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
a. Static scan analysis
b. Only scans C code

Github testing:
(1) https://travis-ci.org/CGNS/CGNS
a. Tests Linux and mac OS builds
b. Limited to testing only develop branch, and for one configuration
c. Includes Fortran testing with auto-tools and cmake
d. Currently tests with the 1.8 HDF5 branch
(2) https://ci.appveyor.com/project/brtnfld/cgns
a. Tests Windows OS builds
b. Limited to testing only develop branch, and one configuration
c. Does not include Fortran testing
d. 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

	Test					
Linux/Apple	**#1**	**#2**	**#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)