

Newsletter #146

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Release of HDF5-1.8.16

The HDF5-1.8.16 release is now available. It can be obtained from The HDF Group Downloads page:

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

It can also be obtained directly from the HDF5 download page:

<https://support.hdfgroup.org/HDF5/release/obtain5.html>

HDF5-1.8.16 is a minor release with a few new features and changes. Important changes to be aware of are:

- The CMake files have been updated to build both static and shared libraries, with tools only built statically.
- The shared object version numbers for wrapper libraries have been decoupled from the shared object version number for the HDF5 library. These version numbers will be maintained on an individual basis according to any interface changes specific to the corresponding wrapper libraries.
- The `H5is_library_threadsafe ()` function was added for indicating if the library was built with threadsafety enabled.
- C++ API Changes:
 - Static global constant objects were changed to constant references to dynamically allocated objects. This change was necessary because memory leaks occurred as a result of the global constants not getting properly deleted prior to termination of the C library. This was the change that prompted the above mentioned modification of the shared object version numbers for wrapper libraries.

- The class H5::ObjCreatPropList was added for the object creation property list class.
- New wrappers were added for the C functions H5P[s/g]et_attr_phase_change and H5P[s/g]et_attr_creation_order.
- Windows support was added for Visual Studio 2015 with Intel Fortran 16.

This release contains many other changes that are not listed here. Please be sure to read the Release Notes for a comprehensive list of new features and changes:

<https://support.hdfgroup.org/ftp/HDF5/releases/hdf5-1.8.16/src/hdf5-1.8.16-RELEASE.txt>

Changes that affect maintainers of HDF5-dependent applications are listed on the Software Changes from Release to Release page:

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

Future Changes to Supported Compilers and Platforms

After this release, we will be moving our CMake standard to 3.4 to make use of features that will improve our build environment on more platforms.

Our Windows standard will remain Windows 7 with Visual Studio 2013 and Intel Fortran 15. After the release of HDF5-1.8.17 in May 2016 we plan to move the standard to Windows 10 with Visual Studio 2015 and Intel Fortran 16.

We will continue to test Visual Studio 2012, Visual Studio 2013 and Intel Fortran 15 on Windows 7 and Windows 8.1.

We plan to drop Mac OS X 10.8 after this release.

Software Highlights

We are developing several new HDF applications and welcome your input regarding them:

HDF Compass: A new viewer for HDF5 and related formats.

See: <https://support.hdfgroup.org/projects/compass/>

HDF Server: A Python-based web service that can be used to send and receive HDF5 data using an HTTP-based REST interface.

See: <https://support.hdfgroup.org/projects/hdfserver/>

Product Designer: A tool for designing HDF products and a framework for sharing and re-using those designs across work groups and with others while improving interoperability and compliance with community conventions.

See: <https://wiki.earthdata.nasa.gov/display/HPD/HDF+Product+Designer>

PyHexad: A Python-based Excel add-in for HDF5 that can be used to read or write data in HDF5 files from Microsoft Excel on Windows.

See: <https://support.hdfgroup.org/projects/pyhexad/>

Let us know what you think!

Dr. Michael Folk to Step Down as President and Executive Director of The HDF Group

After 27 years' stewardship of HDF, the last ten as President and Executive Director of The HDF Group, Mike Folk has announced that he will retire. Mike will continue to provide his leadership to The HDF Group during this transition. See the Press Release on The HDF Group news page for complete details:

<https://support.hdfgroup.org/news/index.html#mfolk>