Subject: Re: Routine to return indices for circle in R2
Posted by davidf on Mon, 08 Sep 1997 07:00:00 GMT
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David Foster writes:

> Has someone written, seen or heard of a routine that will return
> the indices of a circle within an image of given dimensions,
> given the radius and center coordinate of the circle? I vaguely
> remember seeing this in a newsgroup post some time ago.
>
> For an image of size NX x NY, with the circle at coordinate (Cx,Cy)
> and radius R, I came up with:
>
> indices = lindgen(long(NX)*NY)
> yc = indices / NY
> xc = indices - (yc * NY)
> circle = where(sqrt((xc - Cx)^2 + (yc-Cy)^2) le R)
>
> Can anyone suggest a method that is (a) faster, (b) more clever,
> (c) more elegant, or (d) uses less memory. I'd be willing to settle
> for just one of the above!

There is an article on this very topic (with code) on my web page. ;-)

  http://www.dfanning.com/tips/make_circle.html

The best program for circles I've used is Wayne Landsman's TVCircle.
You can find a link to it from the page, but here it is:

  http://idlastro.gsfc.nasa.gov/ftp/pro/tv/tvcircle.pro

Cheers,

David

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