

HDF5 1.8.19

Release Information

Version	HDF5 1.8.19
Release Date	2017-06-15
Download	Download
Files	Files
Release Notes	Release Notes
Compatibility Report	Compatibility

Files

File	Operating System	Compilers	Comment	MD5 Checksum
hdf5-1.8.19.tar	Source release		Source tarball	hdf5-1.8.19.md5
hdf5-1.8.19.tar.gz	Source release		Gzipped source tarball	hdf5-1.8.19.md5
hdf5-1.8.19.tar.bz2	Source release		Bzipped source tarball	hdf5-1.8.19.md5
hdf5-1.8.19.zip	Source release		Windows zip file	hdf5-1.8.19.md5
hdf5-1.8.19-linux-centos7-x86_64-gcc485-shared.tar.gz	Linux 3.10 CentOS 7 x86_64	gcc, g++, gfortran 4.8.5		
hdf5-1.8.19-Std-win7_64-vs2015.zip	Windows 64-bit	CMake VS 2015 C, C++, IVF 16		hdf5-1.8.19-Std-win7_
hdf5-1.8.19-Std-win7_32-vs2015.zip	Windows 32-bit	CMake VS 2013 C, C++, IVF 16		hdf5-1.8.19-Std-win7_
hdf5-1.8.19-Std-win7_64-vs2013.zip	Windows 64-bit	CMake VS 2013 C, C++, IVF 15		hdf5-1.8.19-Std-win7_
hdf5-1.8.19-Std-win7_32-vs2013.zip	Windows 32-bit	CMake VS 2015 C, C++, IVF 15		hdf5-1.8.19-Std-win7_

Release Notes

HDF5 version 1.8.19 released on 2017-06-15

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INTRODUCTION

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This document describes the differences between HDF5-1.8.18 and HDF5-1.8.19, and contains information on the platforms tested and known problems in HDF5-1.8.19.

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

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

The HDF5 1.8.19 release can be obtained from:

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

User documentation for 1.8.19 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 1.8.19 (current release) versus Release 1.8.18

<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

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- Support for New Platforms, Languages, and Compilers
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New Features

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Configuration

- CMake in the Tools

User-defined filters on Windows require that tools be built with shared libraries.

CMake command code added to build tools with shared libraries as well as with static libraries.

(ADB - 2017/02/07, HDFS-10123)

Library

- H5PL package

Users would like to be able to set the plugin path programmatically instead of through the environment variable.

H5PL package obtained new APIs for manipulating the entries of the plugin path table. The new APIs are;

- H5PLappend - Insert a plugin path at the end of the list.
- H5PLprepend - Insert a plugin path at the beginning of the list.
- H5PLreplace - Replace the path at the specified index.
- H5PLinsert - Insert a plugin path at the specified index, moving other paths after the index.
- H5PLremove - Remove the plugin path at the specified index and compacting the list.
- H5PLget - Query the plugin path at the specified index.
- H5PLsize - Query the size of the current list of plugin paths.

(ADB - 2017/04/04, HDFS-10143)

- H5Dget_chunk_storage_size

The storage size of a chunk in the file is needed to determine the size of the buffer to be allocated for reading a chunk directly from a file.

New API function gets the size in bytes currently allocated within a file for a raw data chunk in a dataset. This function was added to get the chunk size in support of the implementation of H5Dread_chunks, but may also be useful for other purposes.

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

C++ API

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

- // Determines if a name exists.
H5Location::nameExists() - C API H5Lexists()

- // Checks if an ID is valid.
IdComponent::isValid() - C API H5Iis_valid()

```

// Sets the number of soft or user-defined links that can be
// traversed before a failure occurs.
LinkAccPropList::setNumLinks() - C API H5Pset_nlinks()

// Gets the number of soft or user-defined link traversals allowed
LinkAccPropList::getNumLinks() - C API H5Pget_nlinks()

// Returns a copy of the creation property list of a datatype.
DataType::getCreatePlist() - C API H5Tget_create_plist()

// Opens an object within a location, regardless its type.
H5Location::openObjId() - C API H5Oopen()
H5Location::openObjId() - C API H5Oopen()

// Closes an object opened by openObjId().
H5Location::closeObjId() - C API H5Oclose()

// Gets general information about a file.
H5File::getFileInfo() - C API H5Fget_info()

// Returns the header version of an HDF5 object.
H5Object::objVersion() - C API H5Oget_info()

```

(BMR, 2017/05/13, HDFFFV-10004, HDFFFV-10156)

- New class LinkAccPropList is added for link access property list

(BMR, 2017/05/13, HDFFFV-10156)

High-Level APIs

- H5Doread_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 H5Dowrite_chunk.

New API function, corresponding to existing function H5Dowrite_chunk. H5Doread_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, HDFFFV-9934)

Support for New Platforms, Languages, and Compilers

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- Added OpenMPI 2.0.1 compiled with GCC 4.9.3

Bug Fixes since HDF5-1.8.18

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Configuration

- Support for Fortran shared libraries on OS X with autotools now works. Cmake builds still disables Fortran shared libraries on OS X.

(MSB - 2017/04/30, HДФFV-2772)

Library

- bitfield datatypes

bitfield datatypes did not fully support endianness of the data.

Improved the endianness of bitfield datatypes by adding missing functional code. This code used integer types as a template.

(ADB - 2017/05/12, HДФFV-10186)

- Newly created datasets with H5D_COMPACT layout failed to open after several H5Dopen/H5Dclose cycles.

The layout "dirty" flag for a compact dataset is now properly reset before flushing the message.

(VC - 2017/05/11, HДФFV-10051)

- Missing #ifdef __cplusplus macros were added to the generated H5Epubgen.h file.

(DER - 2017/04/25, HДФFV-9638)

Tools

- h5repack

h5repack did not maintain the creation order flag of the root group.

Improved h5repack by reading the creation order and applying the flag to the new root group. Also added arguments to set the order and index direction, which applies to the traversing of the original file, on the command line.

(ADB - 2017/05/26, HДФFV-8611)

- h5diff

h5diff failed to account for strpad type and null terminators of char strings. Also, h5diff failed to account for string length differences and would give a different result depending on file order in the command line.

Improved h5diff compare of strings and arrays by adding a check for string lengths and if the strpad was null filled.

(ADB - 2017/05/18, HДФFV-9055, HДФFV-10128)

- h5diff

h5diff help text about epsilon comparison was confusing.

Changed h5diff help text to indicate that the 'a' refers to the

datapoint in file1 and 'b' refers to the datapoint value in file2.

(ADB - 2017/05/16, HDFS-9995)

- h5diff

h5diff did not report user-defined filter data differences correctly.

Improved h5diff compare of user-defined filter data by reporting an error if the user-defined filter plugin cannot be found.

(ADB - 2017/01/18, HDFS-9994)

C++ API

- The class hierarchy is revised to better reflect the HDF5 model. Class H5File is now derived from class Group instead of H5Location. Class Attribute is now derived from H5Location instead of IdComponent. Wrappers of H5A APIs in H5Location are now duplicated in H5Object, the original wrappers in H5Location will be deprecated in future releases.

(BMR - 2017/05/15, HDFS-10156)

Supported Platforms

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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, 5.2.0, 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 17.0.0.098 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)	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)	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 Mt. Lion 10.8.5 64-bit (swallow/kite)	Apple LLVM version 5.1 (clang-503.0.40) gfortran GNU Fortran (GCC) 4.8.2 Intel icc/icpc/ifort version 15.0.3
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 10.11.4 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

Tested Configuration Features Summary

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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/ parallel	F90 F2003 parallel	C++	zlib	SZIP
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 Mountain Lion 10.8.5 64-bit	n	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
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 Mountain Lion 10.8.5 64-bit	y	n	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
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

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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

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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.

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: 1.8.18 to 1.8.19 compatibility report

API compatibility report for the [hdf5](#) library between **1.8.18** and **1.8.19** versi

Binary
Compatibility

Source
Compatibility

Test Info

Library Name	hdf5
Version #1	1.8.18
Version #2	1.8.19
CPU Type	x86
GCC Version	4.1.2
Subject	Binary Compatibility

Test Results

Total Header Files	77
Total Shared Libraries	8
Total Symbols / Types	1769 / 535
Verdict	Incompatible (5.3%)

Problem Summary

	Severity	Count
Added Symbols	-	42
Removed Symbols	High	2
Problems with Data Types	High	15
	Medium	0
	Low	0
	High	0

Problems with Symbols	Medium	0
	Low	4
Problems with Constants	Low	0
Other Changes in Constants	-	5

Added Symbols (42)

H5DataType.h, libhdf5_cpp.so.14.0.0

namespace H5

DataType::getCreatePlist () const

H5DOPublic.h, libhdf5_hl.so.10.2.0

H5Doread_chunk (hid_t *dset_id*, hid_t *dxpl_id*, hsize_t const* *offset*, uint32_t* *filters*, void*

H5Dpublic.h, libhdf5.so.10.3.0

H5Dget_chunk_storage_size (hid_t *dset_id*, hsize_t const* *offset*, hsize_t* *chunk_bytes*)

H5File.h, libhdf5_cpp.so.14.0.0

namespace H5

H5File::getFileInfo (H5F_info_t& *file_info*) const

H5IdComponent.h, libhdf5_cpp.so.14.0.0

namespace H5

IdComponent::isValid (hid_t *an_id*) [static]

H5LaccProp.h, libhdf5_cpp.so.14.0.0

namespace H5

LinkAccPropList::DEFAULT [data]

LinkAccPropList::deleteConstants () [static]

LinkAccPropList::fromClass () const

LinkAccPropList::getNumLinks () const

LinkAccPropList::LinkAccPropList [in-charge] ()

LinkAccPropList::LinkAccPropList [in-charge] (LinkAccPropList const& *original*)

LinkAccPropList::LinkAccPropList [in-charge] (hid_t const *plist_id*)

LinkAccPropList::LinkAccPropList [not-in-charge] ()

LinkAccPropList::LinkAccPropList [not-in-charge] (LinkAccPropList const& *original*)

LinkAccPropList::LinkAccPropList [not-in-charge] (hid_t const *plist_id*)

LinkAccPropList::~LinkAccPropList [in-charge-deleting] ()

LinkAccPropList::~LinkAccPropList [in-charge] ()

LinkAccPropList::~LinkAccPropList [not-in-charge] ()

H5Location.h, libhdf5_cpp.so.14.0.0

namespace H5

H5Location::closeObjId (hid_t *obj_id*) const

H5Location::nameExists (char const* *name*, LinkAccPropList const& *lapl*) const

H5Location::nameExists (std::string const& *name*, LinkAccPropList const& *lapl*) **const**
H5Location::objVersion () **const**
H5Location::openObjId (char const* *name*, LinkAccPropList const& *lapl*) **const**
H5Location::openObjId (std::string const& *name*, LinkAccPropList const& *lapl*) **const**

H5Object.h, libhdf5_cpp.so.14.0.0

namespace **H5**

H5Object::attrExists (char const* *name*) **const**
H5Object::attrExists (std::string const& *name*) **const**
H5Object::createAttribute (char const* *name*, DataType const& *type*, DataSpace const& *space*) **const**
H5Object::createAttribute (std::string const& *name*, DataType const& *type*, DataSpace const& *space*) **const**
H5Object::openAttribute (char const* *name*) **const**
H5Object::openAttribute (std::string const& *name*) **const**
H5Object::openAttribute (unsigned int const *idx*) **const**
H5Object::removeAttr (char const* *name*) **const**
H5Object::removeAttr (std::string const& *name*) **const**
H5Object::renameAttr (char const* *oldname*, char const* *newname*) **const**
H5Object::renameAttr (std::string const& *oldname*, std::string const& *newname*) **const**

H5PLpublic.h, libhdf5.so.10.3.0

H5PLappend (char const* *plugin_path*)
H5PLget (unsigned int *index*, char* *pathname*, size_t *size*)
H5PLinsert (char const* *plugin_path*, unsigned int *index*)
H5PLprepend (char const* *plugin_path*)
H5PLremove (unsigned int *index*)
H5PLreplace (char const* *plugin_path*, unsigned int *index*)
H5PLsize (unsigned int* *listsize*)

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Removed Symbols (2)

H5Group.h, libhdf5_cpp.so.13.0.0

namespace **H5**

Group::Group [in-charge] (Attribute const& *attr*, void const* *ref*, enum H5R_type_t *ref_type*)
Group::Group [not-in-charge] (Attribute const& *attr*, void const* *ref*, enum H5R_type_t *ref_type*)

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Problems with Data Types, High Severity (15)

H5File.h

namespace **H5**

[+] class **H5File** (3)

H5Location.h

namespace **H5**

[+] class **H5Location** (12)

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Problems with Symbols, Low Severity (4)

H5ArrayType.h, libhdf5_cpp.so.13.0.0

namespace **H5**

[+] **ArrayType::ArrayType** [in-charge] (int const *DataType*) (2)

[+] **ArrayType::ArrayType** [not-in-charge] (int const *DataType*) (2)

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Other Changes in Constants (5)

H5Dpublic.h

[+] **H5D_XFER_DIRECT_CHUNK_READ_FILTERS_NAME**

[+] **H5D_XFER_DIRECT_CHUNK_READ_FLAG_NAME**

[+] **H5D_XFER_DIRECT_CHUNK_READ_OFFSET_NAME**

H5pubconf.h

[+] **H5_HAVE_STRTOLL**

[+] **H5_HAVE_STRTOULL**

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Header Files (77)

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
H5DSpublic.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
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

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Shared Libraries (8)

libhdf5.so.10.2.1
libhdf5_cpp.so.13.0.0
libhdf5_fortran.so.10.0.4
libhdf5_hl.so.10.1.1
libhdf5_hl_cpp.so.11.1.0
libhdf5hl_fortran.so.10.0.3
libsz.so.2.0.0
libz.so.1.2.5

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Test Info

Library Name	hdf5
Version #1	1.8.18
Version #2	1.8.19
CPU Type	x86
GCC Version	4.1.2
Subject	Source Compatibility

Test Results

Total Header Files	77
Total Shared Libraries	8
Total Symbols / Types	1857 / 546
Verdict	Incompatible (0.3%)

Problem Summary

	Severity	Count
Added Symbols	-	50
Removed Symbols	High	6
Problems with Data Types	High	0
	Medium	0
	Low	2
Problems with Symbols	High	0
	Medium	2
	Low	0
Problems with Constants	Low	5
Other Changes in Symbols	-	2
Other Changes in Constants	-	5

Added Symbols (50)

H5AbstractDs.h

namespace H5

AbstractDs::getDataType () const

H5ArrayType.h

namespace H5

ArrayType::ArrayType [in-charge] (DataType const& *base_type*, int *ndims*, hsize_t const*

ArrayType::ArrayType [not-in-charge] (DataType const& *base_type*, int *ndims*, hsize_t cor

H5Attribute.h

namespace H5

Attribute::read (DataType const& *mem_type*, int& *strg*) const

Attribute::read (DataType const& *mem_type*, void* *buf*) const

Attribute::write (DataType const& *mem_type*, int const *H5std_string*) const

Attribute::write (DataType const& *mem_type*, void const* *buf*) const

H5DataType.h

namespace H5

DataType::getCreatePlist () const

H5DOPublic.h

H5DOPublic::read_chunk (hid_t *dset_id*, hid_t *dxpl_id*, hsize_t const* *offset*, uint32_t* *filters*, void*

H5Dpublic.h

H5Dget_chunk_storage_size (hid_t *dset_id*, hsize_t const* *offset*, hsize_t* *chunk_bytes*)

H5File.h

namespace H5

H5File::getFileInfo (H5F_info_t& *file_info*) const

H5IdComponent.h

namespace H5

IdComponent::isValid (hid_t *an_id*) [static]

H5LaccProp.h

namespace H5

LinkAccPropList::DEFAULT [data]

LinkAccPropList::deleteConstants () [static]

LinkAccPropList::fromClass () const

LinkAccPropList::getNumLinks () const

LinkAccPropList::LinkAccPropList [in-charge] ()

LinkAccPropList::LinkAccPropList [in-charge] (LinkAccPropList const& *original*)

LinkAccPropList::LinkAccPropList [in-charge] (hid_t const *plist_id*)

LinkAccPropList::LinkAccPropList [not-in-charge] ()

LinkAccPropList::LinkAccPropList [not-in-charge] (LinkAccPropList const& *original*)

LinkAccPropList::LinkAccPropList [not-in-charge] (hid_t const *plist_id*)

LinkAccPropList::setNumLinks (size_t *nlinks*) const

LinkAccPropList::~LinkAccPropList [in-charge-deleting] ()

LinkAccPropList::~LinkAccPropList [in-charge] ()

LinkAccPropList::~LinkAccPropList [not-in-charge] ()

H5Location.h

namespace H5

H5Location::closeObjId (hid_t *obj_id*) const

H5Location::nameExists (char const* *name*, LinkAccPropList const& *lapl*) const

H5Location::nameExists (std::string const& *name*, LinkAccPropList const& *lapl*) const

H5Location::objVersion () const

H5Location::openObjId (char const* *name*, LinkAccPropList const& *lapl*) const

H5Location::openObjId (std::string const& *name*, LinkAccPropList const& *lapl*) const

H5Object.h

namespace H5

H5Object::attrExists (char const* *name*) const

H5Object::attrExists (std::string const& *name*) const

H5Object::createAttribute (char const* *name*, DataType const& *type*, DataSpace const& *space*) const

H5Object::createAttribute (std::string const& *name*, DataType const& *type*, DataSpace const& *space*) const

H5Object::openAttribute (char const* *name*) const

H5Object::openAttribute (std::string const& *name*) const

H5Object::openAttribute (unsigned int const *idx*) const

H5Object::removeAttr (char const* *name*) **const**
H5Object::removeAttr (std::string const& *name*) **const**
H5Object::renameAttr (char const* *oldname*, char const* *newname*) **const**
H5Object::renameAttr (std::string const& *oldname*, std::string const& *newname*) **const**

H5PLpublic.h

H5PLappend (char const* *plugin_path*)
H5PLget (unsigned int *index*, char* *pathname*, size_t *size*)
H5PLinsert (char const* *plugin_path*, unsigned int *index*)
H5PLprepend (char const* *plugin_path*)
H5PLremove (unsigned int *index*)
H5PLreplace (char const* *plugin_path*, unsigned int *index*)
H5PLsize (unsigned int* *listsize*)

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Removed Symbols (6)

H5Attribute.h

namespace **H5**

Attribute::read (int const *DataType*) **const**
Attribute::write (int const *DataType*) **const**

H5Group.h

namespace **H5**

Group::Group [in-charge] (Attribute const& *attr*, void const* *ref*, enum H5R_type_t *ref_type*)
Group::Group [not-in-charge] (Attribute const& *attr*, void const* *ref*, enum H5R_type_t *ref_*

H5IdComponent.h

namespace **H5**

IdComponent::IdComponent [in-charge] (hid_t const *h5_id*)
IdComponent::IdComponent [not-in-charge] (hid_t const *h5_id*)

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Problems with Symbols, Medium Severity (2)

H5Attribute.h

namespace **H5**

[+] **Attribute::read** (int const *DataType*) **const** (1)
[+] **Attribute::write** (int const *DataType*) **const** (1)

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Problems with Data Types, Low Severity (2)

H5File.h

namespace [H5](#)

[+] class [H5File](#) (2)

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Problems with Constants, Low Severity (5)

H5pubconf.h

[+] [H5_PACKAGE_STRING](#)

[+] [H5_PACKAGE_VERSION](#)

[+] [H5_VERSION](#)

H5public.h

[+] [H5_VERS_INFO](#)

[+] [H5_VERS_RELEASE](#)

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Other Changes in Symbols (2)

H5ArrayType.h

namespace [H5](#)

[+] [ArrayType::ArrayType](#) [in-charge] (int const *DataType*) (1)

[+] [ArrayType::ArrayType](#) [not-in-charge] (int const *DataType*) (1)

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Other Changes in Constants (5)

H5Dpublic.h

[+] [H5D_XFER_DIRECT_CHUNK_READ_FILTERS_NAME](#)

[+] [H5D_XFER_DIRECT_CHUNK_READ_FLAG_NAME](#)

[+] [H5D_XFER_DIRECT_CHUNK_READ_OFFSET_NAME](#)

H5pubconf.h

[+] [H5_HAVE_STRTOLL](#)

[+] [H5_HAVE_STRTOULL](#)

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Header Files (77)

[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
H5DSpublic.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
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

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Shared Libraries (8)

libhdf5.so.10.2.1
libhdf5_cpp.so.13.0.0
libhdf5_fortran.so.10.0.4
libhdf5_hl.so.10.1.1
libhdf5_hl_cpp.so.11.1.0
libhdf5hl_fortran.so.10.0.3
libsz.so.2.0.0
libz.so.1.2.5

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