Subject: Re: making a circle of certain values
Posted by Jean H. on Mon, 01 Oct 2007 20:21:27 GMT
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rpertaub@gmail.com wrote:
> Hi,
> I have a set of data points (x,y coordinates) that can be plotted on
> my 1240,1024 array. However, they are sparse x,y spots across the
> image, and I want to 'thicken' it by drawing a circle with my x,y as
> centers. I want to give it a certain radius and a certain value too,
> so that the pixels in the circle (the filling) have values and can
> thus contribute to my rgb image...
> anyone know how to draw a circle, and assign a value to pixels within
> that circle?
>
> Thanks!
> RP
>

Hi,

I am not sure if you want to display the circle or not. If not, you can compute the distances from your pixel to every other pixels, then select only the cells that are close enough. Here is a code I wrote a long time ago (might not be the most optimized one, but it works well!)

So, you have an image of 100*200:
distances = distanceInMatrix(image, PointX,PointY, 100)
circle = where(distances le radius)
image[circle] = newValue

Jean.

```
;This function compute for every point in the array the distance to the
origine point.
;INPUT: indexCells: a 1D or 2D array of coordinate, for which the
;distances will be computed.
;       xPos and yPos: the position of the origine point
;       x_size: the size of the matrix (number of columns)
;OUTPUT: a float array of distances to the origine point
;
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; September 2005

function distanceInMatrix, indexCells, xPos,yPos, x_size
 ;print, "the index", indexCells
```

```
 numberOfDistances = N_elements(indexCells)

 ;get the X;Y coordinate of the points.
 coordCells = ulonarr(2,numberOfDistances)
 coordCells[1,*] = indexCells[*] / x_size     ;Y
 coordCells[0,*] = indexCells[*] - x_size * coordCells[1,*] ;X


 distances = fltarr(numberOfDistances)
 distances[*] = sqrt((xPos*1.0 - coordCells[0,*]*1.0)^2+(yPos*1.0-
coordCells[1,*]*1.0)^2)

 ;print, coordCells
 ;print, "In the distance Matrix:", distances
 return, distances
end
```