## Subject: Re: 3D Reconstructions of 2D Slices Posted by davidf on Thu, 20 Apr 2000 07:00:00 GMT

View Forum Message <> Reply to Message

Craig Markwardt (craigmnet@cow.physics.wisc.edu) writes:

```
> Would this just-recently-declassified snippet help?
> vol = dblarr(100,100,20) ; 100x100 images, 20 of them
> for i = 0, 19 do $
> vol(*,*,i) = read_my_image(image_file(i))
> Extra bonus points can be gotten for recognizing the speed-up achieved
> by saying "vol(0,0,i) = " instead.
>
```

> Somehow I think you are asking for more though?

Would that it \*were\* this easy. Then all those Ph.D. candidates working on innovative techniques could purchase IDL and be hanging out at the corner bar instead of the lab.

Unfortunately, the problem seems to be a \*tad\* more involved than this. But thanks to the 100 or so of you who think so little of my demonstrated IDL skills that you all sent me the same suggestion. :-)

Cheers.

David

--

David Fanning, Ph.D. Fanning Software Consulting

Phone: 970-221-0438 E-Mail: davidf@dfanning.com

Coyote's Guide to IDL Programming: http://www.dfanning.com/

Toll-Free IDL Book Orders: 1-888-461-0155

Subject: Re: 3D Reconstructions of 2D Slices
Posted by Craig Markwardt on Thu, 20 Apr 2000 07:00:00 GMT
View Forum Message <> Reply to Message

davidf@dfanning.com (David Fanning) writes:

>

- > Does anyone have any pointers/suggestions/code for creating
- > 3D volume arrays from 2D image slices? I know this kind of
- > thing is being done all the time, but apparently the IDL

```
> code for it is under lock and key at one (no one knows
> *which* one) of the National Labs. :-(
Would this just-recently-declassified snippet help?
vol = dblarr(100,100,20); 100x100 images, 20 of them
for i = 0, 19 \text{ do } \$
 vol(*,*,i) = read my image(image file(i))
Extra bonus points can be gotten for recognizing the speed-up achieved
by saying "vol(0,0,i) = " instead.
Somehow I think you are asking for more though?
Craig
                            EMAIL: craigmnet@cow.physics.wisc.edu
Craig B. Markwardt, Ph.D.
Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response
_____
Subject: Re: 3D Reconstructions of 2D Slices
Posted by davidf on Fri, 21 Apr 2000 07:00:00 GMT
View Forum Message <> Reply to Message
```

Craig Markwardt (craigmnet@cow.physics.wisc.edu) writes:

- > Jeez, and \*you\* complain when people don't give enough
- > information! :-)

I'm a terrible student. Molly Hardman, who I used to have a lot of fun teaching IDL courses with, once threw me out of one of her ENVI courses, saying I was hopeless. And I thought I was just being funny. :-)

Cheers,

David

P.S. Let's just say I never did get my arms completely around ENVI. :-(

--

David Fanning, Ph.D.

Fanning Software Consulting

Phone: 970-221-0438 E-Mail: davidf@dfanning.com

Coyote's Guide to IDL Programming: http://www.dfanning.com/

Toll-Free IDL Book Orders: 1-888-461-0155

Subject: Re: 3D Reconstructions of 2D Slices Posted by Craig Markwardt on Fri, 21 Apr 2000 07:00:00 GMT View Forum Message <> Reply to Message davidf@dfanning.com (David Fanning) writes: > Craig Markwardt (craigmnet@cow.physics.wisc.edu) writes: >> Would this just-recently-declassified snippet help? >> >> vol = dblarr(100,100,20); 100x100 images, 20 of them >> for i = 0, 19 do \$ vol(\*,\*,i) = read\_my\_image(image\_file(i)) >> >> Extra bonus points can be gotten for recognizing the speed-up achieved  $\rightarrow$  by saying "vol(0,0,i) = " instead. >> Somehow I think you are asking for more though? > > Would that it \*were\* this easy. Then all those Ph.D. > candidates working on innovative techniques could purchase > IDL and be hanging out at the corner bar instead of the > lab. > > Unfortunately, the problem seems to be a \*tad\* more > involved than this. But thanks to the 100 or so of you > who think so little of my demonstrated IDL skills that > you all sent me the same suggestion. :-) Umm.... So what \*are\* the constraints? Are the slices evenly spaced? Orthogonal directions? Arbitrary directions? Jeez, and \*you\* complain when people don't give enough information! :-) Craig Craig B. Markwardt, Ph.D. EMAIL: craigmnet@cow.physics.wisc.edu Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response 

Subject: Re: 3D Reconstructions of 2D Slices Posted by Struan Gray on Fri, 21 Apr 2000 07:00:00 GMT

View Forum Message <> Reply to Message

David Fanning, davidf@dfanning.com writes:

- > But thanks to the 100 or so of you
- > who think so little of my demonstrated
- > IDL skills that you all sent me the same
- > suggestion. :-)

There's a chinese proverb about the joy to be had in seeing an old and dear friend fall from a high roof. Your word of Swedish to learn today: "Skadegli; ½dje".

I have a book called The Image Processing Handbook by John C Russ (CRC press, ISBN 0-8493-2516-1) which talks about some of the techniques for doing this, but has no code and is almost wilfully non-mathematical. Good references though, as far as I can tell. It covers a lot of other material too, so it might be worth checking out in a library before purchase.

I also know a couple of small companies which sell inverse-tomography code, but I don't think that's what you want.

## Struan

(I know, working on Good Friday. They'll be stoking up a specially-hot area of Hades just for me).

Subject: Re: 3D Reconstructions of 2D Slices
Posted by Mirko Vukovic on Fri, 21 Apr 2000 07:00:00 GMT
View Forum Message <> Reply to Message

In article <MPG.1368c147c090bf70989ae3@news.frii.com>, davidf@dfanning.com (David Fanning) wrote:

- > Hi Folks,
- >
- > Does anyone have any pointers/suggestions/code for creating
- > 3D volume arrays from 2D image slices? I know this kind of
- > thing is being done all the time, but apparently the IDL
- > code for it is under lock and key at one (no one knows
- > \*which\* one) of the National Labs. :-(
- > Any help is greatly appreciated.
- > Cheers,

> David

I thought that there was a recent thread on the same topic.

## Mirko

- > --
- > David Fanning, Ph.D.
- > Fanning Software Consulting
- > Phone: 970-221-0438 E-Mail: davidf@dfanning.com
- > Coyote's Guide to IDL Programming: http://www.dfanning.com/
- > Toll-Free IDL Book Orders: 1-888-461-0155

Sent via Deja.com http://www.deja.com/ Before you buy.