

HDF5 Virtual Object Layer (VOL) User Guide

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1 Introduction

2 Quickstart

Use A VOL-Enabled HDF5 Library

Make Sure The VOL Connector Is In The Search Path

Update Your Code To Load The Connector

3 Loading and Registering Connectors

3.1 VOL Connector Search Path

3.2 Connector-Specific Registration Calls

3.3 H5Pset_vol()

3.4 Environment Variable

4 Adapting HDF5 Software to Use the VOL

5 Using VOL Connectors With The HDF5 Command-Line Tools

5.1 Connection Strings

5.2 Connector Compatibility

6 Compatibility

6.1 Feature Flags

PRELIMINARY

This feature is under active development and is either incomplete or may change in behavior.

6.2 List of HDF5 Native VOL API Calls

These API calls will probably fail when used with terminal VOL connectors other than the native HDF5 file format connector. Their use should be protected in code that uses arbitrary VOL connectors.

H5Aiterate1
H5Ddebug H5Dformat_convert H5Dget_chunk_index_type H5Dget_chunk_info H5Dget_chunk_info_by_coord H5Dget_chunk_storage_size H5Dget_num_chunks H5Dread_chunk H5Dwrite_chunk
H5FD*
H5Fclear_elink_file_cache H5Fformat_convert H5Fget_dset_no_attrs_hint H5Fget_eoa H5Fget_file_image H5Fget_filesize H5Fget_free_sections H5Fget_freespace H5Fget_info1 H5Fget_info2 H5Fget_mdc_config H5Fget_mdc_hit_rate H5Fget_mdc_image_info H5Fget_mdc_logging_status H5Fget_mdc_size H5Fget_metadata_read_retry_info H5Fget_mpi_atomicity H5Fget_page_buffering_stats H5Fget_vfd_handle H5Fincrement_filesize H5Fis_hdf5 H5Freset_mdc_hit_rate_stats H5Freset_page_buffering_stats H5Fset_dset_no_attrs_hint H5Fset_latest_format H5Fset_libver_bounds H5Fset_mdc_config H5Fset_mpi_atomicity H5Fstart_mdc_logging H5Fstart_swmr_write H5Fstop_mdc_logging
H5Gget_comment H5Giterate H5Gset_comment H5Gget_info

H5Gget_info_by_name H5Gget_info_by_idx H5Gget_objinfo H5Gget_objname_by_idx H5Gget_objtype_by_idx
H5Oare_mdc_flushes_disabled H5Odisable_mdc_flushes H5Oenable_mdc_flushes H5Oget_comment H5Oget_comment_by_name H5Oget_info_by_idx1 H5Oget_info_by_idx2 H5Oget_info_by_name1 H5Oget_info_by_name2 H5Oget_info1 H5Oget_info2 H5Oset_comment H5Oset_comment_by_name

Table 1: Alphabetical list of HDF5 API calls specific to the native VOL connector

6.3 List of HDF5 VOL-Independent API Calls

These HDF5 API calls do not depend on a particular VOL connector being loaded.

H5*
H5Dfill H5Dgather H5Diterate H5Dscatter H5Dvlen_reclaim H5Dvlen_get_buf_size
H5E* H5I*
H5Lis_registered H5Lregister H5Lunpack_elink_val H5Lunregister
H5PL* H5P* H5S* H5T* (non-committed) H5VL* H5Z*

Table 2: Alphabetical list of VOL-independent HDF5 API calls

6.4 List of HDF5 API Calls By Callback

DATA GOES HERE

Table 3: Breakdown of HDF5 API calls by VOL callback

References