# SOX Database Server Migration

This documentation shows how to migrate an existing SOX database to the current version.

This migration manual applies to all supported database types (currently MySQL & Oracle).

In case database migration is not possible or the new database should be created for the new version, it is always possible to export the project from an existing SOX installation and import it into a new installation. It should be noted that exported project data does neither contain historical project information, nor the user administration.

In order to perform a proper database migration please perform the following steps:

# Instructions

## 1. Stop the SOX server

For stopping the server please use the service\_stop script from the scripts folder in the SOX server installation folder.

Before you continue with step 2 make sure to create a backup of your SOX database. Migration failures might lead to unrecoverable data or data loss!

#### 2. Insure GRANT's on the SOX database

E.g. on MySQL:

GRANT SELECT, DROP, CREATE, CREATE VIEW, INSERT, UPDATE, DELETE, ALTER, INDEX, REFERENCES ON SOX\_REPO.\* TO 'SOX\_REPO\_USER'@'localhost';

#### 3. Install the current SOX Server Version

Download the new server from our service desk (https://www.enco-software.com/en/support/downloads/) and unzip it to a location where you have the necessary administrative rights. Create a new installation folder for the new version and unzip the content of the downloaded archive.

# 4. Modify the sox2server.ini file to start the migration

This step is very important. Open the sox2server ini file with a text editor and add the following argument to the end of the sox2server ini file:

-Denco.sox2.schema.migration.version=3.3.1.003

configuration	03.04.2020 11:25	Dateiordner	
📜 db-driver	03.04.2020 11:22	Dateiordner	
📕 features	11.09.2019 17:31	Dateiordner	
📕 p2	11.09.2019 17:31	Dateiordner	
📙 plugins	11.09.2019 17:31	Dateiordner	
📜 scripts	03.04.2020 11:18	Dateiordner	
workspace	03.04.2020 11:25	Dateiordner	
🐯 artifacts.xml	11.09.2019 17:31	Serna XML File	31 KB
eclipsec.exe	11.09.2019 17:30	Anwendung	18 KB
sox2server.exe	12.09.2019 10:11	Anwendung	312 KB
sox2server.ini	03.04.2020 11:24	Konfigurationseins	1 KB

sox2server.ini - Editor				-		$\times$
Datei Bearbeiten Format Ansicht Hilfe						
-startup plugins/org.eclipse.equinox.laun launcher.library plugins/org.eclipse.equinox.laun -console -nl en -vm features/enco.sox2.releng.jre.wi -vmargs -Denco.sox2.schema.migration.ver -Dnet4j.config=configuration/con -Xbootclasspath/a:db-driver/mysq	ncher_1.4.0.v201612 ncher.win32.win32.x n32.win32.x86_64_1 rsion=3.3.0.060 nfig-mysql nl-connector-java-5	19-1356 86_64_1 .8.0.60, .1.37-b	.jar .1.551.v2017110 /jre/bin in.jar	98-183	34	
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#### 5. Adjust the Dnet4j.config in the sox2server.ini

Either chose the configuration from previous installation or check the server installation manual for details.



#### 6. Add the DB connector in the sox2server.ini

Either chose the DB connector from the previous installation or check the server installation manual for details.

-Xbootclasspath/a:db-driver/mysql-connector-java-5.1.37-bin.jar

## 7. Start the SOX server

This might take a while depending on the size of the repo

If you see the following message the server has started:



#### 8. Optional DB Connection settings

If the database is not running, when the server starts, it will check for a connection 20 times every 60 seconds. To configure the duration and interval, you can use these options:

KEY Specify as System property in the sox2server.ini. For example.:

```
-Dcdo.server.retry-connect-interval-secs=67
-Dcdo.server.max-connect-attempts=12
```

# ENV Specify as environment variable:

```
private static final String CDO_SERVER_RETRY_CONNECT_INTERVAL_SECS_KEY
= "cdo.server.retry-connect-interval-secs";
private static final String CDO_SERVER_RETRY_CONNECT_INTERVAL_SECS_ENV
= "CDO_SERVER_RETRY_CONNECT_INTERVAL_SECS";
private static final String CDO_SERVER_MAX_CONNECT_ATTEMPTS_KEY = "cdo.
server.max-connect-attempts";
private static final String CDO_SERVER_MAX_CONNECT_ATTEMPTS_ENV =
"CDO_SERVER_MAX_CONNECT_ATTEMPTS";
```

#### 9. Optional DB Connection settings

Please add these parameters inside your mysql config file if its possible:

innodb\_buffer\_pool\_size=2048M

Reason: this is the main working memory for MySQL and should be set to 80% of available memory. Raising this, will improve Database performance.

innodb\_log\_file\_size=512M

Reason: This should be set to 25% of innodb\_buffer\_pool\_size, otherwise the redo-log will flush too often

```
innodb_buffer_pool_instances=4
```

Reason: the innodb\_buffer\_pool\_size is divided into smaller areas given by this parameter. For fewer Users, a lower value is better, because it enlarges the memory available per active user

join\_buffer\_size=1024K

Reason: 1M is suggested is memory is available. Will speed up JOIN operations

sort\_buffer\_size=1024K

Reason: 1M is suggested is memory is available. Will speed up ORDER BY operations

thread\_cache\_size=20