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Subject: Re: Don't Extrapolate with GRID3 (or cut off excess)

Posted by [penteado](#) on Fri, 30 Jul 2010 15:48:25 GMT

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On Jul 30, 12:33 pm, asdf <rmc...@gmail.com> wrote:

> First, a little background. I have an irregular grid of 3D volume data  
> that I would like to visualize (currently using iVolume). The volume  
> is basically a wedge piece of a cylinder.  
> I've placed data onto a regular, cube grid using GRID3, but the  
> result has a large, unrealistic value in an area outside of the  
> original irregular grid. From GRID3 documentation, it doesn't seem  
> like I can force it to ignore points outside the original grid, i.e.  
> don't extrapolate (correct?). I'm wondering if someone knows an  
> efficient way to set to NaN values in the regular grid that are  
> outside the original, irregular grid. It seems I can do a Delaunay  
> triangulation of the irregular grid, and use it somehow to find if a  
> point in the regular grid is inside the irregular grid, but I'm lost  
> on the details of how to do that.

If your distribution is convex, you can get what you want with  
qgrid3(), instead of grid3(), as it allows to set a value for the  
points outside the convex hull.

If it is not convex, things are trickier. If the original points all  
fall into a series of planes, you could make an IDLanROIGroup with  
those, then use the containspoints method to determine which points of  
the grid fall inside it.

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