Subject: IDL implementation of the rolling ball background subtraction algorithm
Posted by pirgon on Tue, 17 Aug 2004 13:02:53 GMT
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Hi,

Does anybody know of an IDL implementation of the rolling ball background subtraction algorithm used in ImageJ (Subtract Background Command). A brief description is as follows:

'Roll' a filtering object over a (shrunken) image in order to find the image's smooth continuous background. For the purpose of explaining this algorithm, imagine that the 2D grayscale image has a third (height) dimension defined by the intensity value at every point in the image. The center of the filtering object, a patch from the top of a sphere having radius BallRadius, is moved along each scan line of the image so that the patch is tangent to the image at one or more points with every other point on the patch below the corresponding (x,y) point of the image. Any point either on or below the patch during this process is considered part of the background. Shrinking the image before running this procedure is advised due to the fourth-degree complexity of the algorithm.

The ImageJ's Subtract Background command is based on
the NIH Image Pascal version by Michael Castle and Janice Keller of the University of Michigan Mental Health Research Institute. Rolling ball algorithm inspired by Stanley Sternberg's article, "Biomedical Image Processing", IEEE Computer, January 1983.

I have the java code - just wondered if it's already been written in IDL or not.

Thank you,

Alan