
Subject: Re: Polygon Smoothing

Posted by [Kenneth P. Bowman](#) on Mon, 10 May 2010 20:03:41 GMT

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In article <MPG.2651f81de68373869896d4@news.giganews.com>, David Fanning <news@dfanning.com> wrote:

> Folks,
>
> I have a shape file describing a 2D polygon that is *extremely*
> complex and detailed. For my puposes, overly so. I would like
> to "simplify" or "smooth" this polygon to make it more suitable
> for my purpose (using it as a cookie-cutter for extracting data).
> Has anyone written a polygon smoothing routine, possibly using

> to share it?
>
> Thanks,
>
> David

One simple algorithm is to traverse the polygon and remove points that are nearly collinear. For any three sequential points you can get the angle at the middle point from the dot product. If the curvature is less than some threshold, remove the middle point. You probably want to check the distance between the points as well as the curvature.

Apply repeatedly until satisfied.

Ken
