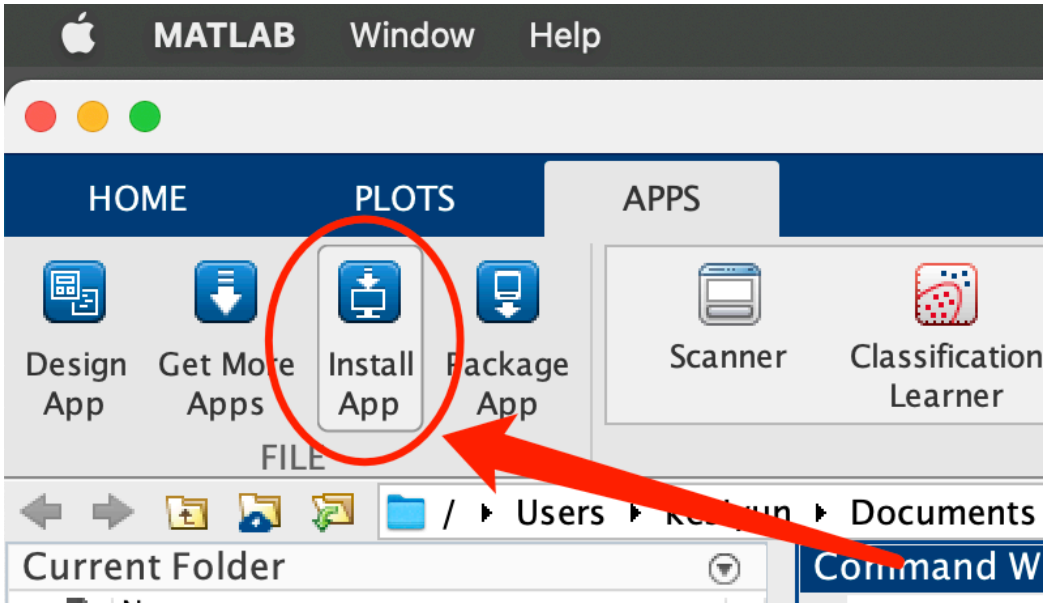
Background

This project aims to implement a simple camera scanner processing low quality photograph of document to get a scanner effect output. The project comes with a MATLAB APP, in which users may import photos taken from a mobile phone or camera and export grayscale xerox images.

Install

Refer to the directory named "**\matlab app installation**" in this package. A matlab app installer "Scanner.mlappinstall" could be used to install the packaged application. Just double-click the file, and you may need to specify "Open with matlab" at the first use.

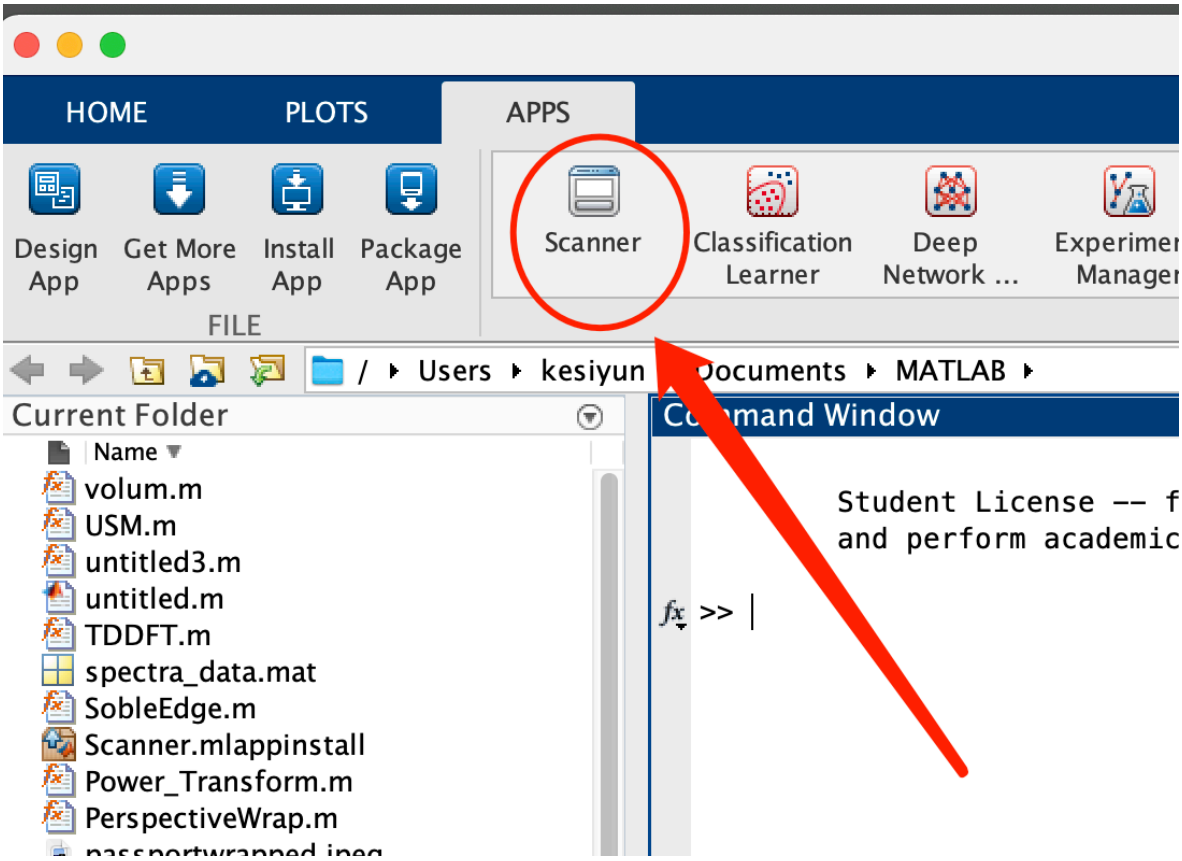
The installation process should be done in seconds. If nothing happens, simply go to APPS -> Install App, and choose the installer. (See picture)



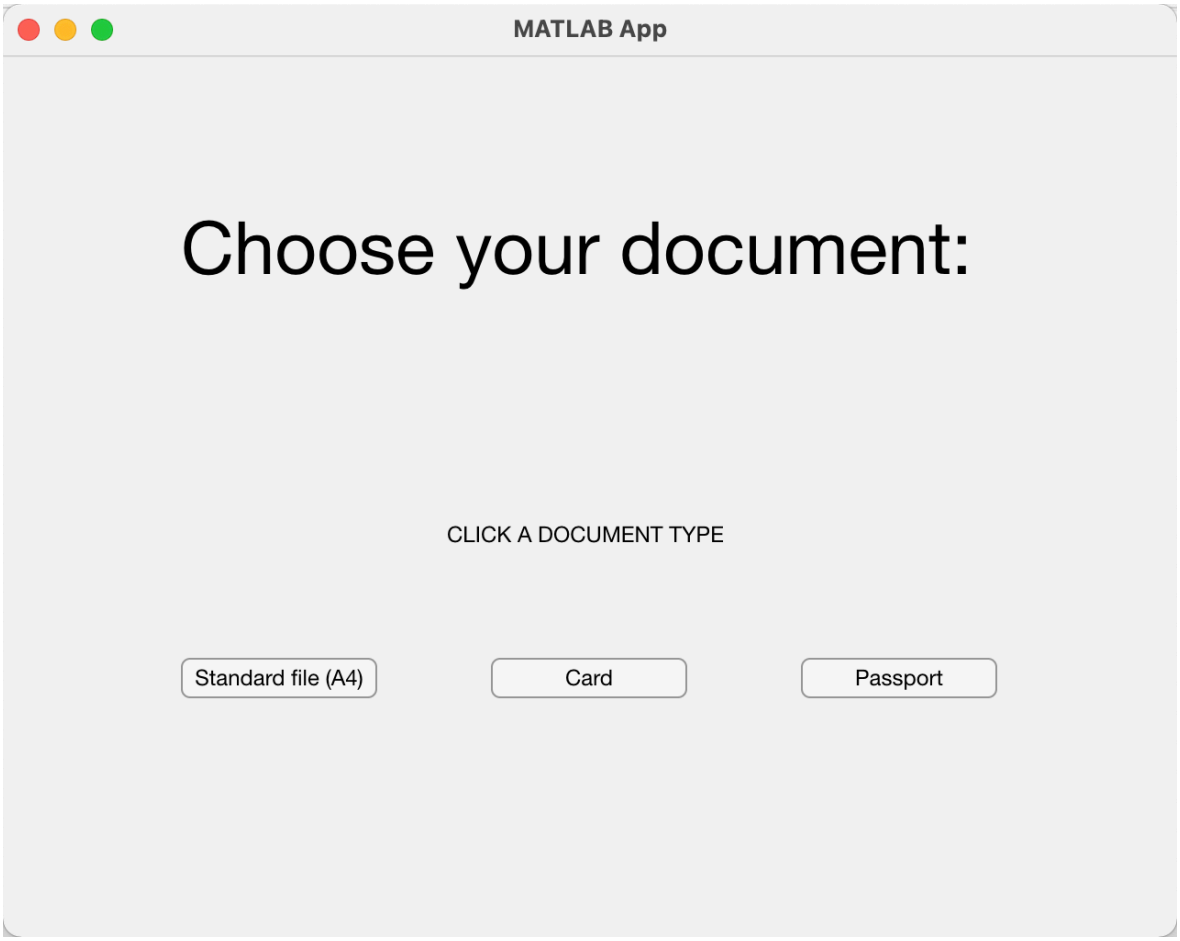
If still not able to install, see "**Other files/codes inside packages**" below for unpacked matlab applications.

Usage

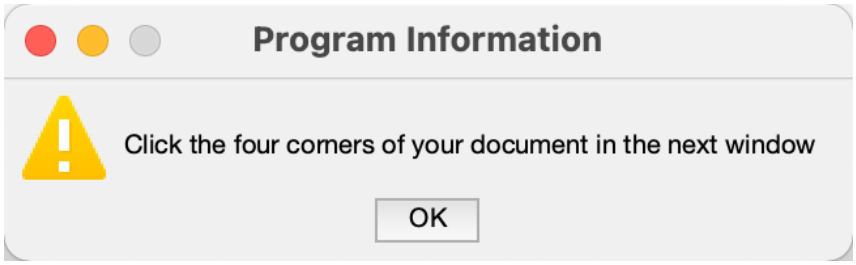
1) You may access the app in the matlab window by choose APPS -> MY APPS -> Scanner. (See picture)

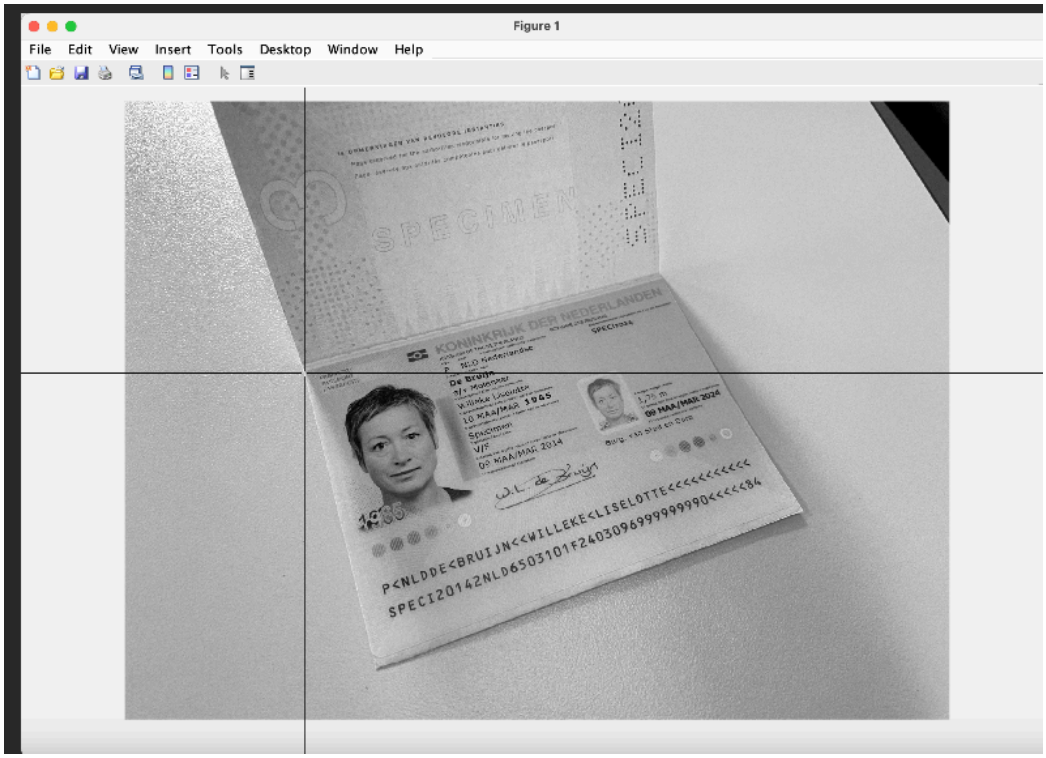


2) Three types of document can be picked in the home page of our application. Option **Standard files** will generate scanned images with normal size of A-series papers (1.41:1); option **Card** will output images in shape of ordinary ID-2 cards (i.e. credit card size: 8.56cm:5.5cm); and the option **Passport** will generate a image of a ICAO standard passport (125mm:88mm) size.

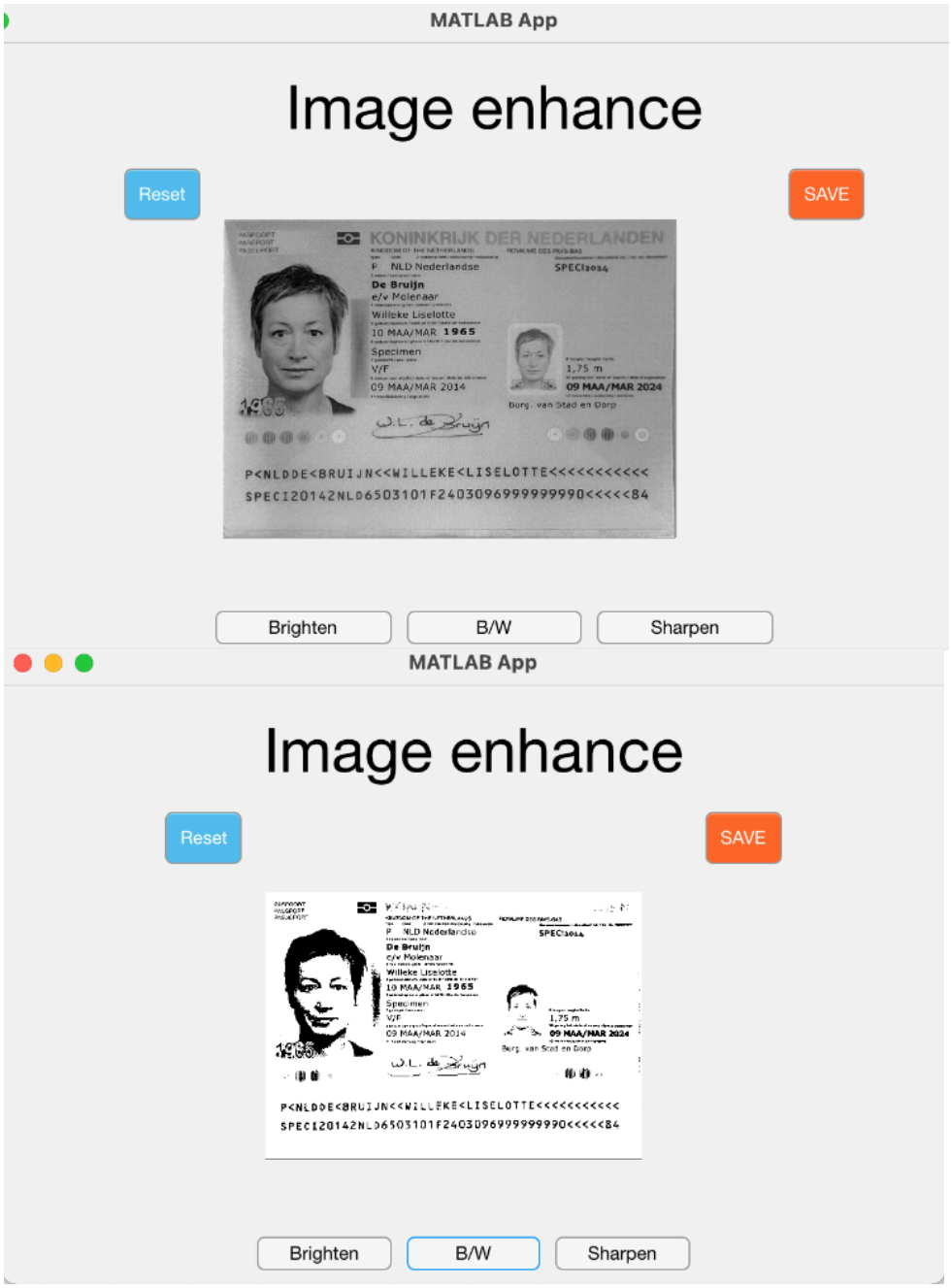


3) Then you will be asked to click the four corners of your document, the image will be wrapped and cropped into desired output size.





4) You may do some enhancement in the next pop up window. Push buttons below the image to **adjust your effect**; click blue button to **reset**. While you get satisfying result, click orange button to **save** the image. You can continue to process other images again in the main window, and just close the windows to halt the application.



Other files/codes inside packages

Directory named “\m files” included test-scripts/functions before built into the application. Be free to examine and run it if you wish.

Directory named “\mlapp files” included unpacked matlab

application(*.mlapp). Click scanner.mlapp to run the application. You may also examine the full scource code of the application through Matlab App Designer tool.

Directory named “\testimage” provided three test images in each category.

The application installer has codes embedded-in thus not relies on those files, so it’s fine to rename, move, or delete them.