
Subject: extract points of acircle
Posted by [Ali Gamal](#) on Tue, 16 Aug 2016 15:21:11 GMT
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Hi,
I want to plot four circles on picture then extract mean x,y for every circle
I use this program.

```
.*****  
,  
FUNCTION CIRCLE, xcenter, ycenter, radius  
points = (2 * !PI / 99.0) * FINDGEN(100)  
x = xcenter + radius * COS(points )  
y = ycenter + radius * SIN(points )  
RETURN, TRANSPOSE([x], [y])  
END
```

```
restore, file='sm.isv' ;/v  
sm1=sm[*,*,5]  
window, 0, xs=999, ys=512  
tvsc1, sm1
```

```
n=5  
for i=0, n-1 do begin  
radius=10*i  
pp=circle(200, 352, radius)  
cgPlotS, pp, color='red', thick=2.0, /Device
```

```
.*****  
,
```

at this point no problem, I want to print mean(x,y) for every circle

how can I do it ?

help, please

Subject: Re: extract points of acircle
Posted by [Craig Markwardt](#) on Wed, 17 Aug 2016 16:06:24 GMT
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On Tuesday, August 16, 2016 at 11:21:20 AM UTC-4, AGW wrote:

```
> Hi,  
> I want to plot four circles on picture then extract mean x,y for every circle  
> I use this program.  
>  
> .*****  
> ,  
> FUNCTION CIRCLE, xcenter, ycenter, radius  
> points = (2 * !PI / 99.0) * FINDGEN(100)
```

```

> x = xcenter + radius * COS(points )
> y = ycenter + radius * SIN(points )
> RETURN, TRANSPOSE([[x],[y]])
> END
>
> restore,file='sm.isv' ;/v
> sm1=sm[*,*,5]
> window,0,xs=999,ys=512
> tvscl,sm1
>
> n=5
> for i=0,n-1 do begin
> radius=10*i
> pp=circle(200,352,radius)
> cgPlotS, pp,color='red',thick=2.0, /Device
>
> ;*****
>
> at this point no problem, I want to print mean(x,y) for every circle
>
> how can I do it ?

```

Not sure what you are after. The mean value of the sampled coordinates of a circle is just the centroid. In your example, AVERAGE(pp[0,*]) is simply 200 and AVERAGE(pp[1,*]) is 352. Did you want to extract some information about the picture inside the circle?

Subject: Re: extract points of acircle

Posted by [Ali Gamal](#) on Thu, 18 Aug 2016 14:30:16 GMT

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On Tuesday, August 16, 2016 at 5:21:20 PM UTC+2, AGW wrote:

```

> Hi,
> I want to plot four circles on picture then extract mean x,y for every circle
> I use this program.
>
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>
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> points = (2 * !PI / 99.0) * FINDGEN(100)
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> END
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> sm1=sm[*,*,5]
> window,0,xs=999,ys=512
> tvscl,sm1

```

```

>
> n=5
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>   radius=10*i
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>   cgPlotS, pp,color='red',thick=2.0, /Device
>
> ;*****
>
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>
> how can I do it ?
>
> help, please

```

every point in circle have a coordinates x,y, I want to extract this coordinates for every circle

Subject: Re: extract points of acircle
 Posted by [wlandsman](#) on Thu, 18 Aug 2016 17:46:04 GMT
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Its not the most efficient way, but I would use the program dist_circle.pro
http://idlastro.gsfc.nasa.gov/ftp/pro/image/dist_circle.pro

```

dist_circle, dim, N, xcenter, ycenter
g = where( dim lt radius)

```

where N is the dimension of the square array. g will give the 1-d index of every pixel within the specified radius. You can use ARRAY_INDICES() to convert this 1d index into separate X and Y subscript values. --Wayne

On Thursday, August 18, 2016 at 10:30:18 AM UTC-4, AGW wrote:

```

> On Tuesday, August 16, 2016 at 5:21:20 PM UTC+2, AGW wrote:
>> Hi,
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>>
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```

```

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>>
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>>
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>>
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>> help, please
>
> every point in circle have a coordinates x,y, I want to extract this coordinates for every circle

```

Subject: Re: extract points of acircle
 Posted by [Ali Gamal](#) on Thu, 18 Aug 2016 19:33:59 GMT
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On Tuesday, August 16, 2016 at 5:21:20 PM UTC+2, AGW wrote:

```

> Hi,
> I want to plot four circles on picture then extract mean x,y for every circle
> I use this program.
>
> ,*****
>
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> n=5
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>   cgPlotS, pp,color='red',thick=2.0, /Device

```

>
> *****
> ,
>
> at this point no problem, I want to print mean(x,y) for every circle
>
> how can I do it ?
>
> help, please

please, I want more explain
