
Subject: 3d visualization

Posted by [Nagesh Mallugari](#) on Fri, 25 Apr 1997 07:00:00 GMT

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I want to know if there are any other ways of visualizing 3D array data interactively as a volume in idl/PV-Wave other than rendering, shading and displaying with t3d.

The data is 35 slices of PET with 128 by 128 image size. It has to be visualized with respect to a co-ordinate system to compare with another volume set.

Any suggestions or pointers are welcome.

thanks in advance,
Nagesh

Subject: Re: 3D Visualization

Posted by [Struan Gray](#) on Fri, 13 Oct 2000 07:00:00 GMT

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Larry Ashim, kashim@earthlink.net writes:

> Is there any better way to do this
> visualization using IDL?

If you are just doing simple depth-cueing (linear fade with distance) it is built in to the object graphics display routines. Just turn it on and objects will fade to the background colour at a rate determined by a simple pair of parameters. See the manual for IDLgrView for further details.

Struan

Subject: Re: 3D Visualization

Posted by [Struan Gray](#) on Mon, 16 Oct 2000 07:00:00 GMT

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Larry Ashim, kashim@earthlink.net writes:

> No, this is not what I want.

If at first you don't succeed.....

> Any other hints out there?

- 1) Plot in 3D using the z-buffer device.
- 2) Read the depth info with TVRD(CHANNEL=1, /WORDS)
- 3) Convert to 8-bit and colour
- 4) Copy to main display

Struan

Subject: Re: 3D Visualization

Posted by [Larry Ashim](#) on Mon, 16 Oct 2000 07:00:00 GMT

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No, this is not what I want.

I am looking for a technique that truly varies color with depth from the viewer.

Any other hints out there?

Larry

Struan Gray <struan.gray@sljus.lu.se> wrote in message
news:8s78er\$s4e\$1@news.lth.se...

> Larry Ashim, kashim@earthlink.net writes:

>

>> Is there any better way to do this

>> visualization using IDL?

>

> If you are just doing simple depth-cueing (linear fade with

> distance) it is built in to the object graphics display routines.

> Just turn it on and objects will fade to the background colour

> at a rate determined by a simple pair of parameters. See the

> manual for IDLgrView for further details.

>

>

> Struan

Subject: Re: 3d Visualization

Posted by [David Fanning](#) on Wed, 04 May 2011 18:27:05 GMT

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Jean writes:

- > I have a new project that requires 3d visualization and
- > reconstruction. For example, I have stack of 2d images that I need to
- > put on top of each other and then visualize this stack in 3d. Is there
- > any tools in IDL that will do that ? Where should I start looking ?

Are you talking about something like this:

http://www.idlcoyote.com/coyoteguide/graphics_tips/mesh.html

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>

Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: 3d Visualization

Posted by [penteado](#) on Wed, 04 May 2011 18:57:29 GMT

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On May 4, 3:27 pm, David Fanning <n...@idlcoyote.com> wrote:

> Are you talking about something like this:

>

> http://www.idlcoyote.com/coyoteguide/graphics_tips/mesh.html

The link seems broken. I am guessing it is something like the result of

```
;Make up some images
```

```
image1=dist(100)
```

```
image2=cos(dist(100))
```

```
image3=sin(dist(100))
```

```
image4=image2*image3
```

```
;Show those images, in a stack
```

```
im1=image(image1,zvalue=100)
```

```
im2=image(image2,zvalue=200,/over)
```

```
im3=image(image3,zvalue=300,/over)
```

```
im4=image(image4,zvalue=400,/over)
```

Subject: Re: 3d Visualization

Posted by [Jean\[2\]](#) on Wed, 04 May 2011 19:09:48 GMT

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On May 4, 2:57 pm, Paulo Penteado <pp.pente...@gmail.com> wrote:

> On May 4, 3:27 pm, David Fanning <n...@idlcoyote.com> wrote:

>

>> Are you talking about something like this:

>

>> http://www.idlcoyote.com/coyoteguide/graphics_tips/mesh.html

>

> The link seems broken. I am guessing it is something like the result

> of

>

> ;Make up some images

> image1=dist(100)

> image2=cos(dist(100))

> image3=sin(dist(100))

> image4=image2*image3

>

> ;Show those images, in a stack

> im1=image(image1,zvalue=100)

> im2=image(image2,zvalue=200,/over)

> im3=image(image3,zvalue=300,/over)

> im4=image(image4,zvalue=400,/over)

Like Paulo said, your link David does not work but Paulo, that's pretty much what I need. Excellent. Thanks a lot.

But I'm gonn ask also, just in case, if there is a tool in IDL that already provide the possibility to make 3D cut in this 3dImage. For example, I would like to make a selection (in 3d space) and produces a new plot of only this selection.

Jean

Subject: Re: 3d Visualization

Posted by [penteado](#) on Wed, 04 May 2011 19:16:16 GMT

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On May 4, 4:09 pm, Jean <jeanbilh...@gmail.com> wrote:

> But I'm gonn ask also, just in case, if there is a tool in IDL that

> already provide the possibility to make 3D cut in this 3dImage. For

> example, I would like to make a selection (in 3d space) and produces a

> new plot of only this selection.

I cannot figure out what you mean here.

Subject: Re: 3d Visualization
Posted by [Jean\[2\]](#) on Wed, 04 May 2011 19:24:04 GMT
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On May 4, 3:16 pm, Paulo Penteado <pp.pente...@gmail.com> wrote:
> On May 4, 4:09 pm, Jean <jeanbilh...@gmail.com> wrote:
>
>> But I'm gonn ask also, just in case, if there is a tool in IDL that
>> already provide the possibility to make 3D cut in this 3dImage. For
>> example, I would like to make a selection (in 3d space) and produces a
>> new plot of only this selection.
>
> I cannot figure out what you mean here

Let's suppose my 3d image is an orange, I would like to come with a knife, cut it in half to be able to see what is going on inside.

Subject: Re: 3d Visualization
Posted by [David Fanning](#) on Wed, 04 May 2011 19:50:11 GMT
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Paulo Penteado writes:

>> Are you talking about something like this:
>>
>> http://www.idlcoyote.com/coyoteguide/graphics_tips/mesh.html
>
> The link seems broken. I am guessing it is something like the result
> of

Sorry. Still getting used to using my own server on my Windows machine.

http://www.idlcoyote.com/graphics_tips/mesh.html

Cheers,

David

--

David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: 3d Visualization

Posted by [Jean\[2\]](#) on Wed, 04 May 2011 20:27:41 GMT

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On May 4, 3:50 pm, David Fanning <n...@idlcoyote.com> wrote:

> Paulo Penteado writes:

>>> Are you talking about something like this:

>

>>> http://www.idlcoyote.com/coyoteguide/graphics_tips/mesh.html

>

>> The link seems broken. I am guessing it is something like the result

>> of

>

> Sorry. Still getting used to using my own server on my

> Windows machine.

>

> http://www.idlcoyote.com/graphics_tips/mesh.html

>

> Cheers,

>

> David

> --

> David Fanning, Ph.D.

> Fanning Software Consulting, Inc.

> Coyote's Guide to IDL Programming:<http://www.idlcoyote.com/>

> Sepore ma de ni thui. ("Perhaps thou speakest truth.")

David,

Link works and that's exactly what I need. Lovely !

Thanks a lot guys.

Jean
