

HDF5 1.8.20

Release Information

Version	HDF5 1.8.20
Release Date	2017-11-28
Download	Download
Files	Files
Release Notes	Release Notes
Compatibility Report	Compatibility

Files

File	Operating System	Compilers	Comment	MD5 Checksum
hdf5-1.8.20.tar	Source release		Source tarball	hdf5-1.8.20.md5
hdf5-1.8.20.tar.gz	Source release		Gzipped source tarball	hdf5-1.8.20.md5
hdf5-1.8.20.tar.bz2	Source release		Bzipped source tarball	hdf5-1.8.20.md5
hdf5-1.8.20.zip	Source release		Windows zip file	hdf5-1.8.20.md5
CMake-hdf5-1.8.20.tar.gz	CMake source release		See Build Instructions . Contains files to build HDF5 with CMake on Unix	hdf5-1.8.20.md5
CMake-hdf5-1.8.20.zip	CMake source release		See Build Instructions . Contains files to build HDF5 with CMake on Windows	hdf5-1.8.20.md5
hdf5-1.8.20-linux-centos7-x86_64-gcc485-shared.tar.gz	Linux 3.10 CentOS 7 x86_64 binary	gcc, g++, gfortran 4.8.5		hdf5-1.8.20-linux-cent

hdf5-1.8.20-Std-win7_64-vs14.zip	Windows 64-bit binary	CMake VS 2015 C, C++, IVF 16		hdf5-1.8.20-Std-win7_
hdf5-1.8.20-Std-win7_32-vs14.zip	Windows 32-bit binary	CMake VS 2015 C, C++, IVF 16		hdf5-1.8.20-Std-win7_

Release Notes

HDF5 version 1.8.20 released on 2017-11-28

=====
INTRODUCTION
=====

This document describes the differences between HDF5-1.8.19 and HDF5-1.8.20, and contains information on the platforms tested and known problems in HDF5-1.8.20.

For more details, see the files HISTORY-1_0-1_8_0_rc3.txt and HISTORY-1_8.txt in the release_docs/ directory of the HDF5 source.

Links to the HDF5 1.8.20 source code, documentation, and additional materials can be found on the HDF5 web page at:

<https://support.hdfgroup.org/HDF5/>

The HDF5 1.8.20 release can be obtained from:

<https://support.hdfgroup.org/HDF5/release/obtain518.html>

User documentation for 1.8.20 can be accessed directly at this location:

<https://support.hdfgroup.org/HDF5/doc1.8/>

New features in the HDF5-1.8.x release series, including brief general descriptions of some new and modified APIs, are described in the "What's New in 1.8.0?" document:

<https://support.hdfgroup.org/HDF5/doc/ADGuide/WhatsNew180.html>

All new and modified APIs are listed in detail in the "HDF5 Software Changes from Release to Release" document, in the section "Release 1.8.20 (current release) versus Release 1.8.19"

<https://support.hdfgroup.org/HDF5/doc1.8/ADGuide/Changes.html>

If you have any questions or comments, please send them to the HDF Help Desk:

help@hdfgroup.org

CONTENTS

=====

- New Features
- Support for New Platforms, Languages, and Compilers
- Bug Fixes since HDF5-1.8.20
- Supported Platforms
- Supported Configuration Features Summary
- More Tested Platforms
- Known Problems

New Features

=====

Tools

- h5diff

h5diff has new option enable-error-stack.

Updated h5diff with the --enable-error-stack argument, which enables the display of the hdf5 error stack. This completes the improvement to the main tools; h5copy, h5diff, h5dump, h5ls and h5repack.

(ADB - 2017/08/30, HDFFV-9774)

C++ API

- The following C++ API wrappers have been added to the C++ Library:

```
// Creates a binary object description of this datatype.  
void DataType::encode() - C API H5Tencode()
```

```
// Returns the decoded type from the binary object description.  
DataType::decode() - C API H5Tdecode()  
ArrayType::decode() - C API H5Tdecode()  
CompType::decode() - C API H5Tdecode()  
DataType::decode() - C API H5Tdecode()  
EnumType::decode() - C API H5Tdecode()  
FloatType::decode() - C API H5Tdecode()  
IntType::decode() - C API H5Tdecode()  
StrType::decode() - C API H5Tdecode()  
VarLenType::decode() - C API H5Tdecode()
```

```
// Three overloaded functions to retrieve information about an object  
H5Location::getObjectInfo() - H5Oget_info()/H5Oget_info_by_name()
```

(BMR - 2017/10/17, HDFFV-10175)

- New constructors to open existing datatypes added in ArrayType, CompType, DataType, EnumType, FloatType, IntType, StrType, and VarLenType.

(BMR - 2017/10/17, HDFFV-10175)

- A document is added to the HDF5 C++ API Reference Manual to show the mapping from a C API to C++ wrappers. It can be found from the main

page of the C++ API Reference Manual.

(BMR - 2017/10/17, HDFS-10151)

High-Level APIs

- H5Dread_chunk

Users wanted to read compressed data directly from a file without any processing by the HDF5 data transfer pipeline, just as they were able to write it directly to a file with H5Dwrite_chunk.

New API function, corresponding to existing function H5Dwrite_chunk. H5Dread_chunk reads a raw data chunk directly from a chunked dataset in the file into the application buffer, bypassing the library's internal data transfer pipeline, including filters.

(VC - 2017/05/02, HDFS-9934)

Support for New Platforms, Languages, and Compilers

=====

- Added NAG compiler

Bug Fixes since HDF5-1.8.19

=====

Configuration

- cmake

The hdf5 library used shared szip and zlib, which needlessly required applications to link with the same szip and zlib libraries.

Changed the target_link_libraries commands to use the static libs. Removed improper link duplication of szip and zlib. Adjusted the link dependencies and the link interface values of the target_link_libraries commands.

(ADB - 2017/11/14, HDFS-10329)

- cmake MPI

CMake implementation for MPI was problematic and would create incorrect MPI library references in the hdf5 libraries.

Reworked the CMake MPI code to properly create CMake targets. Also merged the latest CMake FindMPI.cmake changes to the local copy. This is necessary until HDF changes the CMake minimum to 3.9 or greater.

(ADB - 2017/11/02, HDFS-10321)

- Fixed Fortran linker flags when using the NAG Fortran compiler (autotools).

(HDFS-10037, MSB, 2017/10/21)

- cmake

Too many commands for POST_BUILD step caused command line to be too big on windows.

Changed foreach of copy command to use a custom command with the use of the HDFTEST_COPY_FILE macro.

(ADB - 2017/07/12, HДФFV-10254)

Library

- filter plugin handling in H5PL.c and H5Z.c

It was discovered that the dynamic loading process used by filter plugins had issues with library dependencies.

CMake build process changed to use LINK INTERFACE keywords, which allowed HDF5 C library to make dependent libraries private. The filter plugin libraries no longer require dependent libraries (such as szip or zlib) to be available.

(ADB - 2017/11/16, HДФFV-10328)

- Fix rare object header corruption bug

In certain cases, such as when converting large attributes to dense storage, an error could occur which would either fail an assertion or cause file corruption. Fixed and added test.

(NAF - 2017/11/14, HДФFV-10274)

- H5Zfilter_avail in H5Z.c

The public function checked for plugins, while the private function did not.

Modified H5Zfilter_avail and private function, H5Z_filter_avail. Moved check for plugin from public to private function. Updated H5P__set_filter due to change in H5Z_filter_avail. Updated tests.

(ADB - 2017/10/10, HДФFV-10297, HДФFV-10319)

- Fix H5Sencode bug when num points selected is $>2^{32}$

Modified to fail if the 32 bit limit is exceeded when encoding either offsets or counts in the selection.

(HДФFV-10323, VC, 2017/09/07)

- Fix H5HL_offset_into()

(1) Fix H5HL_offset_into() to return error when offset exceeds heap data block size.

(2) Fix other places in the library that call this routine to detect error routine.

(HДФFV-10216, VC, 2017/09/05)

Tools

- h5repack

h5repack failed to copy a dataset with existing filter.

Reworked code for h5repack and h5diff code in tools library. Added improved error handling, cleanup of resources and checks of calls. Modified H5Zfilter_avail and private function, H5Z_filter_avail. Moved check for plugin from public to private function. Updated H5P_set_filter due to change in H5Z_filter_avail. Updated tests. Note, h5repack output display has changed to clarify the individual steps of the repack process. The output indicates if an operation applies to all objects. Lines with notation and no information have been removed.

(ADB - 2017/10/10, H5FFV-10297, H5FFV-10319)

- h5repack

h5repack always set the User Defined filter flag to H5Z_FLAG_MANDATORY.

Added another parameter to the 'UD=' option to set the flag by default to '0' or H5Z_FLAG_MANDATORY, the other choice is '1' or H5Z_FLAG_OPTIONAL.

(ADB - 2017/08/31, H5FFV-10269)

- h5ls

h5ls generated error on stack when it encountered a H5S_NULL dataspace.

Adding checks for H5S_NULL before calling H5Sis_simple (located in the h5tools_dump_mem function) fixed the issue.

(ADB - 2017/08/17, H5FFV-10188)

- h5dump

h5dump segfaulted on output of XML file.

Function that escape'd strings used the full buffer length instead of just the length of the replacement string in a strncpy call. Using the correct length fixed the issue.

(ADB - 2017/08/01, H5FFV-10256)

- h5diff

h5diff segfaulted on compare of a NULL variable length string.

Improved h5diff compare of strings by adding a check for NULL strings and setting the lengths to zero.

(ADB - 2017/07/25, H5FFV-10246)

- h5import

h5import crashed trying to import data from a subset of a dataset.

Improved h5import by adding the SUBSET keyword. h5import understands to use the Count times the Block as the size of the dimensions. Added INPUT_B_ORDER keyword to old-style configuration files. The import from h5dump function expects the binary files to use native types (FILE '-b' option) in the binary file.

(ADB - 2017/06/15, HDFFV-10219)

C++ API

- Marked the following functions deprecated because they were moved to class H5Object:

```
H5Location::createAttribute()  
H5Location::openAttribute()  
H5Location::attrExists()  
H5Location::removeAttr()  
H5Location::renameAttr()  
H5Location::getNumAttrs()
```

(BMR - 2017/10/17)

Supported Platforms

=====

The following platforms are supported and have been tested for this release. They are built with the configure process unless specified otherwise.

Linux 2.6.32-573.22.1.el6 #1 SMP x86_64 GNU/Linux (platypus/may11)	GNU C (gcc), Fortran (gfortran), C++ (g++) compilers: Version 4.4.7 20120313 Versions 4.9.3, 5.3.0, 6.2.0 PGI C, Fortran, C++ for 64-bit target on x86-64; Version 16.10-0 Intel(R) C (icc), C++ (icpc), Fortran (icc) compilers: Version 17.0.0.196 Build 20160721 MPICH 3.1.4 compiled with GCC 4.9.3 OpenMPI 2.0.1 compiled with GCC 4.9.3
Linux 2.6.32-573.18.1.el6 #1 SMP ppc64 GNU/Linux (ostrich) 4.4.7-16)	gcc (GCC) 4.4.7 20120313 (Red Hat 4.4.7-16) g++ (GCC) 4.4.7 20120313 (Red Hat 4.4.7-16) GNU Fortran (GCC) 4.4.7 20120313 (Red Hat 4.4.7-16) IBM XL C/C++ V13.1 IBM XL Fortran V15.1
Linux 3.10.0-327.10.1.el7 #1 SMP x86_64 GNU/Linux (kituo/moohan/jelly)	GNU C (gcc), Fortran (gfortran), C++ (g++) compilers: Version 4.8.5 20150623 (Red Hat 4.8.5-4) Versions 4.9.3, 5.3.0, 6.2.0 Intel(R) C (icc), C++ (icpc), Fortran (icc) compilers: Version 17.0.4.196 Build 20170411 MPICH 3.1.4 compiled with GCC 4.9.3

SunOS 5.11 32- and 64-bit (emu)	Sun C 5.12 SunOS_sparc Sun Fortran 95 8.6 SunOS_sparc Sun C++ 5.12 SunOS_sparc
Windows 7	Visual Studio 2012 w/ Intel Fortran 15 (cmake) Visual Studio 2013 w/ Intel Fortran 15 (cmake) Visual Studio 2015 w/ Intel Fortran 16 (cmake)
Windows 7 x64 (cmake)	Visual Studio 2012 w/ Intel Fortran 15 (cmake) Visual Studio 2013 w/ Intel Fortran 15 (cmake) Visual Studio 2015 w/ Intel Fortran 16 (cmake) Visual Studio 2015 w/ Intel C, Fortran 2017 Visual Studio 2015 w/ MSMPI 8 (cmake) Cygwin(CYGWIN_NT-6.1 2.8.0(0.309/5/3) gcc and gfortran compilers (GCC 5.4.0) (cmake and autotools)
Windows 10	Visual Studio 2015 w/ Intel Fortran 16 (cmake) Cygwin(CYGWIN_NT-6.1 2.8.0(0.309/5/3) gcc and gfortran compilers (GCC 5.4.0) (cmake and autotools)
Windows 10 x64	Visual Studio 2015 w/ Intel Fortran 16 (cmake)
Mac OS X Mavericks 10.9.5 64-bit (wren/quail)	Apple LLVM version 6.0 (clang-600.0.57) gfortran GNU Fortran (GCC) 4.9.2 Intel icc/icpc/ifort version 15.0.3
Mac OS X Yosemite 10.10.5 64-bit (osx1010dev/osx1010test)	Apple LLVM version 6.1 (clang-602.0.53) gfortran GNU Fortran (GCC) 4.9.2 Intel icc/icpc/ifort version 15.0.3
Mac OS X El Capitan 10.11.6 64-bit (VM osx1011dev/osx1011test)	Apple LLVM version 7.3.0 (clang-703.0.29) gfortran GNU Fortran (GCC) 5.2.0 Intel icc/icpc/ifort version 16.0.2
Mac OS Sierra 10.12.6 64-bit (kite)	Apple LLVM version 8.1 (clang-802.0.42) gfortran GNU Fortran (GCC) 7.1.0 Intel icc/icpc/ifort version 17.0.2

Tested Configuration Features Summary

=====

In the tables below

- y = tested
- n = not tested in this release
- C = Cluster
- W = Workstation
- x = not working in this release
- dna = does not apply
- () = footnote appears below second table
- <blank> = testing incomplete on this feature or platform

Platform	C	F90/	F90	C++	zlib	SZIP
	parallel	F2003	parallel			

SunOS 5.11 32-bit	n	y/y	n	y	y	y
SunOS 5.11 64-bit	n	y/y	n	y	y	y
Windows 7	y	y/y	n	y	y	y
Windows 7 x64	y	y/y	n	y	y	y
Windows 7 Cygwin	n	y/n	n	y	y	y
Windows 7 x64 Cygwin	n	y/n	n	y	y	y
Windows 10	y	y/y	n	y	y	y
Windows 10 x64	y	y/y	n	y	y	y
Mac OS X Mavericks 10.9.5 64-bit	n	y/y	n	y	y	y
Mac OS X Yosemite 10.10.5 64-bit	n	y/y	n	y	y	y
Mac OS X El Capitan 10.11.6 64-bit	n	y/y	n	y	y	y
Mac OS Sierra 10.12.6 64-bit	n	y/y	n	y	y	y
AIX 6.1 32- and 64-bit	n	y/n	n	y	y	y
CentOS 6.7 Linux 2.6.32 x86_64 GNU	y	y/y	y	y	y	y
CentOS 6.7 Linux 2.6.32 x86_64 Intel	n	y/y	n	y	y	y
CentOS 6.7 Linux 2.6.32 x86_64 PGI	n	y/y	n	y	y	y
CentOS 7.1 Linux 3.10.0 x86_64 GNU	y	y/y	y	y	y	y
CentOS 7.1 Linux 3.10.0 x86_64 Intel	n	y/y	n	y	y	y
Linux 2.6.32-431.11.2.el6.ppc64	n	y/n	n	y	y	y

Platform	Shared C libs	Shared F90 libs	Shared C++ libs	Thread- safe
SunOS 5.11 32-bit	y	y	y	y
SunOS 5.11 64-bit	y	y	y	y
Windows 7	y	y	y	y
Windows 7 x64	y	y	y	y
Windows 7 Cygwin	n	n	n	y
Windows 7 x64 Cygwin	n	n	n	y
Windows 10	y	y	y	y
Windows 10 x64	y	y	y	y
Mac OS X Mavericks 10.9.5 64-bit	y	n	y	y
Mac OS X Yosemite 10.10.5 64-bit	y	n	y	y
Mac OS X El Capitan 10.11.6 64-bit	y	n	y	y
Mac OS Sierra 10.12.6 64-bit	y	n	y	y
AIX 6.1 32- and 64-bit	y	n	n	y
CentOS 6.7 Linux 2.6.32 x86_64 GNU	y	y	y	y
CentOS 6.7 Linux 2.6.32 x86_64 Intel	y	y	y	y
CentOS 6.7 Linux 2.6.32 x86_64 PGI	y	y	y	y
CentOS 7.1 Linux 3.10.0 x86_64 GNU	y	y	y	y
CentOS 7.1 Linux 3.10.0 x86_64 Intel	y	y	y	y
Linux 2.6.32-431.11.2.el6.ppc64	y	y	y	y

Compiler versions for each platform are listed in the preceding "Supported Platforms" table.

More Tested Platforms

=====

The following platforms are not supported but have been tested for this release.

```
Linux 2.6.32-573.22.1.el6      g95 (GCC 4.0.3 (g95 0.94!))
#1 SMP x86_64 GNU/Linux
(may11)
```

```
Debian8.4.0 3.16.0-4-amd64 #1 SMP Debian 3.16.36-1 x86_64 GNU/Linux
gcc (Debian 4.9.2-10) 4.9.2
GNU Fortran (Debian 4.9.2-10) 4.9.2
(cmake and autotools)
```

Fedora24 4.7.2-201.fc24.x86_64 #1 SMP x86_64 x86_64 x86_64 GNU/Linux
gcc (GCC) 6.1.1 20160621 (Red Hat 6.1.1-3)
GNU Fortran (GCC) 6.1.1 20160621 (Red Hat 6.1.1-3)
(cmake and autotools)

CentOS 7.2 3.10.0-327.28.2.el7.x86_64 #1 SMP x86_64 x86_64 x86_64 GNU/Linux
gcc (GCC) 4.8.5 20150623 (Red Hat 4.8.5-4)
GNU Fortran (GCC) 4.8.5 20150623 (Red Hat 4.8.5-4)
(cmake and autotools)

Ubuntu 16.04 4.4.0-38-generic #62-Ubuntu SMP x86_64 GNU/Linux
gcc (Ubuntu 5.4.0-6ubuntu1~16.04.2) 5.4.0
GNU Fortran (Ubuntu 5.4.0-6ubuntu1~16.04.2) 5.4.0
(cmake and autotools)

Known Problems

=====

The dynamically loaded plugin test libraries require undefined references to HDF5 functions to be resolved at runtime in order to function properly. With autotools on CYGWIN this results in build errors, and we have not found a solution that satisfies both. Therefore the dynamically loaded plugin tests have been disabled on CYGWIN.

Mac OS X 10.13 added additional subdirectory structure in .libs for shared libraries. Consequently "make check" will fail testing java and dynamically loaded plugin test libraries attempting to copy files from the previous locations in .libs directories. This will be addressed in the next release when support for the Mac OS X 10.13 platform is added.

Known problems in previous releases can be found in the HISTORY*.txt files

in the HDF5 source. Please report any new problems found to help@hdfgroup.org.

Compatibility

hdf5: 1.8.19 to 1.8.20 compatibility report

API compatibility report for the [hdf5](#) library between **1.8.19** and **1.8.20** versi

Binary
Compatibility

Source
Compatibility

Test Info

Library Name	hdf5
Version #1	1.8.19
Version #2	1.8.20
CPU Type	x86_64
GCC Version	4.8.5
Subject	Binary Compatibility

Test Results

Total Header Files	78
Total Shared Libraries	8
Total Symbols / Types	1862 / 551
Verdict	Incompatible (7.6%)

Problem Summary

	Severity	Count
Added Symbols	-	42
Removed Symbols	High	0
Problems with Data Types	High	22
	Medium	0
	Low	2
	High	0

Problems with Symbols	Medium	0
	Low	0
Problems with Constants	Low	0

Added Symbols (42)

H5ArrayType.h, libhdf5_cpp.so.15.0.0

namespace H5

ArrayType::decode () const

H5CompType.h, libhdf5_cpp.so.15.0.0

namespace H5

CompType::CompType [in-charge] (H5Location const& *loc*, char const* *name*)

CompType::CompType [not-in-charge] (H5Location const& *loc*, char const* *name*)

CompType::decode () const

H5DataType.h, libhdf5_cpp.so.15.0.0

namespace H5

DataType::DataType [in-charge] (H5Location const& *loc*, char const* *name*)

DataType::DataType [in-charge] (H5Location const& *loc*, std::string const& *name*)

DataType::DataType [not-in-charge] (H5Location const& *loc*, char const* *name*)

DataType::DataType [not-in-charge] (H5Location const& *loc*, std::string const& *name*)

DataType::decode () const

DataType::encode ()

DataType::hasBinaryDesc () const

DataType::p_decode () const

DataType::p_opentype (H5Location const& *loc*, char const* *dtype_name*) const

H5EnumType.h, libhdf5_cpp.so.15.0.0

namespace H5

EnumType::decode () const

EnumType::EnumType [in-charge] (H5Location const& *loc*, char const* *name*)

EnumType::EnumType [in-charge] (H5Location const& *loc*, std::string const& *name*)

EnumType::EnumType [not-in-charge] (H5Location const& *loc*, char const* *name*)

EnumType::EnumType [not-in-charge] (H5Location const& *loc*, std::string const& *name*)

H5FloatType.h, libhdf5_cpp.so.15.0.0

namespace H5

FloatType::decode () const

FloatType::FloatType [in-charge] (H5Location const& *loc*, char const* *name*)

FloatType::FloatType [in-charge] (H5Location const& *loc*, std::string const& *name*)

FloatType::FloatType [not-in-charge] (H5Location const& *loc*, char const* *name*)

FloatType::FloatType [not-in-charge] (H5Location const& *loc*, std::string const& *name*)

H5IntType.h, libhdf5_cpp.so.15.0.0

namespace H5

IntType::decode () const

IntType::IntType [in-charge] (H5Location const& *loc*, char const* *name*)

IntType::IntType [in-charge] (H5Location const& *loc*, std::string const& *name*)

IntType::IntType [not-in-charge] (H5Location const& *loc*, char const* *name*)

IntType::IntType [not-in-charge] (H5Location const& *loc*, std::string const& *name*)

H5Location.h, libhdf5_cpp.so.15.0.0

namespace H5

H5Location::getObjectInfo (char const* *name*, H5O_info_t* *oinfo*, LinkAccPropList const&

H5Location::getObjectInfo (H5O_info_t* *oinfo*) const

H5Location::getObjectInfo (std::string const& *name*, H5O_info_t* *oinfo*, LinkAccPropList c

H5Object.h, libhdf5_cpp.so.15.0.0

namespace H5

H5Object::getNumAttrs () const

H5StrType.h, libhdf5_cpp.so.15.0.0

namespace H5

StrType::decode () const

StrType::StrType [in-charge] (H5Location const& *loc*, char const* *name*)

StrType::StrType [in-charge] (H5Location const& *loc*, std::string const& *name*)

StrType::StrType [not-in-charge] (H5Location const& *loc*, char const* *name*)

StrType::StrType [not-in-charge] (H5Location const& *loc*, std::string const& *name*)

H5VarLenType.h, libhdf5_cpp.so.15.0.0

namespace H5

VarLenType::decode () const

VarLenType::VarLenType [in-charge] (H5Location const& *loc*, char const* *name*)

VarLenType::VarLenType [in-charge] (H5Location const& *loc*, std::string const& *name*)

VarLenType::VarLenType [not-in-charge] (H5Location const& *loc*, char const* *name*)

VarLenType::VarLenType [not-in-charge] (H5Location const& *loc*, std::string const& *name*

to the top

Problems with Data Types, High Severity (22)

H5ArrayType.h

namespace H5

[+] class **ArrayType** (1)

H5CompType.h

namespace H5

[+] class **CompType** (1)

H5DataType.h

namespace H5

[+] class **DataType** (2)

H5EnumType.h

namespace **H5**

[+] class **EnumType** (1)

H5FloatType.h

namespace **H5**

[+] class **FloatType** (1)

H5IntType.h

namespace **H5**

[+] class **IntType** (1)

H5Location.h

namespace **H5**

[+] class **H5Location** (13)

H5StrType.h

namespace **H5**

[+] class **StrType** (1)

H5VarLenType.h

namespace **H5**

[+] class **VarLenType** (1)

[to the top](#)

Problems with Data Types, Low Severity (2)

H5DataType.h

namespace **H5**

[+] class **DataType** (2)

[to the top](#)

Header Files (78)

H5AbstractDs.h

H5ACpublic.h

H5api_adpt.h

H5Apublic.h

H5ArrayType.h

H5AtomType.h

H5Attribute.h

H5Classes.h

H5CommonFG.h

H5CompType.h

H5Ccpp.h

H5CcppDoc.h

H5Cpublic.h

H5DataSet.h

H5DataSpace.h
H5DataType.h
H5DcreatProp.h
H5DOpublic.h
H5Dpublic.h
H5DSpublish.h
H5DxferProp.h
H5EnumType.h
H5Epubgen.h
H5Epublic.h
H5Exception.h
H5f90i.h
H5f90i_gen.h
H5FaccProp.h
H5FcreatProp.h
H5FDcore.h
H5FDdirect.h
H5FDfamily.h
H5FDlog.h
H5FDmpi.h
H5FDmpio.h
H5FDmulti.h
H5FDpublic.h
H5FDsec2.h
H5FDstdio.h
H5File.h
H5FloatType.h
H5Fpublic.h
H5Gpublic.h
H5Group.h
H5IdComponent.h
H5IMpublic.h
H5Include.h
H5IntType.h
H5Ipublic.h
H5LaccProp.h
H5Library.h
H5Location.h
H5Lpublic.h
H5LTpublic.h
H5MMpublic.h
H5Object.h
H5OcreatProp.h
H5Opublic.h
H5overflow.h
H5PacketTable.h
H5PLextern.h
H5PLpublic.h
H5Ppublic.h
H5PredType.h
H5PropList.h

H5PTpublic.h
H5pubconf.h
H5public.h
H5Rpublic.h
H5Spublic.h
H5StrType.h
H5TBpublic.h
H5Tpublic.h
H5VarLenType.h
H5version.h
H5Zpublic.h
hdf5.h
hdf5_hl.h

[to the top](#)

Shared Libraries (8)

libhdf5.so.10.3.0
libhdf5_cpp.so.14.0.0
libhdf5_fortran.so.10.0.4
libhdf5_hl.so.10.2.0
libhdf5_hl_cpp.so.11.1.0
libhdf5hl_fortran.so.10.0.3
libsz.so.2.0.0
libz.so.1.2.5

[to the top](#)

Test Info

Library Name	hdf5
Version #1	1.8.19
Version #2	1.8.20
CPU Type	x86_64
GCC Version	4.8.5
Subject	Source Compatibility

Test Results

Total Header Files	78
Total Shared Libraries	8
Total Symbols / Types	1902 / 554

Verdict

Incompatible
(0.1%)

Problem Summary

	Severity	Count
Added Symbols	-	50
Removed Symbols	High	2
Problems with Data Types	High	0
	Medium	0
	Low	0
Problems with Symbols	High	0
	Medium	0
	Low	0
Problems with Constants	Low	5

Added Symbols (50)

H5ArrayType.h

namespace H5

```
ArrayType::ArrayType [in-charge] ( int const& loc, char const* name )  
ArrayType::ArrayType [in-charge] ( int const& loc, int const& name )  
ArrayType::ArrayType [not-in-charge] ( int const& loc, char const* name )  
ArrayType::ArrayType [not-in-charge] ( int const& loc, int const& name )  
ArrayType::decode ( ) const
```

H5CompType.h

namespace H5

```
CompType::CompType [in-charge] ( H5Location const& loc, char const* name )  
CompType::CompType [in-charge] ( H5Location const& loc, int const& name )  
CompType::CompType [not-in-charge] ( H5Location const& loc, char const* name )  
CompType::CompType [not-in-charge] ( H5Location const& loc, int const& name )  
CompType::decode ( ) const
```

H5DataType.h

namespace H5

```
DataType::DataType [in-charge] ( H5Location const& loc, char const* name )  
DataType::DataType [in-charge] ( H5Location const& loc, std::string const& name )  
DataType::DataType [not-in-charge] ( H5Location const& loc, char const* name )  
DataType::DataType [not-in-charge] ( H5Location const& loc, std::string const& name )  
DataType::decode ( ) const  
DataType::encode ( )
```

DataType::hasBinaryDesc () const

DataType::p_decode () const

DataType::p_opentype (H5Location const& *loc*, char const* *dtype_name*) const

H5EnumType.h

namespace H5

EnumType::decode () const

EnumType::EnumType [in-charge] (H5Location const& *loc*, char const* *name*)

EnumType::EnumType [in-charge] (H5Location const& *loc*, std::string const& *name*)

EnumType::EnumType [not-in-charge] (H5Location const& *loc*, char const* *name*)

EnumType::EnumType [not-in-charge] (H5Location const& *loc*, std::string const& *name*)

H5FloatType.h

namespace H5

FloatType::decode () const

FloatType::FloatType [in-charge] (H5Location const& *loc*, char const* *name*)

FloatType::FloatType [in-charge] (H5Location const& *loc*, std::string const& *name*)

FloatType::FloatType [not-in-charge] (H5Location const& *loc*, char const* *name*)

FloatType::FloatType [not-in-charge] (H5Location const& *loc*, std::string const& *name*)

H5IntType.h

namespace H5

IntType::decode () const

IntType::IntType [in-charge] (H5Location const& *loc*, char const* *name*)

IntType::IntType [in-charge] (H5Location const& *loc*, std::string const& *name*)

IntType::IntType [not-in-charge] (H5Location const& *loc*, char const* *name*)

IntType::IntType [not-in-charge] (H5Location const& *loc*, std::string const& *name*)

H5Location.h

namespace H5

H5Location::getObjectInfo (char const* *name*, H5O_info_t* *oinfo*, LinkAccPropList const&

H5Location::getObjectInfo (H5O_info_t* *oinfo*) const

H5Location::getObjectInfo (std::string const& *name*, H5O_info_t* *oinfo*, LinkAccPropList c

H5Object.h

namespace H5

H5Object::getNumAttrs () const

H5StrType.h

namespace H5

StrType::decode () const

StrType::StrType [in-charge] (H5Location const& *loc*, char const* *name*)

StrType::StrType [in-charge] (H5Location const& *loc*, std::string const& *name*)

StrType::StrType [not-in-charge] (H5Location const& *loc*, char const* *name*)

StrType::StrType [not-in-charge] (H5Location const& *loc*, std::string const& *name*)

H5VarLenType.h

namespace H5

VarLenType::decode () const

VarLenType::VarLenType [in-charge] (DataType const& *base_type*)
VarLenType::VarLenType [in-charge] (H5Location const& *loc*, char const* *name*)
VarLenType::VarLenType [in-charge] (H5Location const& *loc*, std::string const& *name*)
VarLenType::VarLenType [not-in-charge] (DataType const& *base_type*)
VarLenType::VarLenType [not-in-charge] (H5Location const& *loc*, char const* *name*)
VarLenType::VarLenType [not-in-charge] (H5Location const& *loc*, std::string const& *name*)

[to the top](#)

Removed Symbols (2)

H5Object.h

namespace H5

H5Object::H5Object [in-charge] (hid_t const *object_id*)
H5Object::H5Object [not-in-charge] (hid_t const *object_id*)

[to the top](#)

Problems with Constants, Low Severity (5)

H5pubconf.h

[+] **H5_PACKAGE_STRING**
[+] **H5_PACKAGE_VERSION**
[+] **H5_VERSION**

H5public.h

[+] **H5_VERS_INFO**
[+] **H5_VERS_RELEASE**

[to the top](#)

Header Files (78)

H5AbstractDs.h
H5ACpublic.h
H5api_adpt.h
H5Apublic.h
H5ArrayType.h
H5AtomType.h
H5Attribute.h
H5Classes.h
H5CommonFG.h
H5CompType.h
H5Cpp.h
H5CppDoc.h
H5Cpublic.h
H5DataSet.h

H5DataSpace.h
H5DataType.h
H5DcreatProp.h
H5DOpublic.h
H5Dpublic.h
H5DSpublish.h
H5DxferProp.h
H5EnumType.h
H5Epubgen.h
H5Epublic.h
H5Exception.h
H5f90i.h
H5f90i_gen.h
H5FaccProp.h
H5FcreatProp.h
H5FDcore.h
H5FDdirect.h
H5FDfamily.h
H5FDlog.h
H5FDmpi.h
H5FDmpio.h
H5FDmulti.h
H5FDpublic.h
H5FDsec2.h
H5FDstdio.h
H5File.h
H5FloatType.h
H5Fpublic.h
H5Gpublic.h
H5Group.h
H5IdComponent.h
H5IMpublic.h
H5Include.h
H5IntType.h
H5Ipublic.h
H5LaccProp.h
H5Library.h
H5Location.h
H5Lpublic.h
H5LTpublic.h
H5MMpublic.h
H5Object.h
H5OcreatProp.h
H5Opublic.h
H5overflow.h
H5PacketTable.h
H5PLextern.h
H5PLpublic.h
H5Ppublic.h
H5PredType.h
H5PropList.h

H5PTpublic.h
H5pubconf.h
H5public.h
H5Rpublic.h
H5Spublic.h
H5StrType.h
H5TBpublic.h
H5Tpublic.h
H5VarLenType.h
H5version.h
H5Zpublic.h
hdf5.h
hdf5_hl.h

[to the top](#)

Shared Libraries (8)

libhdf5.so.10.3.0
libhdf5_cpp.so.14.0.0
libhdf5_fortran.so.10.0.4
libhdf5_hl.so.10.2.0
libhdf5_hl_cpp.so.11.1.0
libhdf5hl_fortran.so.10.0.3
libsz.so.2.0.0
libz.so.1.2.5

[to the top](#)

