Subject: Re: idl2matlab translate-o-matic
Posted by davidf on Mon, 21 Feb 2000 08:00:00 GMT
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Michael C Schweisguth (mschweis@u.arizona.edu) writes:

> again, what advantadge does IDL have over MATLAB? what would cause an IDL
> revival?

Oh, dear. I only jumped into this thread because
I have a quirky sense of humor that manifests
itself when my tennis game is tanking. :-(

But as long as I am here, let me make some more
serious comments about what might cause an IDL
revival.

First of all, let me say that Matlab is a great product.
And you are right, it's nearly ubiquitous. Those folks
have had a strategy to seize the hearts and minds of
young engineers in college with very cheap student
software and they have executed it flawlessly. I can't
imagine there is an engineering student anywhere who
doesn't know Matlab, and I'll bet a very large number
of them want it on their computers when they take their
first professional job.

My impression of Matlab and IDL is that Matlab is
probably still more sophisticated mathematically
and IDL is more sophisticated in terms of its programming
features. For example, you can build better graphical
user interfaces for your programs in IDL than you can
in Matlab. The differences used to be more profound than
they are now. Clearly the folks know about each other and
spend a fair amount of engineering resources trying to
copy each other's best features. Hence my crack about
them being the same thing. I think they are evolving towards
each other, rather than away from each other.

Matlab's mathematical superiority certainly evolved from
the interests and abilities of its founders, as did IDL's
superiority as an image processing language. ALthough both
programs have evolved, you can still clearly see in both of
them the vestiges of their early history. In fact, it is
probably the "approach" each takes to the subject at hand
that makes one feel "right" and the other "wrong" for each
individual user. (Not to mention that *none* of us wants
to learn yet another language after already suffering the

huge learning curve involved in learning either one of these languages.)

Matlab certainly scores a point in having the ability to make an executable file from its code. (Although I understand that such a file cannot have graphical user interface elements in it. Please correct me if I am wrong.) IDL scores a point in adding such language enhancements as pointers and objects. Objects in particular have changed *everything* about the way I write IDL programs. And the object graphics system is unparalleled for representing 3D data.

Is IDL use spreading? Absolutely. I base this partly on the sale of my IDL book. Just the other day I had a look at the dollar amount of books sold in the past two years. Shocking! And for a book the folks at RSI thought was too simple-minded to appeal to anyone, too. :-) But what was even more shocking to me is that sales have not fallen off in over two years time! *That* is a growing market, surely.

Could it spread more? Yes, certainly. I fear, sometimes, that the reason Matlab is ubiquitous and IDL is only becoming so is that the Matlab folks understand the end user--and the *psychology* of the end user--much better than the IDL folks. The high-end object graphics system--even objects themselves--are fabulous. There is nothing to touch them in Matlab to my knowledge. But I'm afraid they are too complicated for the normal user. Too fancy, too powerful, too hard to use. Matlab, it seems to me, does a better job of focusing on features the majority of their customers use every day. IDL does a better job of creating features professional programmers find desirable.

But, to their credit, the IDL folks are finally beginning to see the value of the Matlab approach. It is now possible to get some great academic pricing. (Not $99, to be sure, but a whole lot closer to this than it used to be. They do have a $99 student version of IDL, but this is so crippled as to make it nearly useless.) There is also a program at RSI to get people to write more books about IDL. (Although no one has contacted me. I'm still too simple-minded, I guess. :-) And I know the engineering people are concerned about putting some of the power of IDL back in the hands of the casual user. All of this bodes well for the

future of IDL.

Frankly, I don't know how the user of either one
of these programs could go wrong. They are both
great programs. And both a hell of a lot better
than PV-Wave.

(Not really, but I didn't want anyone out there
to feel left out. :-)

Cheers,

David

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