Subject: IDL vs. Matlab?

Posted by njconway on Tue, 30 Nov 1993 16:29:00 GMT

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My organisation is currently in the process of acquiring eval. versions of both Matlab (v4 I think) and IDL (v3.5 I think).

We will most likely be buying one or the other, so: does anyone out there have experience of both?

We want to do data analysis and some visualization, although the main task will be analysis, which will be partially using our own libraries which I believe may be linked fairly esasily with either product (right ?).

Am I on completely the wrong track here, or are the products reasonably similar in both their intended users and their functionality?

thanks in advance for any advice/information...

Perhaps Email would be best - if interest is there I can summarise in a week or two...

Neil Conway

AEA Fusion,

neil.conway@aea.orgn.uk neil@nebula.ucd.ie

Subject: Re: IDL vs. matlab

Posted by Paul van Delst on Wed, 04 Apr 2001 14:00:26 GMT

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Bruno wrote:

>

- > Just want to get the group's opinion regarding this. I am an undergrad and I
- > am thinking about buying IDL or MATLAB (student version). Most of my friends
- > are advising for the latter software product since it's apparently more
- > powerful and widely available on university systems. What do you think?

Wasn't this just posted the other day?

IMO, IDL and Matlab are the same dog, but different leg. Slightly different, but not much. With regard to getting your research work done (by that I mean number crunching) and producing results, no difference. With regard to the "feel" of either - well it depends if

you prefer a more Fortran-like language syntax (IDL) or a more C-like one (Matlab). The cost of both is about the same for the same functionality (University academic discounts and campus licenses notwithstanding) I've used both but long ago settled on IDL because I could change the filename from xxx.pro to xxx.f90 and then, after adding data type declarations, either sed or edit/global-replace my way to a working piece of distributable fortran90 code (sans graphics of course).

The only thing I would be wary about - since you mention you are getting the student version(s) - is that the functionality you need is present. In the past student versions of one or the other (or both) have had limits that could hamper you in your work.

paulv

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Paul van Delst A little learning is a dangerous thing; CIMSS @ NOAA/NCEP Drink deep, or taste not the Pierian spring; Ph: (301)763-8000 x7274 There shallow draughts intoxicate the brain,

Fax:(301)763-8545 And drinking largely sobers us again.

paul.vandelst@noaa.gov Alexander Pope.

Subject: Re: IDL vs. matlab

Posted by Pavel A. Romashkin on Wed, 04 Apr 2001 15:23:03 GMT

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Hi,

Have you looked into Dadisp? Free student version, limited slightly though. Incentives available, if you want a full version. Really intuitive interface. I used it for graduate work, and found it fully adequate. Check http://www.dadisp.com/ Full price is comparable with IDL or Matlab, but you can get a feel for it for free.

I use IDL now. In contrast with Dadisp, IDL does require programming, and, IMHO, is more *project-oriented*. In other words, you can write really nice things in IDL if you know well what you are doing. But if you are not quite sure what you are doing (as I was during my undergrad and grad work), fast prototyping of numerical models is easier and cheaper in Dadisp.

Cheers, Pavel

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- > Thanks
- > Bruno

Subject: Re: IDL vs. matlab

Posted by Randall Skelton on Wed, 04 Apr 2001 16:07:46 GMT

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OK... here are my 2 cents.

- 1) As an undergrad, I would go with what your friends and professors suggest as you do not want to be re-inventing code all night and fighting with syntax idiosyncrasies while your friends are out drinking beer;)
- 2) MATLAB has far better student pricing (in my opinion) and if you are using it on an Intel platform in your class then I would go with that. The IDL student version is 5.0 (well out of date) and it is severely crippled even for undergraduates in my experience. There is talk that RSI may be changing its license pricing to accommodate students who use the full version of IDL at school and need the full version on their own personal computer. Perhaps one of the 'RSI marketing lurkers' would like to comment on this? (I believe there are a few of them among us here).
- 3) MATLAB does have some problems on linux as the software tends to lag behind current linux systems which can cause problems if you are using newer linux installations. Moreover, I don't believe that new versions of MATLAB will be released for the macintosh so if that is your OS of choice, you are best to go with IDL or an alternative.
- 4) Both MATLAB and IDL can be memory hogs and while some people argue that MATLAB is worse, I have seen both programs grind a computer to a halt.
- 5) With all the above being said, you may also want to consider IGOR (http://www.wavemetrics.com) if you are using windows 95/98/NT/2000 or macOS. I used this as both an undergrad and grad student and was very happy with it. It offers a similar 'command line' interface to MATLAB and IDL, while maintaining an intuitive GUI to make the learning process a little smoother. The student price for IGOR was \$99 USD when I bought it and it is a *full* version.

A free alternative to MATLAB on Linux would be Octave (I believe you can even get octave to work on windows if you try hard enough).

Randall

On Wed, 4 Apr 2001, Pavel A. Romashkin wrote:

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- > Cheers,
- > Pavel