

Re: Who uses clapack?

Source: <http://sci.tech-archive.net/Archive/sci.math.num-analysis/2004-12/0300.html>

From: Dan Pop (Dan.Pop_at_cern.ch)

Date: 12/10/04

Date: 10 Dec 2004 17:31:03 GMT

In <1gokq2z.1qtze21fbcwaoN%see.sig@for.addy> see.sig@for.addy (Victor Eijkhout) writes:

>The authors of lapack/scalapack are starting to work on a new release of
>these packages. One of the things we want to address is the silliness
>that C users, instead of linking to the binaries of the Fortran version,
>use an automatically translated C version.
>
>Therefore we'd like to know precisely what the reasons for this are.
>
>Naively one would say, compile the Fortran version, append an underscore
>(when appropriate) to routine names, and just link those libraries to
>your object files.
>
>What are the gotchas, and what are the real stumbling blocks here?
>Please spell it out in as much detail as you can muster. This situation
>really needs to improve.

The issue that springs to mind is that Fortran and C store matrices differently: Fortran does it column-wise (the first index varies fastest), C does it row-wise (the last index varies fastest).

The fact that Fortran array indexing is 1-based (by default) and C array indexing is 0-based shouldn't cause any problems when using the compiled Fortran code from C.

Dan

--

Dan Pop

DESY Zeuthen, RZ group

Email: Dan.Pop@ifh.de

Currently looking for a job in the European Union