
Subject: Re: New Widgets Needed

Posted by [R.Bauer](#) on Thu, 30 Oct 2008 14:54:04 GMT

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Do they provide a converter - I guess no, and I guess we pay them for silently killing all the procedural programming stuff also soon.

Our linux idl user group has no use for all that object orientated stuff they have developed in the last years. We dislike the interactive tools they want us to use. `iplot`, `findgen(10)` takes minutes :(

We do use widgets on linux and of course there are other languages on linux which do provide a better gui interface (now) but we have decided 15years ago to use idl and paid a lot of money for maintenance. We love batch processing so we need only a few widgets, but it looks to me that they focus currently to much on interactive users.

It has taken several years of requests to get them to add a new netCDF library into the current version. I do believe there are also several others outdated.

And if I look on the eclipse environment they have implemented in comparison to the PyDev environment I get a lot of wishes they should continue to add/fix instead of replacing an other feature. (Which then probably does not work as expected)

They don't use package managers for installation of their software on linux. Why - isn't that not a task they can outsource to one of their students? Why is it so difficult to create a deb or rpm package? Why can't they provide a rpm/deb patch of their software? And why isn't the vm not provided for installation from a non-oss server similiar to adobe? I dream since long that it get's added to a knoppix live CD.

Reimar

David Fanning schrieb:

- > Folks,
- >
- > At the last IDL User's Group meeting the folks at ITTVIS
- > mentioned that they had plans for updating (and ultimately
- > moving away from) widgets. I mostly scoffed at the idea,
- > but I see now that one gets a distorted perspective from

> spending too many hours on a Windows machine, where
> widgets perform spectacularly.
>
> Now, of course, I realize that pretty much everything
> *looks* ugly on a LINUX machine, but widgets over there
> really are ugly, for all kinds of reasons. In trying to
> get this Catalyst Library ready for a formal release, and
> in trying to get one of my applications ready for VM
> distribution, I've just run into a world of problems.
>
> It occurred to me this morning, as I was muttering and
> swearing at widgets again, that this is one future
> direction of IDL that I could really get behind. I've
> felt for a long time now that my maintenance dollars
> have been wasted, but if the folks at ITTVIS could
> come up with a set of graphical user interface thingies
> that looked great and worked the same across all platforms,
> I think all could be forgiven. :-)
>
> Cheers,
>
> David
>
> P.S. Let's just say the most grievous thing so far is
> behavior that works one way in IDL and a completely
> different way on the VM. Grrrrr... I'm keeping notes.

Subject: Re: New Widgets Needed

Posted by [Paul Van Delst\[1\]](#) on Thu, 30 Oct 2008 14:54:51 GMT

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David Fanning wrote:

> Folks,
>
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> mentioned that they had plans for updating (and ultimately
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> have been wasted, but if the folks at ITTVIS could
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> that looked great and worked the same across all platforms,
> I think all could be forgiven. :-)

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.

I don't want to have to start a separate project to write a widget-driven data visualisation tool -- like I do now if I want to write an OG display tool.

If the same sort of complexity is added to the general widget (or whatever the new thingies will be called) building process, I think I'll ask for my maintenance money back.

And if, as you mention above, ITTVIS is thinking about moving away from widgets as we know them, well..... <sigh> I guess I better learning how to interface Tcl/Tk widgets with my Fortran95 code.

cheers,

paulv

Subject: Re: New Widgets Needed

Posted by [David Fanning](#) on Thu, 30 Oct 2008 15:00:59 GMT

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Paul van Delst writes:

> And if, as you mention above, ITTVIS is thinking about moving away from widgets as we know
> them, well..... <sigh>

Well, they will still be there. In the same way Live Tools are still with us. ;-)

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

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

Subject: Re: New Widgets Needed

Posted by [David Fanning](#) on Thu, 30 Oct 2008 15:16:29 GMT

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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. :-)

--

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Subject: Re: New Widgets Needed

Posted by [Paul Van Delst\[1\]](#) on Thu, 30 Oct 2008 17:01:06 GMT

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David Fanning wrote:

> Paul van Delst writes:

>

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> 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.

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.

cheers,

paulv

Subject: Re: New Widgets Needed

Posted by [David Fanning](#) on Thu, 30 Oct 2008 18:13:29 GMT

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Paul van Delst writes:

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> makes doing stuff more difficult. I fear the same approach will be taken with any new
> widget stuff.

Yes, I agree with this. In my own object programming I am in a constant fight with myself to keep things simple. It is *extremely* easy to get too clever. I think this is what has happened here, which is a shame, because object graphics programs do have some obvious advantages.

Here is an example of what I mean by too clever. This is my favorite pet peeve about the iSurface tool. It comes up by default in Translate

mode (as, I guess, all iTools do). When was the last time you thought about translating a surface? 1954? I mean, it just doesn't happen. You want to *ROTATE* a surface. Surely tool designers who have even a casual relationship with end users know this. So...why!?

Cheers,

David

--

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Subject: Re: New Widgets Needed
Posted by [Rick Towler](#) on Thu, 30 Oct 2008 22:12:16 GMT
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Paul van Delst wrote:

> David Fanning wrote:

>> Paul van Delst writes:

>>

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>> David

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>> 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.

- > 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.

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

-Rick

Subject: Re: New Widgets Needed
Posted by [David Fanning](#) on Thu, 30 Oct 2008 22:43:37 GMT
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Rick Towler writes:

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- > 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)?
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I think it might take more than 10 lines, but yes, this is what is needed. These kinds of routines are fairly easy to write, *if* you want to manage your own *individual* windows. ITTVIS wouldn't even have to write the routines (I would do that so I could become famous!) if they would just build some of the internal infrastructure so I could easily draw into an object graphics window from the IDL command line.

What has always stopped me is having to write the whole window manager thing. That doesn't seem to be my job.

I could definitely get behind an effort to build object graphics routines to replace the direct graphics routines, provided they were as simple to use as what we have now.

Cheers,

David

--

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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:

>>>

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>
> 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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> 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

Subject: Re: New Widgets Needed

Posted by [David Fanning](#) on Fri, 31 Oct 2008 16:14:57 GMT

[View Forum Message](#) <> [Reply to Message](#)

Paul van Delst writes:

> The problem I have with iTools is the user interface.

Paul, I've send a note to the fine folks at ITTVIS asking them to invite you to their next IDL Focus Group meeting. You should be receiving your First Class ticket in the mail soon.

Cheers,

David

--

David Fanning, Ph.D.

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