Subject: Re: Maximum radius of SEARCH2D/SEARCH3D
Posted by David Fanning on Mon, 14 Apr 2003 13:13:54 GMT

> I have a question about the very useful functions SEARCH2D and SEARCH3D. Is
> it possible to limit the search for similar cells to a radius or sphere
> surrounding the pixel referred by the xpos/ypos/zpos-parameters of these
> functions? If not, is it possible to implement an algorithm (if no built-in
> function is available) that takes the indices returned by these functions an
> cut every index that lies outside a specified radius/sphere? I would
> appreciate if you could give me a hint how this algorithm may look like.

This seems fairly straightforward to me.

   1. Convert indices to 2D or 3D subscripts (article here last week).
   2. Calculate distance (radius) from each index to the seed point.
   3. Discard if distance is greater than radius of circle or sphere.

All of this can be easily vectorized, so it soul be extremely fast.

Cheers,

David
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