
Subject: Re: QHULL connectivity list - sorting possible?
Posted by [Dick Jackson](#) on Tue, 26 Jul 2011 17:38:37 GMT
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Hi,

This may be what you need. QHull returns nothing but triangle vertex indices, while IDL generally uses a more generic connectivity list. Starting with vList, a (3, nVertices) array of XYZ points...

```
QHull, vList, tri          ; tri becomes (3,
nTri)
nTri = N_Elements(tri)/3
pList = [Replicate(3, [1, nTri]), tri] ; Attach column of
'3' values
oMesh = Obj_New('IDLgrPolygon', vList, Polygons=pList)
```

Cheers,
-Dick

Dick Jackson Software Consulting
Victoria, BC, Canada --- +1-250-220-6117
dick@d-jackson.com --- <http://www.d-jackson.com>

On Jul 26, 6:59 am, asp <ayl...@gmail.com> wrote:

```
> Hi all,
>
> I am trying to apply QHULL to a thresholded volume and then use the
> result to create a mesh object. While I have been able to use MESH_OBJ
> with the results from QHULL the resultant object is a mess. I am
> thinking this may be due to the fact that the connectivity list in
> QHULL is not ordered. This is unlike TRIANGULATE, which does provide
> an ordered adjacency list. Does anyone have a suggestion for how to
> order the connectivity list from QHULL, or does anyone have a
> suggestion for another way I might go about doing this?
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> Thanks!
```

Subject: Re: QHULL connectivity list - sorting possible?
Posted by [Dick Jackson](#) on Tue, 26 Jul 2011 17:46:28 GMT
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Let's try that again. Sorry for the text-wrapping, and here's a bonus.
Copy and paste into the command line for the full demo:

```
vList = RandomU(seed, 3, 100) ; Random points
QHull, vList, tri          ; tri becomes (3,nTri)
```

```
nTri = N_Elements(tri)/3
pList = [Replicate(3, [1, nTri]), tri] ; Attach column of '3's
oMesh = Obj_New('IDLgrPolygon', vList, Polygons=pList)
XObjView, oMesh ; See the lump of coal!
```

Cheers,
-Dick

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dick@d-jackson.com --- <http://www.d-jackson.com>

On Jul 26, 10:38 am, Dick Jackson <d...@d-jackson.com> wrote:

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Subject: Re: QHULL connectivity list - sorting possible?
Posted by [Dick Jackson](#) on Tue, 26 Jul 2011 17:53:14 GMT
[View Forum Message](#) <> [Reply to Message](#)

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and paste at the command prompt for the full demo:

```
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QHull, vList, tri                  ; tri becomes (3, nTri)
nTri = N_Elements(tri)/3
pList = [Replicate(3, [1, nTri]), tri] ; Prepend column of '3's
oMesh = Obj_New('IDLgrPolygon', vList, Polygons=pList)
XObjView, oMesh                   ; Show the lump of coal!
```

Cheers,
-Dick

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