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Subject: Re: GUI in IDL or PV-WAVE

Posted by [Doug Edmundson](#) on Wed, 25 Nov 2009 16:27:02 GMT

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Hi,

Thanks for taking a look at IDL. Before answering, I should mention that I work for ITT VIS. Having said that, I pretty much agree with what Dr. Fanning wrote.

- > My company want to develop a new Windows application to process
- > hydrographic survey data and amongst many other products, we are
- > considering IDL and PV-WAVE. Although they both seem to have very good
- > built-in functions for data analysis and visualization and a 4GL
- > interface to allow expert users to customise their use of the final
- > processing software, I get the impression that developing a good
- > graphical user interface will be a major chore. A few questions for
- > you;
- >
- > 1. Is it correct that neither IDL nor PV-WAVE have a GUI builder and
- > that it all has to be manually coded?

This is correct, but like David Fanning pointed out, the programmer actually gains a lot of control. There are excellent resources to help write IDL GUI apps, but widget programming is pretty easy (at least when compared to scientific programming). For example, creating a shell with a button looks something like:

```
topLevelBase = widget_base( /row )  
myButton = widget_button( topLevelBase, value = 'Push Me' )  
widget_control, topLevelBase, /realize
```

The "row" keyword specifies a layout. The "value" keyword specifies the text for the button. Event handling routines can be specified with another keyword. That's pretty much the gist of it. In addition to IDL's manuals, David Fanning, Ronn Kling, Liam Gumley and others have books and web sites which can really help when things get more complicated.

- > 2. I've seen PV-WAVE in action on a Windows XP PC but it looked like
- > an old-fashioned Motif application with no way of resizing the Window.
- > Is this still the case in the latest version? What about IDL, does it
- > look pretty similar?

IDL will look good on Windows. On Mac, Linux and Solaris, the widgets are Motif-based. Regardless, Windows and UNIX widget apps will behave very similarly, with the ability to resize windows and do other normal, expected, UI "things".

- > 3. Is there a recommended way of getting a modern Windows GUI with IDL
- > or PV-WAVE doing the heavy work in the background?

You have a number of options here. Simply put, you could write your UI in Java and then make use of IDL as a library to do the number-crunching. There's also a COM bridge and "callable" IDL.

- > My apologies in advance if these questions are a bit simple but I've
- > tried to find out the answers on the various websites and got nowhere.

Good questions. If you have more, we can talk off-line (I'm a developer and not trained in the art of marketing).

Cheers,  
Doug

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