

# Contrast and Brightness Adjustment

These two filters are implemented with a single linear transform taking parameters “alpha” ( $\alpha$ ) and “beta” ( $\beta$ ). Pixel values are multiplied by  $\alpha$  to adjust contrast, then have  $\beta$  added to adjust brightness:

$$g(x) = \alpha f(x) + \beta$$

In effect the magnitude of  $\alpha$  corresponds to the amount of contrast and the magnitude of  $\beta$  corresponds to the amount of brightness.