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Subject: Re: How to export programmatically a volume with IVOLUME to images  
Posted by [Michael Galloy](#) on Tue, 20 May 2008 03:12:56 GMT  
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yingjie, Peng wrote:

> Dear all,  
>  
> I would like to make a short animation of my rotating volume data. I  
> think this could be done by rotating the volume a small angle each  
> time and export corresponding image and then put the images sequence  
> together. One can use XVOLUME, XVOLUME\_ROTATE and XVOLUME\_WRITE\_IMAGE  
> to get this job done easily, however ivOLUME offers more possible  
> choices of configurations, which I prefer to.  
>  
> I already figured out how to rotate the ivolume object  
> programmatically by:  
> idTool = itgetcurrent(Tool=oTool)  
> temp = oTool->FindIdentifiers('\*DATA SPACE',/VISUALIZATIONS)  
> idDataSpace = temp[0]  
> oDataSpace = oTool->GetByIdentifier(idDataSpace)  
> oDataSpace->GetProperty, PARENT=oDataSpaceRoot  
> oDataSpaceRoot->Rotate, [0,0,1], 20  
> oTool->RefreshCurrentWindow  
>  
> But after hours' attempt, I still do not know how to export the image  
> from the ivolume. Of course I can choose 'export' to file from the  
> ivolume menu and then I have to do this hundreds of times to make a  
> animation :(  
> I found David had some similar explanations here:  
> [http://www.dfanning.com/itool\\_tips/newdata.html](http://www.dfanning.com/itool_tips/newdata.html)  
> but it seems to me this will only work with ilimage  
>  
> I am not experienced at all with iTools Object Classes and any  
> suggestions or clues would be greatly appreciated.  
>  
> with best regards,  
> Yingjie

Just get the iTools window object and ask for its data:

```
IDL> f = filepath('head.dat', subdir=['examples', 'data'])
IDL> head = bytarr(80, 100, 57)
IDL> openr, lun, f, /get_lun
IDL> readu, lun, head
IDL> free_lun, lun
IDL> ivolume, head ; hit the "Render" button after it comes up
IDL> toolId = itgetcurrent(tool=tool)
IDL> win = tool->getByIdentifier('/tools/volume tool/window')
```

```
IDL> help, win
WIN      OBJREF  = <ObjHeapVar16322(IDLITGRWINSCE)>
IDL> win->getProperty, image_data=im
IDL> help, im
IM       BYTE    = Array[3, 824, 589]
IDL> window, xsize=824, ysize=589
IDL> tv, im, true=1
```

This could be made more robust by using `findIdentifiers` (like in your example) to get the ID since it won't always be `'/tools/volume tool/window'` (like if you have multiple `iVolume` tools open).

Mike

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