Subject: Re: fixing DICOM read issues
Posted by David Fanning on Fri, 11 Dec 2009 14:21:05 GMT
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Dorthe Wildenschild writes:

> I am trying to read a stack of DICOM images (.ima format) with IDL and
> can read in the values just fine (-1054 to 3000), but the voxel
> scaling is wrong, so my cylindrical object becomes oval. I tried
> saving the volume from another program and that works well for meshing
> the slices together and getting the correct data range, but I loose
> the voxel scaling, so that once I read that simple binary data file
> into IDL it is stretched incorrectly.
> My array is 512,512,478, and the scaling in the DICOM file is
> 0.43,0.43,0.5 in the three dimensions. How do I fix this in IDL so the
> image has the right shape. Rebin only works for integers of the
> original size...

This seems more like an image *display* problem to me,
but if you want to change the size of the data array,
use CONGRID.

Cheers,

David

--
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.")

Subject: Re: fixing DICOM read issues
Posted by dorthe on Sat, 12 Dec 2009 19:03:25 GMT
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On Dec 11, 6:21 am, David Fanning <n...@dfanning.com> wrote:
> Dorthe Wildenschild writes:
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> David
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> --
> David Fanning, Ph.D.
> Fanning Software Consulting, Inc.
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Thanks, Dave! this is a typical case of Occam's Razor. It is so simple, and I was trying to make it complicated. You're right, it's a display issue, but since I need to crop out a circular cylinder, I needed it to be nice and round. I just congrid'ed it and all my problems are solved. Well, at least those related to image processing for now :-)

Cheers,
Dorthe

Subject: Re: fixing DICOM read issues
Posted by David Fanning on Sat, 12 Dec 2009 19:17:13 GMT
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Dorthe Wildenschild writes:

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> simple, and I was trying to make it complicated. You're right, it's a
> display issue, but since I need to crop out a circular cylinder, I
> needed it to be nice and round. I just congrid'ed it and all my
> problems are solved. Well, at least those related to image processing
> for now :-)

I was just saying that you could have a nice round slice, without manipulating the data at all by doing something like this:

```
TVImage, slice, POSITION=Aspect(1.0)
```

Cheers,

David

--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
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Subject: Re: fixing DICOM read issues
Posted by dorthe on Sat, 12 Dec 2009 19:22:48 GMT
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On Dec 11, 6:21 am, David Fanning <n...@dfanning.com> wrote:
> Dorthe Wildenschild writes:
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> David Fanning, Ph.D.
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hey, but wait a minute....., what resolution (or voxel size) do I end
up with then? I measure areas of some features in the image later
(using another program), but what is the size of the congridded pixel,
then? Say I congrid from (370x400x354) to (361x400x354).I save the
congridded volume and use the voxel dimensions to turn a marching

cubes estimated area into a physical value using the voxel size.

Subject: Re: fixing DICOM read issues
Posted by David Fanning on Sat, 12 Dec 2009 19:57:47 GMT
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Dorthe Wildenschild writes:

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> up with then? I measure areas of some features in the image later
> (using another program), but what is the size of the congridded pixel,
> then? Say I congrid from (370x400x354) to (361x400x354).I save the
> congridded volume and use the voxel dimensions to turn a marching
> cubes estimated area into a physical value using the voxel size.

Well, exactly. This is why I am encouraging you to
see this as a display problem, rather than monkeying
around with your data, which is almost always a bad
idea. :-)

Cheers,

David

--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
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Subject: Re: fixing DICOM read issues
Posted by dorthe on Sat, 12 Dec 2009 20:20:49 GMT
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On Dec 12, 11:57 am, David Fanning <n...@dfanning.com> wrote:
> Dorthe Wildenschild writes:
>> hey, but wait a minute....., what resolution (or voxel size) do I end
>> up with then? I measure areas of some features in the image later
>> (using another program), but what is the size of the congridded pixel,
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> David
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> --
> David Fanning, Ph.D.
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unfortunately, I have to monkey with the data... :-) bad idea or not...
