

## Install the beta version of Chesar 3 (Server version)

### Contents

<b>1. IMPORTANT INFORMATION .....</b>	<b>1</b>
<b>2. INSTALL CHESAR 3 SERVER VERSION .....</b>	<b>2</b>
2.1. SET UP DATABASE SERVER.....	2
2.1.1. Set up Derby Network Server (Java DB Server) .....	2
2.1.2. Set up Oracle Database.....	4
2.2. MIGRATE FROM CHESAR 2.3 DATABASE TO CHESAR 3 DATABASE.....	4
2.3. SET UP APPLICATION SERVER .....	4
2.3.1. Set up Tomcat.....	4
2.3.2. Set up Glassfish.....	8
2.4. DEPLOY CHESAR 3 .....	8
<b>3. MIGRATE CHESAR 2.3 TO CHESAR 3 .....</b>	<b>10</b>
3.1. DOWNLOAD AND INSTALL THE CHESAR 2.3 TO CHESAR 3 MIGRATION TOOL .....	10
3.2. CHECKS TO DO BEFORE RUNNING THE MIGRATION TOOL.....	10
3.3. RUN THE MIGRATION TOOL.....	10
<b>4. RUN CHESAR 3 .....</b>	<b>13</b>
4.1. IMPORT A IUCLID SUBSTANCE IN CHESAR.....	14

### 1. Important information

1. Read the "Information for testers" document.
2. Before doing any testing, please make sure that all of your 'real' Chesar data is safely backed up.
3. Java 8 JRE must be installed on your computer. If you do not have it, please download it from <http://www.oracle.com/technetwork/java/javase/downloads/jre8-downloads-2133155.html>. Run the installer and install it.
4. If you have Chesar 2.3 data, before running Chesar 3, you need to migrate them using the migration tool (**optional**)
5. These beta versions of Chesar and of the Migration Tool are for testing and evaluation purposes only. When the testing period is over, please delete the beta software, and any data that you have generated using this software. Do not try to reuse any of the data that you generate with the beta versions of the software with the final version of

Chesar 3. This might corrupt your Chesar data. After the release of Chesar 3, the migration of data from Chesar 2.3 to Chesar 3 will have to be repeated.

## 2. Install Chesar 3 server version

Chesar 3 server version supports different types of databases (Oracle, Derby Network Server) and different types of application servers (Tomcat, Glassfish).

This installation manual explains how to install Chesar 3 server version with Derby Network Server and with Tomcat.

### 2.1. Set up database server


#### 2.1.1. Set up Derby Network Server (Java DB Server)

##### Install Derby Network Server


Download Derby Network Server:

[http://db.apache.org/derby/derby\\_downloads.html](http://db.apache.org/derby/derby_downloads.html)

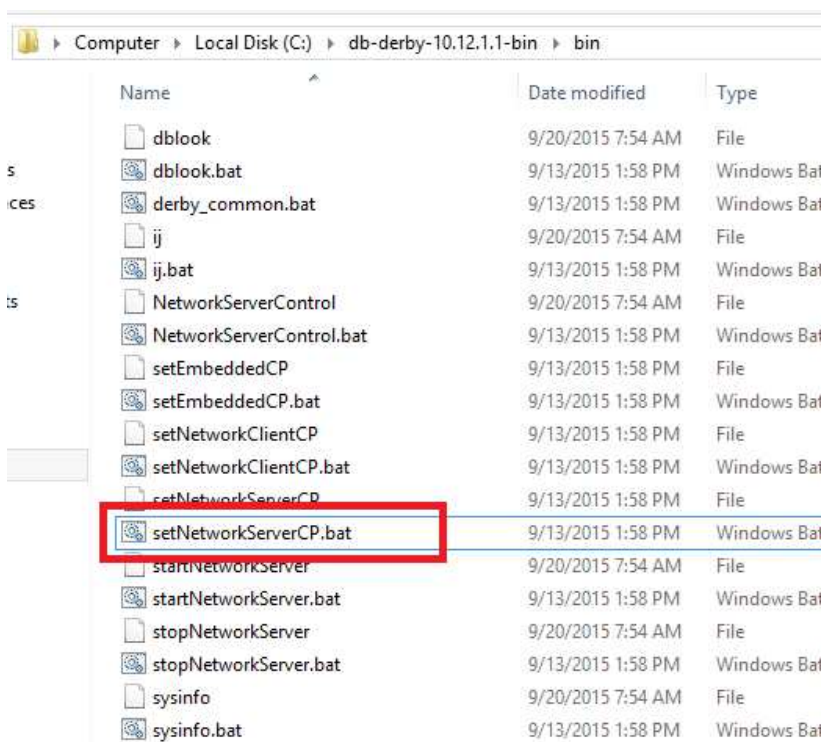
Version 10 should be used, i.e. 10.12.1.1:

 db-derby-10.12.1.1-bin.zip

The installation package contains a folder. Extract this folder to an appropriate location (i.e. c:\).

 db-derby-10.12.1.1-bin

Edit the *setNetworkServerCP.bat*



In the *setNetworkServerCP.bat* set the "DERBY\_INSTALL" variable

```

set DERBY_INSTALL=C:\db-derby-10.12.1.1-bin

@if "%DERBY_HOME%"==" " set DERBY_HOME=%DERBY_INSTALL%
@if "%DERBY_HOME%"==" " goto noderbyhome

FOR %%X in ("%DERBY_HOME%") DO SET DERBY_INSTALL=%%~sX

set CLASSPATH=%DERBY_HOME%\lib\derbynet.jar;%DERBY_HOME%\lib\derbytools.jar;%DERBY_HOME%\lib\derbyoptionaltools.jar;%CLASSPATH%
goto end

:noderbyhome
echo DERBY_HOME or DERBY_INSTALL not set. Set one of these variables
echo to the location of your Derby installation.

:end

```

Open command prompt, cd to %DERBY\_HOME%\bin and run the following command there:  
 setNetworkServerCP.bat

### **Start Derby Network Server**

Open command prompt, cd to %DERBY\_HOME%\bin and run the following command there:  
 startNetworkServer.bat

```

C:\Windows\System32\cmd.exe - startNetworkServer.bat
Microsoft Windows [Version 6.2.9200]
(c) 2012 Microsoft Corporation. All rights reserved.

C:\db-derby-10.12.1.1-bin\bin>setNetworkServerCP.bat

C:\db-derby-10.12.1.1-bin\bin>set  DERBY_INSTALL=C:\db-derby-10.12.1.1-bin

C:\db-derby-10.12.1.1-bin\bin>SET  DERBY_INSTALL=C:\DB-DER~1.1-B

C:\db-derby-10.12.1.1-bin\bin>set  CLASSPATH=C:\db-derby-10.12.1.1-bin\lib\derbynet.jar;C:\db-derby-10.12.1.1-bin\lib\derbytools.jar;C:\db-derby-10.12.1.1-bin\lib\derbyoptionaltools.jar;

C:\db-derby-10.12.1.1-bin\bin>startNetworkServer.bat
Fri Mar 04 17:40:17 EET 2016 : Security manager installed using the Basic server security policy.
Fri Mar 04 17:40:17 EET 2016 : Apache Derby Network Server - 10.12.1.1 - (1704137) started and ready to accept connections on port 1527

```

You can also change the Derby Network Server port by using the following command:

```
startNetworkServer.bat -h localhost -p <portnumber>
```

For example this command starts Derby server on the port 3306.

```
startNetworkServer.bat -h localhost -p 3306
```

```

C:\db-derby-10.12.1.1-bin\bin>startNetworkServer.bat -h localhost -p 3306
Mon Mar 07 08:08:08 EET 2016 : Security manager installed using the Basic server security policy.
Mon Mar 07 08:08:09 EET 2016 : Apache Derby Network Server - 10.12.1.1 - (1704137) started and ready to accept connections on port 3306

```

### **Create Chesar 3 database**

Start *ij* tool and create the database and user for Chesar 3:

```
ij
```

```
C:\db-derby-10.12.1.1-bin\bin>ij
ij version 10.12
```

```
connect
```

```
'jdbc:derby://<database_server_url>:<port>/<database>;create=true;user=<username>;password=<password>';
```

For example this command creates the database chesar3, the user chesar3 with the password chesar3

connect

```
'jdbc:derby://localhost:3306/chesar3;create=true;user=chesar3;password=chesar3';
```

```
ij> connect 'jdbc:derby://localhost:3306/chesar3;create=true;user=chesar3;password=chesar3';
ij>
```

## 2.1.2. Set up Oracle Database

NA

## 2.2. Migrate from Chesar 2.3 database to Chesar 3 database

**Note:** This is an optional step in case you want to transfer the information available in Chesar 2.3 to Chesar 3.

See chapter 3 for the steps to install and run the migration tool.

## 2.3. Set up application server

### 2.3.1. Set up Tomcat

#### Install Tomcat

Download Tomcat 8:

<http://tomcat.apache.org/>

The Windows installer is available:


8.0.32

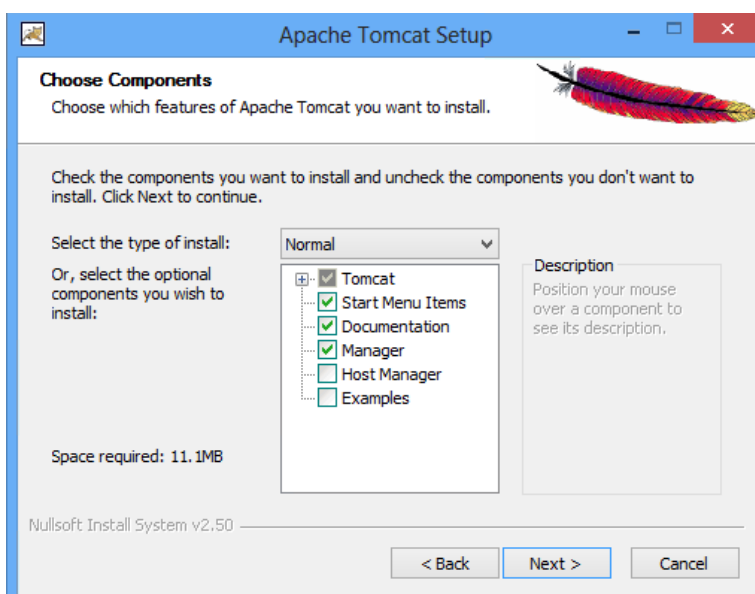
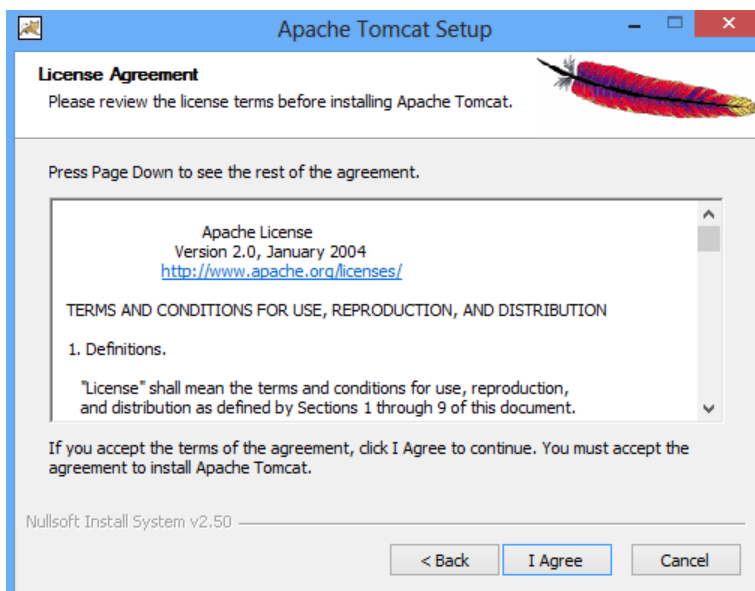
Please see the [README](#) file for packaging information. It explains what every

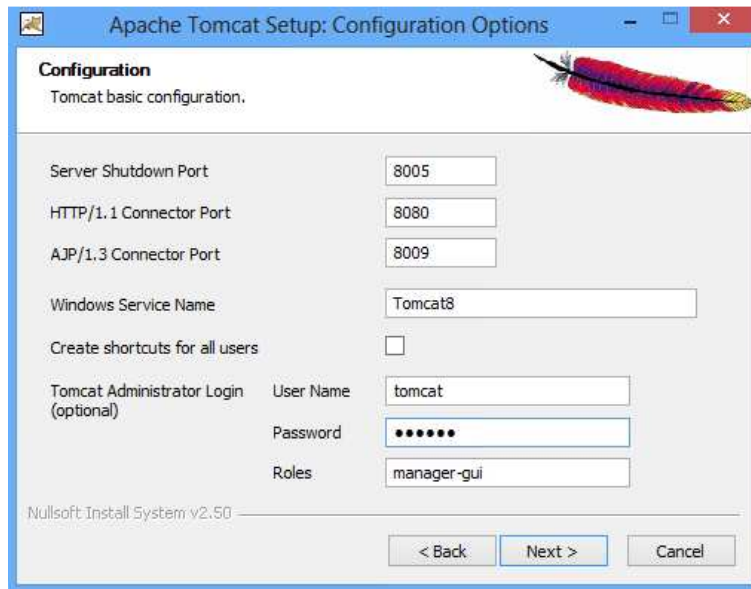
#### Binary Distributions

- Core:
  - [zip](#) ([pgp](#), [md5](#), [sha1](#))
  - [tar.gz](#) ([pgp](#), [md5](#), [sha1](#))
  - [32-bit Windows zip](#) ([pgp](#), [md5](#), [sha1](#))
  - [64-bit Windows zip](#) ([pgp](#), [md5](#), [sha1](#))
  - [64-bit Itanium Windows zip](#) ([pgp](#), [md5](#), [sha1](#))
  - [32-bit/64-bit Windows Service Installer](#) ([pgp](#), [md5](#), [sha1](#))

Double click the installer to start installation.

 apache-tomcat-8.0.32.exe





Apache Tomcat Setup: Configuration Options

**Configuration**  
Tomcat basic configuration.

Server Shutdown Port: 8005

HTTP/1.1 Connector Port: 8080

AJP/1.3 Connector Port: 8009

Windows Service Name: Tomcat8

Create shortcuts for all users: ☐

Tomcat Administrator Login (optional)

User Name: tomcat

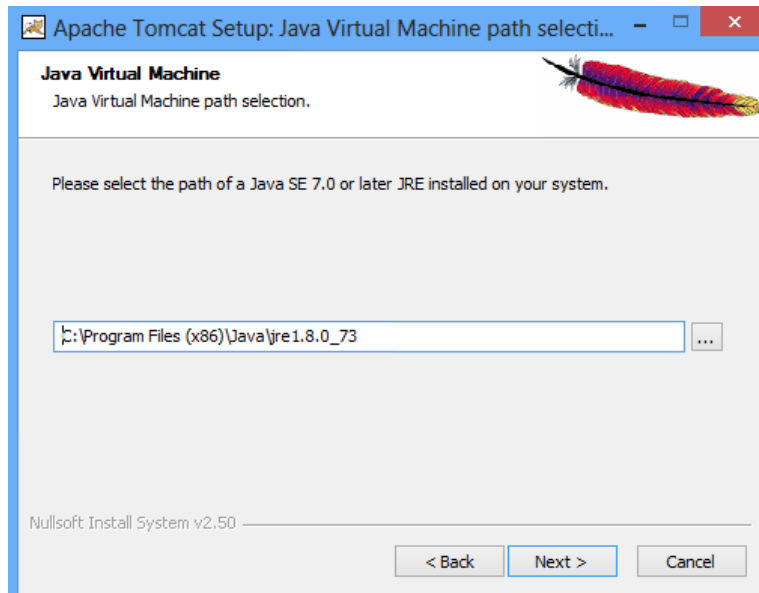
Password: ••••••

Roles: manager-gui

Nullsoft Install System v2.50

< Back Next > Cancel

**Warning:** if some other application is using the port 8080 (i.e. IUCLID 6) then the port will have to be changed.



Apache Tomcat Setup: Java Virtual Machine path selecti...

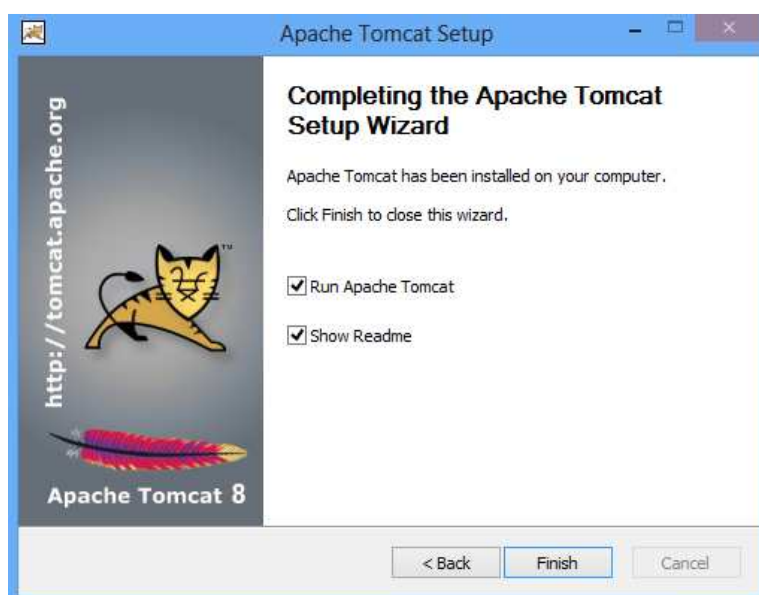
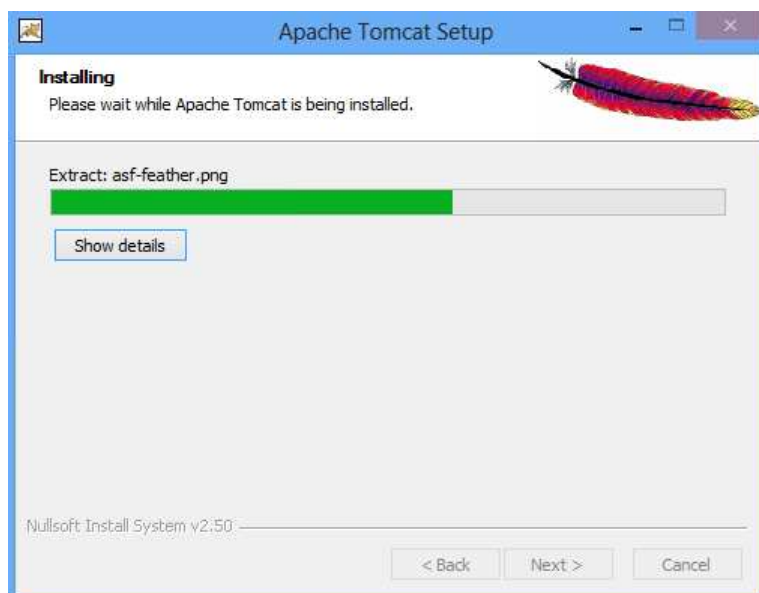
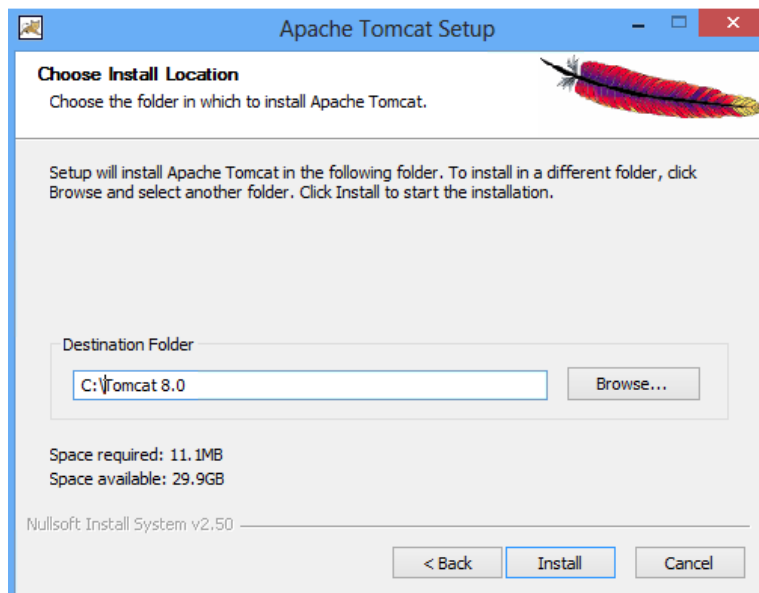
**Java Virtual Machine**  
Java Virtual Machine path selection.

Please select the path of a Java SE 7.0 or later JRE installed on your system.

C:\Program Files (x86)\Java\jre1.8.0\_73

Nullsoft Install System v2.50

< Back Next > Cancel

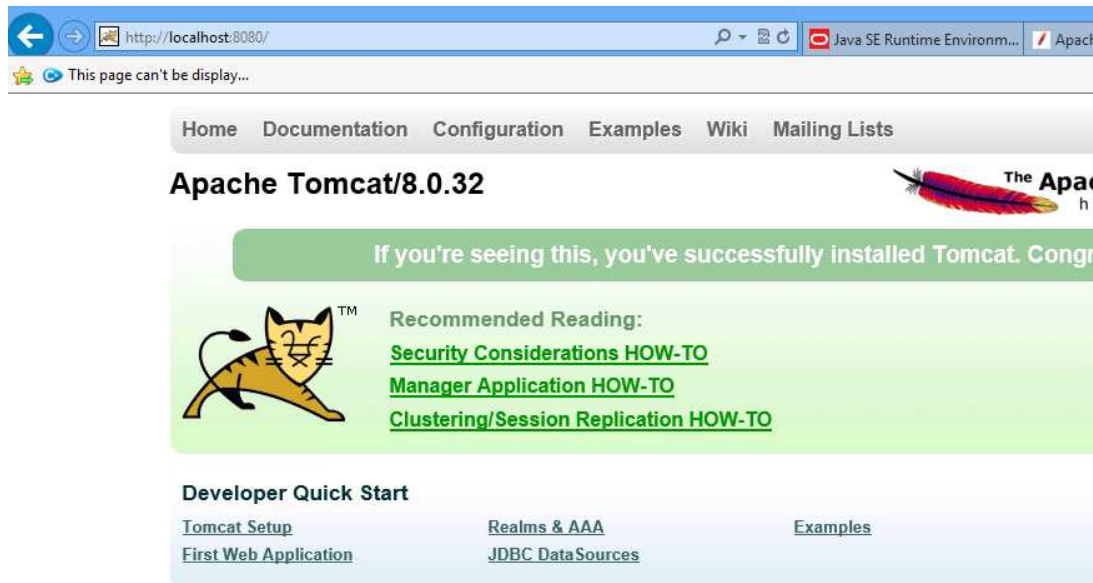


This should start Tomcat.

## **Check Tomcat installation**

Check whether Tomcat is running:

<http://localhost:8080>




## **2.3.2. Set up Glassfish**

NA

## **2.4. Deploy Chesar 3**

### **Download Chesar 3 server package**

Download the Chesar 3 server package (*Chesar3-Server-Beta-2016.03.08.war*) from the Chesar website (<https://chesar.echa.europa.eu/>) to your computer.


 *Chesar3-Server-Beta-2016.03.08.war*

### **Configure Chesar3**

**Warning:** if you have used the default Chesar 3 configuration like suggested above, you do not need to execute this step to change the Chesar 3 configuration. The default Chesar 3 configuration means:

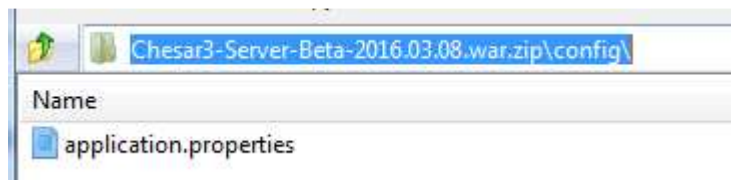
- Database vendor is Derby
- Derby Network Server is running on the port 3306
- Database name is chesar3
- Username and password are both chesar3

Rename Chesar3 war file to zip.

 *Chesar3-Server-Beta-2016.03.08.war.zip*

Open the zip with a tool like File Explorer or 7Zip, enter the *config* folder and extract *application.properties*.





Edit the extracted file *application.properties* and enter configuration according to the database server (see chapter 2.1). The screenshot below shows the default configuration:

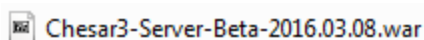
```

1 chesar.database.vendor=derby
2 chesar.database.url=jdbc:derby://localhost:3306/chesar3
3 chesar.database.username=chesar3
4 chesar.database.password=chesar3
5 chesar.database.dropFirst=false
6
7 chesar.general.tempDir=c:/temp/chesar3
8 chesar.general.iuclidPluginUrl=/iuclid6-ext/api/ext/v1
9 chesar.general.csrDocbookTemplate=00_csr_main

```

Replace the file *application.properties* from the zip with the edited one.

Rename the zip file back to war.



## Deploy Chesar 3 war file to Tomcat

Copy the war file into <Tomcat-installation-folder>\webapps

Soon Chesar should appear among the Applications. It should be running.



### Tomcat Web Application Manager

Message:

OK

Manager

List Applications

HTML Manager Help

Manager Help

Server Status

Applications

Path	Version	Display Name	Running	Sessions	Commands
/	None specified	Welcome to Tomcat	true	0	<div>Start Stop Reload Undeploy</div> <div>Expire sessions with idle ≥ 30 minutes</div>
/Chesar3-Server-2016.02.29	None specified		true	0	<div>Start Stop Reload Undeploy</div> <div>Expire sessions with idle ≥ 30 minutes</div>
/docs	None specified	Tomcat Documentation	true	0	<div>Start Stop Reload Undeploy</div> <div>Expire sessions with idle ≥ 30 minutes</div>
/manager	None specified	Tomcat Manager Application	true	1	<div>Start Stop Reload Undeploy</div> <div>Expire sessions with idle ≥ 30 minutes</div>

If everything went well, you should be able to login to Chesar by clicking on the name of applications in the Path column on the screenshot above. You can also access it via the following link:

<http://localhost:8080/Chesar3-Server-Beta-2016.03.08>

In case of problems check the log files in the folder:

<Tomcat folder>\logs

### 3. Migrate Chesar 2.3 to Chesar 3

This step is needed in case you want to transfer the information available in Chesar 2.3 to Chesar 3.

#### 3.1. Download and install the Chesar 2.3 to Chesar 3 migration tool

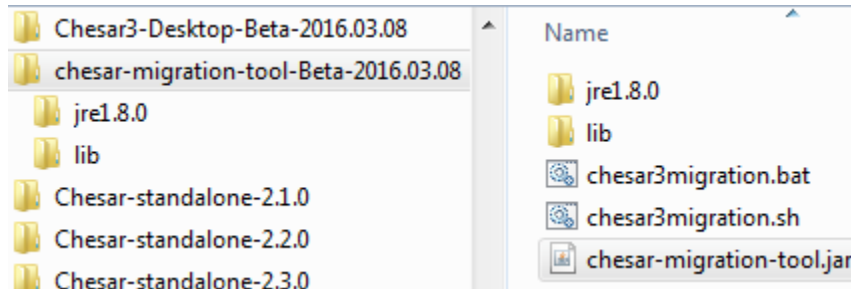
Once you downloaded the migration tool (chesar-migration-tool-Beta-2016.03.08.zip) from Chesar website (<https://chesar.echa.europa.eu/>) to your computer, you need to unzip it.

#### 3.2. Checks to do before running the migration tool

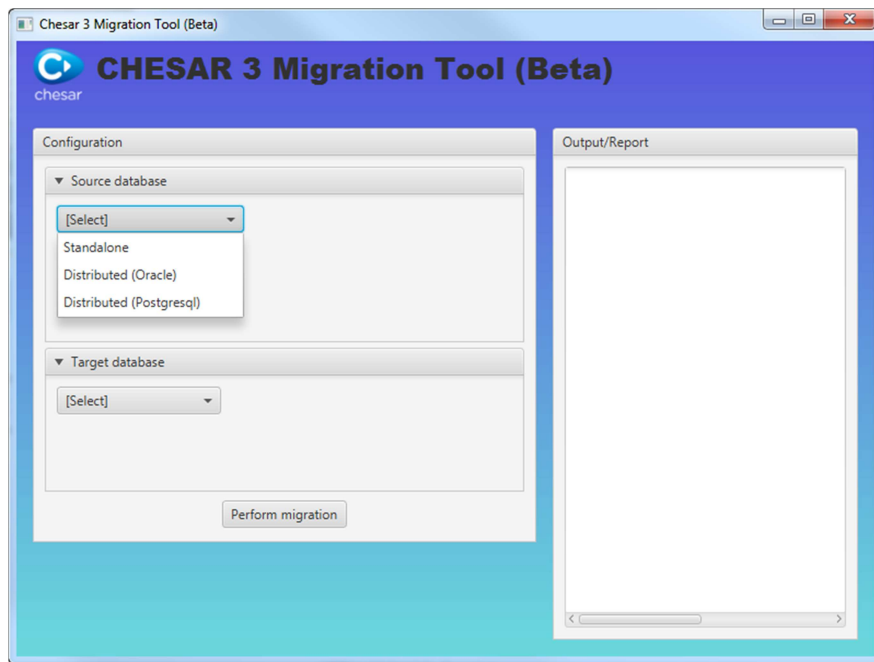
1. Make sure that Chesar 2.3 application is stopped.
2. Do not start Chesar 3 before running the migration tool. If you have already started Chesar 3, you should first drop the database and create a new one (see chapter 2.1).

#### 3.3. Run the migration tool

1. Go to the **migration tool installation folder**, i.e. where you have unzipped the migration tool e.g.: C:\\chesar-migration-tool-Beta-2016.03.08
2. Double-click **chesar3migration.bat**



3. A black command-line window appears. Do not close it. The dialog below should appear (the start-up time can take a couple of seconds max ~1 minute)



4. Configure **Source database**:

- a. If Chesar 2.3 was using PosgtgreSQL database then select *Distributed (Postgresql)* in the picklist and specify URL (e.g.: jdbc:postgresql://localhost:5432/chesar2); Username (e.g.: postgres) and Password (e.g.: postgres)
- b. If Chesar 2.3 was using Oracle database then select *Distributed (Oracle)* in the picklist and specify URL (e.g.: jdbc:oracle:thin:@myhost:1521/orcl); Username (e.g.: scott) and Password (e.g.: tiger)

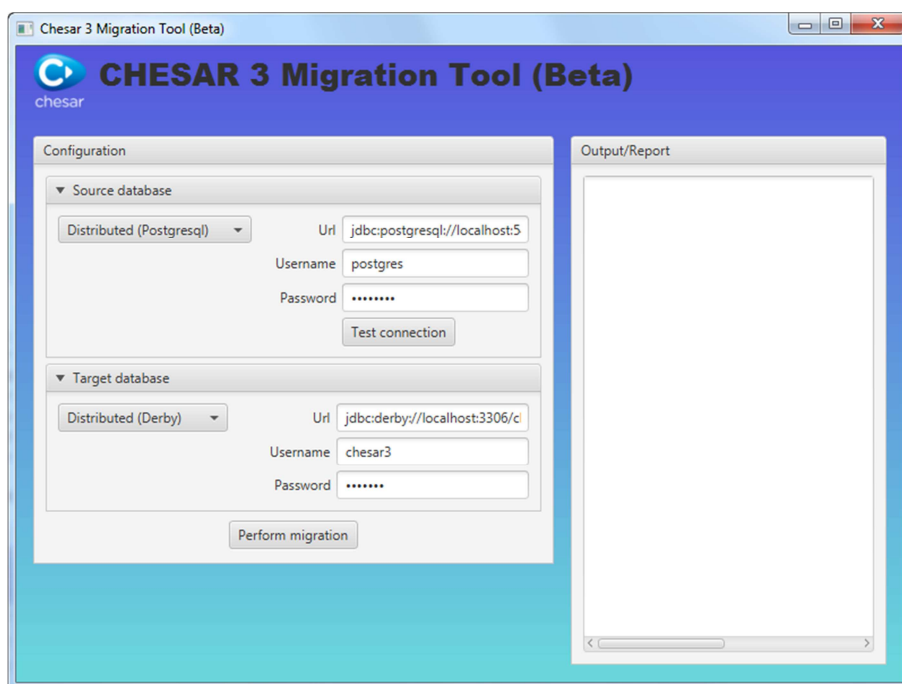
**Note:** take a look at the *database.properties* file found at: chesar2.3.war/WEB-INF/classes/database.properties

5. Configure **Target database**:

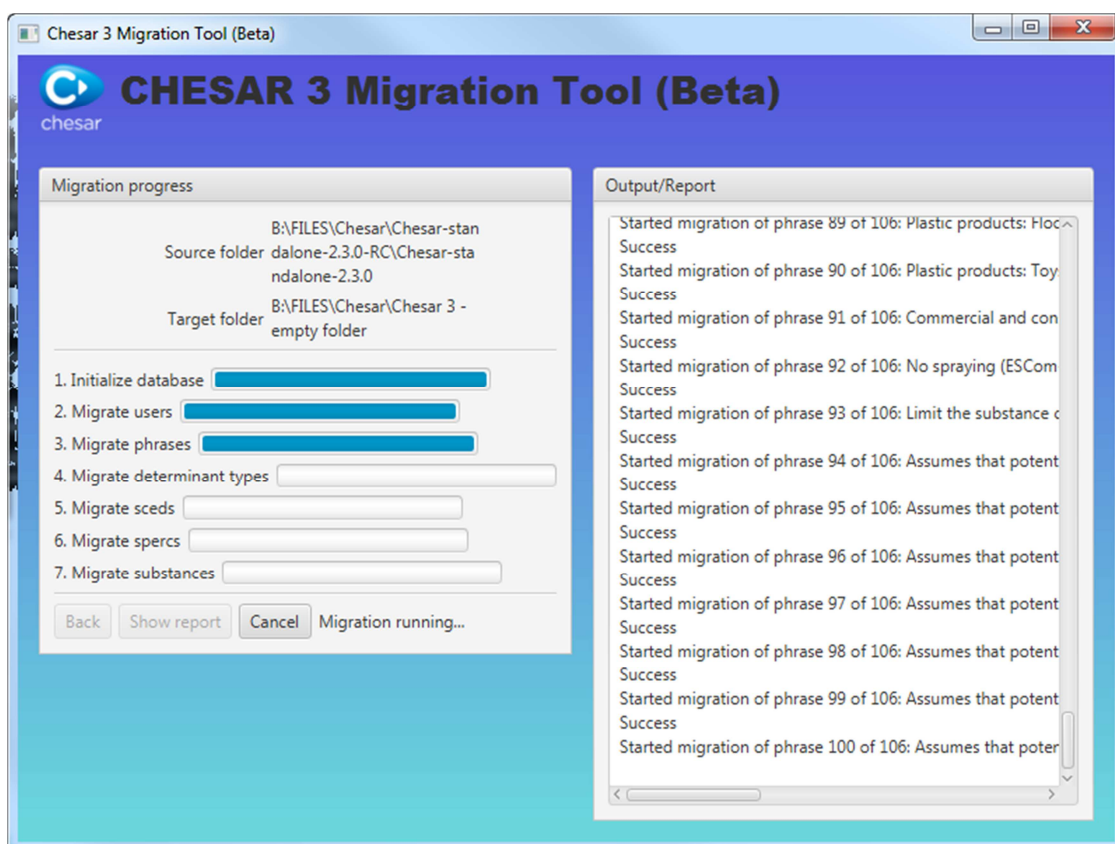
- a. If Chesar 3 is using Derby Network Server database then select *Distributed (Derby)* in the picklist and specify URL (e.g.: jdbc:derby://localhost:3306/chesar3); Username (e.g.: chesar3) and Password (e.g.: chesar3)

**Note:** the settings should correspond to the database server set up for Chesar 3 (see chapter 2.1).

6. Press **Perform migration** button to start the migration process.



7. You can follow the migration step-by-step on the user interface of the migration tool. The time needed for completing the migration is correlated to the size of your Chesar 2.3 database (number of substances), to the number of contributing activities for each use and to the number of SCEDs/SpERCs/determinants defined. The migration may last from few minutes to few hours.



8. When the migration is finalised, a migration report pops up. In this report, you will find a summary of what has been migrated with and without errors and if the migration was failing in some part.

## Migration report summary

Data type	Found	Successful	Successful (with errors)	Failed	Ignored	
Users	1	1	0	0	0	
Legal entities	0	0	0	0	0	
Standard phrases	106	106	0	0	0	
Determinant types	79	31	0	0	48	
SCEDs	0	0	0	0	0	
SpERCs	1	1	0	0	0	
Substances	1	1	0	0	0	

Back

**Note:** it is normal if 48 determinant types are not migrated (Ignored). They correspond to the built-in determinant types available by default in Chesar 2.3. Chesar 3 defines a new set of built-in condition of use templates.

## 4. Run Chesar 3

Go to your browser and enter in its URL bar the following:

`http://<host>:<port>/`

E.g.:

`http://localhost:8080/Chesar3-Server-Beta-2016.03.08`

Log in with the following default username/password: admin/admin.

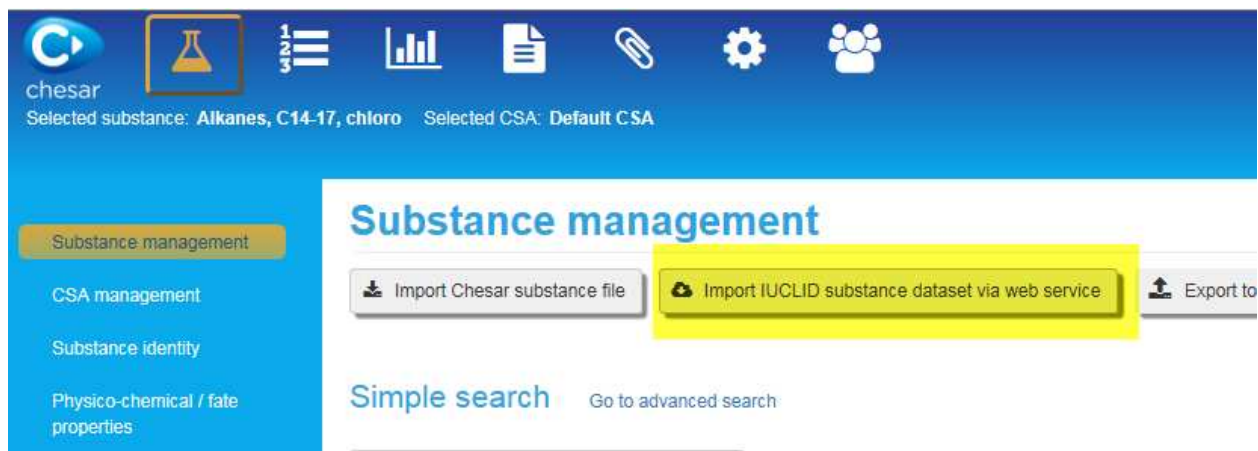
**Note:** if you changed the default credentials in Chesar 2.3 and migrated your data to Chesar 3, the login credentials to be used in Chesar 3 will be the ones set in Chesar 2.3.

After log in with the admin username and password you may create other users credential in Box 7 if you wish later on.

**NOTE: In case you experience a strange UI behaviour** (labels or buttons do not appear) then please try to clean your browser's history Firefox: Open menu (top-right button) -> Options -> Privacy -> Clear your recent history -> Time range to clear: Everything; Google chrome: Customize and control Google Chrome (top-right button) -> History->clear all browsing data; Internet explorer: tools (on the menu bar) -> history -> delete browsing history)

## 4.1. Import a IUCLID substance in Chesar

To import a substance from IUCLID in Chesar, go to *Substance management* -> *Import substance via IUCLID web service*



Select *Web service connection settings*

This screenshot shows the 'Import IUCLID substance dataset via web service' configuration page. The title is 'Import IUCLID substance dataset via web service'. Below it is a section titled 'Web service connection settings' with a dropdown arrow. This section contains three input fields: 'IUCLID Username', 'IUCLID Password', and 'IUCLID URL'. The 'IUCLID URL' field contains the text 'http://localhost'. At the bottom of this section is a green 'Save' button. Below the 'Save' button is a link labeled 'Query web service'.

For a desktop application of IUCLID use the following configuration:

- Username: as you defined (by default SuperUser)
- Password: as you defined (by default root)
- URL: <http://localhost:8080>

Save your settings.

You can then query your IUCLID database and import your substance in Chesar 3.