Subject: Re: Color tables and edge operators ??
Posted by David Foster on Thu, 03 Dec 1998 08:00:00 GMT
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DI Dubravko Cosic wrote:
>
> Hi,
>
> I have two questions.
> First question.
> After I segment CT image I would like to present segmented regions in
> red. I tried lots of tricks with colors and color tables and did not
> find any succes. Does anyone have some suggestion ?
>
> And second question.
> Where can I find some IDL routines for edge operators like Canny edge
> detector or anything similar.
>
> Thanks in advance
>
> Dubravko

Dubravko - Regarding question #1:

There are two ways to go about this, and both require that you create a list of indices of your image that correspond to your "segmented" regions. Once you have done that, you can either:

1. Set the segmented pixels in your image to a particular value, and then set the color for that value:

```
tvlct, 255, 0, 0, !d.table_size-1    ; Set color to red

image = bytscl(image, top=!d.table_size-2)  ; Reserve color
image(indices) = !d.table_size-1     ; Set pixels to value
```

   This assumes you are using RGB colors.

2. You can create a "red-scale" and a "gray-scale" simultaneously using my GRAYSCALE.PRO routine. This allows you to view your segmented regions as red but still see their intensities. We use this quite a bit. You will also need my BYTE_SCALE.PRO routine, which lets you scale values and specify a BOTTOM as well as a TOP value (BYTSCL only supports TOP).

   Basically, you split the color table up into two halves, make the bottom a gray-scale, and the top half a red-scale. Then you scale the image into the bottom half, and then scale the segmented

pixels into the top half.

```
  bottom = 0              ; Initial grayscale parameters
  top = !d.table_size-1

  grayscale, bottom, top, split_color=[1,0,0]     ; Split color table

  segPixels = image(indices)        ; First save segmented pixels

  image = byte_scale(image, top=!d.table_size/2)  ; Gray scale

  segPixels = byte_scale(segPixels, bottom=!d.table_size/2+1, $
top=!d.table_size-1)
  image(indices) = segPixels        ; Put seg pixels into image
  tv, image
```

You can get GRAYSCALE and BYTE_SCALE from:

http://bial8.ucsd.edu  pub/software/idl/share/

Hope this helps.

Dave
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