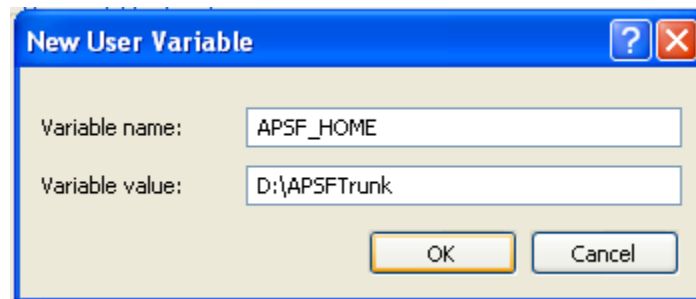# DB Versioning Tool

This tool is used to update/migrate the database to the latest version. The following operations can be performed using this tool.

    I.   Update/Migrate existing schema to latest version OR Create new schema
    II.   Clean the schema

I. Updation/Migration/Creation of schema

1. Create a new environment variable called APSF_HOME and set it to the APSF codebase which you are working on.

    You can verify the same by using the echo command in the Command Prompt.

    The DBVersioningTool can be found in the APSFTools directory in the following location.
    https://oma2ui2/svn/APSFTools/

2. Navigate to the conf folder and open the jdbc.properties file.
   Modify the flyway.driver, flyway.url, flyway.user & flyway.password to point to your local schema.

```
# Fully qualified classname of the jdbc driver
flyway.driver=oracle.jdbc.driver.OracleDriver

# Jdbc url to use to connect to the database
flyway.url=jdbc:oracle:thin:@localhost:1521:xe

# User to use to connect to the database
flyway.user=apsf

# Password to use to connect to the database
flyway.password=apsf
```

3. If new projects have been added to the APSF codebase or if new sqls have been added to existing projects (sqls being added for the first time i.e. with the version 1), make the corresponding entry in the modulename.properties. This entry is the meta info table name for the new module/project.

```
BSF-BUSPOLICY-IMPL=BSF_BUSPOL
BSF-CHANGESUMMARY-IMPL=BSF_CHGSUMM
BSF-COMMON-SVC-IMPL=BSF_COMMSVC
BSF-COMMON-SVC-IMPL-TESTS=BSF_COMMSVC_TST
BSF-CORRGEN-SVC-IMPL=BSF_CORRGEN
```

    This table will contain the information of which sqls have been applied.
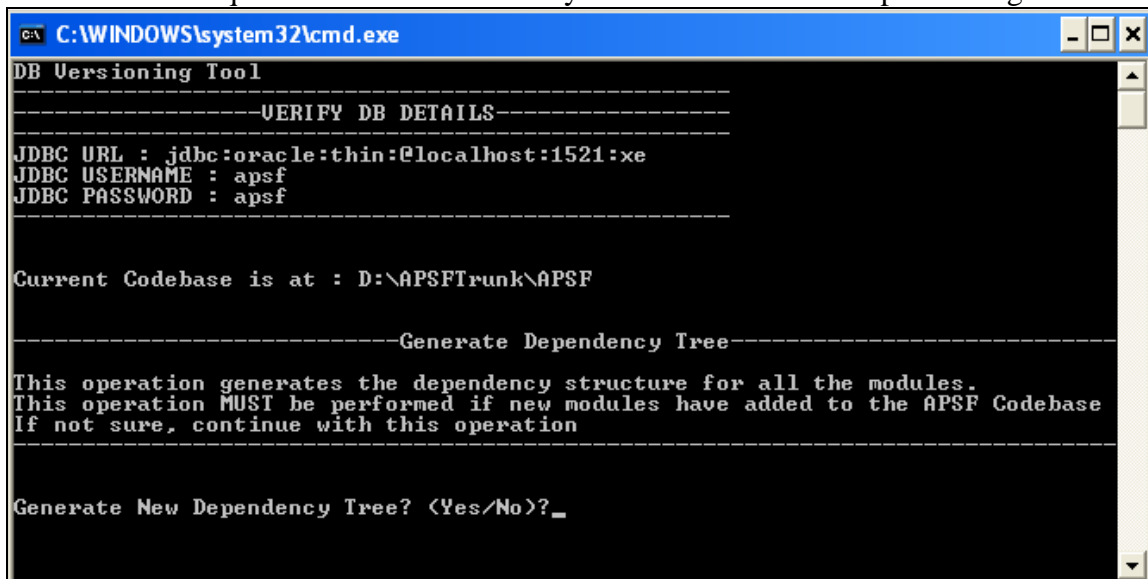
Note that this name will be prefixed with APSF_META_ to differentiate between the meta tables and the project related tables. Given the existing length of the tables, the databases might not support longer lengths for the table name. Hence this name must be in a shortened format.
The maximum length for a table name in Oracle Database is 30 characters.

4. In the project directory, navigate to the lib directory and verify whether the following jars are present.
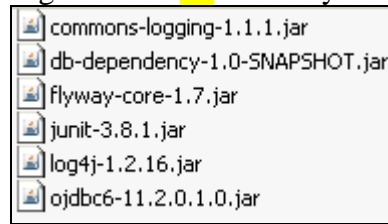
    If the lib directory does not exist, execute the build.bat file and the lib directory will be created. You can now navigate to it and verify the jars.

5. Execute the process.bat file. On the console, it will display the schema details and the APSF codebase from where the sqls will be extracted. Verify both the details before proceeding.

6. Once you have verified the details, you need to specify whether a new dependency tree should be created or not. The possible values are YES or NO (Y,y,N,n not accepted).
    The new dependency tree must be created if there is a change in the codebase structure (includes addition/removal of new project, dependencies).
    If you are not sure of this, you can choose YES for this operation. Note that this will delay the operation by a few minutes.

Once you have selected the appropriate option, the migration of the database will begin. This operation will take anywhere between 10-25 minutes. Once the migration is complete, you will see the following message on the console.

After the process is complete, you can connect the various test applications or unita to this schema to verify that newly created/updated schema.
In case of updation, you can connect to sql developer and query for the recently updated items.

II. Clean the schema

1. Execute the clean.bat. On the console, you can see the database details for which you are requesting a clean operation.

```
Cleaning the database
------------Requesting to clean the following DB------------
JDBC URL : jdbc:oracle:thin:@localhost:1521:xe
JDBC USERNAME : apsf
JDBC PASSWORD : apsf
----------------------------------
This operation will format the database. Do you want to continue (Yes/No)?
```

2. The information contains the db url, the schema name and the password. Choose Yes if the displayed information is correct; or choose No to cancel this operation and modify the db details. The possible values are YES or NO (Y,y,N,n not accepted).
You can modify the db details in the conf/jdbc.properties file.

3. Once you have verified the details, the console will display the information and the operation again to confirm the cleaning of the database.

```
------------------------------------
---------VERIFY DB DETAILS--------
------------------------------------
JDBC URL : jdbc:oracle:thin:@localhost:1521:xe
JDBC USERNAME : apsf
JDBC PASSWORD : apsf
----------------------------------
This operation will format the database and completely erase all the data in it.
 This operation CANNOT be reversed.
Are you sure you want to continue (Yes/No)?
```

4. You need to confirm this operation by choosing Yes. This 2-Step check is required as the schema, once cleaned, will wipe out all the information from it and cannot be reverted back. This operation is similar to the format operation. **The user must be sure of performing this operation.** The possible values are YES or NO (Y,y,N,n not accepted).

5. If you chose to clean the schema, confirm the operation by choosing Yes. Once this operation is complete, the following message will be displayed on the console.

```
INFO  dbdependency.FlywayWrapper - JDBC URL : jdbc:oracle:thin:@localhost:1521:x
e
INFO  dbdependency.FlywayWrapper - USERNAME : apsf
INFO  dbdependency.FlywayWrapper - Connected to apsf atjdbc:oracle:thin:@localho
st:1521:xe
INFO  clean.DbCleaner - Cleaned database schema 'APSF' (execution time 00:21.093
s)
INFO  dbdependency.FlywayWrapper - apsf at jdbc:oracle:thin:@localhost:1521:xe C
LEANED!
Press any key to continue . . .
```

For more info, please visit the Developers Wiki at
https://sites.google.com/a/aciworldwide.com/apsf-developers-wiki/development-environment-details/db-versioning-tool