

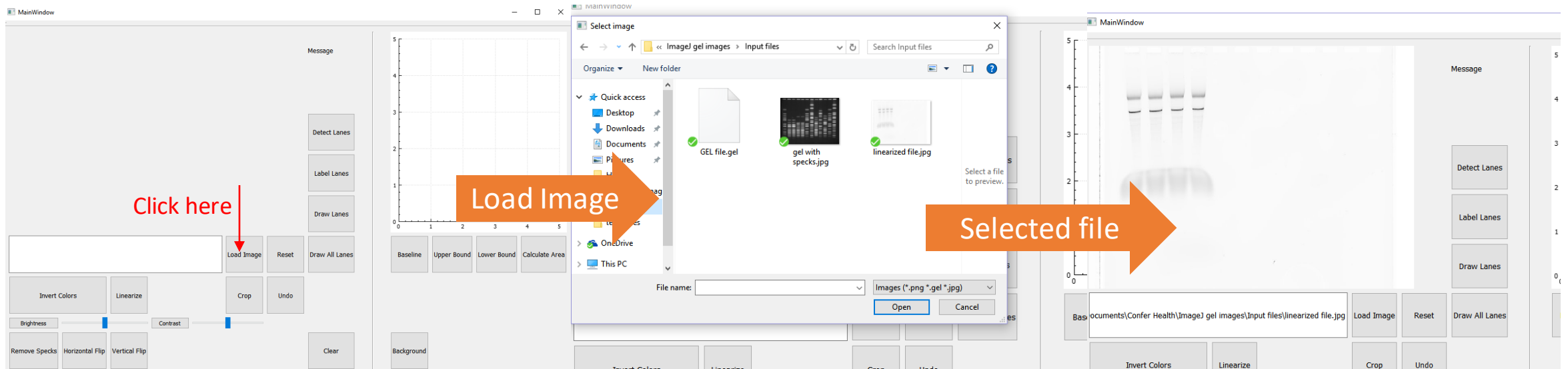
Expected Outputs

A guide to what to expect from our Gel Image Analysis Desktop Application

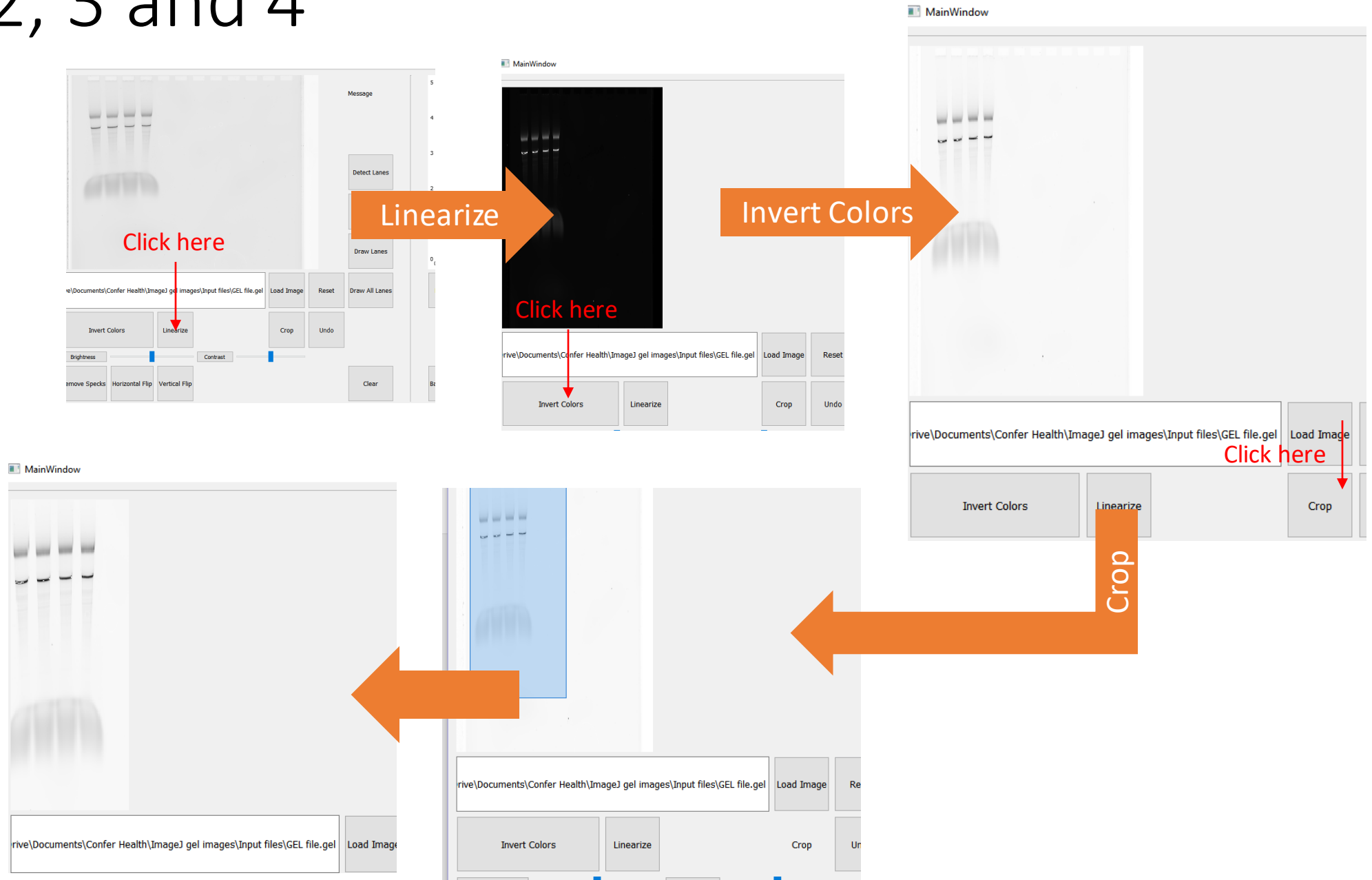
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Jiayuan Hu

Step 1 – Loading Image



Steps 2, 3 and 4



Step 9 – Remove Specks

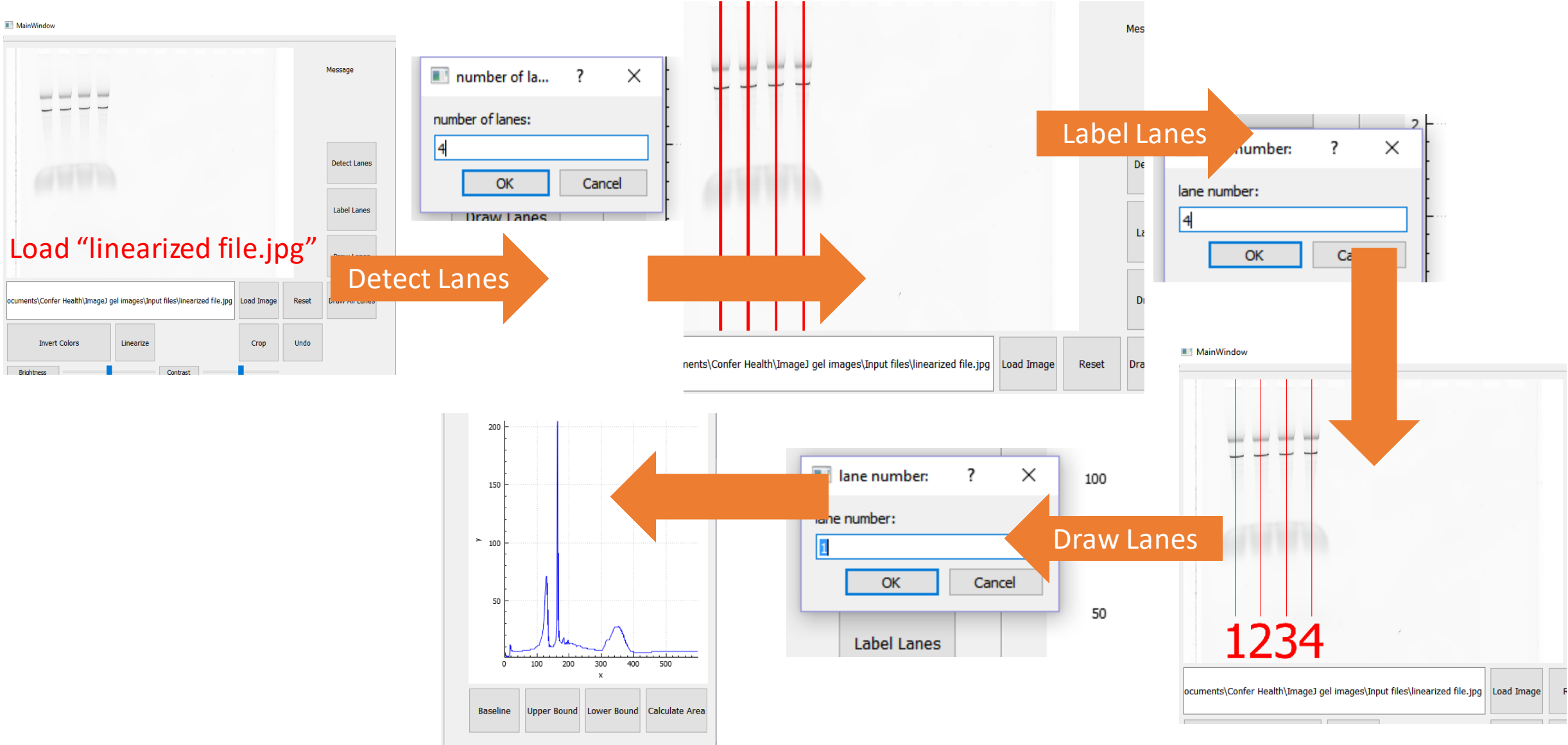
The image shows a sequence of three screenshots from a gel image processing software, illustrating the steps to remove specks from a gel image.

Step 1: Load Image
The first screenshot shows the software interface with the file path `documents\Confer Health\ImageJ gel images\Input files\gel with specks.jpg` entered in the "Load Image" field. The "Load Image" button is highlighted. Below the field, there are buttons for "Invert Colors", "Linearize", "Crop", and "Undo".

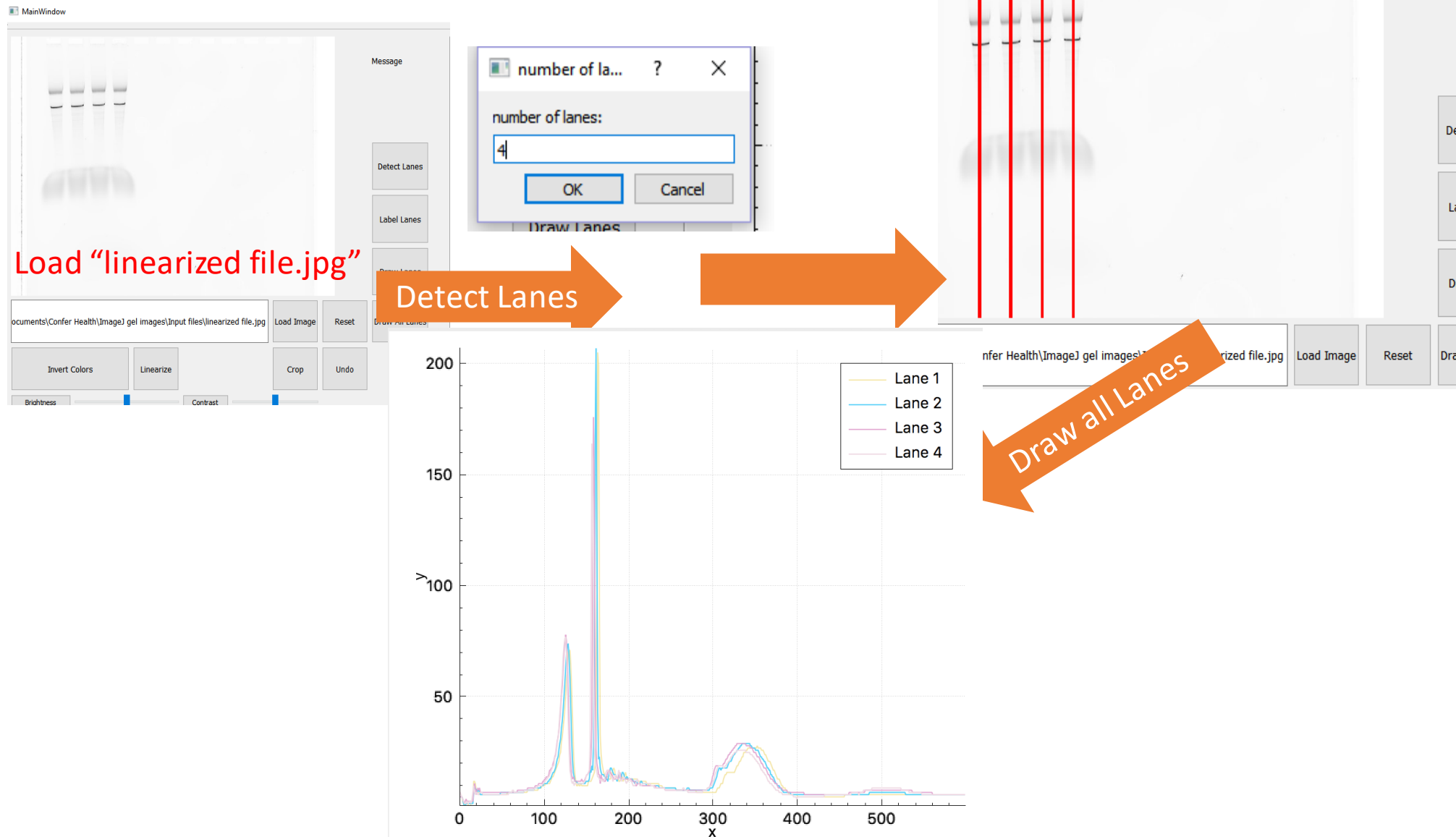
Step 2: Invert Colors
An orange arrow labeled "Invert colors" points from the first screenshot to the second. The second screenshot shows the same interface, but the "Invert Colors" button is now highlighted, and the gel image is displayed in inverted colors (black bands on a white background).

Step 3: Remove Specks
An orange arrow labeled "Remove Specks" points from the second screenshot to the third. The third screenshot shows the software interface with the "Remove Specks" button highlighted. Two dialog boxes are open: "Input Speck ..." with "Speck Threshold:" set to 5, and "Dark Thresh..." with "Dark Threshold:" set to 220. Both dialog boxes have "OK" and "Cancel" buttons. Below the dialog boxes, the gel image is shown with the specks removed, resulting in a cleaner image.

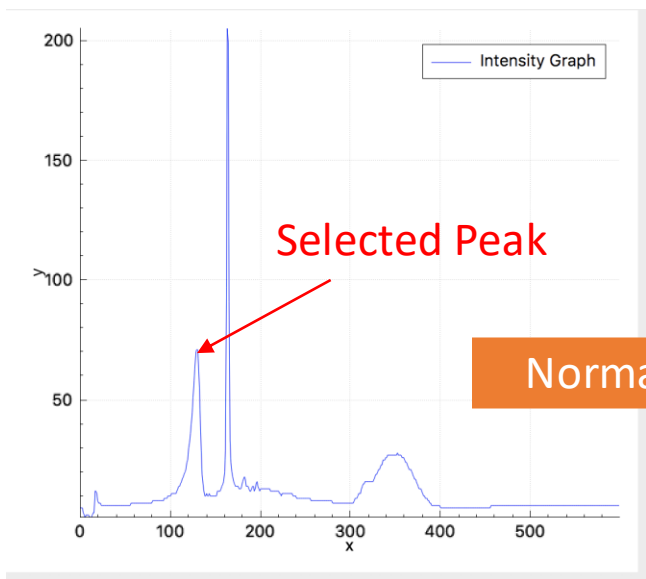
Steps 11, 12 and 13



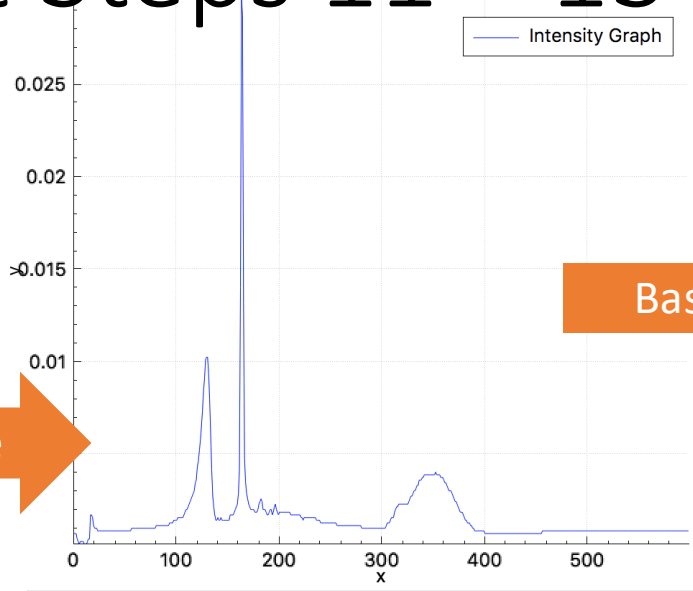
Step 14



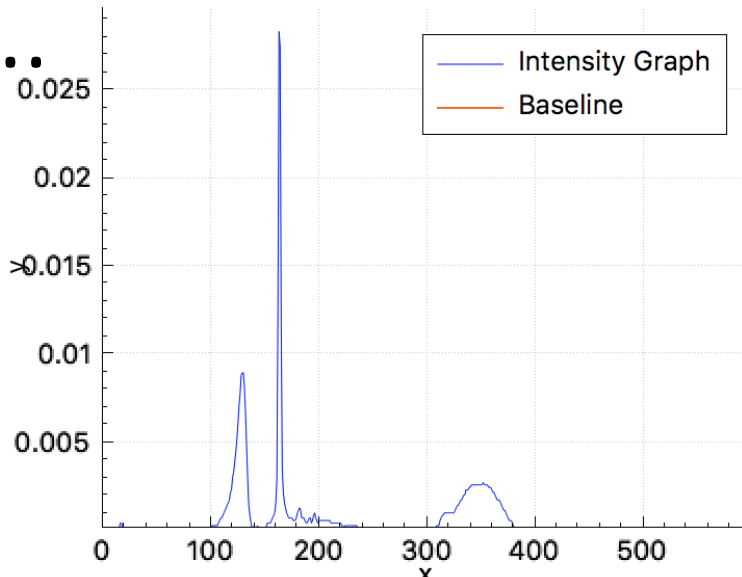
Step 16 – Repeat Steps 11 – 13 and...



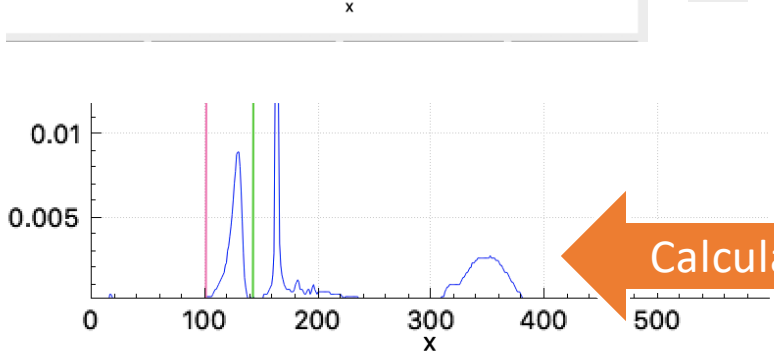
Normalize



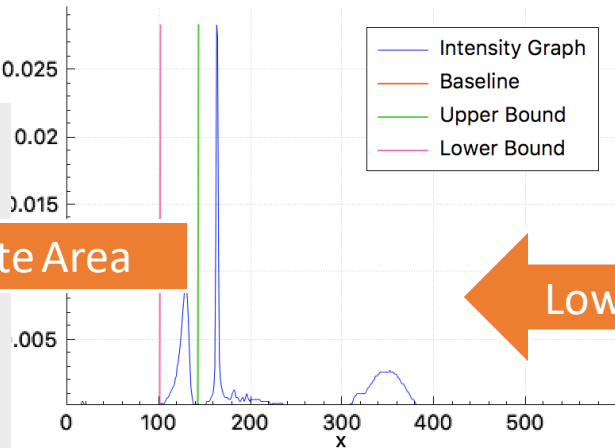
Baseline



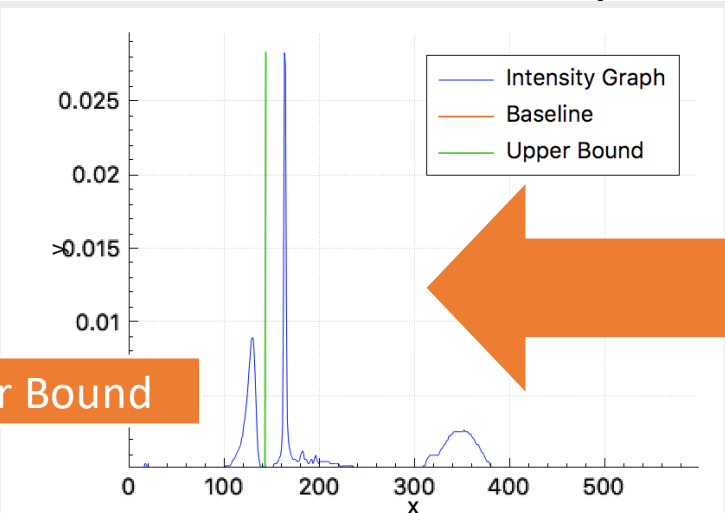
Upper Bound



Calculate Area



Lower Bound



Baseline

Upper Bound

Lower Bound

Calculate Area

baseline level = 0.00132332 Upper bound level = 142.796 Lower bound level = 101.883 area = 0.110413

Baseline

Upper Bound

Lower Bound

Calculate Area

baseline level = 0.00132332 Upper bound level = 142.796 Lower bound level = 101.883

Baseline

Upper Bound

Lower Bound

Calculate Area

baseline level = 0.00132332 Upper bound level = 142.796