

Re: Who uses clapack?

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From: Bill Shortall (*pecos_at_cminet.net*)

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"Victor Eijkhout" <see.sig@for.addy> wrote in message
news:1gokv1s.16zyrk11ytczkbN%see.sig@for.addy...

> Tino <tino52@yahoo.com> wrote:

>

>> *On a slightly related note, is there any effort (or even thought) being
>> put into the development of a "standardized" C++ object-oriented LAPACK
>> library? Something to wrap around the BLAS and LAPACK, perhaps?*

>

> *The thought has occurred to many people. I mean, passing LDA into a C++
> routine is the programming equivalent of turning a crank handle on the
> space shuttle. Now, what to do about it....*

>

> *I've started looking at Sidl/Babel to get a more native looking
> interface in other languages than F77. Not sure to what extent that will
> satisfy you.*

>

> V.

> --

> *email: lastname at cs utk edu*

> *homepage: www cs utk edu tilde lastname*

Hi Victor,

For the last few years I have been working on a set of C++ classes to do linear algebra. I was trying to achieve most of the functionality of Lapack/Blas but in a very user friendly fashion. The classes center around a general purpose vector class along with a dense rectangular Matrix class and then some more complicated classes like a vector of vectors and vector of matrices.

All of them use operator overloading so you can write

$A = B + C * D$ where A,B,C, D are matrices and all of the operators work for both real and complex matrices. All of the basic Linear algebra functions are supported

ie solution of equations, decompositions, SVD eigenvectors etc. etc.

The entire library is less than 5000 lines of code and compiles into a static library of ~ 3 megabytes

sci.math.num-analysis: Re: Who uses clapack?

You don't have to compile it but you will need either a
Microsoft VC6 or Linux GCC compiler to use it.

I have demo version available and if anyone in the group wants to play
with it and has a compatible compiler send me a line. Once you've used it
you will never go back to LAPACK

pecos@cminet.net

regards...Bill