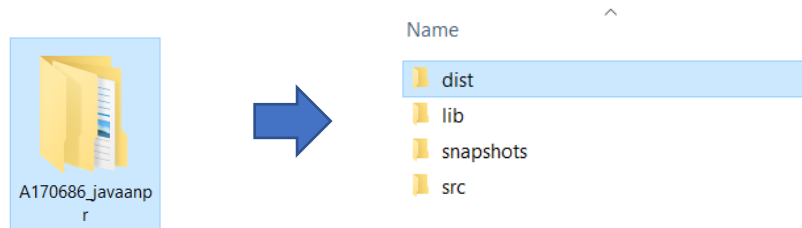


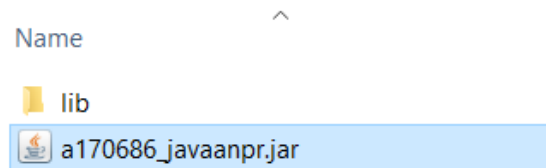
A170686_JAVAANPR SYSTEM MANUAL

A) Executable JAR

1. Go to “dist” folder in “A170686_javaanpr” directory.



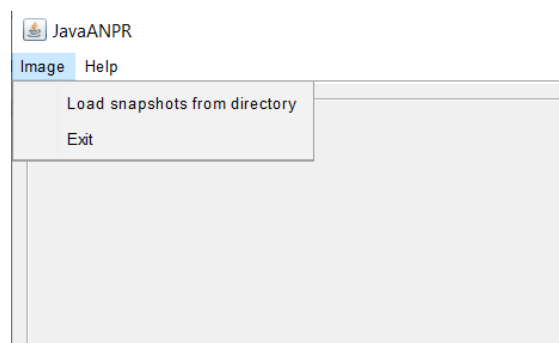
2. Double click on “a170686_javaanpr.jar” file to run the system.

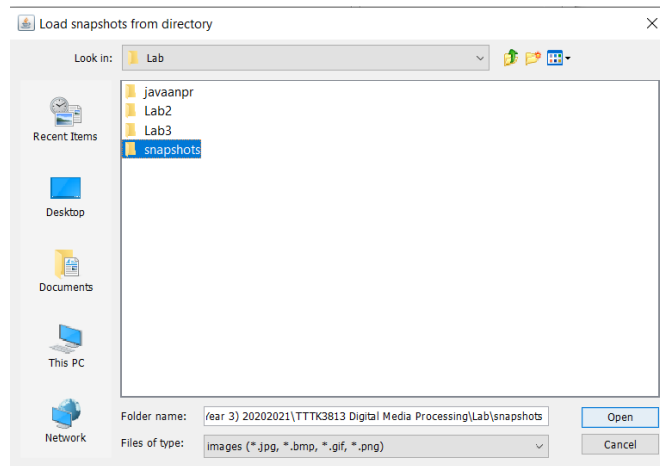


3. The Graphical User Interface (GUI) of the system will show on your screen.



4. Click on the “Image” button in Toolbar (Left corner) and select “Load snapshots from directory” to load image in directory.

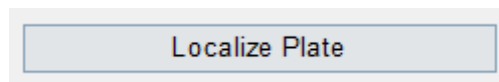




5. Select image in the List on the right side of the system.



6. Click on the “Localize Plate” button for number plate localization.



The status will show “processing ...” and wait until it changes to “Done”.

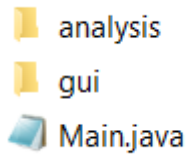


7. The number plate localization is completed, and a red bounding box will draw on the number plate area.



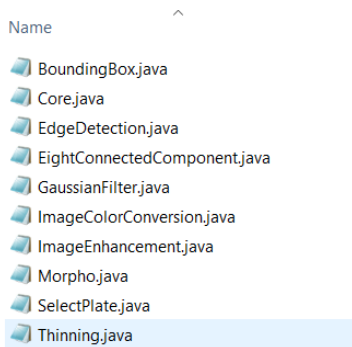
B) Source Code

1. Main.java



The main java file → run the GUI of the program.

2. analysis folder



Java File	Function
Core.java	To call all the classes or function for number plate localization.
EdgeDetection.java	Canny Edge Detection algorithm
EightConnectedComponent.java	8-Neighbourhood Connected Component Labelling (CCL) algorithm
GaussianFilter.java	Gaussian Blur algorithm
ImageColorConversion.java	Convert RGB image to Grayscale image.
ImageEnhancement.java	Enhanced image with Histogram Equalization
Morpho.java	Morphological processes and Fill Hole algorithm
SelectPlate.java	Implement 10 different combination of morphological operator and CCL to identify number
Thinning.java	Skeletonize algorithm
BoundingBox.java	Class for storing the location of labelled region or component.

3. gui folder

The java file for GUI of the program.

*The GUI is taken from 2006 Ondrej Martinsky and modified by (2020-2021) Edmund Ngu.