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Subject: Re: Top 10 for old farts  
Posted by [promashkin](#) on Fri, 28 Jul 2000 07:00:00 GMT  
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David Fanning wrote:

- > I suppose it is inevitable, as IDL grows ever larger, that
- > we begin to pay for add-ons. RSI has already taken this
- > course with DataMiner and the Wavelet Toolkit. But I am
- > dead set against this proposal, Joe.

I am one hundred percent with David on this. I have the experience of using products when once you are about done with what you are doing, it beeps - "err, an add-on module is missing. Call for latest pricing." Not good. Then again, take it one step further, and have a list of checkboxes when ordering IDL: I'll buy Strings, Floats; I need no Unsigned longs; I need For loop and Where but no While, and Plots but no T3D keyword. Sounds strange, doesn't it? The core of IDL needs to be intact. Applications written in IDL, like Noesys and Rivertools, can be sold separately by those who write them, and I guess they are more suitable and user-friendly for ad-hoc ideas verification, with no coding needed.

- > In fact, I haven't written a program for a client in the
- > past year that hasn't included at least one object,
- > and sometimes it's easier to write the whole thing as
- > an object.

I have not been using objects a whole lot until a year ago. Now I am wishing that I did. Upgradeability of code is a lot better when it is object oriented. Adding new functions and even totally new functionality to the existing code is a snap.

- > I've frankly pretty much given up the idea of writing
- > an object book because (1) it is so damn hard to write
- > a book, and (2) after going to all that trouble I thought
- > only about a dozen people would buy it. (And I will hear
- > from all 12 today, probably, pleading with me to reconsider,
- > so desperate is the need for decent documentation.)

Effort like that may not happen to be all wasted, as RSI will probably ask to buy the copyright and use the book in the IDL help :-)

- > Someday, inevitably,
- > you are going to be working with objects.

I agree. And, from personal experience, I'd say that using object code speeds up building applications \*a lot\*. Even debugging is easier with more structured arrangement of object methods than with standart widget code.

Cheers,  
Pavel

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Subject: Re: Top 10 for old farts  
Posted by [promashkin](#) on Fri, 28 Jul 2000 07:00:00 GMT  
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"Joseph B. Gurman" wrote:

- > For most scientists, at least astronomers, the three things they
- > spend most of their time on are:
- >
- > 1. writing proposals
- >
- > 2. writing proposals
- >
- > 3. writing proposals

If so, then a good word processor is all that is actually needed :-)

Cheers,  
Pavel

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Subject: Re: Top 10 for old farts  
Posted by [bjackel](#) on Fri, 28 Jul 2000 07:00:00 GMT  
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Continuing in the apparently pointless, but extremely interesting discussion about "old farts" and IDL...

We're a mid sized (approximately 12 people) research group in a physics department. Quite a range of experience with IDL, ranging from novice to over 10 years.

\*One\* person here is using objects: me. The only reason I'm doing that is out of curiosity. The ideas are intellectually appealing, and some experience with OOP seemed like a good idea. I've put together some classes for various purposes, have enjoyed the experience, and will probably never use them for general purpose work. They are so completely different from our existing code, and would require some re-tooling on the part of people here, as well as the collaborators that we share code with. That's the kind of thing I had plenty of time for as a student, but won't happen as a researcher.

( Actually, I might argue that the problem with IDL is not

enough object functionality. If *\*all\** variable types were first class objects which allowed *\*all\** low level function calls ie. mag= c->abs(), cstar= c->conj() then things might make some more sense. )

Clearly, there are people out there who find objects very useful from a programming perspective. I respect that, but do worry that the good people at RSI might listen a point of view that may be the majority in this newsgroup, but does not at all represent our needs here.

As a side note, David Fanning made some brief comment in a previous message expressing (possibly tongue in cheek?) incredulity that not everyone was using widgets yet. Again, *\*none\** of our daily work uses widget-based tools. Don't get me wrong, I'm a big fan of widgets, and wrote quite a few during grad school and after. For certain purposes they are wonderful. However, for evolving research they're rarely useful. I write functions, try them from the command line, hook them together with scripts, and look at the results with direct graphics. After many iterations I (hopefully) figure out what the appropriate analysis is, and would be ready to roll it all up into a nice widget bundle. Of course by then it's time to make some figures for the paper, and then move onto something entirely different. No time to write the widget, and no real need.

I'm going to wait until after I've beta-tested 5.4 before putting together my top 10 wish list, but right now it simply consists of a general desire for faster more stable numerical routines and special functions. The core of what we do is based on math, and if that's not easy and reliable then nothing else matters. After that, there's I/O to deal with the different large data sets we use. That's something that IDL is already superb at, and doing a good job keeping up with new file types (ie. PNG, CDF).

Brian Jackel

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Subject: Re: Top 10 for old farts  
Posted by [davidf](#) on Fri, 28 Jul 2000 07:00:00 GMT  
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Nicolas Decoster (Nicolas.Decoster@Noveltis.fr) writes:

- > Seriously (once again), it would be nice to be able to pay nothing for
- > IDL and to be able to access its source code. That way, people who wants
- > to can improve pieces of IDL they use most and this will profit to all
- > users. In fact the Top 82495 list (was Top 10) will be add to the next
- > IDL version, or at least the most important entries. Great. So why not
- > open source IDL ? There will be more and more users, and RSI that knows
- > perfectly the product can still earn money with training, consulting or
- > very specific products.

Having had occasion recently to re-read Jonathan Swift's  
\_A Modest Proposal\_ I can say that I admire both Mr.  
Decoster's and Mr. Swift's wonderful sense of irony. :-)

Cheers,

David

P.S. Oh, you were serious (once again). Well, somehow  
I think the chances of this happening are on about the  
same order of magnitude as me, say, meeting Mr. Sampras  
in this year's Open finals. That is to say (for those  
of you who haven't had the opportunity of watching me  
play tennis), none too good. :-)

--

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Coyote's Guide to IDL Programming: <http://www.dfanning.com/>  
Toll-Free IDL Book Orders: 1-888-461-0155

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Subject: Re: Top 10 for old farts  
Posted by [Nicolas Decoster](#) on Fri, 28 Jul 2000 07:00:00 GMT  
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Hi.

"Joseph B. Gurman" wrote:

- >
- > Seriously (once again), it would be nice to be able to pay for a
- > base license, and add on, at extra cost:
- >
- > 1. objects
- >
- > 2. QuickTime support (per codec)
- >
- > 3. other features requiring RSI to pay license fees (GIF?)

As I never use them, I suggest that direct graphics have to be considered as add on... The best is to paid only what you use: a price for every little thing in IDL. On for objects, one for object graphics, one for direct graphics, one for widget, one for file format features and even one for array-programming (ok, and one for "IF ... THEN ..."). :-)

Seriously (once again), it would be nice to be able to pay nothing for IDL and to be able to access its source code. That way, people who wants to can improve pieces of IDL they use most and this will profit to all users. In fact the Top 82495 list (was Top 10) will be add to the next IDL version, or at least the most important entries. Great. So why not open source IDL ? There will be more and more users, and RSI that knows perfectly the product can still earn money with training, consulting or very specific products.

Later,

Nicolas.

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Posted by [davidf](#) on Fri, 28 Jul 2000 07:00:00 GMT  
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Joseph B. Gurman (gurman@gsfc.nasa.gov) writes:

- > So I still propose that as long as there are lower-priced,
- > full-featured student licenses, there should be lower-priced,
- > fewer-featured research associates' licenses. The "pro" license can
- > include all the wonderful features those with time to use them
- > efficiently want.
- >
- > Seriously (once again), it would be nice to be able to pay for a
- > base license, and add on, at extra cost:
- >
- > 1. objects

- >
- > 2. QuickTime support (per codec)
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- > 3. other features requiring RSI to pay license fees (GIF?)

I suppose it is inevitable, as IDL grows ever larger, that we begin to pay for add-ons. RSI has already taken this course with DataMiner and the Wavelet Toolkit. But I am dead set against this proposal, Joe.

First of all, objects are integral to the programming language. There will always be a few of us old scientists who find it more pleasurable to write programs than to spend yet one more bleary-eyed night peering through the peep-hole of a telescope. (Maybe this is all done through a computer with IDL programs these days, for all I know.) It would be a shame if people couldn't use the programs we write.

In fact, I haven't written a program for a client in the past year that hasn't included at least one object, and sometimes it's easier to write the whole thing as an object. PSCONFIG, a program on my web page that is widely downloaded and praised by people who use it, is an object program, although I would guess 95% of the people who use it don't know that. Certainly most of the programs I add to my library in the future will be object programs, although I'm not fool enough to tell anyone that, since just the word itself is enough to send shivers up the backs of many IDL users. :-)

I've frankly pretty much given up the idea of writing an object book because (1) it is so damn hard to write a book, and (2) after going to all that trouble I thought only about a dozen people would buy it. (And I will hear from all 12 today, probably, pleading with me to reconsider, so desperate is the need for decent documentation.)

The lack of good instruction is probably what is holding the adoption of objects back. I know you say you don't need them. The people in my course last week were adamant that they didn't need to know any widget programming, too. But in the end all they cared about was widget programming and increased interactivity with their data. I submit that objects have the same ability to transform how we work with our data.

Yes, there is more up-front cost. And I'm completely

sympathetic with those scientists who feel they don't have time to figure it out. If objects are unfamiliar to you, it is just about impossible to learn about them from the material that RSI gives you. But in the end they do more for your science than what you are using now. That must be the bottom line. Someday, inevitably, you are going to be working with objects. Maybe you won't write them. But you sure as heck don't want to pay extra for them, either.

Cheers,

David

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David Fanning, Ph.D.

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