
Subject: Re: [Q] IDL vrs. PV-WAVE as GUI Builders
Posted by [mgs](#) on Thu, 09 Mar 1995 07:24:15 GMT
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In article <D4vlp0.2wq@nwra.com>, jim@nwra.com (Jim) wrote:

> Greetings...
>
> I am planning to use either IDL or PV-WAVE to develop a GUI front-end
> and display back-end for a series of Fortran processing/modeling codes
> to run on either a Unix (probably SGI) or PC (Windows-NT on Pentium)
> system (not necessarily on both). I have some experience with IDL as a
> graphics platform, but have never used it as a GUI (via its widgets
> implementation). I would appreciate any views/opinions on which of
> the two is better suited to this sort of application.
>
> Thanks in advance.
> Jim

This is a new newsreader for me. My normal news system has been down for a few days and now I'm going through news withdrawals. I'll repost (eventually) from a different account if this looks bad.

I've been using IDL for about three years and PV-Wave for about five months. I've created several applications with full GUI's in IDL and a couple in Wave. Anyway, I feel that IDL widgets are slightly easier to code than Wave widgets. Both have some advantages over the other regarding their widget development styles, though.

In IDL's favor, their use of UValues makes passing data between modules easier than with Wave (Wave uses UValues also, they are just not as flexible as IDL). UValues are not very well documented in the manuals, but once you see what they offer in IDL, you won't turn back to using common blocks. Unfortunately, in Wave I've had to regress back to using some common blocks. Without actually counting, I believe IDL provides more keywords in their widgets than Wave does which makes it easier to add functionality to a widget.

In Wave's favor, the /Form option in layouts makes designing layouts easier than in IDL. The /Form option allows attachments to other widgets, whereas with IDL the attachment is more dependent on the calling order of the widgets. Wave has a more flexible (and more difficult) widget development concept with two levels of widgets (wt and ww types). Wave offers more widgets, IDL offers a set of compound widgets.

One thing that sticks in my mind as a simplification of the differences between both programs is their file selection boxes. Both offer very nice looking pre-built file selection boxes. In IDL, you access it with the

command "file = pickfile()", and a few options may be thrown in for a particular behavior. This invokes the file selection box, with the selected file being stored in the variable "file". This can be done from the command line or from within a program. In Wave, you need to create a program to call the file selection box, a program to handle the user clicking on the OK button and a program to handle the user clicking on the cancel button of the selection box. None of these programs is particularly difficult and each can be coded in less than 10 lines, it just points out the differences in a common task. If there is a one-liner in Wave similar to IDL's version I'd love to see it.

The bottom line is, just like the rest of their respective packages, they are very competitive in usage and functionality wrt widgets. IDL offers slightly easier coding. PV-Wave offers slightly better layout options. If Wave offered IDL's UValue capabilities, I'd vote for Wave. If IDL offered Wave's /Form option in layouts, I'd vote for IDL. For me, UValues are better than /Form.

I have additional email on this topic on my system at work if anyone is interested. My work email address is rep2857@sbsun0010.sbrc.hac.com.

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