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**Subject:** Change default value of system variable?  
Posted by [K. Bowman](#) on Fri, 23 Feb 2001 16:54:58 GMT  
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I prefer to plot with black lines on a white background, so in my idl\_startup file I include

```
!P.BACKGROUND = COLOR_24('white') ;Set background color to white  
!P.COLOR     = COLOR_24('black')  ;Set default draw color to black
```

(COLOR\_24 is my own routine.)

This works fine until I change plot devices and then change back, viz.

```
flow>idl  
IDL Version 5.3 (IRIX mipseb). (c) 1999, Research Systems, Inc.  
IDL> PRINT, !P.BACKGROUND, !P.COLOR  
    16777215      0  
IDL> SET_PLOT, 'PS'  
IDL> SET_PLOT, 'X'  
IDL> PRINT, !P.BACKGROUND, !P.COLOR  
    0      255
```

This means that I have to include code to set !P.BACKGROUND and !P.COLOR in every time I switch graphics devices. Is there any way to change the default value of a built-in system variable?

Thanks, Ken

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**Subject:** Re: Change default value of system variable?  
Posted by [davidf](#) on Mon, 26 Feb 2001 16:31:07 GMT  
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Liam E. Gumley ([Liam.Gumley@ssec.wisc.edu](mailto:Liam.Gumley@ssec.wisc.edu)) writes:

```
> How about including this in your startup file:  
>  
> tvlct, 255B, 255B, 255B, 0  
> tvlct, 0B, 0B, 0B, !d.table_size - 1  
> device, decomposed=0  
>  
> You should get black on a white background by default:
```

Well, certainly until someone loads a color table or changes the decomposition state to display a 24-bit image. :-)

Cheers,

David

--  
David Fanning, Ph.D.  
Fanning Software Consulting  
Phone: 970-221-0438 E-Mail: [davidf@dfanning.com](mailto:davidf@dfanning.com)  
Coyote's Guide to IDL Programming: <http://www.dfanning.com/>  
Toll-Free IDL Book Orders: 1-888-461-0155

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Subject: Re: Change default value of system variable?  
Posted by [Liam E. Gumley](#) on Mon, 26 Feb 2001 16:38:12 GMT  
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David Fanning wrote:

>  
> Liam E. Gumley ([Liam.Gumley@ssec.wisc.edu](mailto:Liam.Gumley@ssec.wisc.edu)) writes:  
>  
>> How about including this in your startup file:  
>>  
>> tvlct, 255B, 255B, 255B, 0  
>> tvlct, 0B, 0B, 0B, !d.table\_size - 1  
>> device, decomposed=0  
>>  
>> You should get black on a white background by default:  
>  
> Well, certainly until someone loads a color table  
> or changes the decomposition state to display a  
> 24-bit image. :-)  
>

Quite right. You either play with the color indexes, or the color table itself. At least there are no writable system variables involved in this method.

As for turning the decomposition state on or off to display 24-bit images, I let IMDISP take care of it:

<http://cimss.ssec.wisc.edu/~gumley/imdisp.html>

Cheers,  
Liam.  
<http://cimss.ssec.wisc.edu/~gumley>

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Subject: Re: Change default value of system variable?

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Posted by R.G.S. on Mon, 26 Feb 2001 18:47:41 GMT

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I do the same thing, and am constantly annoyed at the switching of the defaults.

How about the following:

```
;*****
;pro setplot,devicestring
; set the plot and save/restore the !p information

oldp = !p
set_plot,devicestring
!p=oldp

end
;*****



; Useage here

; mainlevel test code here

; HEY, specific numbers here, assuming 256 colours
!p.color = 0
!p.background = 255

window,0
erase ; on my comp, the screen starts out black
plot,findgen(10),tit='window first'

setplot,'ps'
plot,findgen(10),tit='ps'
device,/close

setplot,'win'
window,1
erase
plot,findgen(10),tit='window again'

end
```

Cheers,  
bob stockwell  
stockwel at co-ra dot com

K. Bowman <k-bowman@null.tamu.edu> wrote in message  
news:230220011054580017%k-bowman@null.tamu.edu...

>  
> I prefer to plot with black lines on a white background, so in my  
> idl\_startup file I include

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Subject: Re: Change default value of system variable?  
Posted by [Martin Schultz](#) on Tue, 27 Feb 2001 12:05:14 GMT  
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David Fanning wrote:

>  
> Liam E. Gumley (Liam.Gumley@ssec.wisc.edu) writes:  
>  
>> How about including this in your startup file:  
>>  
>> tvlct, 255B, 255B, 255B, 0  
>> tvlct, 0B, 0B, 0B, !d.table\_size - 1  
>> device, decomposed=0  
>>  
>> You should get black on a white background by default:  
>  
> Well, certainly until someone loads a color table  
> or changes the decomposition state to display a  
> 24-bit image. :-)  
>  
> Cheers,  
>  
> David

... but of course you could write a little widget program that uses a  
timer event and redefines these colors every second or so ;-)

Cheers,

Martin

--  
[[ Dr. Martin Schultz Max-Planck-Institut fuer Meteorologie [[  
[[ Bundesstr. 55, 20146 Hamburg [[  
[[ phone: +49 40 41173-308 [[

Subject: Re: Change default value of system variable?  
Posted by [Kenneth P. Bowman](#) on Tue, 27 Feb 2001 23:20:29 GMT  
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In article <3A9BD598.317C5212@fz-juelich.de>, Reimar Bauer  
<r.bauer@fz-juelich.de> wrote:

```
> we have developed a plot environment to solve this and some other
> problems.
>
> The idea is to always initialize the device for each plot.
> What's all have to be done to make a plot is shown below.
>
> initialize
> open device
> make plot
> close device
>
> initialize: (plotprepare)
> * loads a predefined structure. This is used to store
>   setting in keywords for the plots
> * The actual system variables are saved
> * The foreground and background color is set
>
> open device: (plotinit)
> * defines the device sizes
> * opens the output device
> * loads the colortable
>
> make plot (plotxy, plot2d, plotxy_2d, plot3d ...)
> plot, contour and so on
>
> close device (plotend)
> * the device is closed
> * the saved system variables are restored
```

Well, I'm glad to know it isn't \*easy\* to change the default background  
color from black to white. ;-)

Ken

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Subject: Re: Change default value of system variable?  
Posted by [davidf](#) on Tue, 27 Feb 2001 23:36:05 GMT

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Kenneth P. Bowman ([kbowman@null.net](mailto:kbowman@null.net)) writes:

> Well, I'm glad to know it isn't \*easy\* to change the default background  
> color from black to white. ;-)

Easy!? You should try it with Matlab. Can be done  
with column vectors, apparently. :-)

Cheers,

David

--

David Fanning, Ph.D.  
Fanning Software Consulting  
Phone: 970-221-0438 E-Mail: [davidf@dfanning.com](mailto:davidf@dfanning.com)  
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