
Subject: Re: New Widgets Needed

Posted by [Paul Van Delst\[1\]](#) on Fri, 31 Oct 2008 15:55:01 GMT

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Rick Towler wrote:

>

>

> Paul van Delst wrote:

>> David Fanning wrote:

>>> Paul van Delst writes:

>>>>

>>>> Hmm. Given the direction that "updating" the graphics capabilities

>>>> has gone (i.e. direct to object) I'm apprehensive at the thought of

>>>> the same thing happening to widgets.

>>>>

>>> Yes, you are probably right to worry about this. I wouldn't

>>> say I had a great deal of faith, either. But, on the bright

>>> side, tying the new widgets to iTools would probably really

>>> spur the development of that Next New Thing in somebody's

>>> garage that will replace IDL. :-)

>>>>

>>> Cheers,

>>>>

>>> David

>>>>

>>> P.S. MatLab must have it's own problems, or there would

>>> probably be more defections. Any thoughts on that? As a

>>> retired person, I'm ready to explore more options than

>>> I used to be. :-)

>>>>

>> matlab has its issues too. I have some opinions on that but, being

>> (for now) a cursory matlab user, I'll keep 'em to myself.

>>>>

> Two things that even casual users find difficult to swallow are the cost

> and the fact that you can't pass by reference. You think you're paying

> a lot for IDL... And yeah, eclipse isn't the lightest process on the

> block but to really work with even moderate data sets in MATLAB requires

> a 64 bit platform and *lots* of RAM. Your recent upgrade, David, was

> nothing.

>>>>

> Mathworks does do a couple of things right:

>>>>

> First and foremost their website and "MATLAB central" community are top

> notch. They provide <gasp> a very fast and functional interface to the

> *USENET* MATLAB newsgroup. ITTVIS marketing needs to do their research.

>>>>

> The other is their "figure" windows. They are what iTools should have

> been.

Oh, yes, definitely. The reason I wrote my "wplot" procedure back in 1997 was because I saw matlab folks casually zooming in to plots, adding legends, etc. (I stopped once I got the zoom working... the legend stuff was too much work at the time...and I've been using wplot ever since). The matlab figure windows may have a minimal set of tools, *but* those tools cover about 90% of what people need to do when they're playing around looking at data.

iPlot does all that stuff too, but, crikey, it takes me about a minute searching through all the menu items to try to figure out how to change line thickness, or color or whatever - the interface is just too cluttered and non-intuitive. iTools should maybe have menus like (shock horror gasp) windows apps where the most used ones appear by default, but you have the little "expand" icon at the bottom of the list if you want to see all the menu items (maybe iTools in windows does have that? It doesn't in linux)

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>> I actually think that the idea of IDL object graphics, and IDL OO
>> stuff in general is great. It's just the execution of the idea that
>> has caused the suffering and gnashing of teeth. The IDL OG stuff has
>> the "everything including the kitchen sink" smell to it that makes
>> doing stuff more difficult. I fear the same approach will be taken
>> with any new widget stuff.
```

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>
> I don't think the issue is that there are too many features, it is that
> the intermediate routines that would have replaced the DG surface, plot,
> xyouts and other functions never materialized. I'm not talking iTools,
> just classes that are as close to the original functions as possible
> that provide an easy and comfortable migration route. I should be able
> to, in a single line, create a plot in OG with axes, titles, etc. and
> have it displayed properly in a window. Isn't that "The IDL way"(tm)?
> Currently that would take 10 lines or more.
>
> Remember: iTools ~= OG
```

Oh, I agree.

The problem I have with OG is the complexity that pretty much negates its use on the command line (but, one could argue "fair enough", since that is obviously not what it was designed for).

The problem I have with iTools is the user interface. Interactions with applications shouldn't inevitably increase one's blood pressure.

E.g. given some data,

```
IDL> x=dindgen(1000)
IDL> y=cos(x/100.0d0)
IDL> z=sin(x/100.0d0)
```

in direct graphics we view it using,

```
IDL> plot, x, y
IDL> oplot, x, z, color=5
```

To view different ranges, you redo the plot with the appropriate x/yrange keywords (actually, I always use my wplot so I can zoom in and out, but you get the idea).

In OG we do (paraphrased from the IDL help, coz I couldn't figure it out otherwise)

```
IDL> mywindow = OBJ_NEW('IDLgrWindow')
IDL> myview = OBJ_NEW('IDLgrView')
IDL> mymodel = OBJ_NEW('IDLgrModel')
IDL> myplot1 = OBJ_NEW('IDLgrPlot', x, y, COLOR=[120, 120, 120])
IDL> myplot2 = OBJ_NEW('IDLgrPlot', x, z, COLOR=[255, 0, 0])
IDL> myview->Add, mymodel
IDL> mymodel->Add, myplot1
IDL> mymodel->Add, myplot2
IDL> mywindow->Draw, myview
```

Huh. Apart from the sheer magnitude of typing compared to the I get a plot that looks nothing like the DG output - basically useless since, as I discover when I plough through the docs, I need to set a viewplane rectangle... what's that? And where are the axes? Anyway...with iTools I can do

```
IDL> iplot, x, y
IDL> iplot, x, z, /overplot, color=[255,0,0]
```

No worries. Great. Let's zoom in! When I try to zoom in I discover (as David mentioned yesterday) that the iTool starts in "translate" mode...huh. Why would I want to translate a line plot? O.k., I'll select the little magnifying glass (international symbol for "zoom your plot"?). I then find that it zooms the *entire* plot axes and all. O.k... what about that little symbol that looks like a rubber band box? Ah, that's it.. my rubber band box zoom. O.k. I zoom in. Now I want to zoom back out to the original plot and zoom another region.... how do I "undo" the zoom... right click menu....no, maybe those little "- +" symbols a tht lower left. Ah, o.k., but they don't zoom back to the original range. Hmm. Edit->Undo menu? Yep. I now hit Ctrl-Z a bunch of times to get back to my original plot. Crikey, wot a pita. My only experience with this sort of menu structure is with apps like Word. Well, iPlot isn't a word processor, so why are the menus designed like one?

Next lesson: Producing PS output from DG, OG, and iTools.

cheers,

paulv
