Subject: Re: Point Cloud Isosurface
Posted by Karl[1] on Thu, 12 Aug 2010 21:27:02 GMT
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On Aug 12, 2:42 pm, tegus <tegusbillhar...@gmail.com> wrote:
> Hello,
> I'm working with noisy 3D point cloud data approximated by:
> xyz_0=randomn(seed, 3, 1000) + 5.0
> xyz_1=randomn(seed, 3, 1000) + 10.0
> xyz_2=randomu(seed, 3, 10000) * 20.0
> xyz=[[xyz_0], [xyz_1], [xyz_2]]
>
> although the actual data sets are larger and far more complex ...
>
> My current method of reducing and rendering the data:
> - Create a 3D histogram (bin size = 1) using hist_nd from JDHU
> library:
> vol=hist_nd(xyz, 1.0)
> - Create isosurface (density threshold=10)
> isosurface, vol, 10, verts, conn
> - Create polygon object and display
> oPoly=obj_new('IDLgrPolygon', verts, polygons=conn)
> xobjview, oPoly
>
> This gives me the desired result which in this example is a polygon
> object which depicts two blobs approximating the measured positions.
>
> However, rendering and analysis of a more complex scene as a single,
> complex polygon becomes unwieldy (e.g., no dynamic culling, z
> clipping ...)
> My question is, how do I separate these two solid objects, represented
> by a single polygon (verts and conn), into two seperate polygon
> objects (verts1, conn1 and verts2, conn2)?
>
> Thanks,
> Bill

MESH_CLIP() ?