Subject: Re: Edge detection for saturn's rings
Posted by David Fanning on Tue, 15 Jul 2008 00:52:28 GMT
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frankosuna writes:

> I've been trying to use some of the built in edge detection routines
> implemented in idl such as sobel but I haven't found a very good one
> that will work for images such as this:
>
> http://frankosuna.googlepages.com/supportImage.jpg
>
> I am trying to pull out all of the rings in this image and the best I
> have gotten is this:
>
> http://frankosuna.googlepages.com/edgeDetect.jpg
>
> Any suggestions and opinions are welcome.

Wow. You have admirably high expectations! I would've
been thrilled with those results. :-)

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: Edge detection for saturn's rings
Posted by ben.bighair on Tue, 15 Jul 2008 01:06:18 GMT
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On Jul 14, 8:52 pm, David Fanning <n...@dfanning.com> wrote:
> frankosuna writes:
>> I've been trying to use some of the built in edge detection routines
>> implemented in idl such as sobel but I haven't found a very good one
>> that will work for images such as this:
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>> I am trying to pull out all of the rings in this image and the best I
>> have gotten is this:
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>> http://frankosuna.googlepages.com/edgeDetect.jpg
>
>> Any suggestions and opinions are welcome.
>
> Wow. You have admirably high expectations! I would've
> been thrilled with those results. :-)
>

Me, too! But, Frank, the images are two different sizes - is the color one really the source for the edge image? If so, how did you convert to greyscale? Did you do any steps other than Sobel?

CHeers,
Ben

Subject: Re: Edge detection for saturn's rings
Posted by frankosuna on Tue, 15 Jul 2008 01:41:31 GMT

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Actually no, that is not the original image. I just did a quick print screen to show you guys what it was. The original image is a 1024x1024 as is the edge detected. This is the following code that I have:

```
 LOADCT, 0
 mydevice = !D.NAME

 SET_PLOT, 'Z'

 ERASE

 DEVICE, SET_RESOLUTION=[1024,1024]

;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;
;          SOBEL CODE
;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;
 filteredImage = SOBEL(img)
 filteredImage=ROTATE(filteredImage, 7)

filteredImage = SMOOTH(filteredImage,.001)
tvscl, congrid(filteredImage, 1024, 1024)

image = TVRead(Filename='edgeDetect',/NODIALOG,/BMP)

 image = READ_BMP('/home/users/fjosuna/NASA/CASVU_ISS/
edgeDetect.bmp')
 OPENW, lun, 'edgeDetect.dat', /GET_LUN
```

```
WRITEU, lun, image
FREE_LUN, lun
ERASE

SET_PLOT, mydevice
```

Subject: Re: Edge detection for saturn's rings
Posted by David Fanning on Tue, 15 Jul 2008 01:45:32 GMT
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frankosuna writes:

> filteredImage = SMOOTH(filteredImage,.001)

I don't think that SMOOTH function is doing what you
think it is doing, unless it belongs to a different
library than the one that comes with IDL. :-)

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: Edge detection for saturn's rings
Posted by frankosuna on Tue, 15 Jul 2008 01:57:00 GMT
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Oh yes... disregard that :) I was just messing with different stuff to
see if I could get better edge detection and forgot to comment that
out.
