Subject: Re: IDL or PV-WAVE?
Posted by landsman on Mon, 17 Jun 1991 15:25:08 GMT
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jvb7u@fermi.clas.Virginia.EDU (Jon Brinkmann) wrote favorably about PAW; a package for reducing high energy physics data. He mentioned it having superior memory management, graphics and least squares capability to interactive languages such as IDL or PV-WAVE.

I do not know PAW so I cannot comment directly. But for me the main selling point of IDL is not as a plotting package, or image processing system or math library, but rather as a programming language. (In fact, I sometimes begrudge IDL for its fancy 3-D graphics which I never use, but which add bulk to its ever growing manual.) IDL lets me spend more time being a scientist and thinking about my data, and less as a programmer thinking about DO loops and data types. For example, suppose I have wavelength and flux vectors, and I want to know the wavelengths where the fluxes are negative. The IDL statement

```
IDL>print,wave(where (flux LT 0) )
```

is not only more concise than coding this in FORTRAN or C but also closer to what I am thinking as a scientist. Of course, some people are better able to switch between scientist and programmer modes of thought. But when I programmed in FORTRAN, I was always frustrated by the long time lag between thinking about what I wanted done with my data, and actually doing it.

Some day in the future, computers may understand human speech and we will be able to directly tell them to "Normalize these two spectra and then plot their difference" or "Set all the negative values of this image to 0 and display using a logarithmic color table". Meanwhile, I'll have to settle for IDL...

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