Subject: Re: Inexpensive / free-ware similar to IDL?
Posted by davidf on Wed, 22 Sep 1999 07:00:00 GMT

Liam Gumley (Liam.Gumley@ssec.wisc.edu) writes:

> I like 'free' software as much as the next person (I run Linux on my
> notebook). But I also know that if I switched from IDL to ANA, Yorick,
> Octave or any other 'free' package, I'd be kidding myself if I thought
> the switch would be at no cost.

Liam, you--of all people-- should know that graduate student
hours of programming/frustration/whatever are *never* counted
as expenses. I think it has something to do with the Slave
Labor Act. :-)

Cheers,

David

--
David Fanning, Ph.D.
Fanning Software Consulting
Phone: 970-221-0438 E-Mail: davidf@dfanning.com
Coyote's Guide to IDL Programming: http://www.dfanning.com/
Toll-Free IDL Book Orders: 1-888-461-0155

Subject: Re: Inexpensive / free-ware similar to IDL?
Posted by Liam Gumley on Wed, 22 Sep 1999 07:00:00 GMT

"K. S. Balasubramaniam" wrote:
> I am looking for inexpensive solutions for data analysis, other than IDL,
> but similar in
> capability.
>
> IDL has been a wonderful tool and has enormous strengths, but individuals
> cannot
> afford it.   I have used it for over a decade while I worked at govt.
> sponsored/educational
> labs. Its flexibility is addictive. Having moved over to the private
> sector, and switching
> fields, in a different area of data analysis things are different!   Many
> folks have not heard
> of IDL, and when informed of its use are able to nod in appreciation but
> quickly loose interest
> because it is way too pricey! and very compareable to the price of some

> workstations.

If you're already familiar with IDL, is the cost of a single-user IDL
license for Windows more or less than the cost of your salary and
benefits for however many weeks it takes for you to find, learn, and do
something productive with a 'free' package?

I like 'free' software as much as the next person (I run Linux on my
notebook). But I also know that if I switched from IDL to ANA, Yorick,
Octave or any other 'free' package, I'd be kidding myself if I thought
the switch would be at no cost.

Cheers,
Liam.

--
Liam E. Gumley
Space Science and Engineering Center, UW-Madison
http://cimss.ssec.wisc.edu/~gumley

Subject: Re: Inexpensive / free-ware similar to IDL?
Posted by Tim Lamont-Smith on Wed, 22 Sep 1999 07:00:00 GMT
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I/my colleagues have used VIEW which is pretty good, although quite old. It
was written at Lawrence Livermore National Labs, sorry I don't have a
web-site, so I don't know whether it is freely available. Some of the image
analysis/handling in VIEW makes IDL look poor in comparison. There may be a
newer package called IDB++, but I've never seen it.

Just a side question, but was IDL Insight intended as a joke ?

Tim

--
****
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Fax.: +44 (0)1684 894252
****

Subject: Re: Inexpensive / free-ware similar to IDL?
Posted by ushomirs on Wed, 22 Sep 1999 07:00:00 GMT

the "problem" with these alternatives (octave, python) is that they
don't understand IDL code. so the mountain of working software that has
been written in IDL would not be available with these (probably superior
in other respects) packages. for example, there's a ton of astronomical
software written in IDL. software that works. heck, python and octave
don't even read FITS binary tables. sure, i could sit down and spend a
few weeks writing and debugging a comprehensive FITS library, but i have
many other things on my plate. i suspect that there are at least a few
users of IDL in the scientific community that share my opinion.

oh, yeah, and i thought that IDL and PV-WAVE were the same product years
ago, before they split up.

greg

Subject: Re: Inexpensive / free-ware similar to IDL?
Posted by luthi on Wed, 22 Sep 1999 07:00:00 GMT

I was looking at several free alternatives to the IDL / PV-Wave products for
quite a time now and found these packages, which seemed to match requirements
of ease to learn, ease to use, yet providing a strong programming language:

You will find a good overview at
 http://stommel.tamu.edu/~baum/linuxlist/linuxlist/node34.htm l#numericalenvironments.
Programs that I evaluated a bit closer are Octave and Python, which I found at
least equally convenient as the IDL/PV-Wave family of products.

o Octave: Mostly compatible to Matlab
        GNU GPL License
   good plotting routines and convenient for most purposes

        http://www.che.wisc.edu/octave/

o Python: A very strong, cleanly designed interpreted language for nearly
          every purpose, very well documented, good newsgroups
        Many data types, OO-design, extendable language
        Command line and stand alone programs
        Free to copy, use and enhance for every purpose (open source,
          most modules are GPL'd)

Versions for virtually any platform (all Unices, Win32, Mac..)
Strong support for linking programs written in C and Fortran
Native support for internet access (ftp, http, etc.)
Very good numerical libraries which provide the power and
  flexibility of IDL/PV-Wave
Integrated plotting through external programs: Gnuplot, Dislin etc.
A own plotting library is in currently in development
Close integration with the Tk-widgets (real cross-platform), KDE and
Qt-libraries and GTK widget set
Python is widely used as scripting language and thus extremely well
supported. My personal view is, that with the native plotting
routines Python is optimal for data anlysis, number crunching
and nearly every other computing task (there is an Illustrator-like
interactive drawing program written largely in Python)

http://www.python.org
http://starship.python.org/~hinsen

As I finish my Phd I will switch to Python, which is most convenient for my
purposes and, due to its wide use in modern computing tasks, is well sought
after knowledge in the industry. The sad thing about this is, that the large
amount of my programs written in PV-Wave will be further useless for me. The
good thing is, that I can fix eventual bugs myself, not having to rely on a
tech support, which will "raise the scoring in the bug report list", even if
the bug is near fatal to the usability of the product (cf. the plotting
inaccuracies reported some months ago on this list, the discussion about the
numerical libraries aso). I hope that these high quality free products are a
real challenge to VNI and RSI, which should think seriously about the quality
of their products as primary goal (as opposed to the amount of features they
provide). My feeling is, that both products should merge in order to survive
in this very competitive, rapidly evolving marked. The benefit to us users
would be the joint ongoing development of both languages (OO-techniques,
interactive plotting and netCDF-routines from IDL) as well as the very
convenient and professionally implemented libraries (IMSL-numerics and GT-grid
from PV-Wave).

Thanks to the members of this newsgroup for the intersting discussions and
the highly appreciated help and expertise and to Carsten Dominik for his
excellent IDLWAVE.el emacs-mode.

Cheers

Martin

--
 ==
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==

Subject: Re: Inexpensive / free-ware similar to IDL?
Posted by James Tappin on Wed, 22 Sep 1999 07:00:00 GMT
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m cannell <m.cannell@auckland.ac.nz> wrote:
> Yes, I agree IDL is overpriced. have a look at perldl.
> MC
>
> "K. S. Balasubramaniam" wrote:
>
>> I am looking for inexpensive solutions for data analysis, other than IDL,
>> but similar in
>> capability.

<Snip>

Another possibility would be Yorick -- the only real drawback is that the
author has this thing about running from the emacs shell mode so there is no
built in command-line recall/editing that can be used in an xterm.

--
```
 +-----------------------+-----------------------------+-- -------+
| James Tappin          | School of Physics & Astronomy | O__    |
| sjt@star.sr.bham.ac.uk | University of Birmingham     | -- \/ˆ |
| Ph: 0121-414-6462. Fax: 0121-414-3722                 |       |
 +-------------------------------------------------------+-- -------+
```

Subject: Re: Inexpensive / free-ware similar to IDL?
Posted by m cannell on Wed, 22 Sep 1999 07:00:00 GMT
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MC

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> folks have not heard
> of IDL, and when informed of its use are able to nod in appreciation but
> quickly loose interest
> because it is way too pricey! and very compareable to the price of some
> workstations.
>
> I am not sure how many folks out there use ANA http://ana.lmsal.com/ It
> has the potential for
> a robust freeware and needs lots of work.   Are there similar freeware
> packages? I am also
> aware of xmgrace, xmgr, etc for less intensive applications. Suggestions
> appreciated

Subject: Re: Inexpensive / free-ware similar to IDL?
Posted by m218003 on Thu, 23 Sep 1999 07:00:00 GMT
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In article <7sbmpc$1j5$1@nnrp1.deja.com>,
 ushomirs@my-deja.com writes:
> the "problem" with these alternatives (octave, python) is that they
> don't understand IDL code.

... and is there any of these free packages that does map plots nearly
as good as IDL does them? (well, of course they are not always perfect
in IDL, but you *can* produce them!)

Martin

--
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