
Subject: Matlab <--> PV-Wave ?

Posted by [Franz Dollinger](#) on Wed, 11 Jun 1997 07:00:00 GMT

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Hy,

can anyone please tell me about the main differences between Matlab and PV-Wave?

I worked alot with th latter in the past, but at my new company people mostly use Matlab. To be able to judge on know whether it is better to buy a license of PV-Wave or to learn Matlab I would like to get an idea of the main difference between both programs.

From a first look it seems to me that Matlab is quite poor in numerical routines.

thanx alot
Franz

Subject: Re: Matlab <--> PV-Wave ?

Posted by [Jonathan Rogness](#) on Fri, 13 Jun 1997 07:00:00 GMT

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Paul van Delst wrote:

>
> Hmm. I *wish* IDL had the extensive numerical toolboxes that Matlab
> does. You can accuse Matlab of a lot of things, but lacking in
> numerical routines ain't one of them. IDL _still_ uses Numerical
> Recipes routines for goodness sake. It is well known that some
> Numerical Recipes routines that come with the book have bugs in them.

Well, I've never seen any library that doesn't have a few bugs lurking in it. Numerical Recipes _does_ have some bugs in it (see <http://nr.harvard.edu/nr/upgrade/latest-known-bugs.html>), but there seems to be a trend of spurious bug reports associated with it as well. (See <http://nr.harvard.edu/nr/bug-rebutt.html>)

> Some people here have switched from IDL to Matlab because of the
> strength of the latter's numerical toolboxes in optimising non-linear
> inverse problems in atmospheric remote sensing

I can't speak from the Matlab point of view, but I'll agree with those people who aren't satisfied with IDL's non-linear optimising routines. Too slow for me -- I write my own routines in C and link them to the NAG

library.

Jon

Subject: Re: Matlab <--> PV-Wave ?

Posted by [Paul van Delst](#) on Fri, 13 Jun 1997 07:00:00 GMT

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Franz Dollinger wrote:

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> From a first look it seems to me that Matlab is quite poor in
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Hmm. I *wish* IDL had the extensive numerical toolboxes that Matlab does. You can accuse Matlab of a lot of things, but lacking in numerical routines ain't one of them. IDL *_still_* uses Numerical Recipes routines for goodness sake. It is well known that some Numerical Recipes routines that come with the book have bugs in them. Some people here have switched from IDL to Matlab because of the strength of the latter's numerical toolboxes in optimising non-linear inverse problems in atmospheric remote sensing (the lower price and maintenance wasn't just a side issue either). However, in my opinion, IDL scores over Matlab in the area of data visualisation (although Matlab 5.0 now has widgets and other IDL-like features).

cheers,

Paul van Delst

Subject: Re: Matlab <--> PV-Wave ?

Posted by [jackel\[1\]](#) on Sun, 15 Jun 1997 07:00:00 GMT

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In article <33A19EBD.414@airs2.ssec.wisc.edu> Paul van Delst <paulv@airs2.ssec.wisc.edu> writes:

[Useful comments about MatLab deleted]

> It is well known that some Numerical Recipes routines
> that come with the book have bugs in them.

It may be well known, but is it true? I've been hearing rumors about NR bugs for a long time, but have yet to see *_any_* details. Certainly the first edition had some significant problems, but the second edition fixed all the ones I was aware of.

