ELIC 629: Digital Image Processing
Fall 2005

Lab Four Assignment Questions

3.12 Two images, f(x,y) and g(x,y) have histograms hf and hg. Give the conditions under which you can determine the histograms of

  a) f(x,y) + g(x,y)
  b) f(x,y) - g(x,y)
  c) f(x,y) × g(x,y)
  d) f(x,y) ÷ g(x,y)

3.13 Consider two 8-bit images (e.g., each pixel has 8-bits) whose gray levels span the full range from 0-255.

  a) Discuss the limiting effects of repeatedly subtracting one image (b) from image (a).
  b) Would reversing the order of the images yield a different result ?