

## VisIt - Feature # 1279: N-faced polyhedra support for Xdmf

<b>Status:</b>	Pending	<b>Priority:</b>	Normal
<b>Author:</b>	Cyrus Harrison	<b>Category:</b>	
<b>Created:</b>	12/14/2012	<b>Assigned to:</b>	Eric Brugger
<b>Updated:</b>	02/12/2013	<b>Due date:</b>	
<b>Impact:</b>	3 - Medium		
<b>Expected Use:</b>	3 - Occasional		
<b>OS:</b>	All		
<b>Support Group:</b>	Any		
<b>Subject:</b>	N-faced polyhedra support for Xdmf		
<b>Description:</b>	Info about current / future support requested on the users list: --- Hi,  I was wondering if VisIt supports display of a N-facced polyhedra via XDMF HDF5 format? If yes, can someone point me to an example of it.  Thanks, -Gautam. --- Note: I didn't have much luck browsing the Xdmf websites for info on polyherda.		

### History

01/24/2013 11:45 am - Cyrus Harrison

- File *prostar.h5* added

- File *prostar.xmf* added

Jean Favre looked into this issue, and provided an example data set w/ n-faced cells:

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Hello Cyrus

I have done some research on this topic this afternoon because I have a user requesting the support of n-faced polygons.

I have a working example in Xdmf of the so-called "Mixed" topology. I found out that VisIt (2.6) can read all Linear cells defined here

[http://www.xdmf.org/index.php/XDMF\\_Model\\_and\\_Format](http://www.xdmf.org/index.php/XDMF_Model_and_Format)

except the n-faced shapes.

Looking at the code in VisIt's Xdmf, I see no entry for the n-faces shapes.

here are the only 3 types supported:

```
avtXdmfFileFormat.C: case XDMF_POLYVERTEX:
```

```
avtXdmfFileFormat.C: case XDMF_POLYLINE:
```

```
avtXdmfFileFormat.C: case XDMF_POLYGON:
```

the lack of definition of n-face shapes comes from Xdmf itself as I understand it.

For my use-case, the data come from STARCD ProSTAR. We can output it in Ensiht format (including our n-faces 3D cells), and VisIt is happy with it.

Hope this contributes to your understanding. I hope I have not overlooked something.

Cheers

P.S. I have attached the data. The last element only is ignored by VisIt. That should be an 8-faced cell = two pyramids sharing their base)

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Jean/CSCS

**02/12/2013 04:47 pm - Eric Brugger**

- Status changed from New to Pending

- Assigned to set to Eric Brugger

**Files**

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prostar.h5	2.6 KB	01/24/2013	Cyrus Harrison
prostar.xmf	920 Bytes	01/24/2013	Cyrus Harrison