
Exercise 03a. Implement a program 'exercise_03a_erosion' that performs a morphological erosion of size 'i' using a square of size $(2*i+1) \times (2*i+1)$:

exercise_03a_erosion i exercise_03a_input_01.pgm exercise_03a_output_01.pgm

Note: 8-connectivity is assumed.

Use the property of computing an erosion of size i in terms of elementary erosions of size 1.

Some test images:

immed_gray_inv.pgm (input image)
immed_gray_inv_20051123_ero1.pgm (erosion of size 1, 8-connectivity)
immed_gray_inv_20051123_ero2.pgm (erosion of size 2, 8-connectivity)

Exercise 03b. Implement a program 'exercise_03b_dilation' that performs a morphological dilation of size 'i' using a square of size $(2*i+1) \times (2*i+1)$:

exercise_03b_dilation i exercise_03b_input_01.pgm exercise_03b_output_01.pgm

Note: 8-connectivity is assumed.

Use the property of computing a dilation of size i in terms of elementary dilations of size 1.

Some test images:

immed_gray_inv.pgm (input image)
immed_gray_inv_20051123_dil1.pgm (dilation of size 1, 8-connectivity)
immed_gray_inv_20051123_dil2.pgm (dilation of size 2, 8-connectivity)
