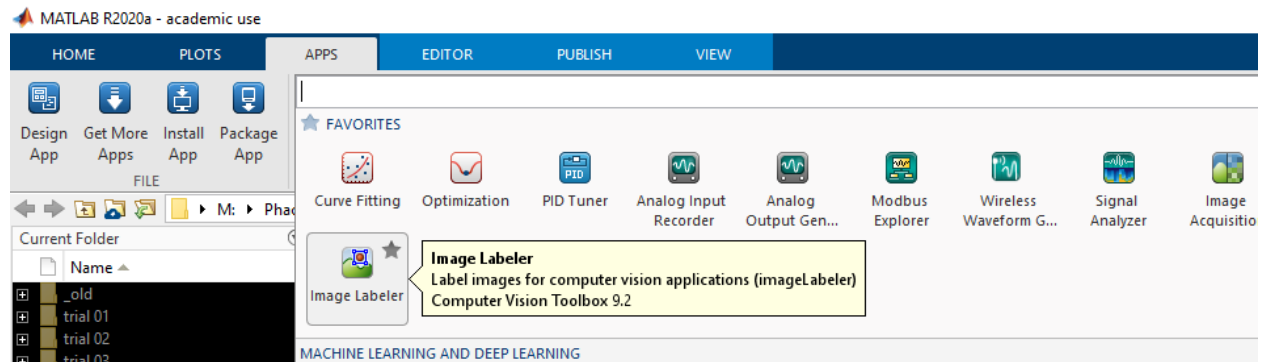


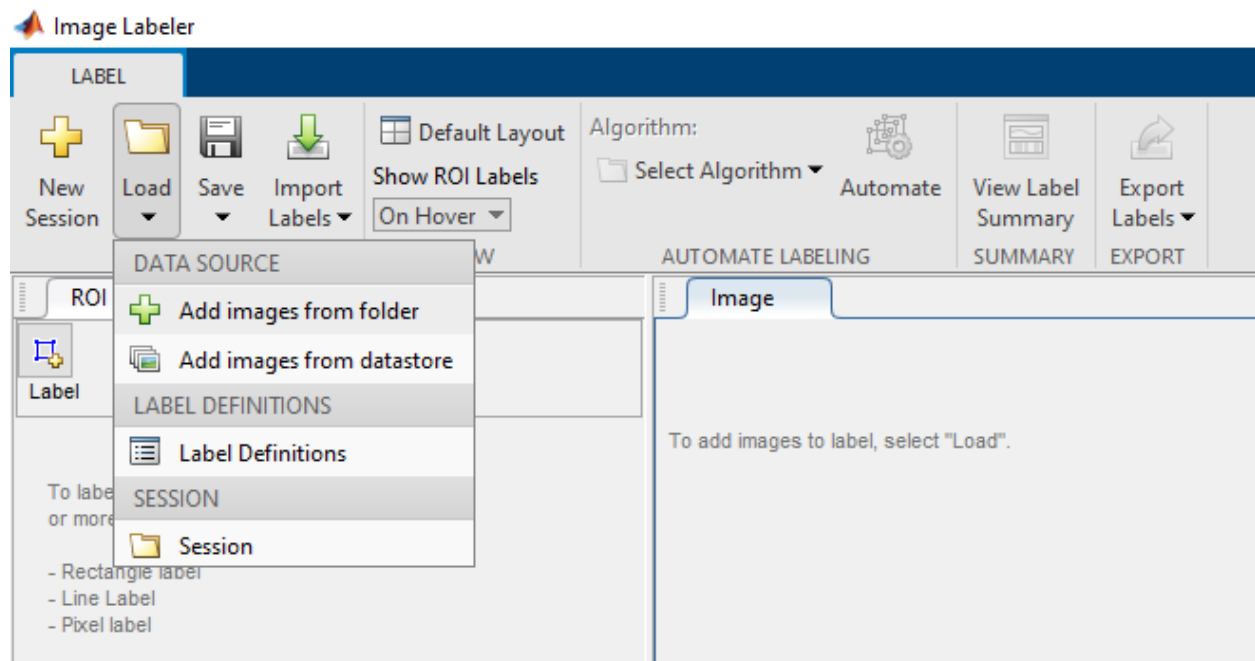
2021-04-16 MJG

## Quick Tutorial: Using Matlab's Image Labeler App

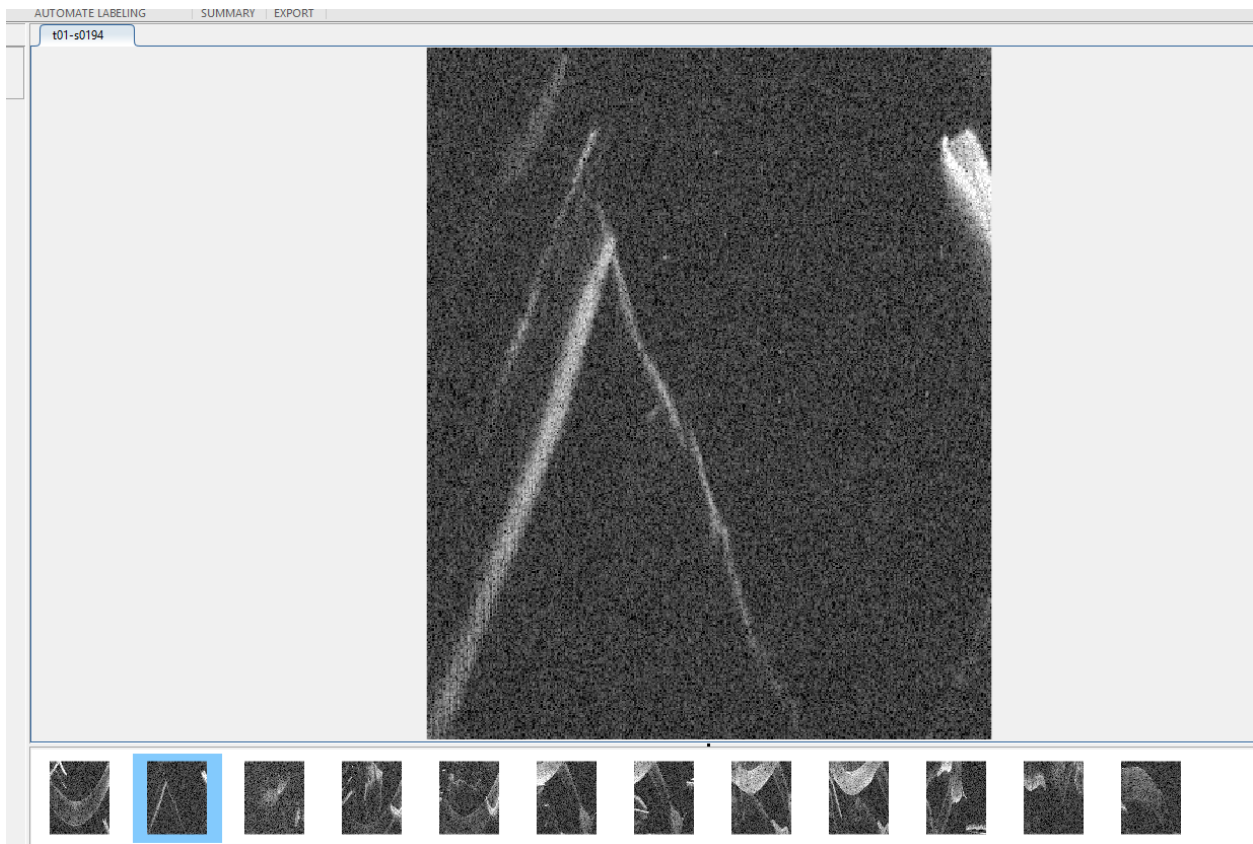
1. Open Matlab. At the top, click the "APPS" tab and search for "Image Labeler". You can click the star so that in the future it'll appear in your favorites and easier to access.



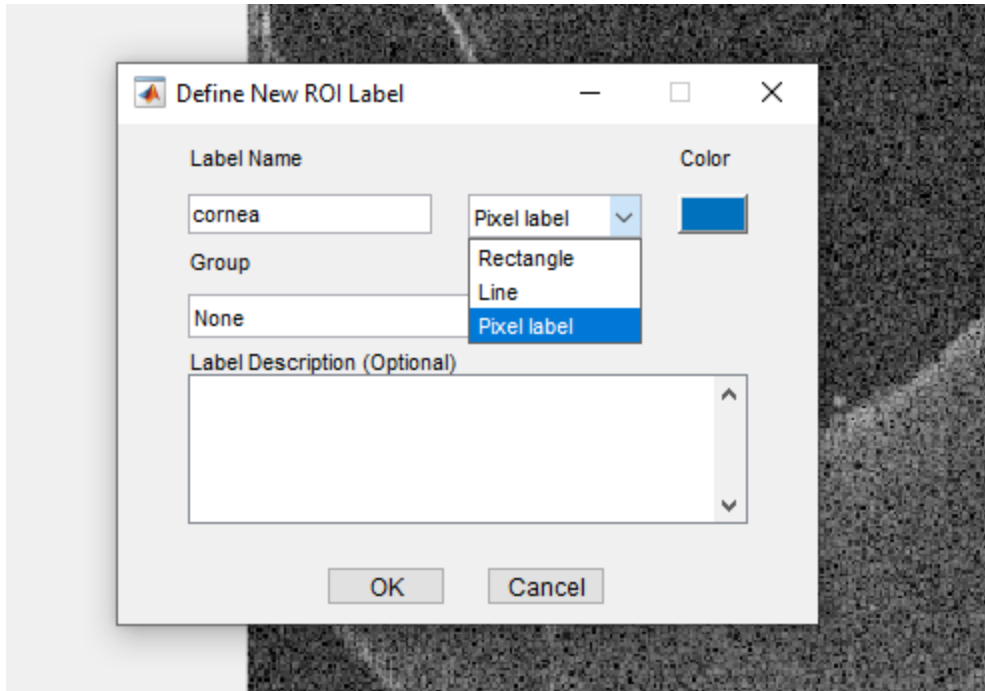
2. This opens the app. First, import the images you want to label into the app. Click Load -> "Add images from folder" then select all of the images. It's recommended you load only, say, 100 or so at most at a time.



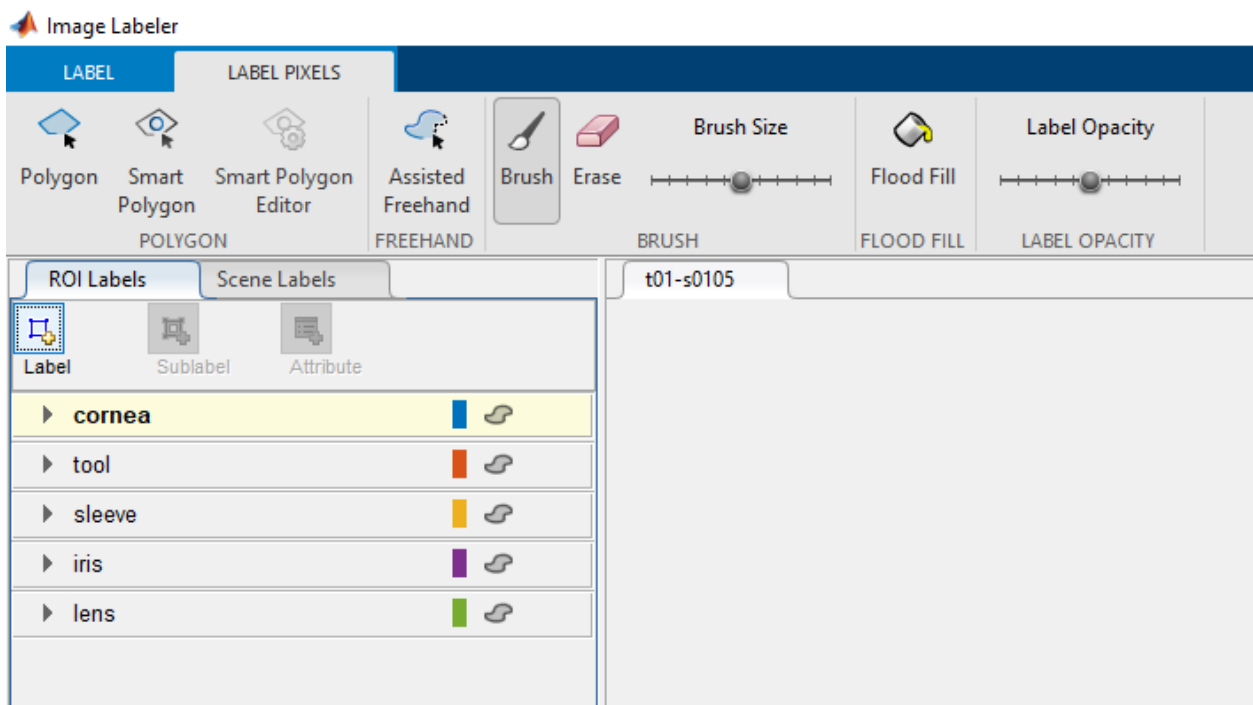
3. After some loading time, all the images will appear in a carousel at the bottom and the image selected will appear large in the labeling window:



4. Matlab calls this a new "session." The first thing you need to do in a new session is to create the labels. On the left, add a new label, give it a name (here "cornea") and use "Pixel label". The color does not matter---whatever is easiest for you to use.

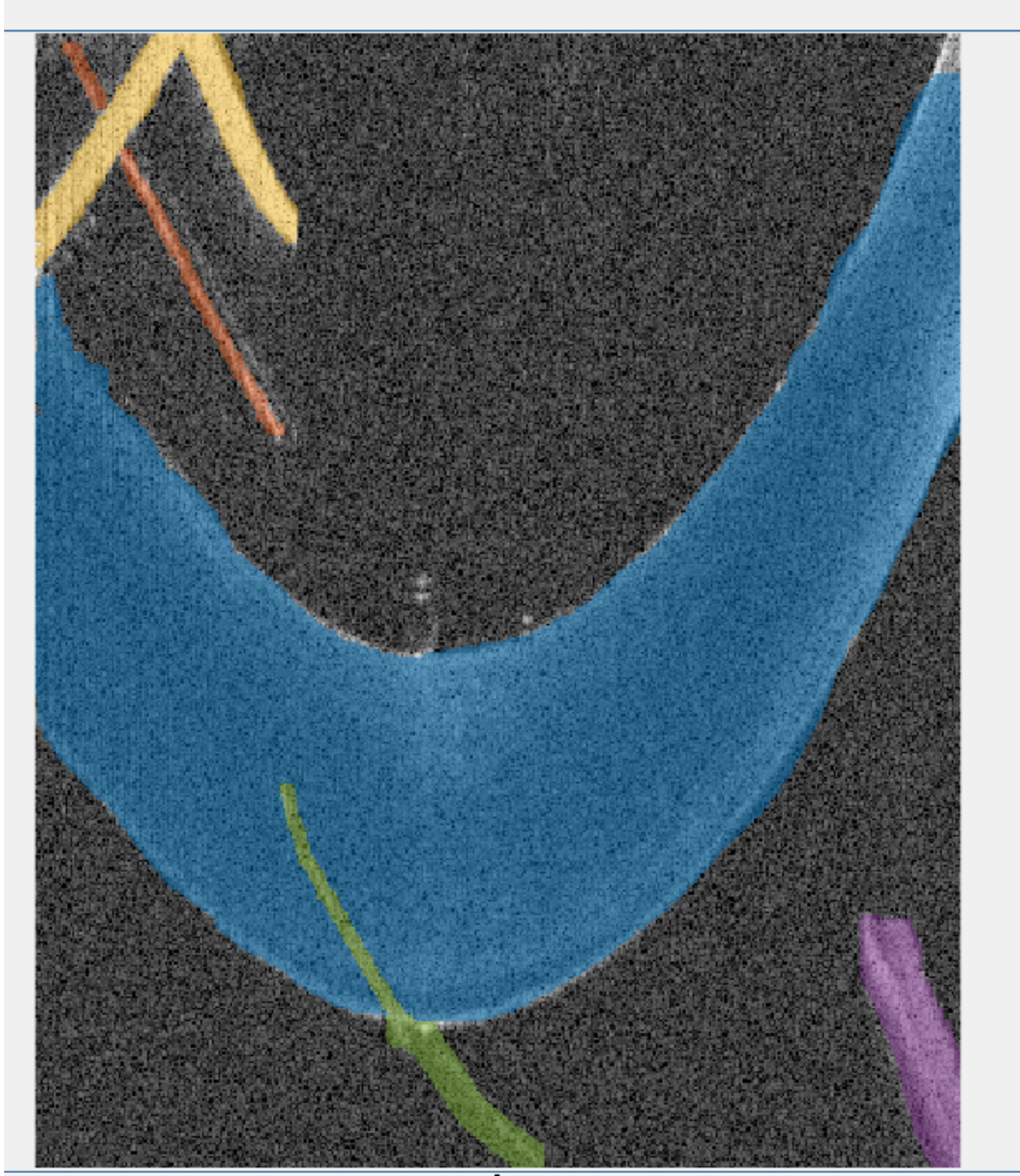


5. Add all the labels you plan on using. You can also add more later, or edit the colors. Here, I've added 5 for the pig eye experiments:

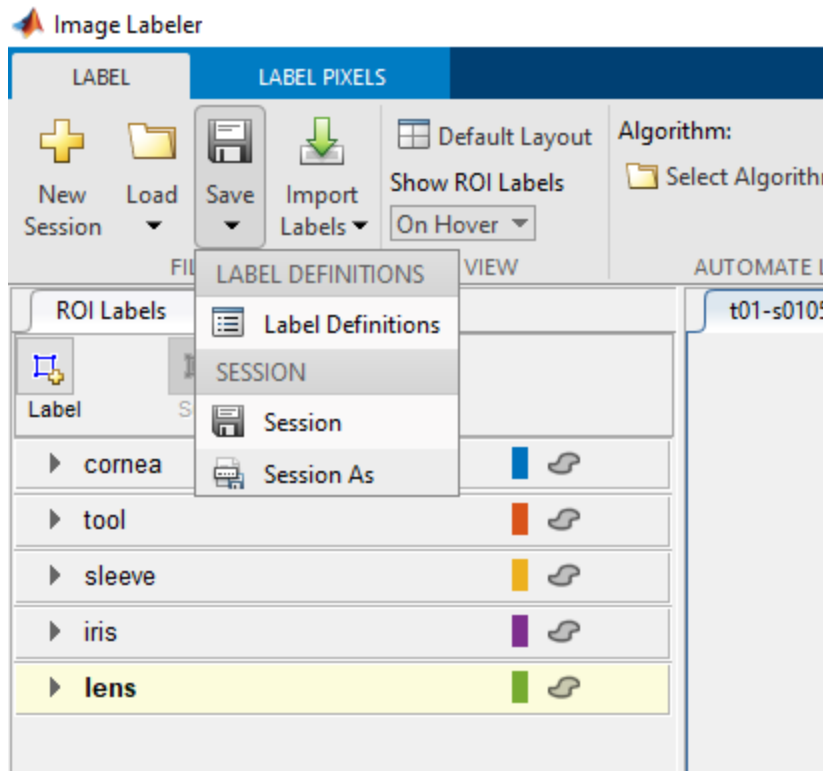


6. In the top ribbon are some options for labeling. The most intuitive is the brush tool, which just allows you to paint the labels atop each image. Take the time and just mess around with the others---some of them can save you a considerable amount of time.

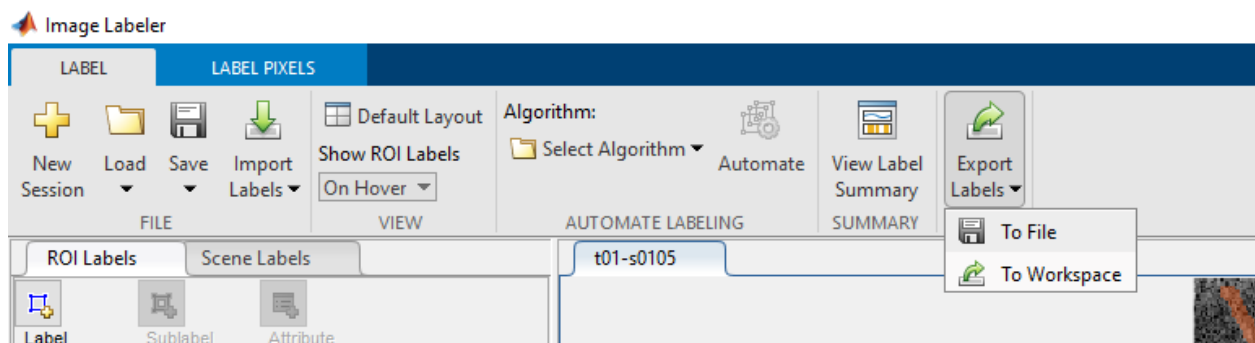
As an example, I've labeled one image with the labels defined above:



7. As you're working, you'll want to save your progress. Save -> "Session As" will save the session. Once it's saved, you can close Matlab and come back later. When you re-open Image Labeler, you load the session file and it'll import all your images and labels. This allows you to pick up where you left off.



8. Later, when the session is complete (after you've labeled all the images), the "ground truth" labels must be exported so that they can be used in training a model. This is an "export" function, not a "save". That's found here ("to file"):



Later, we can discuss what to do with those labels. For now, just get familiar with the labeling process.