# Subject: Delaunay triangulation search
Posted by Charudatta Phatak on Fri, 05 Oct 2007 22:17:10 GMT

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Hello All,

I want to know, is there a function in IDL which will give me the corresponding indices of a traingle from a delaunay triangulation for the given point. So suppose i use TRIANGULATE to generate a triangulation. Then i want to go through the image pixel by pixel and want to determine which pixels are enclosed in a particular triangle.

In MATLAB, the function tsearch does this. This is the help of tsearch from matlab website:

tsearch
Search for enclosing Delaunay triangle
Syntax
T = tsearch(x,y,TRI,xi,yi)
Description
T = tsearch(x,y,TRI,xi,yi) returns an index into the rows of TRI for each point in xi, yi. The tsearch command returns NaN for all points outside the convex hull. Requires a triangulation TRI of the points x,y obtained from delaunay.

I think a function like QHULL in IDL might be able to do the same thing but i'm unable to figure how to use it.
Thank you...

cheers,
-cd