On Jun 20, 12:03 pm, Chris <cnb4s...@gmail.com> wrote:
> Hi everyone,
>
> I want to extract a subregion of a data cube. The boundary of the
> region would be an isophotal surface (the value of the contour level
> would be something like three sigma above the background), and I have
> a voxel index that lies inside this boundary (to select only one of
> possibly several isophotal clumps).
>
> My knowledge of 3D image analysis is pretty sparse, but I suspect
> there may be some built in IDL routines that would get the job done.
> I've looked at ISOSURFACE, but that seems to return be boundary
> locations (instead of the interior voxels). Off the top of my head, I
> wouldn't know how to take this output and 1) select only the isophotal
> 'clump' that interests me, or 2) calculate whether a given voxel is
> inside our outside that boundary.
>
> Any ideas?

I've figured out a solution -- for the sake of the forum's
completeness, I'll answer my own question:

To create a mask for a 3D ROI which contains a seed voxel and the
neighboring region above some threshold, do something like

binary=(cube ge threshold)
groups=label_region(binary,/all_neighbors)
index=groups[seed]
return,where(groups eq index)