Subject: Intersections of two sets of contours
Posted by ryba on Thu, 09 Feb 1995 17:19:18 GMT
View Forum Message <> Reply to Message

I have a problem that maybe someone has already created optimized/debugged code for.

I am doing a simulation of a surface, and calculate some value, call it Z(x,y). Now, my sensor creates "maps" of Z(u(x,y), v(x,y)). What I want to create is an image of Z(x,y) with the Z held to some average value over the resolution cells of u(x,y) and v(x,y). The problem is that u and v are not well behaved functions with a simple monotonic mapping; for example, there can be two or more separated cells of x,y that are in the same resolution cell of u and v. Now, I can make maps of u(x,y), v(x,y), Z(x,y) and Z(u,v). One possible approach is to use CONTOUR with PATH_FILENAME to store the edges of the resolution cells of u(x,y) and v(x,y) (as separate files). Then, I would have to loop over the resolution cells, find the points of the pairs of contours that mutually intersect, interpolate to find the corners, and use polyfill with the color set by Z(u,v). I then don't need Z(x,y)...but the process seems messy, and I'm limited by CONTOUR's limit of 31 levels; though I could use multiple calls to get around that.

Any leads?

--
Dr. Marty Ryba | Generation X:
MIT Lincoln Laboratory | Too young to be cynical,
ryba@ll.mit.edu | too old to be optimistic.