

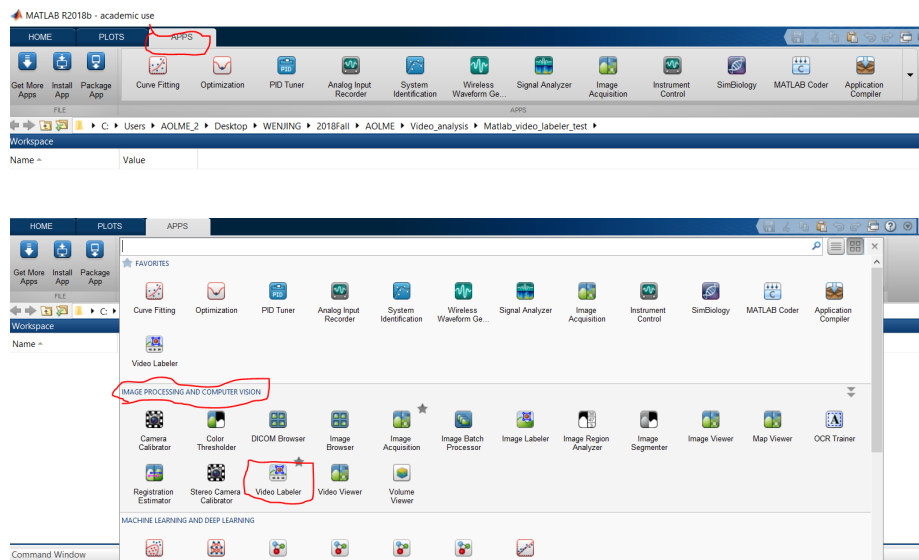
# Ground-truth Collection with Matlab Video Labeler

February 13, 2019

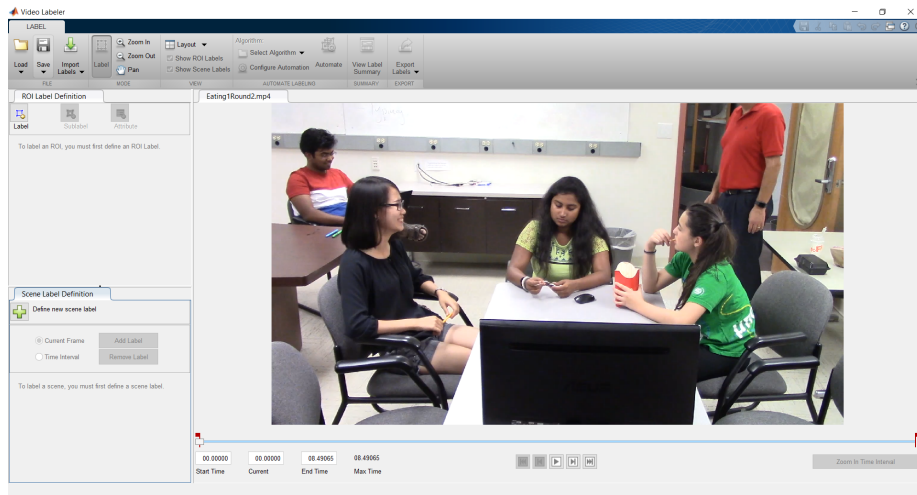
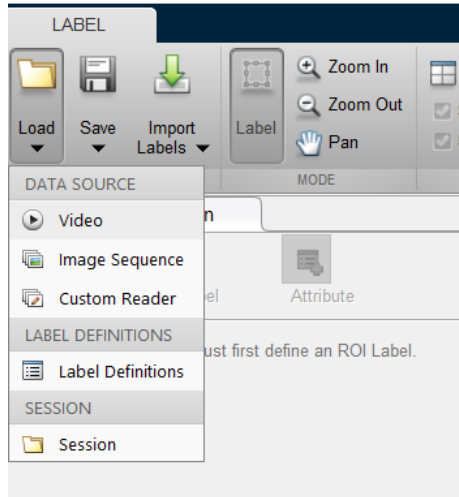
## 1 Matlab Video Labeler

1. Install MATLAB R2018b and launch it. The previous version will not support video labeler.

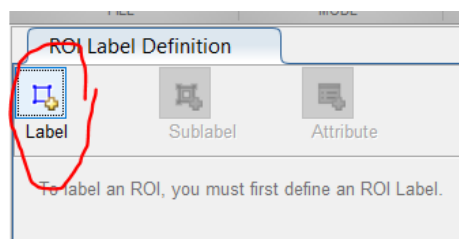
2. In toolbar **APPS**, find **Video Labeler** in the section of **IMAGE PROCESSING AND COMPUTER VISION**

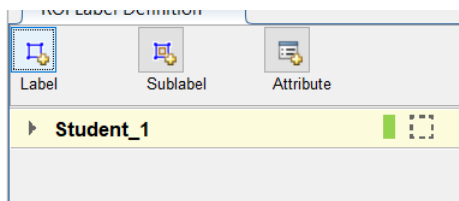
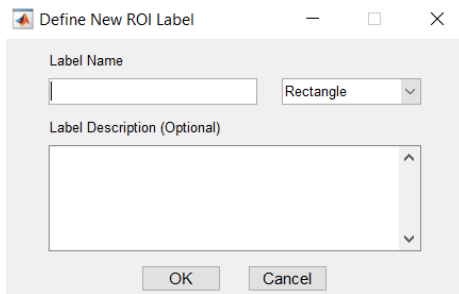


3. Load new video in window **Video Labeler**. It will take a while, please be patient.

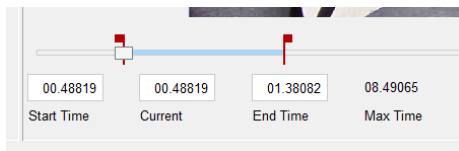


4. Create a new label, for example, called **Student\_1**.

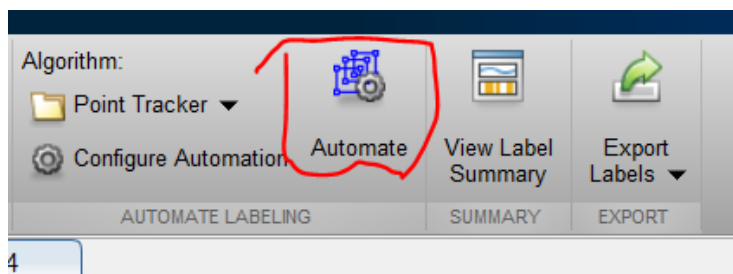
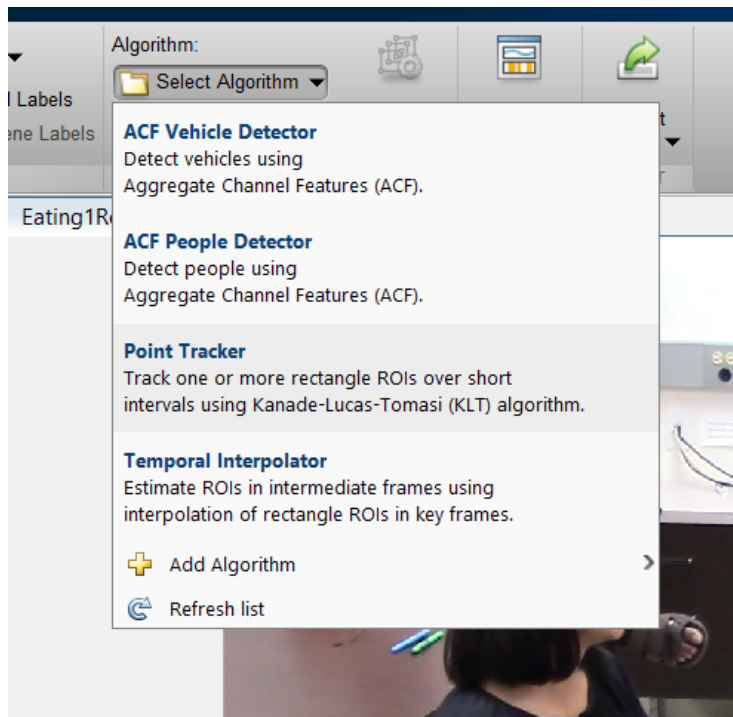


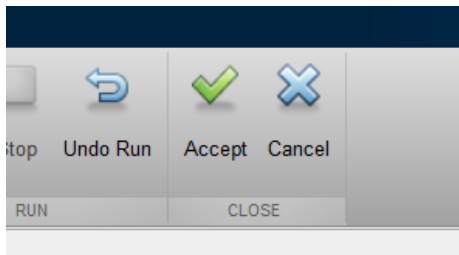
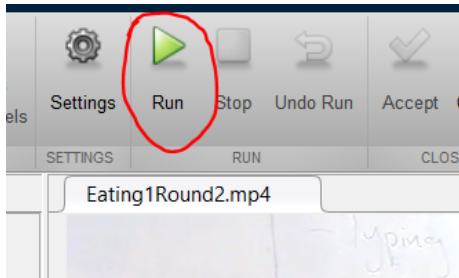


5. Set the start time and end time and drag the mouse in the frame to generate a rectangle.

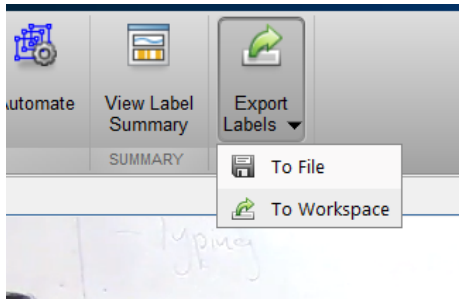


6. Select the rectangle, make sure it turns into yellow. In **Algorithm**, select **Point Tracker**. Then click **Automate**, open a new window. In new window, click **Run**. After running, if you are satisfied with the results, click **Accept**, otherwise **Cancel**.





7. Export labels to File or Workspace. The export variable name is **gTruth** by default.



8. Go back to MATLAB main interface, open the file **CropImage.m**, change the label's name in the command: `recPosition = gTruthInterval.LabelName`. Then run it. This file is used to crop rectangle region and save it as a video based on the different labels. In this file, you can change size of the frame, frame rate, etc.