



Prime 5.1

ProCaptura's product for raster image processing

With this program you can improve the quality of a scanned raster image. The improvements make the scanned image better suited for semi automatic recognition of objects by using one of ProCaptura's data capture products. Prime will take a TIFF image as input, perform image processing functions and produce a new, improved image. Prime can handle large images (10000x10000 pixels +). Prime contains a series of image processing functions. Each function has a set of user defined parameters. The functions are specially suited to extract information from maps, but may also be applicable for other purposes. Prime is a tool to compose a sequence of image processing functions. This sequence may be saved and applied to process a large number of images.

Input:

- + Raster image on TIFF and some other formats
- + Raster image may be binary, grey tone or color images
- + Production line for batch processing

- x Anisotropic smoothing: intelligent smoothing filter (useful for smoothing dithering)
- x Erode/Dilate: remove/add pixels around black areas in binary images
- x Color reduction: reduce a RGB image to a PAL image
- x Crop

Functionality:

- + Image processing functions (operators)
 - Binarization
 - x Color separation: interactive multiple color samples, similarity adjustments, multiple colors extraction
 - x Locale threshold: convert color and grey tone image to binary image, tolerates large variance of color/ grey tone intensities in different areas
 - x Threshold: convert color and grey tone image to binary image, same intensity overall
 - Noise reduction
 - x Remove pepper/salt: removes small black areas ("dirt")/fill small white areas in black areas in binary images
 - x Rank filter: median, max and min filters in local area
 - Transformations
 - x Scale: uniform scaling of image
 - x Resample: change the resolution of the entire image (DPI)
 - x Rotate: uniform rotation of image
 - Misc. operators
 - x Contrast stretch: for grey tone images.

- + Interactive environment
 - Open/save file, output format options
 - Image shown in main graphic window and in user defined preview windows
 - Compose a chain of operators and set parameters for each operator individually
 - Test run the composed operator chain and view result in preview windows. Can run step-by-step to optimize parameter settings
 - Save and open an operator chain. Saved chain may be used for batch processing
- + Batch processing: Process multiple images in batch using a composed operator chain

Output:

- + Processed image
- + Operator chain for batch processing

Platform requirements:

- + Microsoft Windows XP
- + LINUX Red Hat Enterprise 4
- + PC workstation, P4 or similar, + 512MRAM, +40Gbyte disc