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Subject: Re: How to draw a line on an image?

Posted by [Hermann Mannstein](#) on Mon, 29 Jan 1996 08:00:00 GMT

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Hiro Yoshida wrote:

>  
> Hello IDL experts,  
>  
> Is there a handy way to draw lines on an image in IDL?  
>  
> I would like to draw some simple graphics such as lines, boxes, and circles  
> on an image. (I am not talking about modifying image itself by putting  
> white pixels to draw these figures.) I believe that IDL has some commands  
> for this type of "overlay" task. Unfortunately, however, I cannot find one  
> so far. Any suggestions are welcome.

Hi, look for the cw\_defroi.pro within the lib directory of your IDL, but basically you have to give some pixels of the display another color to see them ;-)

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Regards,

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Subject: Re: How to draw a line on an image?

Posted by [offenbrg](#) on Mon, 29 Jan 1996 08:00:00 GMT

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yoshida@fermi.bsd.uchicago.edu (Hiro Yoshida) writes:

> Hello IDL experts,  
  
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> for this type of "overlay" task. Unfortunately, however, I cannot find one

> so far. Any suggestions are welcome.

I believe that the routine you want is "plots" (not "Plot"), which allows you to draw graphics on a TV window (such as lines, circles, etc). Also tvcircle and tvbox.

Now, this does change the image as stored in the window. The array stored in memory will not be changed by this. There isn't really any way to "overlay" in video memory without altering the contents of the window.

What you \*could\* do is copy the image into a pixmap window, so you can recover it unchanged after you've finished with the graphics. The only other trick I can think of involves using a 24-bit display...

Joel

--

"...And I am unanimous in this" - Mrs. Slocumbe

-----  
| Joel D Offenberg | offenbrg@fondue.gsfc.nasa.gov |  
| Hughes STX, NASA/GSFC/LASP | I get paid to stare into space. |

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Subject: Re: How to draw a line on an image?  
Posted by [Ian E. Sprod](#) on Mon, 29 Jan 1996 08:00:00 GMT  
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yoshida@fermi.bsd.uchicago.edu (Hiro Yoshida) wrote:  
> Hello IDL experts,  
>  
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I think "oplot" is what you need.

--

Ian E. Sprod | 301-286-8036 | FAX 301-286-1616 | ian@skye.gsfc.nasa.gov  
Hughes STX, Code 921, NASA/Goddard Space Flight Center, Greenbelt, MD 20771

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Subject: Re: How to draw a line on an image?  
Posted by [kennealy](#) on Tue, 30 Jan 1996 08:00:00 GMT  
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"Ian E. Sprod" <Ian.Sprod@gsfc.nasa.gov> writes:

> yoshida@fermi.bsd.uchicago.edu (Hiro Yoshida) wrote:  
>> Hello IDL experts,  
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> I think "oplot" is what you need.

Actually, "plot" with the /noerase option will be a better choice.

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Subject: Re: How to draw a line on an image?  
Posted by [David Foster](#) on Wed, 31 Jan 1996 08:00:00 GMT  
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yoshida@fermi.bsd.uchicago.edu (Hiro Yoshida) wrote:

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> for this type of "overlay" task. Unfortunately, however, I cannot find one  
> so far.

You might try using the normal drawing routines, like PLOT, OPLOT  
and PLOTS, but set the graphics mode to XOR (exclusive-or) mode  
like the following:

< xarray and yarray are integer arrays of coordinates >

```
wset, current_window  
device, get_graphics = oldg, set_graphics = 6  
plots, xarray, yarray, /device
```

This "draws" the lines on your image by XOR'ing all pixels. What  
you get is usually not one continuous color, depending on the  
contents of the image, but it may be workable. You can then  
"undraw" the lines and restore the original image with:

```
plots, xarray, yarray, /device  
device, set_graphics = oldg
```

Usually you will also want to restore the original graphics mode,

since most drawing operations are done using a different mode.

Hope this helps.

Dave Foster  
UCSD Brain Image Analysis Lab  
foster@bial1.ucsd.edu

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