
Subject: Re: IDL or PV~Wave?

Posted by [thompson](#) on Mon, 24 May 1993 21:41:22 GMT

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alan@elroy.Jpl.Nasa.Gov (Alan S. Mazer) writes:

> In article <1993May21.164403.1583@ll.mit.edu> knight@ll.mit.edu (Fred Knight) writes:

>> Here are some features added to IDL since v2.1 that I particularly like:

>>

>> ---integrated support for HDF, CDF, and netCDF.

>> ---on-line help in a separate window

>> ---IOCTL to access low-level file operations

>> ---logarithm Z axis for surface plots

>> ---anonymous structures

>> ---create_struct (v3.1)

>> ---reads: like readf only from an IDL variable instead of from a file

>> ---device independent screen preview in EPSI format to see IDL plot in desktop publishing programs

>> ---integrated TIFF and GIF support

>> ---format capability for tick labels on plots

>>

>> Are there PV~WAVE equivalents?

> Not that I know of. It's hard to know what some of these things are (e.g.,
> anonymous structures). The question really is, what do you need? Wave has
> Motif lookalike functions that allow one to develop Motif GUIs very rapidly.
> In addition to their regular widgets. And I find the Wave widgets easier to
> use. Wave doesn't crash on me, locking up my workstation. Perhaps the
> stuff you've cited is critical to other people, but for me Wave offers the
> right combination of reliability and flexibility (and polish) that I need.
> I recommend it enthusiastically.

> --

>

> -- Alan # Mountain Dew and doughnuts...

> ..!ames!elroy!alan # because breakfast is the most important meal

> alan@elroy.jpl.nasa.gov # of the day.

Sounds like you must have had a bad experience with IDL somewhere along the line. Just for the record, IDL has never locked up my workstation, and I don't know anybody for whom it has. I certainly don't think of IDL as an unreliable product, and certainly have no reason to believe that PV-Wave is going to be any more (or less) reliable. :^)

Anonymous structures are unnamed structures that the user creates on the fly. It's easier to explain by describing named structures first. For instance, suppose I define a named structure through the command

```
IMAGE = {SOHO_IMAGE, IMAGE: INTARR(1024,1024,/NOZERO), $
```

```
PMT: 0.0,    $  
X: 0L,      $  
Y: 0L,      $  
Z: 0L}
```

then the name of this structure is SOHO_IMAGE. I can then define variables as being of this datatype, e.g.

```
A = {SOHO_IMAGE}
```

However, once a structure is defined, then it is static. For instance, A.IMAGE will always be a 1024x1024 integer array.

Anonymous structures are defined on the fly, and are thus more dynamic. For example, if I write

```
A = {IMAGE: myimage,  
      PMT: pmt-reading,  
      X: x-value,  
      Y: y-value,  
      Z: z-value}
```

then A doesn't have a structure name associated with it. I can thus create structures with just the structure that I need when I need it, rather than defining it for once and always at the start of the program as in C or FORTRAN. In IDL anonymous structure variables can be redefined dynamically.

Bill Thompson
