









How to Use the RGB to Color Function Tutorial

Functions -> Programming -> Graphics and Sound  -> Picture Functions  -> RGB to Color , Color to RGB 

To place a RGB to Color or Color to RGB function, open the function palette and select

Programming. Under Programming open the Graphics and Sound sub-palette . Select the Picture Functions sub-palette  where you will find the RGB to Color  and the Color to RGB  functions.

The RGB to Color function takes in three values for the red component, green component, and blue component respectively and maps the color component inputs to its corresponding RGB color value as shown in Figure 1.

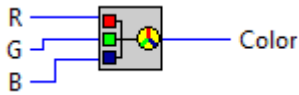


Figure 1

The Color to RGB function is the inverse function of the RGB to Color function and maps the RGB color value to its red, green, and blue component values as shown in Figure 2.

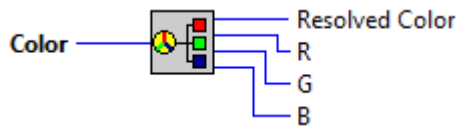


Figure 2

Thus if we wanted to produce a single colored image, we could use the RGB to Color function to synthesize the desired color by its red, green, and blue components and produce a 2D matrix of the resulting RGB color. We could then use this in conjunction with a Draw Unflattened Pixmap function to produce a picture data type which can then be displayed as shown in Figure 3.

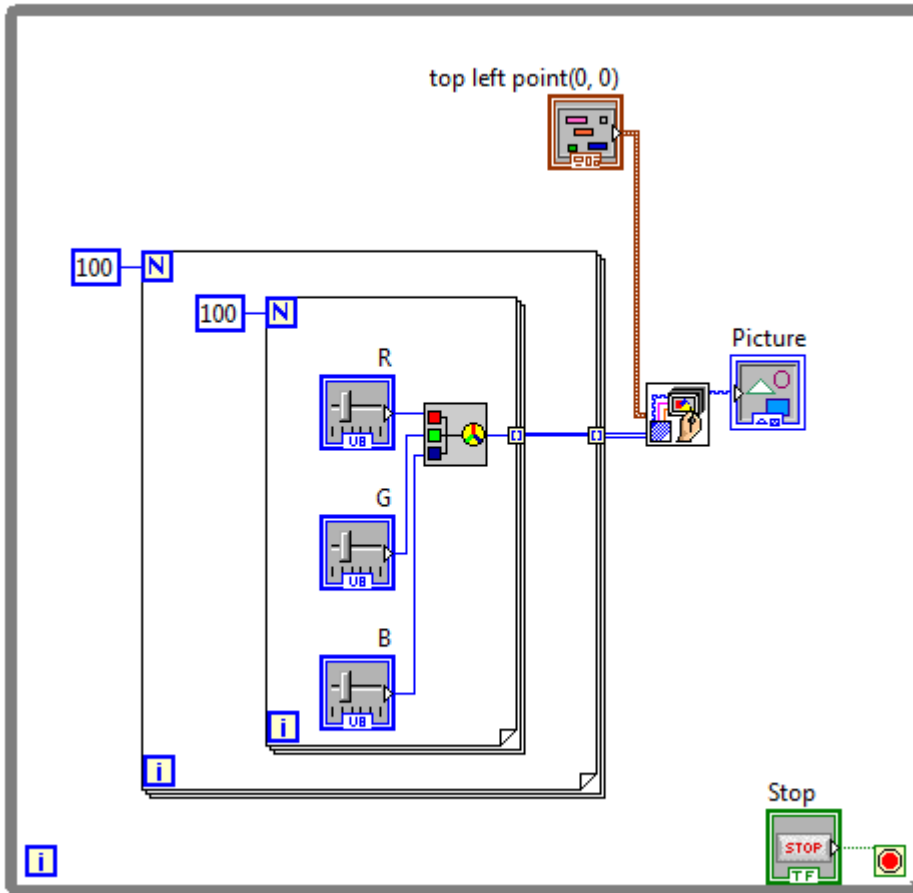


Figure 3

In this example, we use the RGB to Color function to produce a 100 x 100 matrix of the color produced by the function which when fed into the Draw Unflattened Pixmap function produces a 100 x 100 pixel rectangle of the color produced by the RGB to Color function.