Subject: Re: Which is better WAVE or IDL?
Posted by pjclinch on Fri, 20 Jan 1995 13:24:20 GMT

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?

The "cheaper" seems to apply to the US. In the UK, at education prices,
they cost exactly the same. Both can be evaluated free of charge, so you
can check for yourself on robustness.
I evaluated both side by side, and went for PV~Wave because *at the time*
I couldn't get the Solaris 2 IDL version working properly under the then
just released Sol 2.2. Were it not for that, I think I'd have tossed a
coin to decide, and that reason no longer applies... Both products are
good, and I've been impressed with both companies' backup and support too.

The "Advantage" version of Wave costs a bit more, but has more in the way
of maths and stats functionality than the basic version. Also, the help
is better (entire manual set online with hypertext links!) than Wave CL
and, unless it's improved from when I saw it last, IDL.
As suggested before, both companies will give you free demos so you can
compare them side by side. If you want a fiddle with IDL their UK
distributor is Floating Point on 01344 56921.

Pete.
--
Peter Clinch   Dundee Teaching Hospitals NHS Trust
voice: 44 1382 660111 x 3637   snail: Directorate of Medical Physics
fax: 44 1382 640177   Ninewells Hospital
email: p.j.clinch@dundee.ac.uk   Dundee DD1 9SY Scotland UK

Subject: Re: Which is better WAVE or IDL?
Posted by hrebhan on Fri, 20 Jan 1995 16:14:55 GMT

> 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.

We have the same discussion at the moment...

At least point a.) is not true for Germany. Pv-Wave is 30-40% cheaper than IDL !
We have test-version of both programs and no severe bugs up to now.
For remote sensing IDL has the option for the ENVI package, a
rather clever point-and-click interface for RS-applications under IDL. But the
ENVI program is another 4500 US$ plus one IDL-licence.

Any more arguments pro or contra ?

   Helge

```
 --------------------------------------------------------- --------------
| Helge Rebhan        |
| Alfred-Wegener-Institut fuer Polar- und Meeresforschung    |
| Sektion Physik I      |----------------------------------|
| Am Handelhafen 12     |Hohenstaufenstr. 12    |
| 27570 Bremerhaven      |27570 Bremerhaven        |
|        |    |
| Tel:  0471/4831-261    | Tel. 0471/21967    |
| Fax:  0471/4831-425    |      |
| E-mail: hrebhan@awi-bremerhaven.de|      |
 --------------------------------------------------------- --------------
```

Subject: Re: Which is better WAVE or IDL?
Posted by rep2857 on Sun, 22 Jan 1995 19:18:52 GMT
View Forum Message <> Reply to Message

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.

This is probably a minor point, but for me it is worth mentioning: Wave is not available for Mac or PowerMac, platforms. The IDL demo I used several months ago for a PowerMac 7100/66 ran at 3/4 the speed of our Sun 10/51 which I tested it against. Roughly a 4:1 price ratio (similar memory and peripherals) and a 4:3 performance ratio between the Sun and PowerMac (for running IDL only). These aren't latest and greatest systems by either manufacturer, but they are adequate for simple price:performance comparisons. Both manufacturers have cheaper and faster systems at this time.

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: Which is better WAVE or IDL?

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

They have the same origin, but from my experience w/ running a couple of
pieces of computationally intensive code- RSI's IDL is about a factor
of 2 faster than PV-Wave on a SUN MP690-52 running Solaris 2.3. This
measure was done in the Summer of 1994. One of the tests that I ran was
a modified version of RSI's time_test code. The modification was
necessary for compatibility w/ VNI's pv-wave.

Regarding RSI's IDL and some benchmarks of IDL versions of Fortran 77
code and their Fortran 77 counterparts on several platforms, I'll
recommend the July/August 1994 issue of Computers in Physics, pg 439.
In this review article there are several platforms w/ corresponding
timings.

-Steve

 -- -----------
Stephen L. Mahan Telephone: 615-974-7847   Fax: 615-974-7843
Department of Physics and Astronomy, University of Tennessee, Knoxville