Subject: sort points clockwise or counterclockwise
Posted by junsix on Mon, 08 Jun 2015 20:32:51 GMT
View Forum Message <> Reply to Message

Hi,

I am trying to order points of closed polygon in clockwise or counterclockwise.
Here is a octagon and I tried to use Triangulate that I searched.

```
   2  0
 6      3
 4      5
   1  7
```

```
IDL> x=[3.,2.,2.,4.,1.,4.,1.,3.]
IDL> y=[4.,1.,4.,3.,2.,2.,3.,1.]
IDL> TRIANGULATE, X, Y, Triangles
IDL> help,triangles
TRIANGLES       LONG      = Array[3, 6]
IDL> print,triangles
           4           1           7
           4           7           6
           6           7           2
           2           7           5
           2           5           3
           2           3           0
```

The Triangulate returns each triangles in clockwise, while points in each triangles in counterclockwise.
But, what I need is to order points in clockwise or counterclockwise, e.g. 146203571 or 75302641, and then make polygon to calculate area and perimeter.
Thank you in advance.

Jun

Subject: Re: sort points clockwise or counterclockwise
Posted by Craig Markwardt on Tue, 09 Jun 2015 16:19:52 GMT
View Forum Message <> Reply to Message

On Monday, June 8, 2015 at 4:32:53 PM UTC-4, junum wrote:
> Hi,
>
> I am trying to order points of closed polygon in clockwise or counterclockwise.
> Here is a octagon and I tried to use Triangulate that I searched.

I would never have thought to use TRIANGULATE to order items.

Why not use ATAN(Y,X) which gives the angle. Your points are not centered on the origin. But that is easy enough, your circle is centered on (2.5,2.5)

ANGLE = ATAN(Y-2.5,X-2.5)

Now sort on ANGLE.

Subject: Re: sort points clockwise or clounterclockwise
Posted by junsix on Tue, 09 Jun 2015 20:11:55 GMT
View Forum Message <> Reply to Message

On Tuesday, June 9, 2015 at 11:19:54 AM UTC-5, Craig Markwardt wrote:
> On Monday, June 8, 2015 at 4:32:53 PM UTC-4, junum wrote:
>> Hi,
>>
>> I am trying to order points of closed polygon in clockwise or counterclockwise.
>> Here is a octagon and I tried to use Triangulate that I searched.
>
>
> I would never have thought to use TRIANGULATE to order items.
>
> Why not use ATAN(Y,X) which gives the angle. Your points are not centered on the origin. But that is easy enough, your circle is centered on (2.5,2.5)
>
> ANGLE = ATAN(Y-2.5,X-2.5)
>
> Now sort on ANGLE.

That is the solution.
Thank you very much for help!

Jun
