Subject: GDL 0.9.7 delivered
Posted by Alain Coulais on Sat, 21 Jan 2017 23:15:47 GMT
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Hi GDL users and contributors,

GDL 0.9.7 was just delivered. Previous version was 0.9.6,
one year ago.

Two very interesting aspects in 0.9.7 : very fast X11 output through
network, experimental --fussy option ("gdl -h" for details)

This version has been extensively tested (make check)
on various OS and various arch (Mageia, Debian 7 and 8, 32 & 64, Fedora,
CentOS 5.11 & 6, Ubuntu 14.04, 15.10, 16.04, OSX 10.9, 10.10 and
10.11 ...).

Can be compiled with GCC 4.8, 4.9, 5.3, 6.0, ICC 16, Clang 6
!!! Take care on compilers options, see note below !!!

Please remember you can easily add 3 useful libraries (collection
of pro files) thanks to Debian packagers : Astron lib, Coyote and Mpfit
https://packages.debian.org/sid/astro-gdl (git clone ...)

The "minimal script" was updated too
 http://gnudatalanguage.cvs.sourceforge.net/viewvc/gnudatalan
guage/gdl/scripts/minimum_script4gdl.sh

We welcome feedbacks, bugs reports, contributions (pro files or
corrections, c++ codes as long as it is GPL compliant, regressions
tests (see testsuite/) ... but it is better to post on SF, eg :
https://sourceforge.net/p/gnudatalanguage/discussion/

Since GDL 0.9.7 can be compiled very easily on most "recent" OS,
we strongly prefer to provide feedbacks on this version
(and not on 0.9.6 or 0.9.5 ...)

with best regards

Alain C. for the GDL team

Note on compilation options (C Compilers flags)

One important note : we notice that the **default** compilation
with ICC or GCC 5 or GDL 6 do not switch on the openmp options

and the performances are not good on multi-cores
(thanks to Eigen3 we are faster than IDL on most matrix operations
since years on multi-cores)
You can test that with "bench_matrix_multiply.pro" in
testsuite/benchmark/

Eg: with GCC 4.6
option -DCMAKE_CXX_FLAGS_RELEASE='*-Ofast -march=native*'
is way better than :

with GCC 5.3, option
cmake .. -DCMAKE_BUILD_TYPE=Release -DCMAKE_CXX_FLAGS_RELEASE='-Ofast
-march=native'
is much better than the default one

Subject: Re: GDL 0.9.7 delivered
Posted by Lajos Foldy on Sun, 22 Jan 2017 19:10:19 GMT
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On Sunday, January 22, 2017 at 12:15:50 AM UTC+1, alai...@gmail.com wrote:

> Eg: with GCC 4.6
> option -DCMAKE_CXX_FLAGS_RELEASE='*-Ofast -march=native*'
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>
> with GCC 5.3, option
> cmake .. -DCMAKE_BUILD_TYPE=Release -DCMAKE_CXX_FLAGS_RELEASE='-Ofast
> -march=native'
> is much better than the default one

Are you sure you want -Ofast? You'll get wrong answers faster :-)

regards,
Lajos

-Ofast
Disregard strict standards compliance. -Ofast enables all -O3 optimizations. It also enables optimizations that are not valid for all standard-compliant programs. It turns on -ffast-math and the Fortran-specific -fno-protect-parens and -fstack-arrays.

-ffast-math
Might allow some programs designed to not be too dependent on IEEE behavior for floating-point to run faster, or die trying. Sets -funsafe-math-optimizations, -ffinite-math-only, and -fno-trapping-math.

-funsafe-math-optimizations

Allow optimizations that may be give incorrect results for certain IEEE inputs.

Subject: Re: GDL 0.9.7 delivered
Posted by cgguido on Wed, 25 Jan 2017 17:30:17 GMT
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Installed 0.9.5 from homebrew on macOS Sierra and got this error:

GDL> a=obj_new('idl_idlbridge')
% Procedure not found: IDL_IDLBRIDGE__DEFINE
% Execution halted at: $MAIN$

Am I doing something wrong? Is this working in 0.9.7 and therefore worth compiling from scratch?

Thanks,
G
