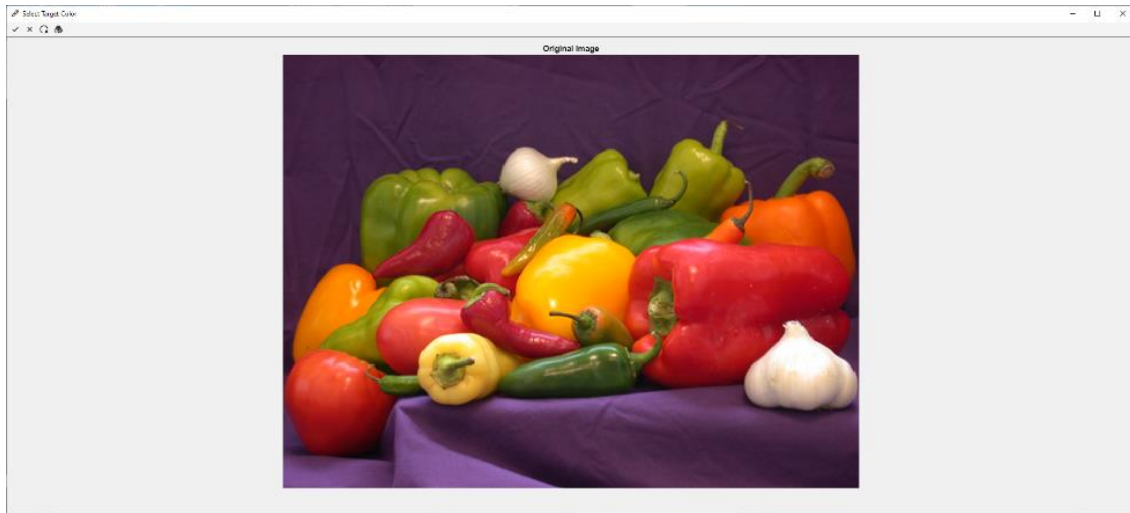


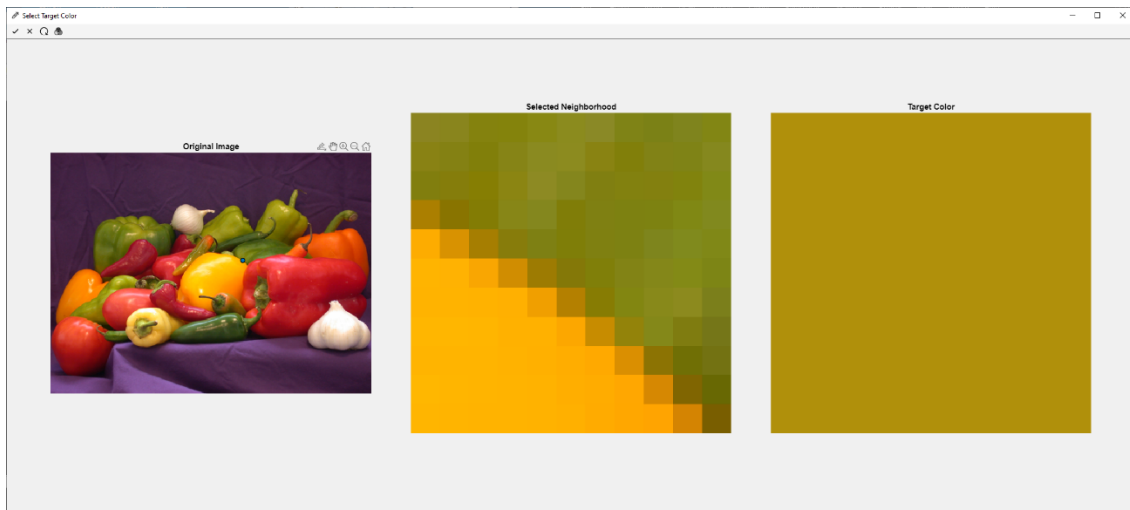
# Color (RGB) Distance Transform Graphical User Interface (GUI) Features

## Overview

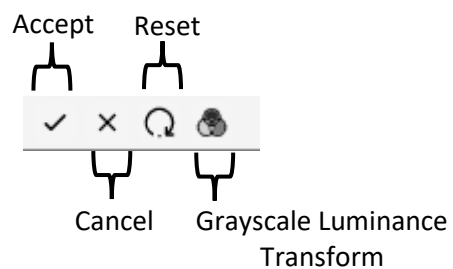
Before selecting a color target



After selecting a color target



## Toolbar



## Buttons

- ✓ - Accept the color target. GUI will pass target to the compute engine to perform the color distance transform. The GUI window is then closed.
- ✗ - Cancel the color target selection. If a color target had previously been selected, it is still preserved as the target for the transform, otherwise, no color target transform occurs. The GUI window is then closed.
- ↻ - Reset color target. The user can define a new color target and get live updates on the neighborhood and mean color of the neighborhood as they move their mouse in the viewing window. Dragging the drawn point will give the same visualization.
- 🎯 - Grayscale luminance transform is performed on the color image rather than a color distance transform. This is the default transform used by the compute engine upon loading in a color image. The GUI window is then closed.

## Visualization

The color distance transform tool will display the color image in a viewing window upon launch. The user is prompted to draw a point in the viewing window by clicking within the viewing window. After the user has set the point, two new viewing windows will appear. The first on the left will maintain a view of the image with the point plotted atop it where the user clicked. The second in the center will have a view of the local neighborhood around the pixel that corresponds to where the user clicked (by default this is an 11x11 neighborhood – i.e. pixel radius = 5). The last image on the right will show the mean of the colors from the selected neighborhood. The user can then confirm the selection, cancel the selection, or revert to a simple luminance transform to get a grayscale image from the RGB image.

Toggling auxiliary view on in the segmentation GUI after setting a color distance transform might, for example, yield a result such as this:

