docker run hello-world`" command.

SDG Engine Installation

SDG Engine installation includes two different methods. Choose the installation method, as per the requirement.

Non-distributed Installation : Installation on the same machine

Distributed Installation : Installation in different machine.

Prerequisites for both Distributed and Non-distributed Installations

1. Go to **TDM_Installation** folder, find and download **SDG_Installation** files.
2. It is better to create a folder named **SDG_Installation** and copy all the downloaded files to this folder.
3. If the installation will be done in a distributed architecture, copy the `application.properties` file which is under the folder …`/SDM/OBTHOME/extensions` from the machine where SDM and TDM installed to the **SDG_Installation** folder.
4. If SDM is configured with SSL protocol and SDG Engine is installed in a distributed architecture, copy the `SDMKeyStore.jks`, `private_key.pem` and `certificate_key.pem` files which are under

the folder …/SDM/OBTHOME/extensions/certificates from the machine where SDM and TDM installed to the **SDG_Installation** folder.

5. If the database of the SDM is configured with TLS 1.3 protocol, server.key and server.crt files are required.
   - In common installation, server.key and server.crt files are copied to the …/SDM/OBTHOME/extensions/certificates folder.
   - In distributed installation, server.key and server.crt files are copied to the **SDG_Installation** folder
6. Check whether **curl** is installed by typing the curl --version command in the terminal. A curl version with TLS 1.3 support, using OpenSSL/1.1.1m or LibreSSL/3.9.2 (or later), is needed. If **curl** is installed, **curl version** information is given as follows.

```
curl 8.4.0 (Windows) libcurl/8.4.0 Schannel WinIDN
Release-Date: 2023-10-11
Protocols: dict file ftp ftps http https imap imaps pop3 pop3s smtp smtps telnet tftp
Features: AsynchDNS HSTS HTTPS-proxy IDN IPv6 Kerberos Largefile NTLM SPNEGO SSL SSPI threadsafe Unicode UnixSockets
```

   If it is not installed, a warning like 'curl' is not recognized as an internal or external command, operable program or batch file. will appear. In this case, download **curl** from here and install.

   > **NOTE:** Only **y** and **n** are accepted as answer for the questions that has (y/n) in it. If you give another input, then “Warning: Please answer by pressing 'y' for (yes) or 'n' for (no)” message shows up and the same question will be asked again.

```
Is it distributed installation? (y/n) : a
Warning: Please answer by pressing 'y' for (yes) or 'n' for (no)
Is it distributed installation? (y/n) :
```

7. If **TDM WEB** is installed on Windows Server and **SDG Engine**is installed on Linux Server at Public Cloud (Cross platform Installation)
   - The **SDM DB** must be reachable from **SDG Engine**.
   - SDM ports which are configured for HTTP and HTTPS (defaults are 8080 and 8443 respectively) must be reachable from the UI users and SDG Engine.
   - 4101 and 8181 ports belong to SDG Engine. These ports must be reachable from TDM WEB.

Distributed Installation

1. From SDG_Installation folder, open the command line/terminal.
   - On **Windows**, run the SDGInstaller.bat file.
   - On **Linux**, run the SDGInstaller.sh file.
2. Press **y** for the distributed installation of SDG Engine.

```
####### Welcome to the Synthetic Data Generation (SDG) Engine 24.2 Installation #######

Is it distributed installation? (y/n) :
```

> **NOTE:** If `application.properties` file does not exist in the installation folder, the installation terminates with an error message .
>
> ```
> Is it distributed installation? (y/n) : y
>
> Error: File application.properties does not exist in current directory.
> ```

3. Press Enter to use the default path or write the desired path to continue. If you enter without writing anything, it will continue with the default path. It is C:/SDG for Windows and /root/SDG for Linux.

   ```
   Press enter to use default installation path or write desired path to continue. (C:/SDG) :
   ```

4. Make sure you typed the correct path and confirm by pressing **y**.

   ```
   Selected path: C:/SDG
   Do you confirm the selected path? (y/n) :
   ```

   > **NOTE:** If you press **n**, the question of path selection appears again.

   ```
   Do you confirm the selected path? (y/n) : n
   Press enter to use default installation path or write desired path to continue. (C:/SDG) :
   ```

   > **NOTE:** If there is a problem while creating the selected path, the following similar error message appears and the installation is terminated.

   ```
   Selected path: *-?
   Do you confirm the selected path? (y/n) : y

   The filename, directory name, or volume label syntax is incorrect.
   Error: Failed to create directory.
   ```

5. After confirmation, the **application.properties** file is copied to the given path.

   ```
   Do you confirm the selected path? (y/n) : y

           1 file(s) copied.
   application.properties copied to C:/SDG/extensions
   ```

   > **NOTE:** If there is a problem while copying the application.properties file, a related error message appears and the installation is terminated.

6. If you want to install with the SSL protocol, press **y**. If not, press **n**.

   ```
   Do you want to use SSL protocol? (y/n) :
   ```

> NOTE: When the y is pressed but there is no `private_key.pem` and `certificate_key.pem` under the installation folder, the following screen appears.

```
Do you want to use SSL protocol? (y/n) : y
Error: File private_key.pem does not exist in current directory.
```

```
Do you want to use SSL protocol? (y/n) : y
Error: File certificate_key.pem does not exist in current directory.
```

If files are under the installation folder, they are copied to the …`/certificates` folder.

```
Do you want to use SSL protocol? (y/n) : y
        1 file(s) copied.
private_key.pem copied to C:/SDG/extensions/certificates
        1 file(s) copied.
certificate_key.pem copied to C:/SDG/extensions/certificates
```

> NOTE: If you want to enable/disable SSL protocol for the SDG Engine after the installation is finished, you must follow the installation steps from the beginning.

7. If you want to enable the TLS 1.3 protocol, press **y** else press **n**.

```
Do you want to enable TLS 1.3 protocol? (y/n) :
```

8. Go to Common Steps for Distributed and Non-Distributed Installation, on the next page and follow the steps given.

Non-Distributed Installation

1. Open the command line/terminal and go to the **SDG_Installation** folder.
   - If installing on Windows, run the `Sdg_installation.bat` file.
   - If installing on Linux, run the `Sdg_installation.sh` file.
2. Press **n** for the non-distributed installation of **SDG Engine**.

```
####### Welcome to the Synthetic Data Generation (SDG) Engine 24.2 Installation #######

Is it distributed installation? (y/n) :
```

3. Write the path of the OBTHOME folder of SDM.

```
Please write the absolute path of 'OBTHOME' folder of SDM :
```

> NOTE: If the given path is not valid, the question about the path appears again.

```
Please write the absolute path of 'OBTHOME' folder of SDM : C:/invalid_folder
Warning: Folder C:/invalid_folder is not valid
Please write the absolute path of 'OBTHOME' folder of SDM :
```

If there is no problem with the path, the process continues with the SSL Certification.

```
Please write the absolute path of 'OBTHOME' folder of SDM : C:/SDM/OBTHOME
Selected path: C:/SDM/OBTHOME
```

4. If you want to install with the SSL protocol, press **y**. If not, press **n**.

```
Do you want to use SSL protocol? (y/n) :
```

> NOTE: If you want to enable/disable SSL protocol for the SDG Engine after the installation is finished, you must follow the installation steps from the beginning.

5. If you want to enable the TLS 1.3 protocol, press **y** else press **n**.

```
Do you want to enable TLS 1.3 protocol? (y/n) :
```

6. Go to Common Steps for Distributed and Non-Distributed Installation, below and follow the steps given.

Common Steps for Distributed and Non-Distributed Installation

1. Type the host IP of the machine on which SDM is installed.

```
Please write the host of SDM
Host :
```

> NOTE: If the given host is not valid, the host question will be asked again.

```
Please write the host of SDM
Host : ***
Warning: Input does not match the expected format
Host :
```

2. Type the port of the machine on which SDM WebConsole is running. Port can vary according to if SSL protocol is enabled for SDM or not.

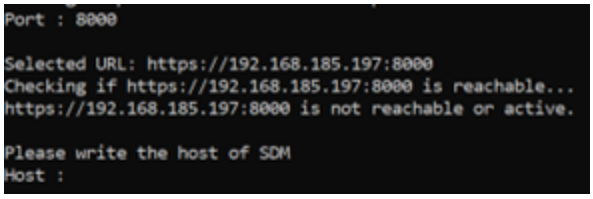
```
Host : 192.168.185.197

Please write the port of SDM
Port :
```

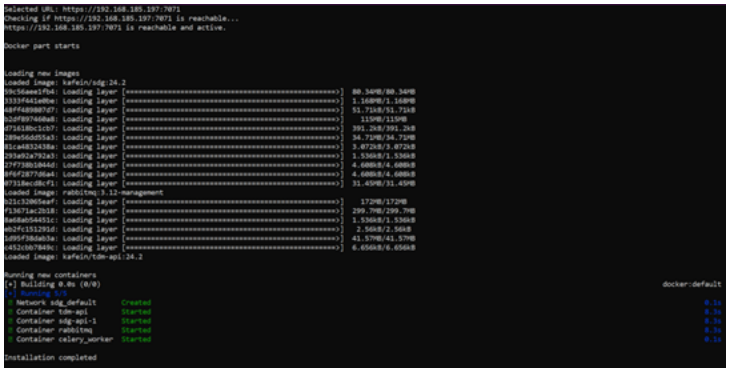
> **NOTE:** The valid port range is 0-65535. If the given port is not valid, the port question will be asked again.

```
Please write the port of SDM
Port : 80000
Warning: Input does not match the expected format
Port :
```

> NOTE: If a valid port is given, a URL is created based on host IP and port number and SSL protocol enablement. curl command is executed to check if the URL is reachable or not. If the response is unsuccessful, the installation returns to the host step.



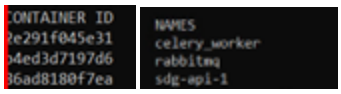
If the URL is reachable, SDG Engine installation starts like in the below figure.



Setting Time Zones for SDG Engine Containers

Follow the steps below to change the time zone on the SDM-installed machine using Docker.

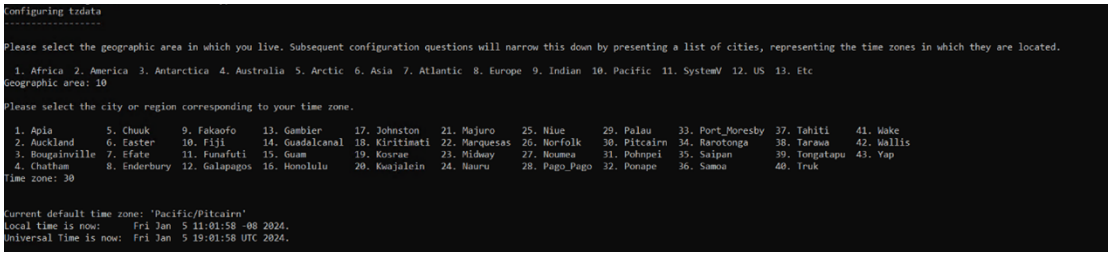
1. Open a PowerShell terminal.
2. Run the following command to obtain the necessary container IDs: `> docker ps -a`

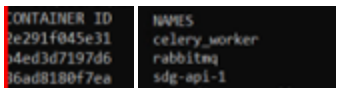
   Identify the container ID for `<sdg-api-1 id>`.
3. Use the following command to enter the container:

   ```
   > docker exec -it <sdg-api-1 id> /bin/bash
   ```
4. Inside the container, run the following command to reconfigure the time zone:

   ```
   > sudo dpkg-reconfigure tzdata
   ```
5. Select the appropriate time zone from the list provided. Make sure that the prompted Local time is the same with the SDM-installed machine.



6. To exit the container, use the following command: `> exit`
7. Restart the Docker container to apply the changes: `> docker restart <sdg-api-1 id>`
8. Run the following command to obtain the necessary container IDs: `> docker ps -a`

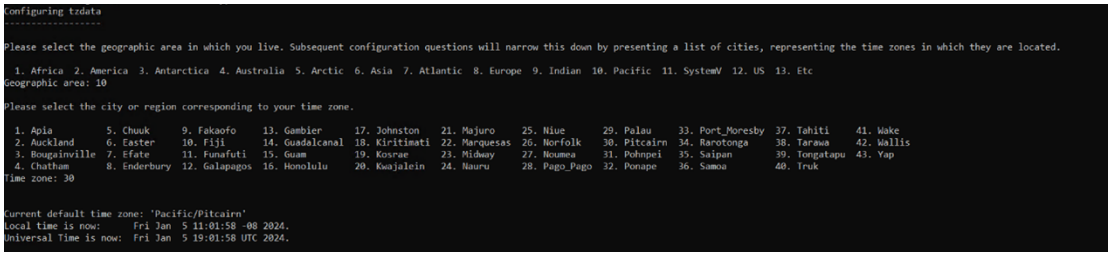


   Identify the container ID for `<celery_worker id>`.

9. Use the following command to enter the container: `> docker exec -it <celery_worker id> /bin/bash`
10. Inside the container, run the following command to reconfigure the time zone:

    `> sudo dpkg-reconfigure tzdata`

11. Select the appropriate time zone from the list provided. Make sure that the prompted Local time is the same with the SDM-installed machine.



12. To exit the container, use the following command: `> exit`
13. Restart the Docker container to apply the changes: `> docker restart <celery_worker id>`

Now, the time zone of the SDM-installed machine within the specified Docker container should be configured according to your selection.

TDM WEB and SDG Engine Uninstallation

TDM WEB Uninstallation

To uninstall TDM WEB, follow the steps given below.

1. Stop **SDM WebConsole**.
2. Open a terminal/command prompt.
3. Go to folder `<SDM_Installation_Path>\temp\Uninstaller`
4. Run the command `<SDM_Installation_Path>\jre\bin\java -jar uninstaller.jar`

SDG Engine Uninstallation

To uninstall SDG Engine, follow the steps given below.

1. Find and download the `SDGUninstaller.bat` file for Windows or `SDGUninstaller.sh` file for Linux from the `TDM_Installation` folder.
2. Open the command line or terminal and check if Docker is running by the command given below.

   For Windows: `> docker ps`

   For Linux: `> sudo docker ps`

   ```
   error during connect: this error may indicate that the docker daemon is not running: Get "
   http://%2F%2F.%2Fpipe%2Fdocker_engine/v1.24/containers/json": open //./pipe/docker_engine:
    The system cannot find the file specified.
   ```

   If you see a message like above, run Docker.
3. Go to the folder where SDGUninstaller.bat/SDGUninstaller.sh was downloaded from the command line.
4. Run the command given below.

   For Windows: `> SDGUninstaller.bat`

```
C:\Users\Kafein\Desktop\sdg_installation>SDGUninstaller.bat
####### Synthetic Data Generation (SDG) Engine 24.2 Uninstallation #######

Stopping container: sdg-api-1
sdg-api-1
Removing container: sdg-api-1
sdg-api-1
Removed container: sdg-api-1
Stopping container: celery_worker
celery_worker
Removing container: celery_worker
celery_worker
Removed container: celery_worker
Stopping container: rabbitmq
rabbitmq
Removing container: rabbitmq
rabbitmq
Removed container: rabbitmq
Stopping container: tdm-api
tdm-api
Removing container: tdm-api
tdm-api
Removed container: tdm-api

Removing image: rabbitmq:3.12-management
Untagged: rabbitmq:3.12-management
Deleted: sha256:feba55029c91e5cb7d64199b8302e952e7c2647a9a2c3215bc7dc6385f430a56
Deleted: sha256:b02338bf51ac67c6ccddbc336107002aaaeb158212f3cf0c8507d1473d311c7b
Deleted: sha256:16c0db8f68513e444764508885e5a0d15f68580f1cc7f9b357bd52ff26e46ee5
Deleted: sha256:9514fded7f796d33c84b928b6d67d5cf355c4e48a8851b2692ec699d4601a9d6
Deleted: sha256:0f3f872288492330c4d09e30e9652de91c573c1955fa8cea306daf6b6cdcab9d
Deleted: sha256:aeaaf5e84d398ba26338f15decee6c4b7aa1768f93a057e2b12caf964bf0d344
Deleted: sha256:ff942032ce367083f553d74e3549f14c482406b17e09280759ec4179135283 46
Deleted: sha256:f03fd4cc7611cb07cd7e358c1ceaa57e9db50b0da50309dec9589ddd66ce5aff
Deleted: sha256:4ade8c9980237e6ac359e30c938a032067fc24c65d39bd2d4e357987fa00deec
Deleted: sha256:d544ae1e9914ffdc6b8d708a6d668b9b8dc6559c84173f58ebb4072201e11d34
Deleted: sha256:7f06304d8646b3c5765feec36bbfecc99e0e2ceed4dfc7aacb28c760f1e50945
Deleted: sha256:59c56aee1fb4dbaeb334aef06088b4990 2105d1ea0c15a9e5a2a9ce560fa4c5d
Removing image: kafein/sdg:24.2
Untagged: kafein/sdg:24.2
Deleted: sha256:7d332666bedd1f537b824fdec77f1562dd6d3a77cc306216532da6b18ec4e57b
Deleted: sha256:d4706e0aae086bbcf342a482a3d985aeb7d9c9e814f49528115cd1c0d99936fd
Deleted: sha256:4570a4c6f1239bc91a48f133938f150e21abc1c603c534879134aa628c31d22c
Deleted: sha256:2bab81522f5594f5327e3dc50ef9ac622e869edb1d0d44970f5efc328f81e129
Deleted: sha256:87704dba3068e46548481d675daea73aeb40cf9969207b3f4142234ade0547ed
Deleted: sha256:e66ee7cefe98a7656d06e37c419d5668dc35fcbce52886c121382d534d1e163f
Deleted: sha256:457df3c67e7245c564934fff0f382f8f372c38203e90595c40294f1dd5bbe932
Deleted: sha256:80e86290e638ac007a500fb10c526f1011ca167fa79a56258f12aadcbb69770d
Deleted: sha256:e27931725d4a5ff6f6381a52fca1bd9062a526c980b36aea2be715b319bcdcca
```

```
rabbitmq
Removed container: rabbitmq
Stopping container: tdm-api
tdm-api
Removing container: tdm-api
tdm-api
Removed container: tdm-api

Removing image: rabbitmq:3.12-management
Untagged: rabbitmq:3.12-management
Deleted: sha256:feba55029c91e5cb7d64199b8302e952e7c2647a9a2c3215bc7dc6385f430a56
Deleted: sha256:b02338bf51ac67c6ccddbc336107002aaaeb158212f3cf0c8507d1473d311c7b
Deleted: sha256:16c0db8f68513e444764508885e5a0d15f68580f1cc7f9b357bd52ff26e46ee5
Deleted: sha256:9514fded7f796d33c84b928b6d67d5cf355c4e48a8851b2692ec699d4601a9d6
Deleted: sha256:0f3f872288492330c4d09e30e9652de91c573c1955fa8cea306daf6b6cdcab9d
Deleted: sha256:aeaaf5e84d398ba26338f15decee6c4b7aa1768f93a057e2b12caf964bf0d344
Deleted: sha256:ff942032ce367083f553d74e3549f14c482406b17e09280759ec4179135283 46
Deleted: sha256:f03fd4cc7611cb07cd7e358c1ceaa57e9db50b0da50309dec9589ddd66ce5aff
Deleted: sha256:4ade8c9980237e6ac359e30c938a032067fc24c65d39bd2d4e357987fa00deec
Deleted: sha256:d544ae1e9914ffdc6b8d708a6d668b9b8dc6559c84173f58ebb4072201e11d34
Deleted: sha256:7f06304d8646b3c5765feec36bbfecc99e0e2ceed4dfc7aacb28c760f1e50945
Deleted: sha256:59c56aee1fb4dbaeb334aef06088b4990 2105d1ea0c15a9e5a2a9ce560fa4c5d
Removing image: kafein/sdg:24.2
Untagged: kafein/sdg:24.2
Deleted: sha256:7d332666bedd1f537b824fdec77f1562dd6d3a77cc306216532da6b18ec4e57b
Deleted: sha256:d4706e0aae086bbcf342a482a3d985aeb7d9c9e814f49528115cd1c0d99936fd
Deleted: sha256:4570a4c6f1239bc91a48f133938f150e21abc1c603c534879134aa628c31d22c
Deleted: sha256:2bab81522f5594f5327e3dc50ef9ac622e869edb1d0d44970f5efc328f81e129
Deleted: sha256:87704dba3068e46548481d675daea73aeb40cf9969207b3f4142234ade0547ed
Deleted: sha256:e66ee7cefe98a7656d06e37c419d5668dc35fcbce52886c121382d534d1e163f
Deleted: sha256:457df3c67e7245c564934fff0f382f8f372c38203e90595c40294f1dd5bbe932
Deleted: sha256:80e86290e638ac007a500fb10c526f1011ca167fa79a56258f12aadcbb69770d
Deleted: sha256:e27931725d4a5ff6f6381a52fca1bd9062a526c980b36aea2be715b319bcdcca
Deleted: sha256:2364a6fc0edc66308c047158a6c7d0ffc29d5979a462fe89a0138e2b5f931aa2
Deleted: sha256:b55ff4d1eb4dd15edbc9ffc15b1bd5771cd09c371b0e7c44cbcbd5c5f62ec76a
Deleted: sha256:e2ef8a51359d088511d34c725305c220294a1fcd5fe5e5dbe4d698c7239ce2c9
Removing image: kafein/tdm-api:24.2
Untagged: kafein/tdm-api:24.2
Deleted: sha256:3c06294658a36e0dc3c8abd16e94c5b6776462fd45c21d0ad0ed00c0c295dc9e
Deleted: sha256:793c1e6d59c64baa23a119cac18fb3ced3abbe0d6a75c9800d5d82a2dfa6e26a
Deleted: sha256:05600f6b561370016026b75f220386a2945cc508b93e7e45250c6575f09f051b
Deleted: sha256:fee82743d30607e6429a4c6709df7f5ef48d96d8e69aae6655ac508f0e268af3
Deleted: sha256:0a0c271db733a6b9bdcff3c7f37a7fab0093a35bc2027350b3faafc0f0611596
Deleted: sha256:23afdf86973913e7aceaa167135be2bb7b40c13ed1ec56d2ebf99069296c3726
Deleted: sha256:b21c32065eaf63c124069d5ff9003b9b5af8f9987fbabf3a5a1380ab3fb5ab2d

Uninstallation completed

C:\Users\Kafein\Desktop\sdg_installation>
```

For Linux: `> bash SDGUninstaller.sh`

```
######## Synthetic Data Generation (SDG) Engine 24.2 Uninstallation ########

Stopping container: sdg-api-1
sdg-api-1
Removing container: sdg-api-1
sdg-api-1
Removed container: sdg-api-1
Stopping container: celery_worker
celery_worker
Removing container: celery_worker
celery_worker
Removed container: celery_worker
Stopping container: rabbitmq
rabbitmq
Removing container: rabbitmq
rabbitmq
Removed container: rabbitmq
Stopping container: tdm-api
tdm-api
Removing container: tdm-api
tdm-api
Removed container: tdm-api
```

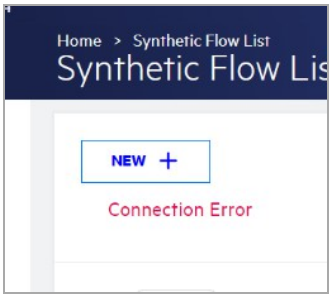
```
Removing image: rabbitmq:3.12-management
Untagged: rabbitmq:3.12-management
Deleted: sha256:feba55029c91e5cb7d64199b8302e952e7c2647a9a2c3215bc7dc6385f430a56
Deleted: sha256:b02338bf51ac67c6ccddbc336107002aaaeb158212f3cf0c8507d1473d311c7b
Deleted: sha256:16c0db8f68513e444764508885e5a0d15f68580f1cc7f9b357bd52ff26e46ee5
Deleted: sha256:9514fded7f796d33c84b928b6d67d5cf355c4e48a8851b2692ec699d4601a9d6
Deleted: sha256:0f3f872288492330c4d09e30e9652de91c573c1955fa8cea306daf6b6cdcab9d
Deleted: sha256:aeaaf5e84d398ba26338f15decee6c4b7aa1768f93a057e2b12caf964bf0d344
Deleted: sha256:ff942032ce367083f553d74e3549f14c482406b17e09280759ec417913528346
Deleted: sha256:f03fd4cc7611cb07cd7e358c1ceaa57e9db50b0da50309dec9589ddd66ce5aff
Deleted: sha256:4ade8c9980237e6ac359e30c938a032067fc24c65d39bd2d4e357987fa00deec
Deleted: sha256:d544ae1e9914ffdc6b8d708a6d668b9b8dc6559c84173f58ebb4072201e11d34
Deleted: sha256:7f06304d8646b3c5765feec36bbfecc99e0e2ceed4dfc7aacb28c760f1e50945
Deleted: sha256:59c56aee1fb4dbaeb334aef06088b49902105d1ea0c15a9e5a2a9ce560fa4c5d
Removing image: kafein/sdg:24.2
Untagged: kafein/sdg:24.2
Deleted: sha256:7d332666bedd1f537b824fdec77f1562dd6d3a77cc306216532da6b18ec4e57b
Removing image: kafein/tdm-api:24.2
Untagged: kafein/tdm-api:24.2
Deleted: sha256:3c06294658a36e0dc3c8abd16e94c5b6776462fd45c21d0ad0ed00c0c295dc9e
Deleted: sha256:793c1e6d59c64baa23a119cac18fb3ced3abbe0d6a75c9800d5d82a2dfa6e26a
Deleted: sha256:05600f6b561370016026b75f220386a2945cc508b93e7e45250c6575f09f051b
Deleted: sha256:fee82743d30607e6429a4c6709df7f5ef48d96d8e69aae6655ac508f0e268af3
Deleted: sha256:0a0c271db733a6b9bdcff3c7f37a7fab0093a35bc2027350b3faafc0f0611596
Deleted: sha256:23afdf86973913e7aceaa167135be2bb7b40c13ed1ec56d2ebf99069296c3726
Deleted: sha256:b21c32065eaf63c124069d5ff9003b9b5af8f9987fbabf3a5a1380ab3fb5ab2d

Uninstallation completed
```

Troubleshooting

Problems that may be encountered during the installation process are explained in this section with their possible solutions.

Issue	Solution
The old Docker Engine Container have not been deleted.	1. Type 'docker ps' into the terminal. 2. The NAMES column of the returned table contains the 'sdg api 1' line. Copy the CONTAINER ID of this line. 3. Paste CONTAINER ID to the relevant place in the Docker by executing the 'docker rm f <CONTAINER ID>' command in the terminal. This command deletes the old docker container.
The old Docker Engine image have not been deleted.	Make sure the docker container is deleted , if any. 1. Type 'docker ps' into the terminal. 2. The NAMES column of the returned table contains the 'sdg api 1' line. Copy the IMAGE of this line. 3. Paste IMAGE to the relevant place in the Docker by executing the 'docker rmi f <IMAGE>' command in the terminal. This command deletes the old docker image. 4. Restart the Docker Engine. 5. Run the setup again.
Port 4101 may not be available.	Port 4101 should not be in use as the application uses port 4101. 1. Detect and terminate the other application using port 4101. 2. Restart the Docker Engine.

Issue	Solution
	3. Run the setup again.
Installation can be stuck in 'Loading new image'.	1. Restart the Docker Engine. 2. Run the setup again.
Installation can be stuck in 'Running new container'.	1. Restart the Docker Engine. 2. Run the setup again.
“Connection Error” in Synthetic Flow List Management. 	Make sure Docker Engine is running.
When TDM is opened, “Exception while executing a Groovy script” error is appeared. 	**$ cp .. /SDM~/obt/webconsole/apache tomcat/webapps/WebConsole/WEB INF/classes/sql.properties .. /SDM~/OBTHOME/extensions** Make sure you run this command during the installation and check that it works properly.