Subject: Re: PV-WAVE vs IDL ?
Posted by rep2857 on Fri, 03 Feb 1995 18:22:20 GMT
View Forum Message <> Reply to Message

In article <3gpm99$bjc@fhw.ee.ubc.ca>, Dave Michelson <davem@ee.ubc.ca> wrote:
> Sorry if this is a FAQ, but what are the differences between PV-Wave
> and IDL?
>
> I'm vaguely aware that these packages share a common origin. How
> different are they now?
>
> Also, could an IDL-based package like ENVI run under PV-Wave?
>

CC'd to davem@ee.ubc.ca

Here's a couple responses to similar questions I posted a couple weeks
ago. They also cover the ENVI question in a roundabout way.

---- begin previous post dated 01/22/95 ----
In article <3fm85f$lkr@lyra.csx.cam.ac.uk>,
Iarla Kilbane-Dawe <iarla@atm.ch.cam.ac.uk> wrote:
>I'm curious to know what anyone who may have used both systems
>might have to say about comparing the two. We use PV-WAVE
>but I've been told that IDL is
> a) cheaper, and,
> b) more robust and bug free in usage.
>Would anyone have any comments to make on this?
>

Hi Iarla -

I'm using both. I have heard that IDL was cheaper, but I haven't
checked the pricing for Wave for a couple years. If Wave is more
expensive, it could probably be justified if you use all of the
additional components provided by Wave such as the database access and
symbolic math. Each of these are additional items to the base cost, but
I believe they are unique to Wave. IDL has additional cost items, but
these are better described as applications rather than access functions.
One is a package called ENVI which is especially suited for working
with multi- and hyper-spectral datasets. They also mentioned a medical
application in a recent newsletter which I haven't had time to check
out, yet.

As fas as being more robust or bug-free, I think both are very robust
and bugs are certain to be in both products due to their code/library
sizes, nature of functions (math, statistics, widgets, etc.) provided,
and fairly limited number of users which explore the edges of these

types of functions.

Wave does not support 24-bit color for widget-based drawing applications on Sun's and HP's. Currently, I am only working with 8-bit displays on the Sun's I am using for Wave development, so I am hardware limited. Some of my IDL development is making extensive use of 24-bit display capabilities on the Sun's used for a different project.

Wave is in a partnership with IMSL which may give them a more extensive math library, although IDL doesn't seem to be lacking anything that I normally use.

I feel IDL is easier to program widgets in, but Wave has a larger set of widgets. Either product allows creation of new widgets. If you are used to Motif widgets, Wave widgets will seem more familiar. IDL widgets make better use of keywords for adding additional functionality to widgets, whereas Wave provides similar abilities by having to include handler statements. The end user would be hard pressed to determine whether widget appliations were written in IDL, Wave or Motif, though.

...

---- end previous post dated 01/22/95 ----

---- begin previous post dated 01/16/95----
In article <3f2vb8$nm2@fstgds15.tu-graz.ac.at>,
Sidla Oliver (IMPRO) <pdib35.joanneum.ac.at> wrote:
>
> Hi IDL/PV-Wave users,
>
> as I have mentioned in the subject line, I would like to know the
> differences in widget programming between IDL and PV-Wave. Is there
> any compatibility between the two packages so that I eg. can code my
widgets
> under IDL and run the program under PV-Wave ?
>

I've been programming in IDL for a couple years and recently switched to Wave when I changed projects at work. There is virtually no compatibility between the products at the widget level, but at the command level I was pleasantly surprised at how little, if any, changes need to be made to run my previously coded IDL procedures under Wave. But, you were asking about widgets, weren't you? Well, sorry to say, you can't get there from here. There are some things I think IDL widgets do better (easier mouse handling in drawing widgets, more robust usage of UValues, better error recovery during widget development) and some things I think Wave widgets do better (Form

layouts, WwMessage widgets). At this point, I can't claim that one is
better overall than the other (although I bet their vendors can).

---- end previous post dated 01/16/95----

To specifically address the ENVI question, Wave Widgets and IDL Widgets
are not compatible, therefore ENVI would have to be rewritten to run
under PV-Wave.

Mike Schienle Hughes Santa Barbara Research Center
rep2857@sbsun0010.sbrc.hac.com 75 Coromar Drive, M/S B28/87
Voice: (805)562-7466 Fax: (805)562-7881 Goleta, CA 93117

Subject: Re: PV-WAVE vs IDL ?
Posted by mahan on Sun, 05 Feb 1995 18:53:08 GMT
View Forum Message <> Reply to Message

Dave Michelson (davem@ee.ubc.ca) wrote:
: Sorry if this is a FAQ, but what are the differences between PV-Wave
: and IDL?

: I'm vaguely aware that these packages share a common origin. How
: different are they now?

: Also, could an IDL-based package like ENVI run under PV-Wave?

: --
: Dave Michelson University of British Columbia
: davem@ee.ubc.ca Radar Remote Sensing Group

I have discussed with some of the people at RSI the differences between IDL and
WAVE. The following is what I have extracted from these discussions. I have
worked some with WAVE, but most of my experience has been with IDL. I
welcome any comments on the following, but this is as I understand some
of the profound differences from the RSI perspective :-)

WAVE widgets are for Motif, period. IDL Widgets provide a common API under
which are implemented native widgets/controls for Motif, Windows, and Mac.
If application portability is important to you, IDL has an advantage. If
you want to dive deep into Motif and don't need PC/Mac support WAVE widgets
may be your cup of tea.

Also, IDL generally includes consistent functionality across all platforms
with each release, whereas PV-WAVE Personal Edition is a subset of WAVE for
Unix. Finally, whereas the latest release of IDL is available on all
platforms, PV-WAVE for Windows and NT (and VMS?) are downlevel at V4.2,

while PV-WAVE for Unix is at Version 5. This also would cause porting problems if you use a 5.0 feature.

----clipped from a recent post--------

I've been programming in IDL for a couple years and recently switched to Wave when I changed projects at work. There is virtually no compatibility between the products at the widget level, but at the command level I was pleasantly surprised at how little, if any, changes need to be made to run my previously coded IDL procedures under Wave. But, you were asking about widgets, weren't you? Well, sorry to say, you can't get there from here. There are some things I think IDL widgets do better (easier mouse handling in drawing widgets, more robust usage of UValues, better error recovery during widget development) and some things I think Wave widgets do better (Form layouts, WwMessage widgets). At this point, I can't claim that one is better overall than the other (although I bet their vendors can).

---- end previous post dated 01/16/95----

To specifically address the ENVI question, Wave Widgets and IDL Widgets are not compatible, therefore ENVI would have to be rewritten to run under PV-Wave.

-Steve

_____
Stephen L. Mahan
mahan@aurora.phys.utk.edu