
Subject: Re: Numerical Recipes diffs?

Posted by [kspencer](#) on Thu, 20 Jun 1996 07:00:00 GMT

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kachun@bogart.Colorado.EDU (Ka Chun Yu) writes:

> I've now tested the IDL3 and IDL4 equivalents of the above routines
> with the same inputs, and both routines give different results in
> the two IDL versions.

One possible reason for the different results is that the new routines take row-major arrays, not column-major. (I might have just switched these two -- anyway, the new routines take the transpose of the old format.) All the differences are described in the on-line help.

Kevin

Kevin Spencer
Cognitive Psychophysiology Laboratory and Beckman Institute
University of Illinois at Urbana-Champaign
kspence1@uiuc.edu

Subject: Re: Numerical Recipes diffs?

Posted by [kachun](#) on Thu, 20 Jun 1996 07:00:00 GMT

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In article <4qbh8u\$r9b@fu-berlin.de> marq@strat01.met.fu-berlin.de writes:

> Ka Chun Yu (kachun@bogart.Colorado.EDU) wrote:
> : Does anyone know what IDL did between IDL3 and IDL4 as far as
> : the numerical recipes subroutines go? I've been testing a fitting
> : program that uses the LUDCMP and LUBKSB routines from _Numerical
> : Recipes_, and I've been using IDL's canned routines. The canned
> : routines got name changes during the switch from IDL3 to IDL4,
> : from "nr_ludcmp" and "nr_lubksb" to "ludc" and "lusol". That's
> : not all though--somehow the code got changed around so that I
> : get different results depending on which version of IDL I use
> : even if the input is exactly the same!
> Check the link 'What was New in IDL version 4.0' / Mathematics Improvements'
> of the IDL Online Help (idlhelp, or ? from the IDL command prompt).
> Probably the most important sentence:
>
> "Note that the old routine names still work, but are undocumented."

Yes I noticed this. Unfortunately this statement does not seem to hold for LUDCMP and LUBKSB. Running "nr_ludcmp" or "nr_lubksb" gives me a "Variable is undefined:" error in IDL4.

I've now tested the IDL3 and IDL4 equivalents of the above routines with the same inputs, and both routines give different results in the two IDL versions.

> Chris Marquardt (marq@strat01.met.fu-berlin.de)

--

```
--kachun      +** Center for Astrophysics and Space Astronomy      **+
               +** University of Colorado, Boulder                  **+
               +** Email: kachun@casa.colorado.edu                   **+
               +** http://casa.colorado.edu/~kachun                  **+
```

Subject: Re: Numerical Recipes diffs?

Posted by [marq](#) on Thu, 20 Jun 1996 07:00:00 GMT

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: not all though--somehow the code got changed around so that I
: get different results depending on which version of IDL I use
: even if the input is exactly the same!

: I don't think IDL provides the source for these routines in their
: libraries; they leave them as executables. So does anyone know
: what IDL did between versions, or should I just forget about this
: and rewrite everything from scratch (which would be really annoying)?

Check the link 'What was New in IDL version 4.0' / Mathematics Improvements'
of the IDL Online Help (idlhelp, or ? from the IDL command prompt).
Probably the most important sentence:

"Note that the old routine names still work, but are undocumented."

Hope this helps,

Chris Marquardt (marq@strat01.met.fu-berlin.de)

Subject: Re: Numerical Recipes diffs?

Posted by [kachun](#) on Fri, 21 Jun 1996 07:00:00 GMT

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In article <4qchu0\$2qc@vixen.cso.uiuc.edu> kspencer@s.psych.uiuc.edu (Kevin Spencer) writes:
> kachun@bogat.Colorado.EDU (Ka Chun Yu) writes:
>
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>> with the same inputs, and both routines give different results in
>> the two IDL versions.
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> One possible reason for the different results is that the new routines
> take row-major arrays, not column-major. (I might have just switched
> these two -- anyway, the new routines take the transpose of the old
> format.) All the differences are described in the on-line help.

Yes! That was the problem. One could either enter in the transpose of the input matrixes, or for some functions, specify the COLUMN keyword to use column-major input. Thanks to all those who helped.

> Kevin

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 +** http://casa.colorado.edu/~kachun **+
