USING LATEST SNAPSHOT

Step 1. Checkout javacv from repository

D:\projector>git clone https://github.com/bytedeco/javacv.git

```
Cloning into 'javacv'...
remote: Enumerating objects: 11451, done.
remote: Counting objects: 100% (873/873), done.
remote: Compressing objects: 100% (309/309), done.
remote: Total 11451 (delta 650), reused 673 (delta 485), pack-reused 10578R
Receiving objects: 100% (11451/11451), 6.61 MiB | 211.00 KiB/s, done.

Resolving deltas: 100% (8262/8262), done.
```

Step 2. Checkout procamtracker from repository

D:\projector>git clone https://github.com/bytedeco/procamtracker.git

```
Cloning into 'procamtracker'...
remote: Enumerating objects: 649, done.
remote: Counting objects: 100% (26/26), done.
remote: Compressing objects: 100% (18/18), done.
remote: Total 649 (delta 11), reused 21 (delta 7), pack-reused 623
Receiving objects: 100% (649/649), 227.70 KiB | 752.00 KiB/s, done.
Resolving deltas: 100% (329/329), done.
```

Step 3. Check version of project and libs

D:\projector>type javacv\pom.xml | more

```
<?xml version="1.0" encoding="UTF-8"?>
<project xmlns="http://maven.apache.org/POM/4.0.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://maven.apache.org/POM/4.0.0
http://maven.apache.org/maven-v4_0_0.xsd">
  <modelVersion>4.0.0</modelVersion>
  <groupId>org.bytedeco</groupId>
  <artifactId>javacv</artifactId>
  <version>1.5.8-SNAPSHOT</version>

<dependencies>
    <dependency>
      <groupId>org.bytedeco</groupId>
      <artifactId>javacpp</artifactId>
      <version>${javacpp.version}</version>
    </dependency>

    <dependency>
      <groupId>org.bytedeco</groupId>
      <artifactId>openblas</artifactId>
      <version>0.3.20-${javacpp.version}</version>
    </dependency>
    <dependency>
      <groupId>org.bytedeco</groupId>
      <artifactId>opencv</artifactId>
      <version>4.5.5-${javacpp.version}</version>
    </dependency>
```

```
-- More  --
```

```
D:\projector>type procamtracker\pom.xml | more
```

```
<?xml version="1.0" encoding="UTF-8"?>
<project xmlns="http://maven.apache.org/POM/4.0.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://maven.apache.org/POM/4.0.0
http://maven.apache.org/maven-v4_0_0.xsd">
  <modelVersion>4.0.0</modelVersion>
  <groupId>org.bytedeco</groupId>
  <artifactId>procamtracker</artifactId>
  <version>1.5.7</version>
```

I replaced version to 1.5.8-SNAPSHOT

```
<dependencies>
    <dependency>
      <groupId>org.bytedeco</groupId>
      <artifactId>javacv-platform</artifactId>
      <version>${project.version}</version>
    </dependency>

</dependencies>
```

Put it after dependencies

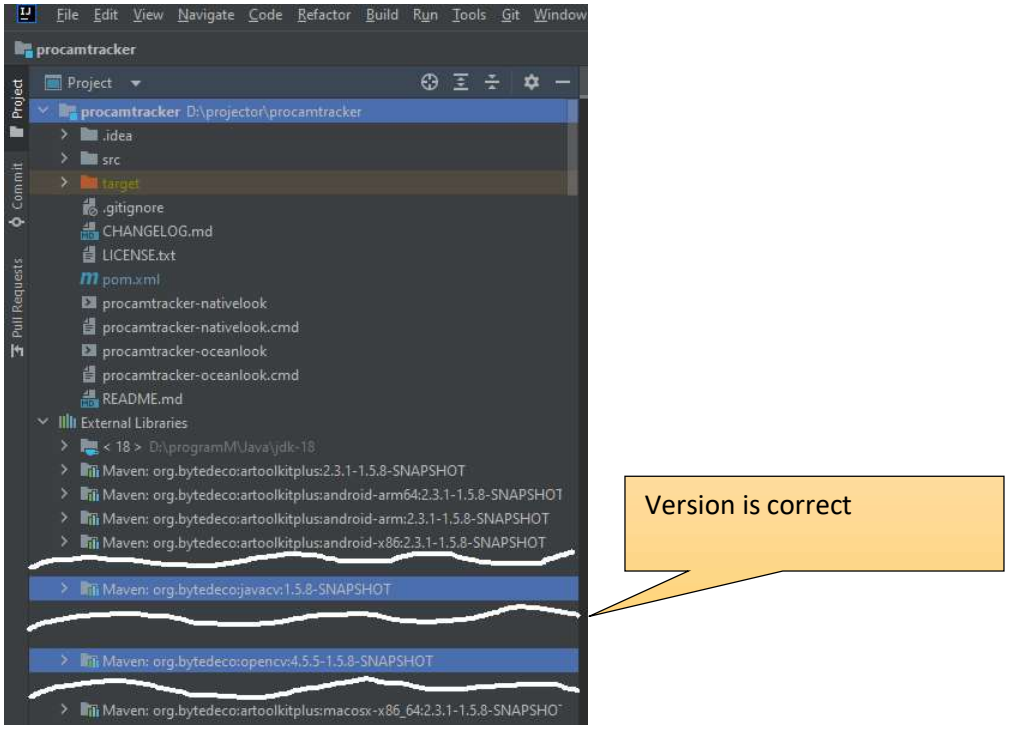
```
<repositories>
    <repository>
       <id>sonatype-nexus-snapshots</id>
       <url>https://oss.sonatype.org/content/repositories/snapshots</url>
    </repository>
</repositories>
<pluginRepositories>
    <pluginRepository>
        <id>sonatype-nexus-snapshots</id>
        <url>https://oss.sonatype.org/content/repositories/snapshots</url>
     </pluginRepository>
 </pluginRepositories>
```

```
-- More  --
```

Step 4. Change version of procamtracker and javaCV accordingly in pom.xml add location where snapshots are stored.

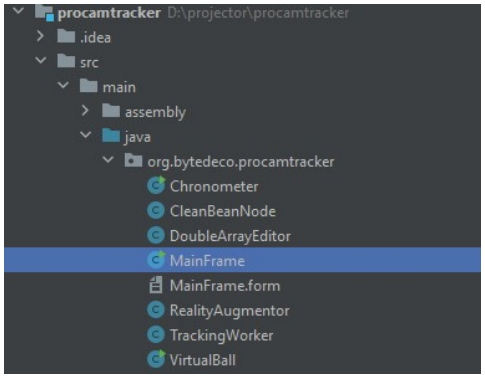
Step 5. Start IntelliJ or NetBeans and open procamtracker project

Step 6. Check version of libs

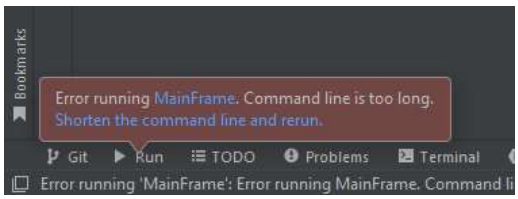


Step 7. Build and run

In project tree select MainFrame, click Right Button, Click Run 'MainFrame.main()'

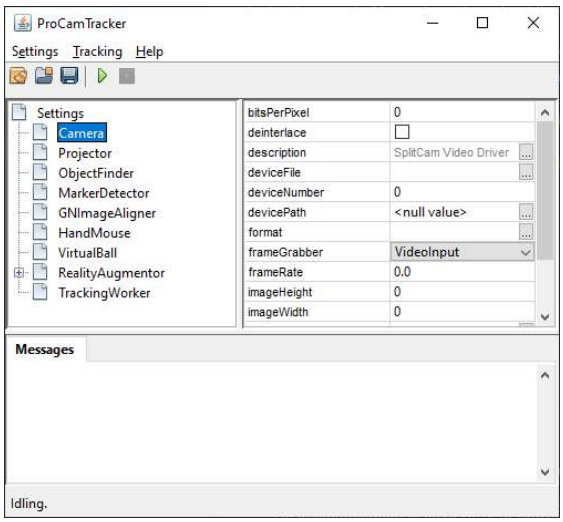


It may appear a message at the bottom left:



Click on Shorten the command line and rerun.

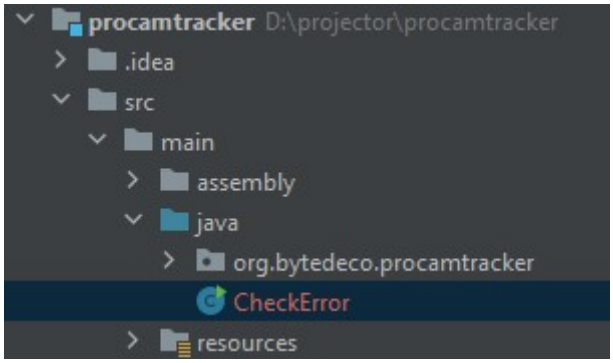
Building of the program will start - It take some time. The application window will appear.



Step 8. Add sample code for checking problem with stereoRectify

Download CheckError from
https://github.com/bytedeco/javacv/files/8505114/CheckError.txt

and save it like CheckError.java. With Drag&Drop place the file under java:



Step 9. Download calibration file camera-projector.yaml from
https://github.com/natar-io/PapARt/blob/1.4-github/papart/data/calibration/camera-projector.yaml

and place in D:\

Step 10. Select CheckError and run 'CheckError.main()'

```
STARTING...
org.bytedeco.javacpp.noPointerGC = false
Mat K1 = new Mat(3, 3, 6);
K1.put(0, 0, new double[]{
    725.3432277010294,    0.0,    331.91235060120476,
    0.0,    728.0987748056441,    202.35866017353592,
    0.0,    0.0,    1.0
});
```

```
java.lang.RuntimeException: OpenCV(4.5.5) D:\a\javacpp-presets\javacpp-
presets\opencv\cppbuild\windows-x86_64\opencv-
```

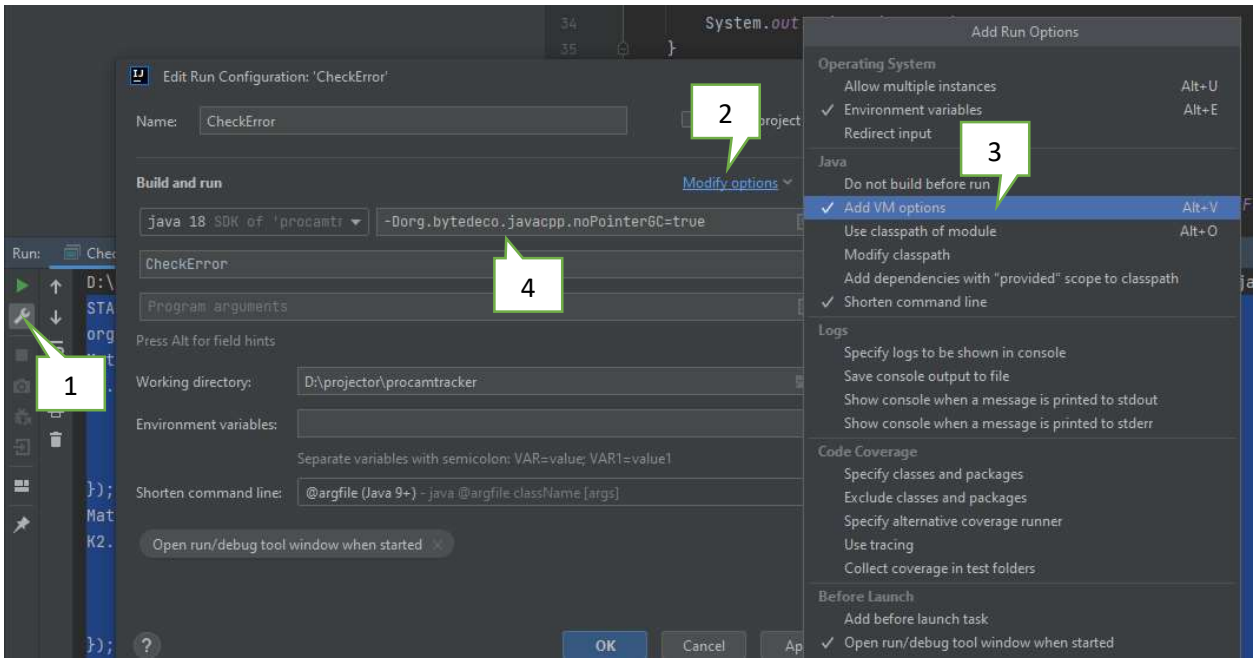
```
4.5.5\modules\calib3d\src\undistort.dispatch.cpp:416: error: (-215:Assertion
failed) CV_IS_MAT(_distCoeffs) && (_distCoeffs->rows == 1 || _distCoeffs-
>cols == 1) && (_distCoeffs->rows*_distCoeffs->cols == 4 || _distCoeffs-
>rows*_distCoeffs->cols == 5 || _distCoeffs->rows*_distCoeffs->cols == 8 ||
_distCoeffs->rows*_distCoeffs->cols == 12 || _distCoeffs->rows*_distCoeffs-
>cols == 14) in function 'cvUndistortPointsInternal'

      at org.bytedeco.opencv.global.opencv_calib3d.stereoRectify(Native
Method)
      at CheckError.test(CheckError.java:189)
      at CheckError.main(CheckError.java:32)
DONE!

Process finished with exit code 0
```

Step 11. Disable automatic garbage collection for pointers

1. Modify run configuration
2. Modify options
3. Add VM options
4. Paste -Dorg.bytedeco.javacpp.noPointerGC=true



Step 12. Run

```
STARTING...
org.bytedeco.javacpp.noPointerGC = true
Mat K1 = new Mat(3, 3, 6);
K1.put(0, 0, new double[]{
    725.3432277010294,    0.0,    331.91235060120476,
    0.0,    728.0987748056441,    202.35866017353592,
    0.0,    0.0,    1.0
});
```

```
java.lang.RuntimeException: OpenCV(4.5.5) D:\a\javacpp-presets\javacpp-
presets\opencv\cppbuild\windows-x86_64\opencv-
4.5.5\modules\calib3d\src\undistort.dispatch.cpp:416: error: (-215:Assertion
failed) CV_IS_MAT(_distCoeffs) && (_distCoeffs->rows == 1 || _distCoeffs-
>cols == 1) && (_distCoeffs->rows*_distCoeffs->cols == 4 || _distCoeffs-
>rows*_distCoeffs->cols == 5 || _distCoeffs->rows*_distCoeffs->cols == 8 ||
_distCoeffs->rows*_distCoeffs->cols == 12 || _distCoeffs->rows*_distCoeffs-
>cols == 14) in function 'cvUndistortPointsInternal'

      at org.bytedeco.opencv.global.opencv_calib3d.stereoRectify(Native
Method)
      at CheckError.test(CheckError.java:189)
      at CheckError.main(CheckError.java:32)
DONE!

Process finished with exit code 0
```