Tutorial

1. Download the code from Github. You will get an Intelligent-quantifying-RGCs.zip file which you need to unzip.

2. Download the files in cloud disk that need to be unzipped. The name of the downloaded file is yolov5_cpu, and please unzip this package to the current folder, otherwise unexpected problems may occur.

Google Link:

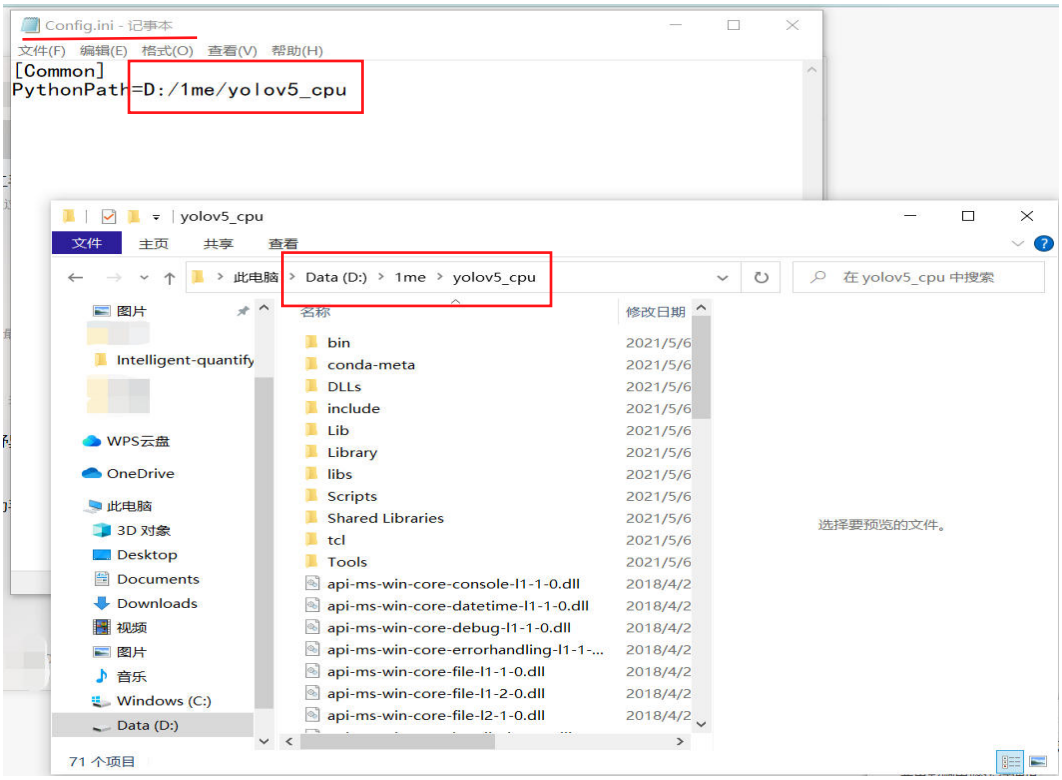
https://drive.google.com/file/d/1yOEsBvil6KEdZFa5ENQxB667uKyEdnKq/view?usp=sharing

Baidu Link:

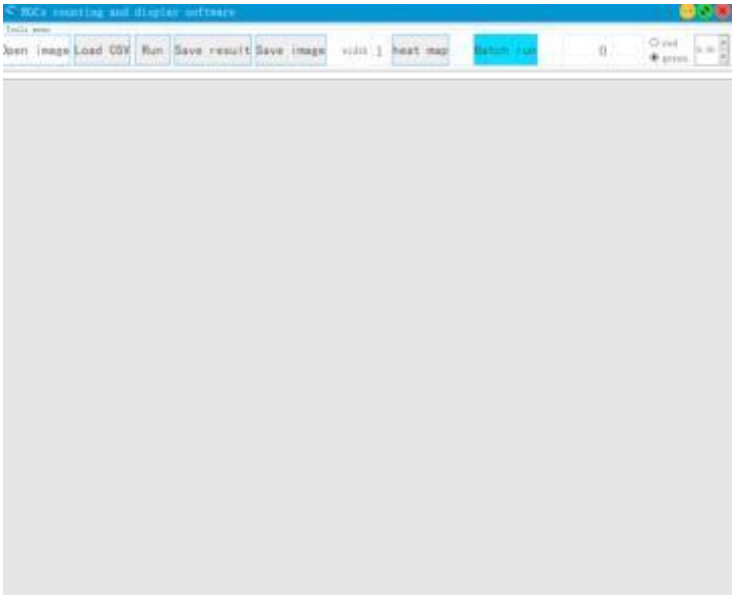
https://pan.baidu.com/s/1lccg1OVbeudsp2VtnqxWZg

Extraction code： g44k

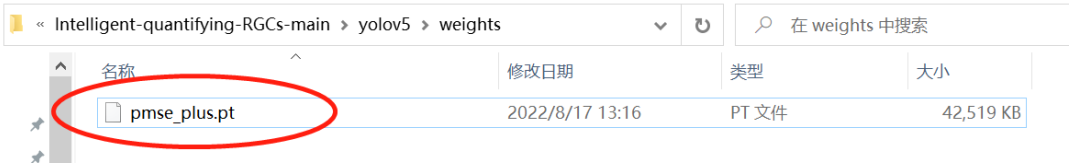
3. Find the “Config.ini” file in step 1 and change the file content to your yolov5_cpu path. As shown below, the yolov5_cpu we downloaded is placed in the D:\1me\yolov5_cpu path, so we changed the config.ini file in the step1 file package to D:/1me/yolov5_cpu. Note that the '/' is used here, not '\'.



4. By clicking “userinterface.exe” opens the graphical interface. The loading speed is slow when it is opened for the first time. (please run as administrator)

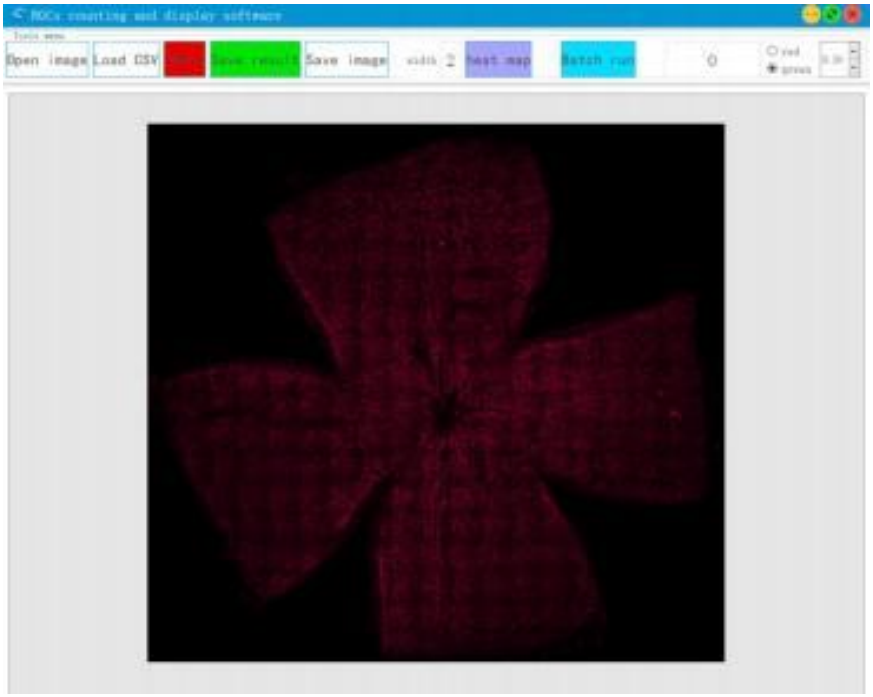


5. After opening the software, you need to check whether the pmse_plus.pt model file exists in the root directory of drive C. If not, you need to copy it. (The pmse_plus.pt model file is located in the weights folder of the yolov5 folder, which can be found in the extracted Intelligent-quantifying-RGCs.)

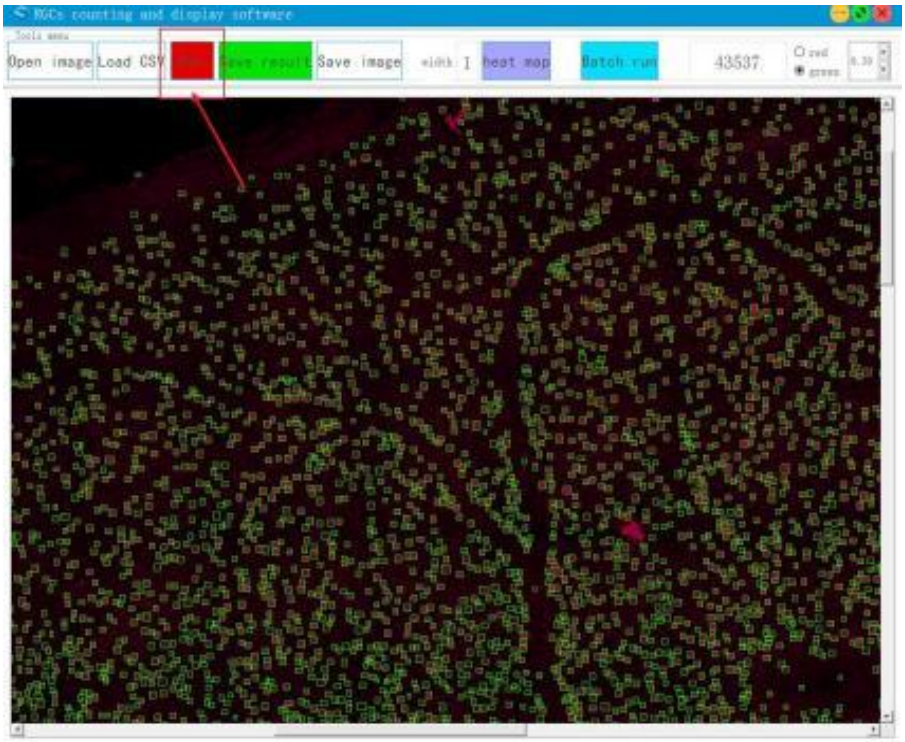


6. Prepare the pictures to be detected. The software only allows one or five pictures to be read at a time. Otherwise, an error will be reported. And it should be noted that the five pictures were taken at different Z-positions in the same field of view.

7. Click “open image” to open the image.



8. Click “Run” to run the algorithm, the result will be displayed in the image, and the CSV file will be generated.



9. The software also provides batch processing function. Click "Batch Process" to select multiple pictures for detection, and you can view the process through the progress bar. After the detection is complete, you can click "Open Image" to view the detection results of each image.