Subject: Thinning algorithm without for loops
Posted by nathan12343 on Mon, 06 Aug 2007 19:31:35 GMT
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Hi all-

I'm trying to impliment the Zhang-Suen thinning algorithm in IDL. This particular algorithm decides whether a pixel needs to be deleted or not based on properties of the pixels immediately surrounding the pixel we are concerned with (i.e. a pixel's 8-neighbors). This naturally lends its self to for loops. Let's say I have an image, a 512X512 array of bytes. The code iteratively scans over each pixel and determines whether it needs to be set to 0 based on the Zhang-Suen thinning rules. What I can't figure out is how to scan the images without for loops. If I use for loops I can easily index the pixels immediately surrounding image[i,j] by saying image[i-1,j] or image[i +1,j-1], etc.

Does anyone know of a way to do this kind of indexing in an image without the use of for loops?

-Nathan Goldbaum