
Subject: Re: pollyfillv, area of a blob, etc...

Posted by [jameskuyper](#) on Fri, 04 Apr 2008 11:03:20 GMT

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JP wrote:

> On Apr 4, 1:16 am, David Fanning <n...@dfanning.com> wrote:

>> I suppose the centroid of the polygon is the average

>> value of it vertices, or maybe the mean if you didn't

>> want to overbias outliers.

>

> I guess you meant "the average value of it vertices, or maybe the

> MEDIAN" ??

>

> In any case, thank you. I didn't realize that the centroid is just the

> mean of the vertices in the two dimensions.

It isn't. David's routine calculates the centroid of the vertices themselves; that's not the same as the centroid of the polygon that they define.

Consider the polygon $[[0,0],[1,0],[1,1],[0,1],[0,0.5]]$. It's centroid is clearly $[0.5,0.5]$, the same as the one for $[[0,0],[1,0],[1,1],[0,1]]$, but the vertices have a different average. Taking the mean of the vertices is at best an approximation.
