

## Newsletter #147

December 30, 2015

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### Release of HDF5-1.10.0-alpha0

We are very pleased to announce the release of HDF5-1.10.0-alpha0. It can be obtained from The HDF Group Downloads page:

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

It can also be obtained directly from:

<https://www.hdfgroup.org/HDF5/release/obtain5110.html>

Documentation can be found in:

<https://www.hdfgroup.org/HDF5/docNewFeatures/>

HDF5-1.10 is a major release containing many new features. The alpha0 release contains some but not all of the features that will be in HDF5-1.10. More features will be added in upcoming alpha releases.

PLEASE BE AWARE that the file format is not yet stable. DO NOT keep files until further notice.

Following are the new features in the HDF5-1.10.0-alpha0 release:

- Concurrent Access to an HDF5 File: Single Writer / Multiple Reader (SWMR)

The Single Writer / Multiple Reader or SWMR feature enables users to read data while concurrently writing it. Communications between the processes and file locking are not required. An HDF5 file under SWMR access must reside on a file system that complies with POSIX write () semantics.

- Virtual Dataset (VDS)

The VDS feature enables access to data stored in datasets in different HDF5 files using the standard H5D interface without rewriting or rearranging the data. Please note that the VDS feature can be used with SWMR.

- Scalable Chunk Indexing

The indexing structure for chunked datasets has been changed to significantly improve performance.

- Persistent Free File Space Tracking

Usage patterns when working with an HDF5 file sometimes result in wasted space within the file. This can also impair access times when working with the resulting files. The new file space management feature provides strategies for managing space in a file to improve performance in both of these arenas.

We would greatly appreciate any feedback you might have regarding this release. Please send your comments to The HDF Helpdesk ([help@hdfgroup.org](mailto:help@hdfgroup.org)). If sending a bug report, please include a C example program that we can use to reproduce the issue.

Happy New Year!