
Subject: Re: retaining ROI when rescaling?

Posted by [David Fanning](#) on Wed, 07 May 2008 19:49:23 GMT

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Dave L writes:

> I have a 384X512 MRI image that I want to select an ROI in then
> rescale it to overlay on a second MRI image measuring 110X110. I
> would then select the same ROI on the second image. My question is
> how can I retain the ROI selection when I rescale the image?

Uh, these two images don't seem to have the same aspect ratio. :-)

Why don't you tell us more about the non-linear scaling you are using.

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

Coyote's Guide to IDL Programming (www.dfanning.com)

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

Subject: Re: retaining ROI when rescaling?

Posted by [Spon](#) on Thu, 08 May 2008 10:22:26 GMT

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On May 7, 8:38 pm, Dave L <dave.le...@gmail.com> wrote:

> Hi,
>
> I have a 384X512 MRI image that I want to select an ROI in then
> rescale it to overlay on a second MRI image measuring 110X110. I
> would then select the same ROI on the second image. My question is
> how can I retain the ROI selection when I rescale the image?
>
> Thanks,
> Dave

For a quick-and-dirty result, I would use CONGRID. You may well want better interpolation though. I'm making a big assumption: that your second image is a distorted version of the first one (or a distorted image of the same field of view). If this isn't the case, it won't work.

Regards,
Chris

```
; Generate an image
seed = -42l
image1 = 1e-4*findgen(384, 512)
image1 += randomu(seed, 384, 512)

; Highlight a part of image
image1[100:120,250:270] = 0.95 * max(image1)

; Define a region
window, xsize = 384, ysize = 512
tvsc1, image1
im1_inds = defroi(384, 512)
n_inds = n_elements(im1_inds)

if n_inds eq 0 then message, 'Invalid RoI.'

; Make RoI mask using one-dimensional subscripts
mask = bytarr(384, 512)
mask[im1_inds] = 1b
new_mask = congrid(mask, 110, 110)

; Proof of concept - use your own image2 here :-)
image2 = congrid(image1, 110, 110)

window, /free
tvsc1, image2, 0
tvsc1, image2*new_mask, 1
```

Subject: Re: retaining ROI when rescaling?
Posted by [Jean H.](#) on Thu, 08 May 2008 21:38:21 GMT
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Spon wrote:

```
> On May 7, 8:38 pm, Dave L <dave.le...@gmail.com> wrote:
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>> Thanks,
>> Dave
>
```

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> better interpolation though. I'm making a big assumption: that your
> second image is a distorted version of the first one (or a distorted
> image of the same field of view). If this isn't the case, it won't
> work.

if the two images does not cover the same area, you would have to
transform your ROI coordinates to lat-long, and transform them back to
image coordinates of your second image...

Jean

Subject: Re: retaining ROI when rescaling?
Posted by [pgrigis](#) on Thu, 08 May 2008 21:54:43 GMT
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Jean H wrote:

> Spon wrote:

>> On May 7, 8:38 pm, Dave L <dave.le...@gmail.com> wrote:

>>> Hi,

>>>

>>> I have a 384X512 MRI image that I want to select an ROI in then
>>> rescale it to overlay on a second MRI image measuring 110X110. I
>>> would then select the same ROI on the second image. My question is
>>> how can I retain the ROI selection when I rescale the image?

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>>> Thanks,

>>> Dave

>>

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>> better interpolation though. I'm making a big assumption: that your
>> second image is a distorted version of the first one (or a distorted
>> image of the same field of view). If this isn't the case, it won't
>> work.

>

> if the two images does not cover the same area, you would have to
> transform your ROI coordinates to lat-long,
Mixing medicine and geography? That's interesting ... ;-)

Ciao,
Paolo

and transform them back to

> image coordinates of your second image...

>

> Jean

Subject: Re: retaining ROI when rescaling?
Posted by [David Fanning](#) on Thu, 08 May 2008 21:58:43 GMT
[View Forum Message](#) <> [Reply to Message](#)

pgrigis@gmail.com writes:

> Mixing medicine and geography? That's interesting ... ;-)

Do you see what we are reduced to when people don't ask
good questions!!

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.")
