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Subject: Re: Finger Pointing in IDL

Posted by [David Fanning](#) on Sat, 14 Apr 2007 16:02:00 GMT

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David Fanning writes:

- > Should I fix it in my programs (lots of work), ask Craig
- > to fix it in his (less work, at least for me), or request
- > ITTVIS make CONGRID work in a manner that we would all
- > prefer it would work (probably less work, since they could
- > copy Craig's fixes for their program, and I could explain to
- > them how to fix my current problem)?
- >
- > I thought it would be interesting to hear your opinion.

OK, I understand, it's MY problem, not YOURS! But, still, someone must have an idea about this. In any case, \*I've\* been giving it more thought.

I've been thinking that a non-interpolated solution in 3D maybe doesn't make any sense in general. Maybe that's why neither CONGRID or CMCONGRID allow it. Certainly you could do 2D non-interpolated solutions over the third dimension, as someone suggested the other day, but it seems to be that which dimension you select would be arbitrary, and it is not clear to me you would end up with the same solution in different directions.

Of course, a 24-bit image is a fairly specific example of the general 3D case, so looping over the interleaved dimension could make some sense in this case. Which would make it MY problem again. Humm.

Well, just thinking out loud in the absence of other conversation... :-)

Cheers,

David

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David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

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

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Subject: Re: Finger Pointing in IDL

Posted by [Jo Klein](#) on Mon, 16 Apr 2007 11:00:02 GMT

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Hi David,

I wouldn't say 3D nearest neighbour generally doesn't make sense - it's useful when you resize masks that should be used to derive some measurement or other from a different volume. Typical example: Mask drawn on volume MRI, which is then transported to some other modality, e.g. fMRI or PET. Many imaging packages won't take fractional values for such masks, so nearest neighbour is the way to go.

Cheers,

Jo

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Subject: Re: Finger Pointing in IDL

Posted by [Qing](#) on Mon, 16 Apr 2007 11:42:03 GMT

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On Apr 15, 2:02 am, David Fanning <n...@dfanning.com> wrote:

> David Fanning writes:

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>> to fix it in his (less work, at least for me), or request  
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> third dimension, as someone suggested the other day,  
> but it seems to be that which dimension you select  
> would be arbitrary, and it is not clear to me you would  
> end up with the same solution in different directions.

>

Hi David,

That's an important point - does it matter to select which dimension to loop over? Based on Michael Galloy's analysis in the original lead on this issue, it seems to me that there

is only one target solution (without interpolation).  
A fair test would be to find a case that gives different  
results depending on the selection of which dimension.

It will be interesting if someone can find such a case!

Cheers.  
Qing

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Subject: Re: Finger Pointing in IDL  
Posted by [Qing](#) on Mon, 16 Apr 2007 11:48:39 GMT  
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On Apr 15, 2:02 am, David Fanning <n...@dfanning.com> wrote:

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> third dimension, as someone suggested the other day,  
> but it seems to be that which dimension you select  
> would be arbitrary, and it is not clear to me you would  
> end up with the same solution in different directions.

Hi David.

A very important point! But would be interesting if someone  
can find a case to give the different results!

Cheers.  
Qing

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Subject: Re: Finger Pointing in IDL

Posted by [edward.s.meinel@aero](mailto:edward.s.meinel@aero) on Mon, 16 Apr 2007 15:30:10 GMT

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On Apr 14, 12:02 pm, David Fanning <n...@dfanning.com> wrote:

>

> Of course, a 24-bit image is a fairly specific example  
> of the general 3D case, so looping over the interleaved  
> dimension could make some sense in this case. Which  
> would make it MY problem again. Humm.

What? You can't use NN on color images? That's just dumb...

> it is not clear to me you would

> end up with the same solution in different directions.

It isn't clear to me why you wouldn't end up with the same solution in different directions.

Ed

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