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Subject: Re: Looking for a data analysis package - need advise  
Posted by [R.G. Stockwell](#) on Wed, 15 Jan 2003 22:14:09 GMT  
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IDL can definitely do the development, and would be a nice platform for that. However, it may not be the best choice for the commercial product, due to licensing and distribution issues. The migration to another language may be a problem too, since IDL's strength is in its powerful native functions and routines for data analysis (among other things), which are not always directly portable to another language.

Matlab is fairly similar to IDL (for this project), IMHO I prefer IDL (for instance, it seems to be a "fuller" programming language).

If you are also developing the instrument control software, National Instruments Labview may be a good choice. It integrates a lot of hardware control DAQ etc, and also has a very quick development time (if you know labview).

If you just want an application to do the data analysis on winxp, maybe Visual Basic would be best, or do it in C/C++. This project seems kinda small [ no offence :) ], so I'd just develop it in the language you want to distribute the commercial product in.

(If you really want platform independence, which you seem not to, write it in JAVA).

Cheers,  
bob stockwell

Mitch wrote:

- > We're developing a data analysis tool. A single data set consist of
- > two trends containing about 500 samples each. We'll be building a
- > model from a 100 or so data sets, then use the model to match new data
- > received from an instrument.
- >
- > We're looking at wide ranging options from Origin 7, Pattern
- > Recognition Toolkit, Matlab, and of course IDL (hence this post). OS =
- > Windows XP
- >

> Another consideration is that once we have a working prototype, we'll  
> be migrating the code to a commercial product.  
>  
> Could anyone comment on the applicability of IDL to this brief problem  
> statement. Does anyone have other recommendations? How does IDL  
> compare to Matlab. The descriptions at the website, make them seem  
> quite similar.  
>  
> Thanks,  
>  
> Mitch  
> Avantium Technologies Inc  
>

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Subject: Re: Looking for a data analysis package - need advise  
Posted by [barker7](#) on Thu, 16 Jan 2003 15:53:29 GMT  
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Thanks for the info. Particularly about migrating to a commercial application. I had assumed that perhaps IDL had a "run time" version that could be embedded in another application. This would be viable for a reasonable run time fee and terms.

Our data sets are small when looking at the breadth of application of IDL. The challenge is coming up with a model that can "recognize" patterns in the data. I'm not sure that just dumping the raw data into a neural net (or other algorithm) would work. We may need to do some "feature extraction" and feed that to our recognizer. The other bit of info is that we may have multiple traces taken over a period of time.

Maybe we'll take your suggestion and roll our own. Can you point me to any sources of code examples for things like peak detection and noise estimation?

Language is open for our prototype, but the final product may have to be in C# (the new MS language (java clone)).

Mitch

"R.G. Stockwell" <[sorry@noemail.now](mailto:sorry@noemail.now)> wrote in message  
news:<[3E25DD31.6000507@noemail.now](mailto:3E25DD31.6000507@noemail.now)>...

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>> Mitch  
>> Avantium Technologies Inc  
>>

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Subject: Re: Looking for a data analysis package - need advise  
Posted by [R.G. Stockwell](#) on Thu, 16 Jan 2003 17:12:23 GMT  
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Mitch wrote:

- > Thanks for the info. Particularly about migrating to a commercial
- > application. I had assumed that perhaps IDL had a "run time" version
- > that could be embedded in another application. This would be viable
- > for a reasonable run time fee and terms.

IDL does indeed have the ability to create run-time versions. I suggest you call up IDL to get the details.

- > Our data sets are small when looking at the breadth of application of
- > IDL. The challenge is comming up with a model that can "recognize"
- > patterns in the data. I'm not sure that just dumping the raw data into
- > a neural net (or other algorithm) would work. We may need to do some
- > "feature extraction" and feed that to our recognizer. The other bit of
- > info is that we may have multiple traces taken over a period of time.
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- > Maybe we'll take your suggestion and roll our own. Can you point me to
- > any sources of code examples for things like peak detection and noise
- > estimation?

A place to start is [netlib.org](http://netlib.org).

### 2.1) What is Netlib?

The Netlib repository contains freely available software, documents, and databases of interest to the numerical, scientific computing, and other communities. The repository is maintained by AT&T Bell Laboratories, the University of Tennessee and Oak Ridge National Laboratory, and by colleagues world-wide. The collection is replicated at several sites around the world, automatically synchronized, to provide reliable and network efficient service to the global community.

Cheers,  
bob

- > Language is open for our prototype, but the final product may have to
- > be in C# (the new MS language (java clone)).
- >
- > Mitch

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Subject: Re: Looking for a data analysis package - need advise  
Posted by [Mark Fardal](#) on Sat, 18 Jan 2003 01:58:31 GMT  
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barker7@yahoo.com (Mitch) writes:

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- > IDL. The challenge is comming up with a model that can "recognize"
- > patterns in the data. I'm not sure that just dumping the raw data into
- > a neural net (or other algorithm) would work. We may need to do some
- > "feature extraction" and feed that to our recognizer. The other bit of
- > info is that we may have multiple traces taken over a period of time.

If you like an IDL-like syntax but don't want the license hassles,  
perhaps Python (with the Numeric package) would be suitable.

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