Subject: Re: IDL vs. PV-WAVE
Posted by davidf on Tue, 10 Jun 1997 07:00:00 GMT

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Grant W. Petty writes:

> This has got to be a novice FAQ, but I can't find a FAQ file that
> addresses it:
>
> What is the difference between IDL and PV-WAVE? I had understood they
> were two competing packages that did similar things, but the name of
> this newsgroup (comp.lang.idl-pvwave), plus the fact that EVERYONE
> here is talking only about IDL (at least today), seems to suggest
> otherwise.

Five years ago IDL and PV-Wave were the identical thing.
Then Precision Visuals (now Visual Numerics) bought a copy
of the IDL source code and the products have diverged from
there. The differences are mostly a matter of implementation,
not content, as both companies look over their shoulders
(quite literally at times in Boulder) at the other. There
is a "keep up with the Jones" mentality that at times makes
you weary.

> Anyway, I am looking at purchasing an IDL-like package for my research
> group and, assuming that PV-WAVE and IDL really are distinct
> creatures, would like to know what the crucial differences are. My
> applications will include the interactive graphic display and
> statistical analysis of scientific data sets and the preparation of
> publication quality figures on HP workstations. Particularly useful
> features would be the ability to project geographically referenced
> data as polygons, raster images, labeled contours, etc. on an
> arbitrary geographical map. Also, the ability to interactively label
> and edit plots and then produce PostScript output would be nice.
> Finally, the ability to read directly binary data in various formats
> directly from tape, rather than having to stage it to disk first, and
> to directly manipulate tape drives, would be nice. I have no idea how
> well either IDL or PV-WAVE matches these requirements.

I would say either IDL or PV-Wave would match these requirements
in spades. ENVI, a product that is written in IDL and runs on
top of IDL, can probably do all that you ask here without you having
to do any programming at all.

> After looking around this ng, I have to admit to being put off by a
> couple of seemingly recurring complaints about IDL: (1) persistent and
> difficult-to-work-around bugs in basic plotting routines -- e.g.,
> missing grid lines, etc., and (2) the apparently steep learning curve,

> based on people's remarks about the need for expensive IDL training
> courses to learn widgets, etc.

Don't be put off. IDL just released a new version of the
software and everyone is trying to figure it out. As usual,
reality does not jibe with marketing hype, so there is some
settling of expectations. The same thing happens when a new
release of PV-Wave is announced. If you want cheap training,
have a look at my web page.

> After years of struggling with similar
> problems with the NCAR Graphics package routines, I would really love
> to get my hands on a package that works dependably and which is easy
> for new users to figure out how to use from the hardcopy docs.

Yeah, you and everyone else. But I don't think it's going to
happen anytime soon, no matter what you buy. :-)

Cheers,

David

P.S. I'd flip a coin and pick the least expensive option.

P.S.S. This is just a hunch, but I would say you see more
IDL in atmospheric sciences than PV-Wave. Ask around and
get what your colleagues are using. It helps not to have
to write everything from scratch.

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IDL 5 Reports: http://www.dfanning.com/documents/anomaly5.html