Subject: Announcing GDL 0.9rc4
Posted by m_schellens on Thu, 04 Feb 2010 12:31:49 GMT
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GDL - GNU Data Language, an IDL 6.0 (and later) compatible incremental compiler

Due to the valueable feedback and patches from many contributors and the hard work of the developers
(special thanks to Sylwester Arabas and Alain Coulais), this release became a new milestone for the project.

New highlights in 0.9rc4:

- thread pool support using OpenMP (requires g++ >= 4.2)
- new library routines, including: CPU, CROSSP, GET_SCREEN_SIZE, IMSL_BINOMIALCOEF, IMSL_CONSTANT, IMSL_ZEROPOLY, QUERY_*, WSHOW, WTN (wavelet transform), ...
- enhanced HDF5 (15 new routines) and netCDF support
- support for GRIB 1/2 file format (read-only, using ECMW GRIB_API)
- several new command-line options, support for specifying batch files at command-line
- several bug-fixes in library routines and the compiler/interpreter
- new plotting functionalities (contouring on maps, color postscript output)
- enhanced detection of libraries in the configure script
- enhanced "make install" and "make check" rules
- compatibility fixes for various GCC versions and UNIX flavors

Get GDL from:
https://sourceforge.net/projects/gnudatalanguage

Features (for those who never heard of GDL before):

FULL syntax compatibility with IDL 6.0 and later

ALL IDL language elements are supported, including:
- objects, pointers, structs and arrays,
- system, common block and assoc variables,
- all operators and datatypes,
- _EXTRA, _STRICT_EXTRA and _REF_EXTRA keywords...

Runs on many flavors of UNIX like operating systems (Linux, OS X,

BSD,
OpenSolaris, ...) and on windows using Cygwin or coLinux.

The file input output system is fully implemented
(Exception: For formatted I/O the C() sub-codes are not supported
yet).

netCDF files are fully supported.
HDF and HDF5 files are widely supported.

Overall more than 330 library routines are implemented.
For a sorted list enter HELP,/LIB at the command prompt and look for
library
routines written in GDL in the src/pro subdirectory.
A (currently not 100% up to date) list of subroutines available in GDL
can be found here:
http://aramis.obspm.fr/~coulais/IDL_et_GDL/Matrice_IDLvsGDL_ intrinsic.html

SAVE and RESTORE are supported through Craig Markwardt's CMSVLIB
library.

Graphical output is partially implemented for X windows, z-buffer and
postscript output.
The PLOT, OPLOT, PLOTS, XYOUTS, SURFACE, CONTOUR and TV commands
(along with WINDOW, WDELETE, SET_PLOT, WSET, TVLCT, LOADCT) are
working
(important keywords, some !P system variable tags and multi-plots are
supported.)

GDL has an interface to python (python routines can be called from
GDL).
GDL can be build as a pyhton module (GDL subroutines can be called
from python).

No GUI support (widgets) is implemented so far (but under
development).

GDL is free software licensed under the GPL.

Check it out!
Marc