CGNS software development infrastructure

Repository:

<https://github.com/CGNS/CGNS>

Bug tracking:

<https://cgnsorg.atlassian.net>

Coverity analysis:

1. <https://scan.coverity.com/projects/cgns-cgns>
   1. Static scan analysis
   2. Only scans C code

Github testing:

1. <https://travis-ci.org/CGNS/CGNS>
   1. Tests Linux and mac OS builds
   2. Limited to testing only develop branch, and for one configuration
   3. Includes Fortran testing with auto-tools and cmake
   4. Currently tests with the 1.8 HDF5 branch
2. <https://ci.appveyor.com/project/brtnfld/cgns>
   1. Tests Windows OS builds
   2. Limited to testing only develop branch, and one configuration
   3. Does not include Fortran testing
   4. Uses the latest HDF5 stable windows release

# CGNS Testing Specifications by The HDF Group

The HDF group’s systems testing protocols for CGNS; details the testing coverage for CGNS. Testing runs nightly, and alternates between static and shared builds. Currently build against the trunk version of HDF5. Testing script, *cgnstest.sh*, can be found at svn repository:

<https://svn.hdfgroup.org/hdfdts/trunk/scripts/external>

# Compiler Coverage

Linux/Apple:

* GNU (4 series and 5 series)
* PGI
* Sun
* IBM XL
* Intel
* Mpich 3.2 (built with GNU 5 series compilers)

Windows:

* Intel (Currently not implemented or tested)

# Configuration coverage

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Linux/Apple | #1 | #2 | Test  #3 | #4 | #5 | #6 |
| --with-fortran | x | x |  | x | x | x |
| --enable-parallel |  |  |  |  | x | x |
| --with-hdf5 |  |  | x | x | x | x |
| --enable-64bit | x |  | x |  | x |  |
| --enable-legacy | x |  | x |  |  | x |
| --enable-lfs | x |  | x | x | x |  |
| --enable-debug | x | x | x |  | x |  |

Options always specified (can be changed later):

* --disable-cgnstools --disable-x --disable-shared

|  |  |  |  |
| --- | --- | --- | --- |
| Windows | #1 | #2 | #5 |
| CGNS\_ENABLE\_FORTRAN:BOOL=ON | x | x |  |
| CGNS\_ENABLE\_HDF5:BOOL=ON |  |  | x |
| CGNS\_ENABLE\_64BIT:BOOL=ON | x |  | x |
| CGNS\_ENABLE\_LFS:BOOL=ON |  | x | x |

Options always specified (can be changed later):

* -D CGNS\_BUILD\_CGNSTOOLS:BOOL=OFF -D CGNS\_ENABLE\_TESTS:BOOL=ON

# Additional compiler flags

Fortran (none) – Should add default 8 byte Integers and 8 byte Reals in the future.

C (none)