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Subject: Re: plot and contour inconsistency

Posted by [David Fanning](#) on Sun, 10 Mar 2013 20:31:07 GMT

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Matthew Argall writes:

```
>
>> This is kind of an odd way to write a program. What are you hoping to
>> accomplish by doing this?
>
> There is a program that makes survey plots of satellite data that has a window that allows me to
switch between time periods. I wanted to be able to change a few of the default attributes of the
plots for when the range of the data changes by a lot. Also, the bad values are not always weeded
out, so there is often a few -1e-31 that throw everything off.
>
> In order to set the default attributes, I filled a structure with a small set of keywords accepted by
plot then made a setProperties method to change them. Every time the plot is updated, PLOT now
gets called something like
>
> PLOT, x, y, _EXTRA=extra
>
> where "extra" is the structure of properties I want to change.
>
> In for this to work, though, I have to default to the IDL defaults. MAX_VALUE and MIN_VALUE
do not have defaults, so I chose +/- !values.f_infinity. Later, I can changed them so that the
-1e-31's do not show up.
```

Ah, then let me suggest a different way of doing this. The `cgGraphicsKeywords` object can keep track of of the "graphics keywords" required by Plot, Contour, etc. But, the nice thing about this object is that when asked for the keywords, if a keyword hasn't been defined, then the keyword value for that keyword will be an undefined variable. In other words, you don't \*have\* to define a default value for each and every keyword. This is because all the keywords are stored as pointers, and a pointer can return an undefined variable.

I use this to keep track of plot keywords in `cgZPlot`, for example. It works really well. This was the first step required to turn the Coyote Graphics routines into objects. The `cgZPlot` program was the first proof of concept program. Since then, I haven't had much time to work on it, and no one seems to be clamoring for Coyote Graphics objects, so I haven't worried too much about it. But, you might be able to use to good effect. :-)

See the `DrawPlot` method in `cgZPlot__Define` to see how I use it.

Cheers,

David

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

Sepore ma de ni thue. ("Perhaps thou speakest truth.")

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