### **SCD Builder**

# **Overview**

The SCD Builder is a Java Application used for building the Structured Credit Desktop Application. The SCD Builder is release management tool, which will update pom files within the application and sub-module directories with the latest version number. In addition, the user can specify maven commands that will build the SCD application and webstart, generating the WAR file.

## **Process**

The prerequisites for this application are the Java Runtime Environment and Maven, installed and configured on the machine from which the release will be executed. For instructions on how to install and configure a SCD Maven environment, please refer to the <u>environment setup steps</u>

!!!!Before beginning build, certain conditions must be satisfied. As SNAPSHOT and ER builds are replaced by patch updates, ensure that the baseline versions do not have this or any letters, as the application does not support this deprecated process. Version <u>numbers</u> must be in a major.minor.patch format; although, the application will automatically format major.minor releases to be major.minor.patch. In addition, as the application is changing the pom files, make sure that the project directory and its subdirectories are not read-only!!!!

There are two methods of using this application, automatic and manual. For automatic use, the user will have to modify the config.properties file within the application files, and set the "default" value to true. In addition, the user will have to provide other values:

- 1. current.path- The path to the project directory (note: use "/" in all directory paths instead of "\" or "\\")
- 2. build- Whether or not to go through the versioning process or directly to build, yes to skip and directly build
- 3. control.path- The path to the comparator project
- 4. dry.run- whether to enable the dry run feature which will make versioning changes to pom.test.xml files instead of overwriting the pom files (yes/no)
  - a. Please note, at this time, there is an issue with the dry run method which prevents it from functioning correctly. This issue is under investigation. Until resolved, please run the application with dry run set to no, and if necessary, revert the modified pom files from Perforce.
- 5. update.from- Whether to increment version number from the control project (control), or Nexus (nexus)
- 6. major.releases- list any modules (including parent SCTDesktop) which have major releases. Separate each module with a semicolon, no spaces (i.e. SCTDesktop;RFL)
- 7. minor.releases list any modules (including parent SCTDesktop) which have minor releases. Separate each module with a semicolon, no spaces (i.e. SCTDesktop;RFL)
- 8. release.env- enter the release environment which will then rename the WAR file to match the environment (values may include uat, prod...etc)

Regardless of running an automatic or manual build, the major.releases, minor.releases, and release.env must be configured in the config.properties file, as the application will not prompt but instead pull the values from this file.

### **Automatic**

In the command line change the directory to where the application JAR is located, and enter "java –jar SCDBuilder.jar Command 1 Command2"

Command 1 is the maven command the user would like to execute in the parent SCTDesktop directory, such as mvn clean package.

Command 2 is the maven command the user would like to execute in the webstart directory, such as mvn clean.

The commands are optional; the user may choose to enter none, one, or two.



The application will go through, compare each module file against the control file, and based on the source of version numbers, will increment version numbers accordingly and write them to the pom file in each module and the parent SCTDesktop. Next, the application will execute the user entered commands, if any.

🔤 C:\WINNT\system32\cmd.exe	→	
C:\Documents and Settings\nbkkrai\My Documents>java -jar SCDBuilder.jar C:/Documents and Settings/nbkkrai/My Documents/SCD/2.137/ Getting Control Versions Done Getting Control Versions Getting Nexus Versions		
Done Getting Current Versions >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>		-

#### Manual

This begins similarly to the Automatic run.

In the command line change the directory to where the application JAR is located, and enter "java –jar SCDBuilder.jar Command 1 Command2

Command 1 is the maven command the user would like to execute in the parent SCDBuilder directory, and Command 2 is the maven command the user would like to execute in the webstart directory.

The commands are optional; the user may choose to enter none, one, or two.



Here is where the difference between the attended and unattended begins. The application will go through a series of prompts.

The first is the path to the current project:

```
C:\Documents and Settings\nbkkrai\My Documents>java -jar SCDBuilder.jar
```

The application then prompts whether or not the user would like to directly build (skipping versioning process) or enter the versioning process. If the user selects yes, then the application would run the specified maven commands.



If the user selects no, the prompts continue. Next is the control path, the baseline project the application compares the current project with.



Next, the application prompts whether this a dry run. If it is, all pom changes will be made in new pomTest.xml files. Please note, at this time, there is an issue with the dry run method which prevents it from functioning correctly. This issue is under investigation. Until resolved, please run the application with dry run off, and if necessary, revert the modified pom files from Perforce.



After the application is finished gathering this required information, it will pull the version numbers from the control project and nexus, comparing them. If they are different, the application will ask for which ones to use, those from "nexus" or "control".

 $\rightarrow$ 🚾 C:\WINNT\system32\cmd.exe - java -jar SCDBuilder.jar \_ 🗆 × \* C:\Documents and Settings\nbkkrai\My Documents>java -jar SCDBuilder.jar Please Enter the Path to Build: C:/Documents and Settings/nbkkrai/Perforce/nycctrsdap02\_1998/nbkgged\_B0024E8B5C4 3C/EMEA\_Credit/tactical/projects/SCD/Core/2.137/ Do you wish to directly build (Yes), or enter versioning process (no)? no Please Enter the Control File Path: C:/Documents and Settings/nbkkrai/Perforce/nycctrsdap02\_1998/nbkgged\_B0024E8B5C4 3C/EMEA\_Credit/tactical/projects/SCD/Core/2.136/ Is this a dry run? no Getting Control Versions Done Getting Control Versions Getting Nexus Getting Nexus Versions Versions Getting Nexus Versions Getting Nexus Versions Getting Nexus Versions Nexus and Control Versions Differ, do you wish to use 'nexus' or 'control' Differences Between Nexus and Control Versions Below: reportviewer: Control: 1.0.2/Nexus: 1.0.4 RFL: Control: 1.0.6/Nexus: 1.0.9 BaseCorrelation: Control: 1.0.7/Nexus: 1.0.10 IVol: Control: 1.0.4/Nexus: 1.0.6 tradeviewer: Control: 1.0.4/Nexus: 1.0.6 BasketManager: Control: 1.0.3/Nexus: 1.0.5 reportingframework: Control: 1.0.2/Nexus: 1.0.4 desktop: Control: 1.0.4/Nexus: 1.0.6 SCK: Control: 1.0.8/Nexus: 1.0.16 SCTDesktop: Control: 2.137/Nexus: 2.139.00

After the program compares the files from each module, and updates the pom files, this will be your result. If any maven commands were specified, you would see them occur here.

🗠 C:\WINNT\system32\cmd.exe	$\rightarrow$	
Done Comparing Modules Changed [reportviewer, BaseCorrelation, tradeviewer, reportingframework, SCK] reportviewer - Updating BaseCorrelation - Updating tradeviewer - Updating reportingframework - Updating SCK - Updating Updating Parent Version Information Updating Parent Version Information		
Updating Pourie Dependencies Version Information Updating Parent Version Information Updating Module Dependencies' Version Information Updating Parent Version Information		
Updated: SCTDesktop: 2.139.01 reportviewer: 1.0.5 BaseCorrelation: 1.0.11 tradeviewer: 1.1.0 reportingframework: 1.0.5 SCK: 1.0.17		
Updates Complete There is no maven command specified.		