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Subject: Help for calculations of area and perimeter of projected overlapped polygons

Posted by [junsix](#) on Sat, 06 Jun 2015 06:24:10 GMT

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Hi,

I am trying to calculate area and perimeter of projected overlapped polygons.

My polygons, actually hexagonal columns, have 3D shapes and what I want to calculate are area and perimeter of projected polygons.

These hexagonal columns attached together in 3D space.

Sometimes their projections are partly overlapped, or connected with a point.

Let's make a problem simple.

Here are a quadrangle and triangle, they have a overlap.

```
IDL> x1=[1.,2.,2.,1.]
```

```
IDL> y1=[1.,1.,2.,2.]
```

```
IDL> x2=[2.2,2.2,1.2]
```

```
IDL> y2=[1.5,2.5,2.5]
```

This is simple example and area and perimeter can be calculated with vortexes and crossing points, etc.

However, my problem has more than 10 hexagonal columns, so I think a calculation using projected image would be much simpler.

I am not good for ROI, IDLanROIGroup, or FIND\_Boundary that I searched.

Can anyone let me know how to do this using a image?

What I can do right now is to plot projected planes using polyfill.

Thank you.

Jun

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