Subject: Re: Polygon hull
Posted by Mark Hadfield on Mon, 18 Dec 2000 23:47:21 GMT
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"Barbara A Cohen" <bcohen@lpl.arizona.edu> wrote in message news:91jchs$ep4$1@news.ccit.arizona.edu...
> Hi, I have an array of data and I want to plot a polygon that encompasses
> all the points within it. I have tried JHU's convexhull but it fails to
> encompass all the data (example below). Does anyone else have a program
> to do this?

I've just been reading through my brand new copy of David Fanning's "IDL Programming Techniques 2nd Edition" and I came across the following, in a discussion of Delaunay triangulation:

"Note that you can return the convex hull of these points with the TRIANGULATE command too. Simply add a fourth argument to the command...and the points on the parameter [huh? must be perimeter] of this set of points will be returned to you."

Here's an example:

```
 x=[0.36,0.35,0.39,0.42,0.60,0.41,0.48,0.73,0.46,0.42,0.42,0. 42,0.47,0.44,0.4
7,0.49,0.54,0.64,0.65]
 y=[0.19,0.26,0.26,0.26,0.14,0.22,0.15,0.10,0.16,0.30,0.27,0. 27,0.23,0.23,0.2
2,0.16,0.16,0.08,0.08]

plot, x, y, color=0, /nodata

triangulate, x, y, triangles, b

polyfill, x[b], y[b], color=150, fill_pattern=50

plot, x, y, psym=7, color=0
```

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