Shane Zabel
Color Conversion Demo Results

## Explanations of Decisions Made:

Conversion of nonlinear sRGB to linear sRGB: Clip if outside range [0-1]

Conversion of linear sRGB to XYZ: Clip if value < 0

Conversion of XYZ to Luv: Clip L if outside range [0-100]

Conversion to XYZ to xyY: Set x,y,Y to zero if X=Y=Z=0;

Conversion of xyY to XYZ: Set X,Y,Z to zero if y=0;

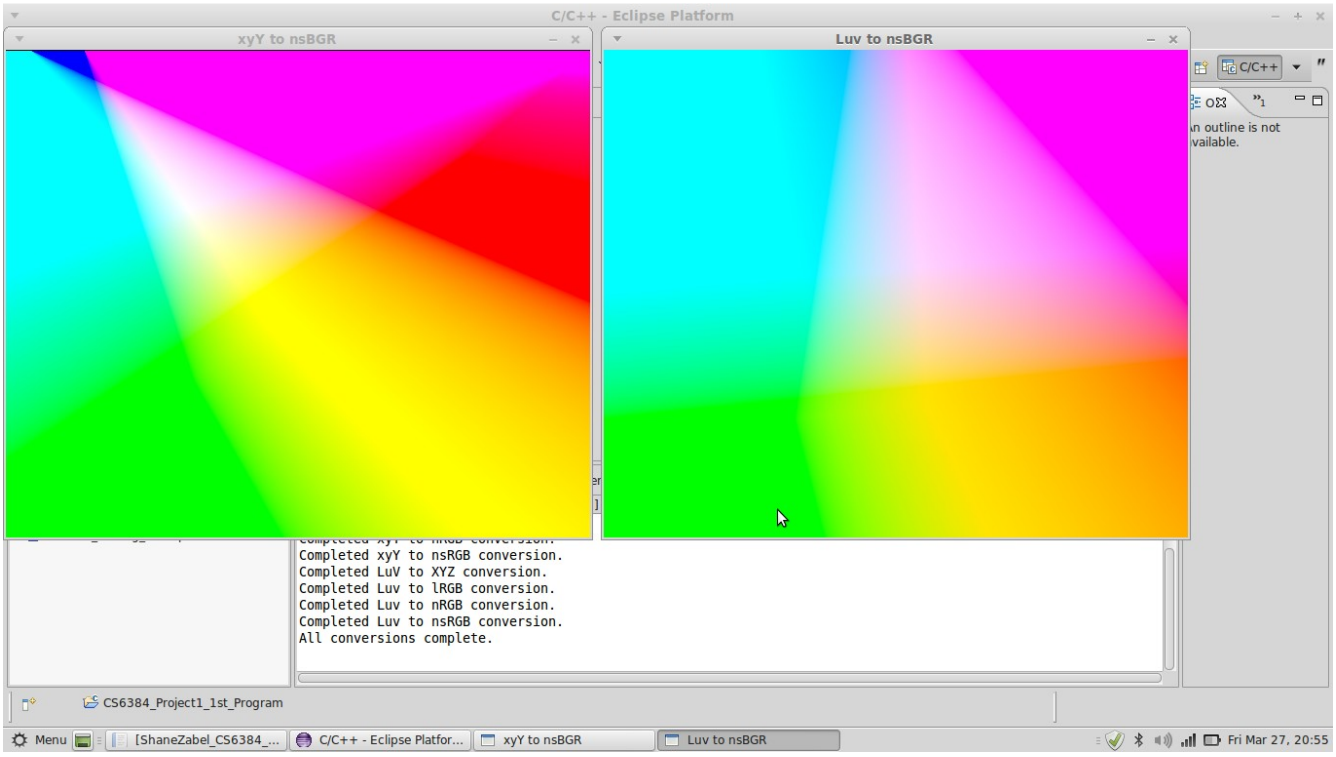
Conversion of Luv to XYZ: Set X,Y,Z to zero if L=0;

Conversion of XYZ to linear sRGB: Clip if outside range [0-1]

Conversion of linear sRGB to nonlinear sRGB: Clip if outside range [0-1]

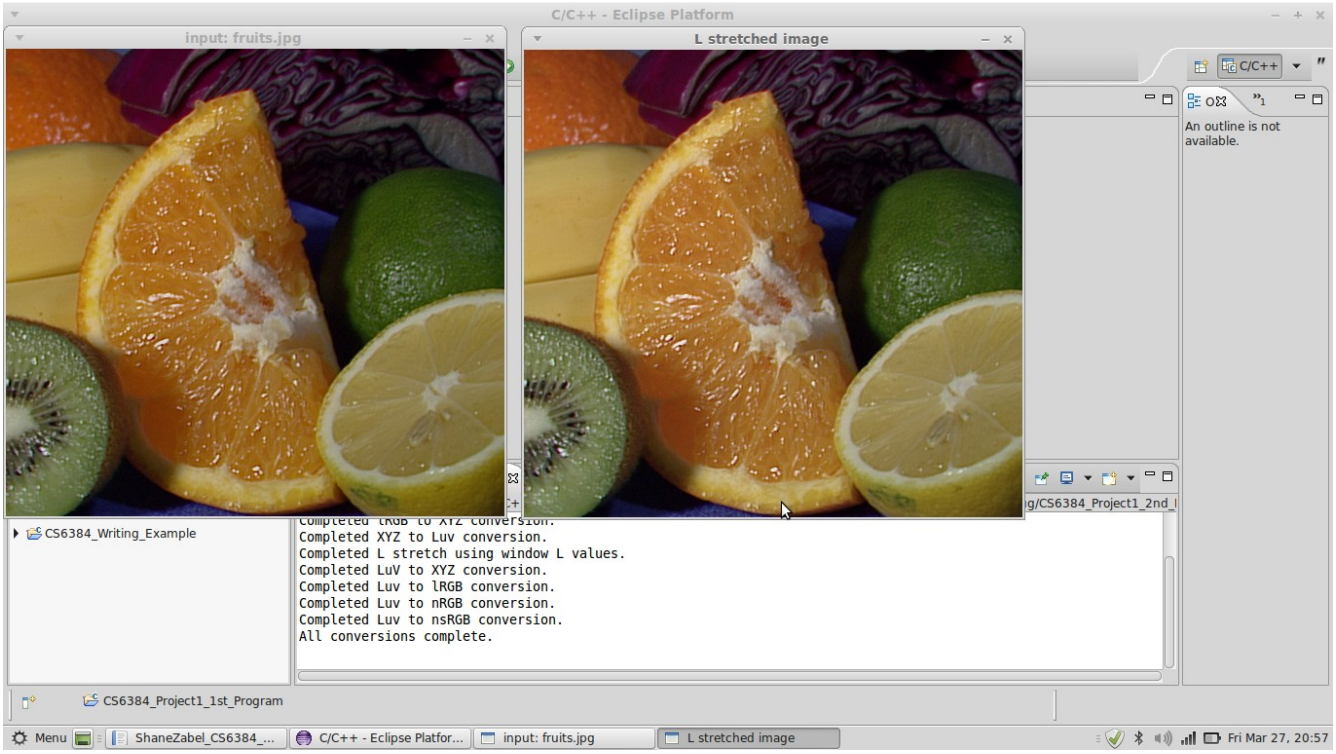
## Results:

Program 1:

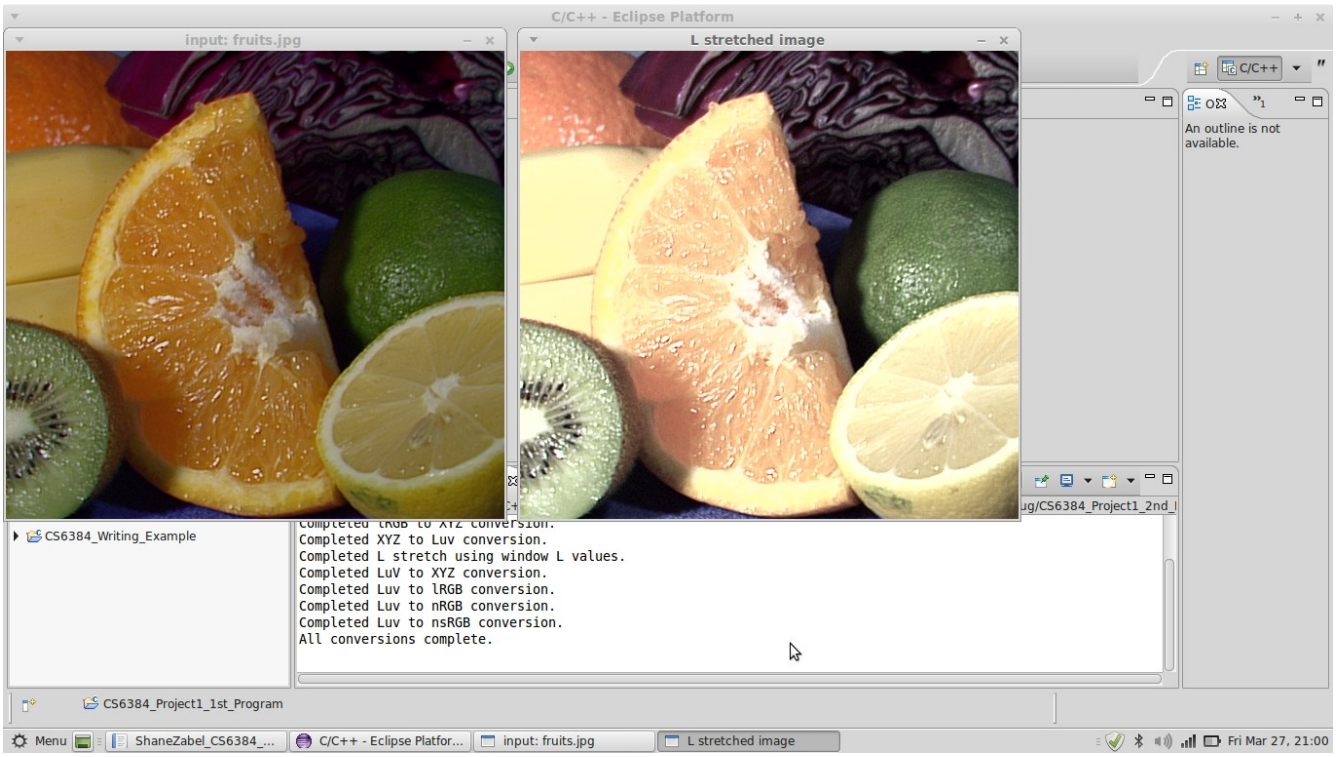


Program 2:

Second program works well when window is over whole image.

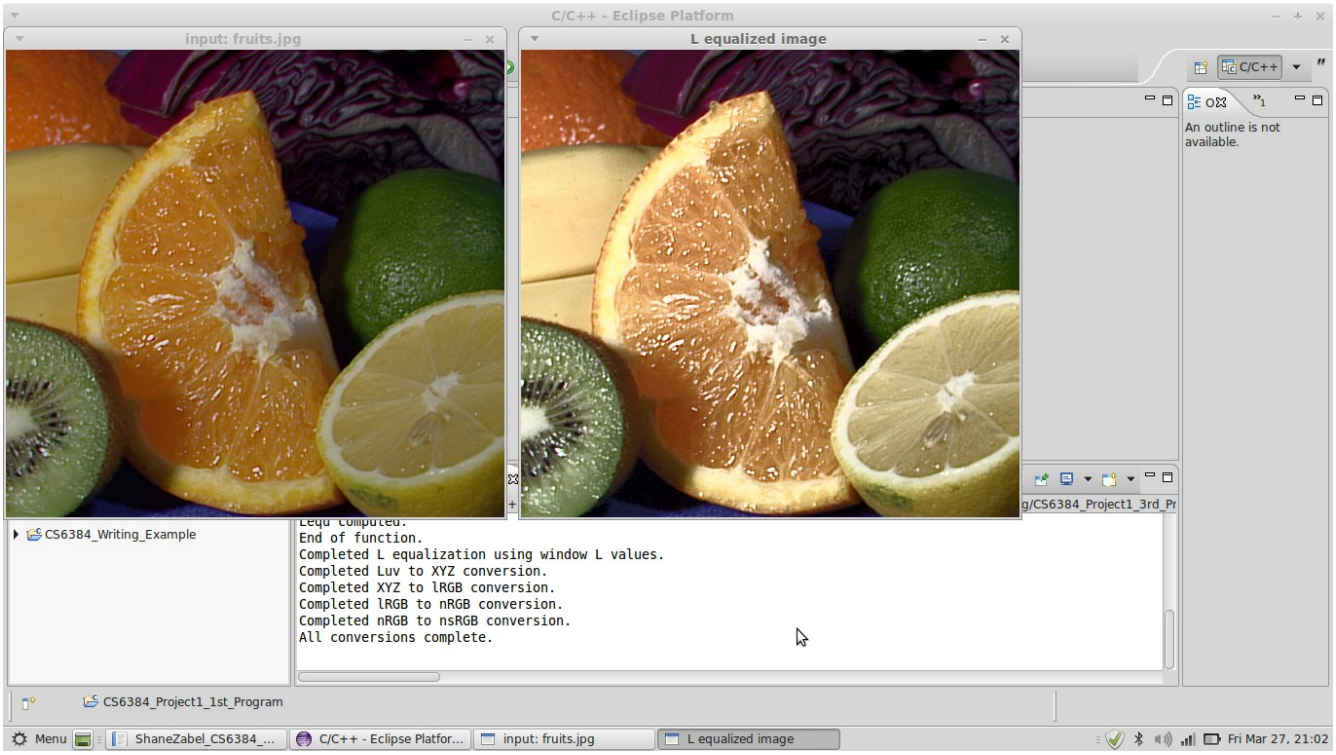



Second program does not work well when a small portion of the image window is selected that does not have much dynamic range. For example window 0.9 0 1.0 0.1

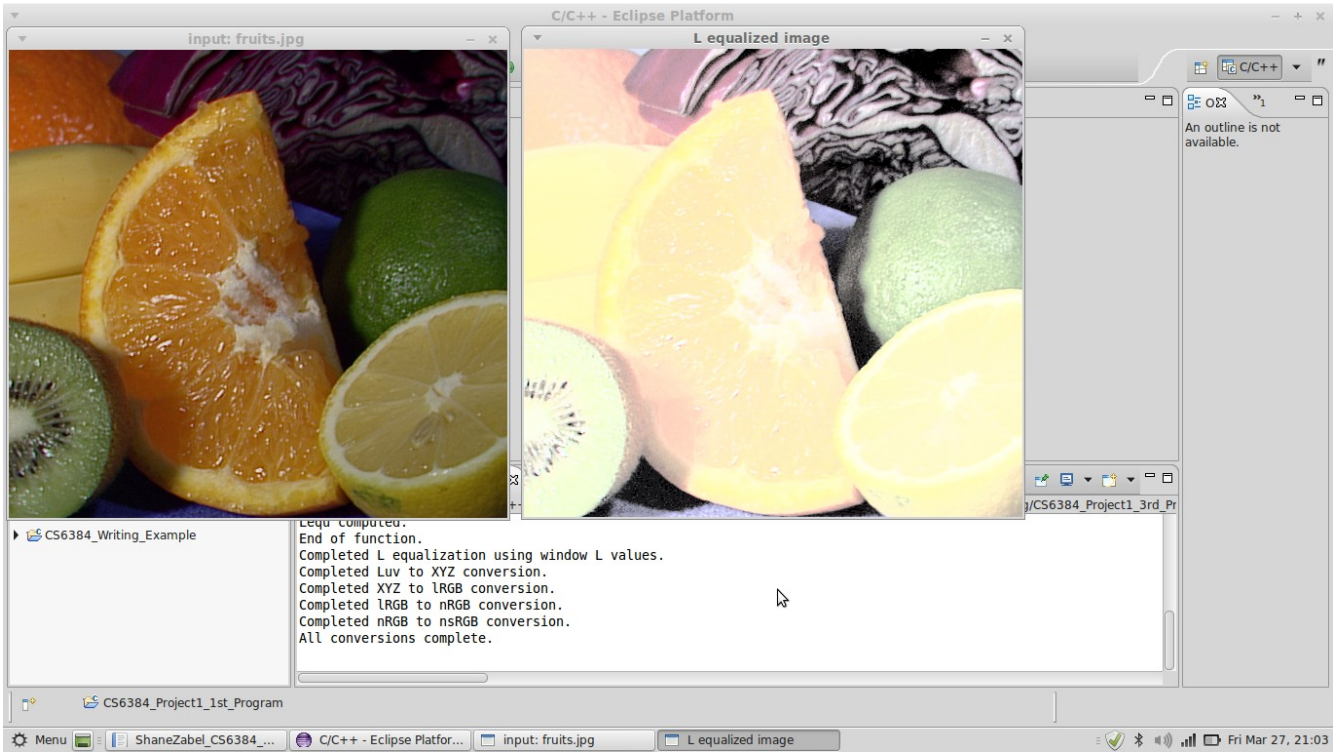


Program 3:

Third program works well when window is over whole image.

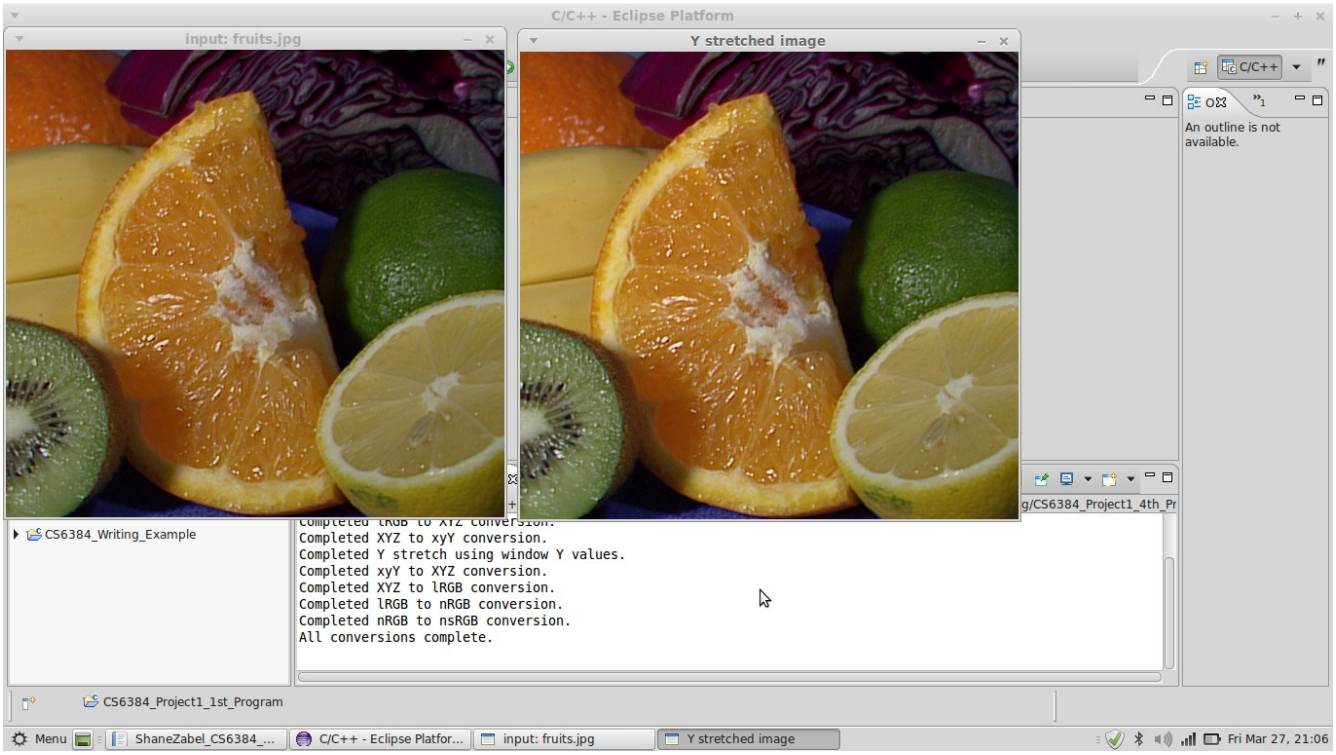


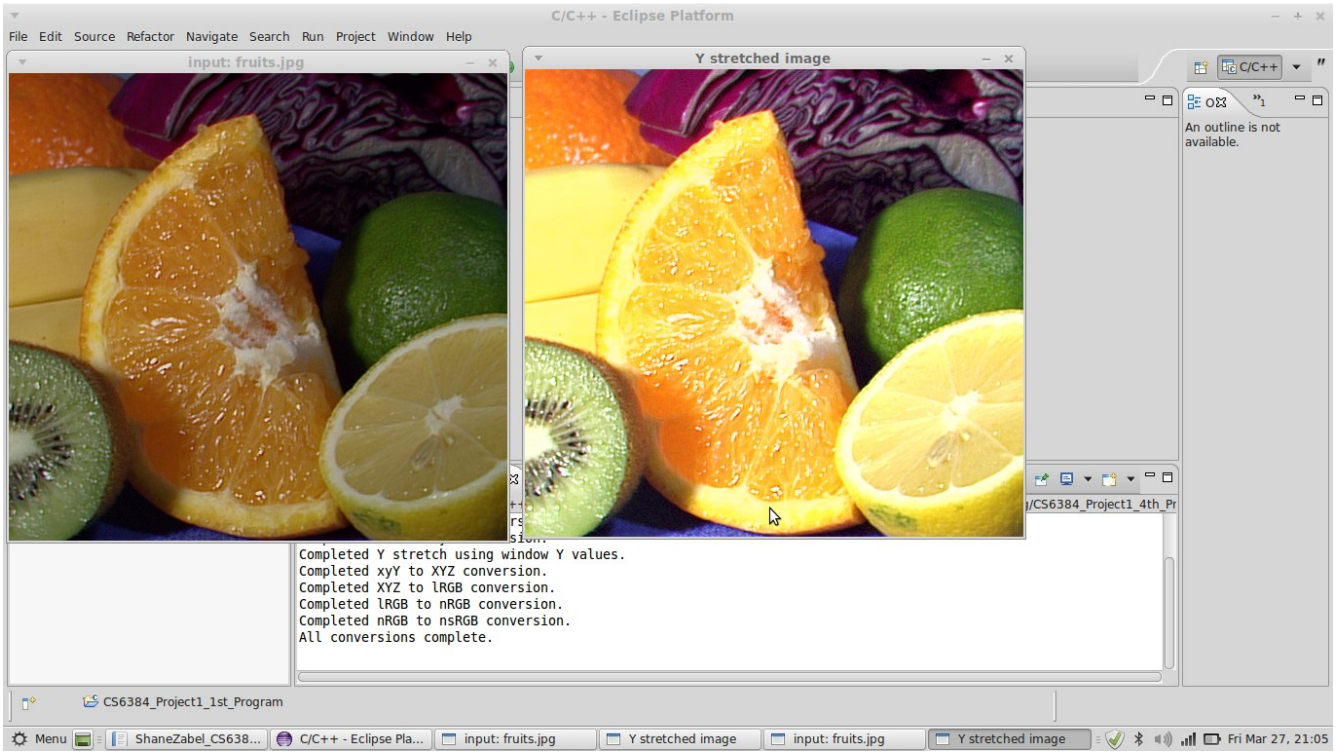

Third program does not work well when a small portion of the image window is selected that does not have much dynamic range. For example window 0.9 0 1.0 0.1



Program 4:

Fourth program works well when window is over whole image.




Fourth program does not work well when a small portion of the image window is selected that does not have much dynamic range. For example window 0.9 0 1.0 0.1