Subject: Migrate away from idl?

Posted by Brian Larsen on Wed, 18 Nov 2009 23:29:48 GMT

Hey all,

I have a quick poll for the experts out there. I recently learned
about (and was wowed) scipy and all the other python stuff that
basically make it a viable substitute for idl. I am wondering if
anyone has made the switch (if so why are you still on this usenet?)
or came away from python or has any advice at all?

Here is a gallery of plots and code from python matplotlib
http://matplotlib.sourceforge.net/gallery.html

I am seeing some cool advantages and some disadvantages too, ill list
a few to try and start a bit of discussion,

Sames:
array based a = a+1 for arrays
multiplatform
command line to test things out
all the same plots are there (or at least all I do)

+idl:
I already know it
code library that I am familiar with
Coyote's Guide to IDL Programming

+python:
no licensing fee
easier scriptable (like into web pages etc)
interactive plots that make iplot look like 1980
super easy export of plots to png, pdf, ps whatever even interactively
from the plot
seems like its up and coming

Cheers,

Brian

-- -------------

Brian Larsen
Boston University
Center for Space Physics

Subject: Re: Migrate away from idl?
Posted by Kenneth P. Bowman on Thu, 19 Nov 2009 16:19:46 GMT
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In article
<cf06c124-16f6-4455-bad3-4b6fc2570274@k17g2000yqh.googlegroups.com>,
 Brian Larsen <balarsen@gmail.com> wrote:

> Hey all,
>
> I have a quick poll for the experts out there. I recently learned
> about (and was wowed) scipy and all the other python stuff that
> basically make it a viable substitute for idl. I am wondering if
> anyone has made the switch (if so why are you still on this usenet?)
> or came away from python or has any advice at all?

If I didn't have 20+ years of hard-won experience and a vast set
of special-purpose IDL libraries I would have a serious look at
Python. ITTVIS should be careful, inertia is not the best reason
for sticking with a programming language. If they would make an
effort to fix the ten most annoying things in IDL (24-bit Postscript)
was on that list, it would go a long way toward making people happy.
They could even consider breaking backwards compatibility (for new
code).

Python and the associated libraries are all open source, so
here is nothing to stop someone from doing the work of
assembling and building it for easy distribution and installation
and then charging $50 or $100 for it, right?

Ken Bowman

Subject: Re: Migrate away from idl?
Posted by David Fanning on Thu, 19 Nov 2009 16:49:57 GMT
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Kenneth P. Bowman writes:

> If they would make an
> effort to fix the ten most annoying things in IDL (24-bit Postscript)
> was on that list, it would go a long way toward making people happy.

I agree with this.

Maybe it's time to upgrade our list, in the hope that
someone from ITTVIS who can influence events reads
this newsgroup. I know my priorities have changed.
I'm much more concerned with long-in-the-tooth map
projections than I used to be.

I don't have time today, but I'll look around and
see if I can find our original list.

Cheers,

David

--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.dfanning.com/
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: Migrate away from idl?
Posted by Michael Galloy on Thu, 19 Nov 2009 17:22:03 GMT
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Kenneth P. Bowman wrote:
> Python and the associated libraries are all open source, so
> here is nothing to stop someone from doing the work of
> assembling and building it for easy distribution and installation
> and then charging $50 or $100 for it, right?

Yes, there are several efforts in that area. I am most excited about
Python(x,y) (pythonxy.com/), which includes everything I need, but is
only available for Windows and Ubuntu. Add a Max OS X installer and rpms
for Fedora Core and that would be very enticing.

Mike
--
www.michaelgalloy.com
Research Mathematician
Tech-X Corporation

Subject: Re: Migrate away from idl?
Posted by Brian Larsen on Thu, 19 Nov 2009 19:33:49 GMT

Everyone,

thanks for all the insight here, keep it coming. Sounds to me like no
one has any show stoppers or any run away screaming advice for me on
this one (so far). There will be a learning curve and a fair amount
of time getting my library back up to where I like it but I plan to
continue my evaluation and probably make the change (after AGU).

One of my big pushes was mentioned by Maarten, I was debating using
idl to do analysis then write out text files then using origin to plot
them up as I am that annoyed with bad fonts, annoying to adjust
margins and ranges, all that stuff.

Also to ease the transition this idlsave package actually works
http://idlsave.sourceforge.net/

Cheers,

Brian

 -- --------------
Brian Larsen
Boston University
Center for Space Physics

Subject: Re: Migrate away from idl?
Posted by Trae on Thu, 19 Nov 2009 20:03:21 GMT

WOW! I can't believe IDL allowed that routine!

Whether I switch to Python or not, that is amazingly useful.

-Trae

On Nov 19, 8:19 am, "Kenneth P. Bowman" <k-bow...@null.edu> wrote:
> In article
> < cf06c124-16f6-4455-bad3-4b6fc2570...@k17g2000yqh.googlegroup s.com >,
>   Brian Larsen <balar...@gmail.com> wrote:
>
>> Hey all,

>
>> I have a quick poll for the experts out there. I recently learned
>> about (and was wowed) scipy and all the other python stuff that
>> basically make it a viable substitute for idl. I am wondering if
>> anyone has made the switch (if so why are you still on this usenet?)
>> or came away from python or has any advice at all?
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> of special-purpose IDL libraries I would have a serious look at
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> for sticking with a programming language. If they would make an
> effort to fix the ten most annoying things in IDL (24-bit Postscript)
> was on that list, it would go a long way toward making people happy.
> They could even consider breaking backwards compatibility (for new
> code).
>
> Python and the associated libraries are all open source, so
> here is nothing to stop someone from doing the work of
> assembling and building it for easy distribution and installation
> and then charging $50 or $100 for it, right?
>
> Ken Bowman

Subject: Re: Migrate away from idl?
Posted by Trae on Thu, 19 Nov 2009 20:05:24 GMT
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Sorry. I accidentally went up a level.

I was talking about the idlsave package (http://
idlsave.sourceforge.net/) that Brian was talking about.

-Trae

On Nov 19, 11:33 am, Brian Larsen <balar...@gmail.com> wrote:
> Everyone,
>
> thanks for all the insight here, keep it coming. Sounds to me like no
> one has any show stoppers or any run away screaming advice for me on
> this one (so far). There will be a learning curve and a fair amount
> of time getting my library back up to where I like it but I plan to
> continue my evaluation and probably make the change (after AGU).
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> One of my big pushes was mentioned by Maarten, I was debating using
> idl to do analysis then write out text files then using origin to plot
> them up as I am that annoyed with bad fonts, annoying to adjust
> margins and ranges, all that stuff.

>
> Also to ease the transition this idlsave package actually workshttp://idlsave.sourceforge.net/
>
> Cheers,
>
> Brian
>
> -- -------------
> Brian Larsen
> Boston University
> Center for Space Physics

Subject: Re: Migrate away from idl?
Posted by MarioIncandenza on Thu, 19 Nov 2009 21:03:12 GMT
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Here's my list:
1) Routines that should absolutely be builtin (with massive royalties
paid to the original authors, of course):
HIST_ND (JD Smith)
PERCENTILES (Martin Schultz)
SETUNION|INTERSECTION|DIFFERENCE (RSI)
SYMCAT (David Fanning)

2) Builtins that should work better:
- DIM keyword for MOMENT (how can we not have this?!?)
- Why can't OPLOT or PLOTS do what OPLOTS (no attribution) can
(separate symbols,colors,sizes for each element of an array, specified
with array keywords)? This function needs to be builtin especially
because OPLOTS just loops through, and is therefore very slow.
- Why can't STRSPLIT work on arrays of strings?
- "% Only three levels of variable concatenation are allowed."

As for other packages:
I have another project that committed early on to Perl Data Language
(PDL), mostly because someone had written an interface to read HDF
files into PDL, and Perl was a language we felt comfortable with. I
had to buy our systems guy a six-pack after he got PDL running on our
machines-- if I didn't have a "systems guy," I would probably have
quit and ported the whole thing to IDL. I strongly believe IDL is
worth the money, if it does nothing but install cleanly and fully
functional, which none of its current competitors (except Matlab)
do.

Does it take 10-20 extra lines to get your PostScript up to pub.
quality in IDL? Yes it does, but you only have to write them once.

IDL's default settings could be better, but if you expect the default settings to be exactly what you need, you're either doing something really simple, or you've little experience. It's amazing, reading this thread, to think how much damage IDL has done to themselves by not setting FONT=0 as the default for PostScript.

Does it take 300 lines of code to get an image overlaid on a map decently? Yes it does-- well, there's definitely some room for improvement there.

For applications pointed at "end-users" IDL is just a dog. But for scientific users who aren't programmers by training, the incumbent advantage of the millions of lines of IDL code free for the taking is not to be dismissed lightly.

But I'm glad people continue to explore and report back, because like David, I hope that it puts some pressure on ITTVis.

Subject: Re: Migrate away from idl?
Posted by Brian Larsen on Thu, 19 Nov 2009 21:16:29 GMT
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More for the list:
Scale_vector (Coyote)
colorbar (Coyote)
legend (Coyote)
some kind of decent tvimage thing (Coyote or mine or Paolo or ...)
fsc_color (Coyote) colors by name

Brian

 --- --------------
Brian Larsen
Boston University
Center for Space Physics

Subject: Re: Migrate away from idl?
Posted by David Fanning on Thu, 19 Nov 2009 21:21:21 GMT
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Ed Hyer writes:

> 1) Routines that should absolutely be builtin (with massive royalties
> paid to the original authors, of course):
> HIST_ND (JD Smith)
> PERCENTILES (Martin Schultz)
> SETUNION|INTERSECTION|DIFFERENCE (RSI)
> SYMCAT (David Fanning)

SYMCAT!? Geez, that would be way down my list. I can think
off-hand of about 20 programs in my library I would take
before that one. And, anyway, I think that was Martin's
Schultz's idea, too. :-)

Cheers,

David

--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.dfanning.com/
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: Migrate away from idl?
Posted by David Fanning on Thu, 19 Nov 2009 21:24:41 GMT
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Ed Hyer writes:

> Does it take 10-20 extra lines to get your PostScript up to pub.
> quality in IDL? Yes it does, but you only have to write them once.
> IDL's default settings could be better, but if you expect the default
> settings to be exactly what you need, you're either doing something
> really simple, or you've little experience. It's amazing, reading this
> thread, to think how much damage IDL has done to themselves by not
> setting FONT=0 as the default for PostScript.

Well, not to mention BITS_PER_PIXEL=4 and COLOR=0.
Say what!? That is SO 1970's!

Cheers,

David

--

David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.dfanning.com/
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: Migrate away from idl?
Posted by David Fanning on Thu, 19 Nov 2009 21:28:22 GMT

Brian Larsen writes:

> legend (Coyote)

Hell, I wish I *had* written a LEGEND program. I'd probably
be rich now! But I think this must be Ray Sterner's
at JHUAPL or maybe a NASA Goddard routine.

Cheers,

David

--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.dfanning.com/
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: Migrate away from idl?
Posted by MarioIncandenza on Thu, 19 Nov 2009 21:39:22 GMT

On Nov 19, 1:28 pm, David Fanning <n...@dfanning.com> wrote:
> Brian Larsen writes:
>> legend (Coyote)
>
> Hell, I wish I *had* written a LEGEND program. I'd probably
> be rich now! But I think this must be Ray Sterner's
> at JHUAPL or maybe a NASA Goddard routine.

The legend routine I use actually has a revision history:

; Modification history:
;   write, 24-25 Aug 92, F K Knight (knight@ll.mit.edu)
;   allow omission of items or omission of both psym and

---

linestyle, add
;   corners keyword to facilitate multi-column legends, improve place-
;   ment of symbols and text, add guards for unequal size, 26 Aug 92, FKK
;   add linestyle(i)=-1 to suppress a single symbol/line, 27 Aug 92, FKK
;   add keyword vectorfont to allow characters in the sym/line column,
;   28 Aug 92, FKK
;   add /top, /bottom, /left, /right keywords for automatic placement at
;   the four corners of the plot window. The /right keyword forces
;   right-to-left printing of menu. 18 Jun 93, FKK
;   change default position to data coords and add normal, data, and
;   device keywords, 17 Jan 94, FKK
;   add /center keyword for positioning, but it is not precise because
;   text string lengths cannot be known in advance, 17 Jan 94, FKK
;   add interactive positioning with /position keyword, 17 Jan 94, FKK
;   allow a legend with just text, no plotting symbols. This helps in
;   simply describing a plot or writing assumptions done, 4 Feb 94, FKK
;   added thick, symsize, and clear keyword Feb 96, W. Landsman HSTX
;   David Seed, HR Wallingford, d.seed@hrwallingford.co.uk
;   allow scalar specification of keywords, Mar 96, W. Landsman HSTX
;   added charthick keyword, June 96, W. Landsman HSTX
;   Made keyword names left,right,top,bottom,center longer,
;   Aug 16, 2000, Kim Tolbert
;   Added ability to have regular text lines in addition to plot legend
;   lines in legend. If linestyle is -99 that item is left-justified.
;   Previously, only option for no sym/line was linestyle=-1, but then text
;   was lined up after sym/line column.   10 Oct 2000, Kim Tolbert
;   Make default value of thick = !P.thick W. Landsman Jan. 2001
;   Don't overwrite existing USERSYM definition W. Landsman Mar. 2002

Subject: Re: Migrate away from idl?
Posted by mankoff on Thu, 19 Nov 2009 21:49:40 GMT

On Nov 19, 9:22 am, mgalloy <mgal...@gmail.com> wrote:
> Kenneth P. Bowman wrote:
>> Python and the associated libraries are all open source, so
>> here is nothing to stop someone from doing the work of
>> assembling and building it for easy distribution and installation
>> and then charging $50 or $100 for it, right?
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> Python(x,y) (pythonxy.com/), which includes everything I need, but is
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> for Fedora Core and that would be very enticing.
>
> Mike
> --www.michaelgalloy.com
> Research Mathematician
> Tech-X Corporation

I'm surprised nobody has mentioned the Enthought Python Distribution
(EPD). Cross platform, free for academics. Reasonable license costs
outside academia.

   -k.

Subject: Re: Migrate away from idl?
Posted by David Fanning on Thu, 19 Nov 2009 21:50:21 GMT

Ed Hyer writes:

> The legend routine I use actually has a revision history:
>
> ; Modification history:
> ;   write, 24-25 Aug 92, F K Knight (knight@ll.mit.edu)

Fred Knight! Now *there* was a very good IDL programmer! :-)

Cheers,

David

--

David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.dfanning.com/
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: Migrate away from idl?
Posted by MarioIncandenza on Thu, 19 Nov 2009 22:20:51 GMT
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On Nov 19, 1:21 pm, David Fanning <n...@dfanning.com> wrote:
> SYMCAT!? Geez, that would be way down my list. I can think
> off-hand of about 20 programs in my library I would take
> before that one. And, anyway, I think that was Martin's
> Schultz's idea, too. :-)

It's not the fanciest software you ever wrote, but it's the one I use
most often, and the one that causes me the most grief for not being
builtin.

Subject: Re: Migrate away from idl?
Posted by Mirko.Vukovic[1] on Thu, 19 Nov 2009 22:43:00 GMT
View Forum Message <> Reply to Message

On Nov 18, 6:29 pm, Brian Larsen <balar...@gmail.com> wrote:
> Hey all,
>
> I have a quick poll for the experts out there. I recently learned
> about (and was wowed) scipy and all the other python stuff that
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> easier scriptable (like into web pages etc)
> interactive plots that make iplot look like 1980
> super easy export of plots to png, pdf, ps whatever even interactively
> from the plot
> seems like its up and coming
>
> Cheers,
>
> Brian
>
> --- -------------
> Brian Larsen
> Boston University
> Center for Space Physics

I went for common lisp (CL).

Over the years I got more and more annoyed with the way I was coding
in IDL.

Then by chance, for a little project that required recursion, I
googled lisp books, and stumbled upon `Practical Common Lisp'. Using
it's Ch. 3 (and bits of 4-10), I solved my problem and got hooked.

Mind you, if you are looking for an array based language CL is not for
you. Graphics is also not as easy (I have an interface to Gnuplot).

But to me it brought back the fun in programming. Once I figured out
its use of various flavors of macros, my programs started looking
really cool and readable. Since macros allow you to define language
constructs suitable to your problem, the programs become much more
readable.

So, now I use it for system tasks, processing xml files, text files,
numerics (access to GSL and netlib routines).

However, all of the above is probably nowhere near as user friendly as
the mentioned Python interfaces. There is a steep and long learning
curve - to me the language looks like having more programming
dimensions (symbols, closures, macros) that IDL and similar tools.

Best,

Mirko

Subject: Re: Migrate away from idl?
Posted by Michael Galloy on Thu, 19 Nov 2009 22:52:54 GMT
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mankoff wrote:
> On Nov 19, 9:22 am, mgalloy <mgal...@gmail.com> wrote:
>> Kenneth P. Bowman wrote:
>>> Python and the associated libraries are all open source, so
>>> here is nothing to stop someone from doing the work of
>>> assembling and building it for easy distribution and installation
>>> and then charging $50 or $100 for it, right?
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>> Python(x,y) (pythonxy.com/), which includes everything I need, but is
>> only available for Windows and Ubuntu. Add a Max OS X installer and rpms
>> for Fedora Core and that would be very enticing.
>>
>> Mike
>> --www.michaelgalloy.com
>> Research Mathematician
>> Tech-X Corporation
>
> I'm surprised nobody has mentioned the Enthought Python Distribution
> (EPD). Cross platform, free for academics. Reasonable license costs
> outside academia.

While paying for the EPD license for a developer is worth it, I'm
concerned about the license fees for distributing to others. IDL has the
VM which makes it free and easy to distribute IDL applications.

Mike
--
www.michaelgalloy.com
Research Mathematician
Tech-X Corporation

Subject: Re: Migrate away from idl?
Posted by jkeller on Fri, 20 Nov 2009 08:57:34 GMT
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> More for the list:

As a meteorologist I would like t have a routine for a "good" stream

---

function plot and in general an enhanced handling with map plots. I
tried some object graphics related things but I found the IDL the
implementation also to be insufficient.

Jan

Subject: Re: Migrate away from idl?
Posted by Michael Galloy on Fri, 20 Nov 2009 14:11:03 GMT
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jkeller wrote:
>> More for the list:
>
> As a meteorologist I would like t have a routine for a "good" stream
> function plot and in general an enhanced handling with map plots. I
> tried some object graphics related things but I found the IDL the
> implementation also to be insufficient.

Can you provide an example of a "good" stream function plot?

Mike
--
www.michaelgalloy.com
Research Mathematician
Tech-X Corporation

Subject: Re: Migrate away from idl?
Posted by Brian Larsen on Fri, 20 Nov 2009 17:22:53 GMT
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To reply to myself a colleague just sent me this link with a similar
discussion.

http://www.astrobetter.com/idl-vs-python/

 -- -------------
Brian Larsen
Boston University
Center for Space Physics

Subject: Re: Migrate away from idl?
Posted by David Fanning on Fri, 20 Nov 2009 20:41:24 GMT

Sigh....

As if I need yet one more reason to look for IDL alternatives...

Does anyone have the foggiest idea WHY breakpoints in the
IDL Workbench just quit working occasionally! There are
days when you just want to chuck the friggin' computer
and ALL its software out the window. Sheesh. :-(

Cheers,

David

--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.dfanning.com/
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: Migrate away from idl?
Posted by Jeremy Bailin on Fri, 20 Nov 2009 22:39:49 GMT

> - DIM keyword for MOMENT (how can we not have this?!?)

Incidentally, I have hacked versions of MOMENT and its kin that do:

http://web.astroconst.org/jbiu/#momentdimen

-Jeremy.

Subject: Re: Migrate away from idl?
Posted by pgrigis on Fri, 20 Nov 2009 23:52:25 GMT

On Nov 20, 5:39 pm, Jeremy Bailin <astroco...@gmail.com> wrote:
>> - DIM keyword for MOMENT (how can we not have this?!?)
>
> Incidentally, I have hacked versions of MOMENT and its kin that do:
>
> http://web.astroconst.org/jbiu/#momentdimen
>
> -Jeremy.

I see that you provide patches - that's a good idea :)

In fact I have also written my version of moment that
handles multidimensional arrays - but I would not distribute
it because, being based on ITTVIS code, I may have been
in violation of copyright. If I remember correctly it took
only about 30 min or so to do so - so I don't understand
why ITTVIS never did...

Ciao,
Paolo

Subject: Re: Migrate away from idl?
Posted by David Klassen on Sat, 21 Nov 2009 15:16:55 GMT
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On Nov 19, 11:19 am, "Kenneth P. Bowman" <k-bow...@null.edu> wrote:
>
> Python and the associated libraries are all open source, so
> here is nothing to stop someone from doing the work of
> assembling and building it for easy distribution and installation
> and then charging $50 or $100 for it, right?

I'd buy that in a minute! I'd say I've gotten nothing out of IDL for
10+ years, other than having to give them money to move my
copies of the software to newer machines---though they do give
me the latest version at that time (which tends to break my old
crufty code, causing me to spend a week or so fixing things).

I've tried to get the python/scipy/numpy up and running on my MacBook
Pro (OSX 10.4) but it's been more of a hassle and still doesn't work
right...

Subject: Re: Migrate away from idl?
Posted by Brian Larsen on Sat, 21 Nov 2009 19:51:54 GMT
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Check this out then. Free for academics and reasonable otherwise.
http://www.enthought.com/products/edudownload.php

 --- -------------
Brian Larsen
Boston University

Center for Space Physics

Subject: Re: Migrate away from idl?
Posted by Wout De Nolf on Mon, 23 Nov 2009 10:46:42 GMT
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Lets face it: we only use IDL because we know it. I propose we start
an IDL rehab clinic or something like Anonymous IDLers: "My name is
Wox and I am an IDL user."

On Fri, 20 Nov 2009 13:41:24 -0700, David Fanning <news@dfanning.com>
wrote:

> Sigh....
>
> As if I need yet one more reason to look for IDL alternatives...
>
> Does anyone have the foggiest idea WHY breakpoints in the
> IDL Workbench just quit working occasionally! There are
> days when you just want to chuck the friggin' computer
> and ALL its software out the window. Sheesh. :-(
>
> Cheers,
>
> David

Subject: Re: Migrate away from idl?
Posted by lecacheux.alain on Mon, 23 Nov 2009 16:23:07 GMT
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I am a little bit surprised by the lack of enthousiasm of many of you
regarding current IDL.
I am a French astronomer and use IDL since v2.0 (introduced to me, in
the mid 80s, by a visiting colleague from Colorado University). Since
then, IDL has taken over all other programming languages that I was
using (except in a few cases dealing with instrumentation or real time
programming).
Main advantadge of IDL, in my opinion, is that it can adapt very well
to very different programming situations: for quickly examining a
short subset of data, just as well as for developping large data
processing applications. But in the latter case, the executable code
can also be made quite efficient (even when compared to compiled C,
etc...) so long as you know how should be manipulated 'histogram',

'value_locate', 'where' and other ([array1])[array2] nice (but a bit criptyc) IDL constructs.
With IDL, you can easily open any kind of file (of any format and/or huge size), apply to data nearly any kind of scientific processing (linking with external libraries is not very difficult) and produce quite nice plots of publishable graphic quality, especially when using 'object graphics'. The general OO implementation is not perfect, but is sufficient for nearly all purposes. 'Bridges' from and to other environments are quite useful. IDL license is expensive but there is the VM, which allow IDL executables to be run for free. Finally, a rich library of nice user contributions is available.
So, what is the problem ?
I must admit that I would have expected to find, in the last few years, more appealing novelties than ITools and the Workbench. The ITools are not really helpful to me (and, I guess, to many, except for learning how object graphics subtilities can be circumvented). And the Workbench has disappointed many (or every ?) Windows user, and maybe still contains bugs (or weaknesses, like the sudden breakpoint inactivity, pointed out by David).
However, IDL has some firm basis and still appears to be a solid construct for scientists. I am afraid that many of us might be leaving IDL, being appealed by more recent and seducting tools, whose future is, in my opinion, not really guaranteed.
Alx.

Subject: Re: Migrate away from idl?
Posted by David Fanning on Tue, 24 Nov 2009 02:34:40 GMT
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Alain writes:

> However, IDL has some firm basis and still appears to be a solid
> construct for scientists. I am afraid that many of us might be leaving
> IDL, being appealed by more recent and seducting tools, whose future
> is, in my opinion, not really guaranteed.

Thanks for this post. I mostly feel this way, too. I've
always believed you pretty much get what you pay for,
but many open source software projects are changing my
mind. (I'm not sure what I would do without ImageMagick
and Putty.)

What really concerns me, though, is how seriously I am
taking this Python suggestion. I've downloaded the xypython
distribution recommended by Mike Galloy, and my Python book
arrived today from Amazon. I plan to spend some time over
the holidays looking into it.

Any even more disconcerting is the fact I am not alone.
Today, completely unprompted by me, a colleague who I
consider a die-hard IDL user told me she was thinking
about learning Python so she could ditch partial solutions
like IDL and Perl. If we can figure out a way to use proj.4
and GDAL to do our map projections, we will probably both
dump IDL.

IDL is at significant risk, it seems to me, of losing people
who should be its core supporters. It would be a shame to
see that happen.

Cheers,

David

--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.dfanning.com/
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: Migrate away from idl?
Posted by lecacheux.alain on Tue, 24 Nov 2009 09:07:47 GMT
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> Any even more disconcerting is the fact I am not alone.
> Today, completely unprompted by me, a colleague who I
> consider a die-hard IDL user told me she was thinking
> about learning Python so she could ditch partial solutions
> like IDL and Perl. If we can figure out a way to use proj.4
> and GDAL to do our map projections, we will probably both
> dump IDL.
>
I am not a mapping specialist, but proj.4 and GDAL are software
libraries both distributed in C or JAVA. What is the problem
for accessing them from IDL ? Why Perl ?
In other words, is actually IDL be lacking in tools for
accessing external libraries ?

Subject: Re: Migrate away from idl?
Posted by jkeller on Wed, 25 Nov 2009 06:54:11 GMT
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On Nov 20, 3:11 pm, Michael Galloy <mgal...@gmail.com> wrote:
> Can you provide an example of a "good" stream function plot?

Here is an example of a streamline-plot using GrADS:
http://img264.imageshack.us/img264/8606/grads.png

The plot is generated with the horizontal wind components. The
coloring would be a plus but I would be very pleased to produce such
streamlines using IDL. GrADS displays the plot immediately after
issuing the command, so it doesn't take a lot of iterations to close
the lines at the equator for example.

Regards,
Jan

Subject: Re: Migrate away from idl?
Posted by David Klassen on Thu, 26 Nov 2009 20:01:19 GMT
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On Nov 23, 11:23 am, alx <lecacheux.al...@wanadoo.fr> wrote:
> I am a little bit surprised by the lack of enthousiasm of many of you
> regarding current IDL.
...
> So, what is the problem ?

Having to continue paying over and over and over again
for software I already purchased. None of the development
of IDL has given me any added functionality (I'm a command
line kind of person, kludge programmer whose primary goal
is just doing science---IDL is just a tool for that) so I was
quite happy with 5.x.

The main issue: in order for two of us to combine our 3 and 6
copies to one server, we had to pay. To move our 9 copies to
a new server, we had to pay. When a network card died and
was replaced, we were told we had to pay again. And when
we moved our 9 copies to a new server, well, you get the idea.

I'm sick and tired of paying multiple times for software I've
already purchased.

Subject: Re: Migrate away from idl?
Posted by Andrew Cool on Thu, 26 Nov 2009 21:28:12 GMT
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On Nov 25, 4:54 pm, jkeller <jkel...@uni-bonn.de> wrote:
> On Nov 20, 3:11 pm, Michael Galloy <mgal...@gmail.com> wrote:
>
>> Can you provide an example of a "good" stream function plot?
>
> Here is an example of a streamline-plot using
GrADS:http://img264.imageshack.us/img264/8606/grads.png
>
> The plot is generated with the horizontal wind components. The
> coloring would be a plus but I would be very pleased to produce such
> streamlines using IDL. GrADS displays the plot immediately after
> issuing the command, so it doesn't take a lot of iterations to close
> the lines at the equator for example.
>
> Regards,
> Jan

Jan,

Robert Dahni may be your man.
Have a look at http://www.metvis.com.au/gridvis/index.html

Andrew Cool

On Nov 26, 10:28 pm, Andrew Cool <andrew.c...@dsto.defence.gov.au>
wrote:
> Robert Dahni may be your man.
> Have a look athttp://www.metvis.com.au/gridvis/index.html

Thanks for the link. Nice tool.

However, I was already able to produce such streamline plots as that
shown on this page and I think that the "GrADS"-streamlines just look
better. Don't know why.

Regards,
Jan

---

jkeller writes:

> However, I was already able to produce such streamline plots as that
> shown on this page and I think that the "GrADS"-streamlines just look
> better. Don't know why.

The scientific programmer'w worst nightmare... :-(

Cheers,

David

--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.dfanning.com/
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: Migrate away from idl?
Posted by Michael Galloy on Fri, 27 Nov 2009 14:59:27 GMT

jkeller wrote:
> On Nov 26, 10:28 pm, Andrew Cool <andrew.c...@dsto.defence.gov.au>
> wrote:
>> Robert Dahni may be your man.
>> Have a look athttp://www.metvis.com.au/gridvis/index.html
>
> Thanks for the link. Nice tool.
>
> However, I was already able to produce such streamline plots as that
> shown on this page and I think that the "GrADS"-streamlines just look
> better. Don't know why.

It's because the starting points of the streamlines in Robert plots are
a grid. This produces uneven placement of streamlines for most vector
fields. The GrADS plot had some algorithm to place the starting points
so that the streamlines were evenly spaced.

Mike
--
www.michaelgalloy.com
Research Mathematician
Tech-X Corporation

Subject: Re: Migrate away from idl?
Posted by Josh on Wed, 09 Dec 2009 19:36:43 GMT

> I'm surprised nobody has mentioned the EnthoughtPythonDistribution
> (EPD). Cross platform, free for academics. Reasonable license costs
> outside academia.
>
>   -k.

I work for Visual Numerics and we offer a Python distribution, PyIMSL
Studio, that is free for noncommercial use and fully supported for
commercial users:

http://www.vni.com/campaigns/pyimslstudioeval/

One of the key things in PyIMSL Studio are Python wrappers to the
hundreds of math and stat routines in the IMSL C Numerical library
(for which IDL users have access to via the Analyst module). You can
install our full distribution or just the math/stat package into an
existing Python environment. So, if you want to get your feet wet with
Python, there are lots of IDL-to-Numpy cheat sheets out there, and the
analytical routines we offer greatly enhance what is available in
Scipy and may already be familiar to you.