Subject: Re: a plea for more reliable mathematical routines
Posted by Liam Gumley on Tue, 14 Sep 1999 07:00:00 GMT
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FIT wrote:
> I definitely disagree. It is inferior to Java, Python, C/C++ (if You're able to
> program a little bit of OpenGL and Motif yourself) to name only some, far too
> expensive, introducing new bugs with every release (maybe a merger with Micro$
> would be adequate), lacking hooks for any reasonable development environment (or
> have You ever managed to get it to work with Rose or SNiFF+ to name only a few).

The following excerpt from the 'History of IDL' in the IDL demo summarizes the philosophy behind the initial development of IDL in the early 1980s:

"It became clear to him (David Stern) that his colleagues needed a computer language that went beyond the functionality of FORTRAN and provided easier, faster application development, data analysis and visualization. As a solution, Stern wrote the Mariner Mars Spectral Editor (an IDL prototype), a software language that successfully allowed scientists to test hypotheses without employing a programmer every time they needed to write or modify an application."

The strength of IDL lies in enabling researchers to get results fast without a ton of programming. In the languages you mention, how may lines of code are required to read and display an 8-bit 512x512 gray scale image? In IDL, it takes four lines:

```
openr, lun, 'image.dat', /free_lun
image = bytarr(512, 512)
readu, lun, image
tvscl, image
```

Those four lines of code will work on any IDL platform, and in under a minute you're looking at an image. I believe that most IDL users don't want to learn "a little bit of OpenGL and Motif" just to display an image. You must understand that for most IDL users, the *program* isn't the point: the *data* and the *visualization* are the point. Most of my colleagues don't get paid for writing elegant OOP applications; they get paid for coming up with new algorithms, visualizations, and publications from the analysis of remotely sensed data.

IDL isn't perfect by any means, but as a cross-platform tool that provides researchers with a rapid analysis and visualization environment, it is hard to beat IMHO.

Cheers,
Liam.

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