
Subject: Re: Change default value of system variable?

Posted by [davidf](#) on Fri, 23 Feb 2001 17:11:18 GMT

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K. Bowman (k-bowman@null.tamu.edu) writes:

```
> 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?
```

Uh, use somebody else's routine:

```
!P.Background = FSC_Color("white", !P.Background)
!P.Color = FSC_Color("black", !P.Color)
```

That will work correctly *everywhere*. :-)

Cheers,

David

--

David Fanning, Ph.D.

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Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

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Subject: Re: Change default value of system variable?

Posted by [davidf](#) on Fri, 23 Feb 2001 17:21:38 GMT

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David Fanning (davidf@dfanning.com) writes:

```
> Uh, use somebody else's routine:  
>  
>   !P.Background = FSC_Color("white", !P.Background)  
>   !P.Color = FSC_Color("black", !P.Color)  
>  
> That will work correctly *everywhere*. :-)
```

Whoops! Now that I think about it (my brain is still sluggish from all the percussive noise the past couple of days) I don't think this will solve your problem. Let me think about this some.

Actually, my rule of thumb for *all* color operations is to always load the colors before you draw the graphics. That is really the only reliable way to be sure your graphic will be displayed with the proper colors. Certainly the two lines of code I mentioned will work correctly if executed immediately prior to any graphic operation. But I see now you were asking a different question.

Sorry. I'm going back to bed after I apply a little more liniment.

Cheers,

David

--

David Fanning, Ph.D.

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Subject: Re: Change default value of system variable?

Posted by [Martin Schultz](#) on Fri, 23 Feb 2001 18:00:00 GMT

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"K. Bowman" wrote:

```
>
```

```

> 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
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> 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

```

Run IDL with dbx and try to find the place where !P.Background is set. This may be a little cumbersome without the IDL sources, but after about 5 years you may have found the solution ;-)

Now, honestly, I would recommend to follow David's advice to ALWAYS set colors before issuing any plot command.

Cheers,

Martin

PS: Todd - still have a note lying on my desk to send you this object file stuff. Just want to give it a few comments before sending it (otherwise you'd be lost right away). Maybe in a couple of days...

--

```

[[ Dr. Martin Schultz  Max-Planck-Institut fuer Meteorologie  [[
[[      Bundesstr. 55, 20146 Hamburg      [[
[[      phone: +49 40 41173-308      [[
[[      fax: +49 40 41173-298      [[
[[ martin.schultz@dkrz.de      [[

```

Subject: Re: Change default value of system variable?
Posted by [Craig Markwardt](#) on Fri, 23 Feb 2001 19:14:24 GMT
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You could simply save and restore the entire !P variable, right?

This probably wouldn't be much better to type on the command line, but it would be pretty nice for programming, and you have the satisfaction that you didn't miss any stray graphics keywords by accident.

Craig

—

Craig B. Markwardt, Ph.D. EMAIL: craigmnet@cow.physics.wisc.edu
Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response

Subject: Re: Change default value of system variable?
Posted by [Paul van Delst](#) on Fri, 23 Feb 2001 19:56:03 GMT

Craig Markwardt wrote:

```
>
> "K. Bowman" <k-bowman@null.tamu.edu> writes:
>> 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.
> ... deleted ...
>>
>> 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?
>
> You could simply save and restore the entire !P variable, right?
>
> old_p = !p
> set_plot, 'ps'
> ...
> set_plot, 'x'
> !p = old_p
```

I do this (relatively) religiously. Haven't ever had any problems (as long as the code doesn't crash or I don't Ctrl-C before the restoration statement).

```
> and you have the satisfaction
> that you didn't miss any stray graphics keywords by accident.
```

exact-o-moe

paulv

--

Paul van Delst A little learning is a dangerous thing;
CIMSS @ NOAA/NCEP Drink deep, or taste not the Pierian spring;
Ph: (301)763-8000 x7274 There shallow draughts intoxicate the brain,
Fax:(301)763-8545 And drinking largely sobers us again.
pvandelst@ncep.noaa.gov Alexander Pope.

Subject: Re: Change default value of system variable?
Posted by [Kenneth P. Bowman](#) on Sat, 24 Feb 2001 00:43:04 GMT

In article <230220011054580017%k-bowman@null.tamu.edu>, K. Bowman <k-bowman@null.tamu.edu> wrote:

- > Is there any way to
- > change the default value of a built-in system variable?

Begin Rant-in-Jest

Thanks for nothin' everybody! I *know* I can set the stupid background and foreground colors explicitly! I'm not a newbie! All I want to do is set the stinkin' program so that whenever I pop up a window, even if I'm just doodlin' around at the command prompt, it doesn't default to that ugly white on black thing. Black on white is so 1970's! I mean, come on, is that too much to ask! I know there is a default value hidden in there somewhere, RSI. Why won't you let me screw with it? Jeez, I guess I'll have to switch to Python or some other such *modern* thingy.

(In civilized newsgroups I'd be embarassed about responding to my own post, but everyone else in this group does it too. So there.)

End Rant-in-Jest

Ken

Subject: Re: Change default value of system variable?

Posted by [davidf](#) on Sat, 24 Feb 2001 02:43:01 GMT

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

- > I know there is a default value
- > hidden in there somewhere, RSI. Why won't you let me screw with it?

I'm not so sure. If IDL was smart enough to have defaults, why would it change as you switch from one device to another? And if it had sensible defaults, why would it want us mucking around every 2 minutes with the Device, Decomposed value? I think there must be something fundamentally screwy in the internals that make this whole business hard. Why else would they make us use IDL to solve it?

Cheers,

David

P.S. Let's just say this post reminds me of Pablo
Neruda's wonderful book of poems, The Book of Questions:

Does the drop of metal shine
like a syllable in my song?

Does a word sometimes
slither like a serpent?

Didn't a name like an orange
creep into your heart?

From which river do fish come?
From the word *silversmithing*?

When they stow too many vowels
don't sailing ships wreck?

Pablo Neruda

--

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Subject: Re: Change default value of system variable?
Posted by [Liam E. Gumley](#) on Mon, 26 Feb 2001 15:45:55 GMT
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"Kenneth P. Bowman" wrote:

> Thanks for nothin' everybody! I *know* I can set the stupid background
> and foreground colors explicitly! I'm not a newbie! All I want to do
> is set the stinkin' program so that whenever I pop up a window, even if
> I'm just doodlin' around at the command prompt, it doesn't default to
> that ugly white on black thing.

How about including this in your startup file:

```
tv!ct, 255B, 255B, 255B, 0  
tv!ct, 0B, 0B, 0B, !d.table_size - 1  
device, decomposed=0
```

You should get black on a white background by default:

plot, indgen(10)

Cheers,

Liam.

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