Examples by API

Datasets | **Groups** | **Datatypes**

The C and FORTRAN examples below point to the HDF5-1.10 examples in the hdf5-examples git repository. Examples for HDF5-1.8 and HDF5-1.6 are also included in the repository.

The Java examples are in the HDF5-1.10 source code, and the Java Object package examples are in the HDFView source. *Please note that you must comment out the "package" statement at the top when downloading a Java/Java Object example individually.*

The MATLAB and Python examples were generously provided by a user and are not tested.

Datasets:

Feature	Languages*	HDF5 File (C)	DDL (C)
Set Space Allocation Time for Dataset	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_d_alloc.h5	ddl
Read / Write Dataset using Fletcher32 Checksum Filter	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_d_checksum.h5	ddl
Read / Write Chunked Dataset	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_d_chunk.h5	ddl
Read / Write Compact Dataset	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_d_compact.h5	ddl
Read / Write to External Dataset	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_d_extern.h5	ddl
Read / Write Dataset w/ Fill Value	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_d_fillval.h5	ddl
Read / Write GZIP Compressed Dataset	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_d_gzip.h5	ddl
Read / Write Data by Hyperslabs	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_d_hyper.h5	ddl
Read / Write Dataset with n-bit Filter	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_d_nbit.h5	ddl
Read / Write Integer Dataset	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_d_rdwr.h5	ddl
Read / Write Dataset w/ Shuffle Filter and GZIP Compression	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_d_shuffle.h5	ddl
Read / Write Dataset using Scale-Offset Filter (float)	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_d_sofloat.h5	ddl
Read / Write Dataset using Scale-Offset Filter (integer)	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_d_soint.h5	ddl
Read / Write Dataset using SZIP Compression	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_d_szip.h5	ddl
Read / Write Dataset using Data Transform Expression	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_d_transform.h5	ddl
Read / Write Unlimited Dimension Dataset	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_d_unlimadd.h5	ddl
Read / Write GZIP Compressed Unlimited Dimension Dataset	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_d_unlimgzip.h5	ddl
Read / Write / Edit Unlimited Dimension Dataset	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_d_unlimmod.h5	ddl
Use Dynamic Array to Read Data	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_d_unlimadd.h5	ddl
Read / Write Dataset using LZF Compression	C FORTRAN Java JavaObj MATLAB PyHIgh PyLow		

*Languages are C, Fortran, Java (JHI5), Java Object Package, Python (High Level), and Python (Low Level APIs).

Groups:

Feature	Languages	HDF5 File (C)	Output (C)	DDL (C)
Create "compact-or-indexed" Format Groups	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_g_compact1.h5 h5ex_g_compact2.h5	Output	ddl1 ddl2
Track links in a Group by Creation Order	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_g_corder.h5	Output	
Create / Open / Close a Group	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_g_create.h5		ddl
Create Intermediate Groups	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_g_intermediate.h5	Output	
Iterate over Groups w/ H5Literate	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_g_iterate.h5	Output	
Set Conditions to Convert between Compact and Dense Groups	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_g_phase.h5	Output	
Recursively Traverse a File with H5Literate	C FORTRAN Java JavaObj MATLAB PyHigh Pylow	h5ex_g_traverse.h5	Output	
Recursively Traverse a File with H5Ovisit / H5Lvisit	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_g_visit.h5	Output	

Datatypes:

Feature	Languages	HDF5 File (C)	Output (C)	DDL (C)
Read / Write ***Array*** (Attribute)	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_t_arrayatt.h5	Output	ddl
Read / Write ***Array*** (Dataset)	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_t_array.h5	Output	ddl
Read / Write Bitfield (Attribute)	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_t_bitatt.h5	Output	ddl
Read / Write Bitfield (Dataset)	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_t_bit.h5	Output	ddl
Read / Write Compound (Attribute)	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_t_cmpdatt.h5	Output	ddl
Read / Write Compound (Dataset)	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_t_cmpd.h5	Output	ddl
Commit Named Datatype and Read Back	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_t_commit.h5	Output	ddl
Convert Between Datatypes in Memory	C FORTRAN Java JavaObj MATLAB PyHigh PyLow		Output	
Read / Write Complex Compound (Attribute)	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_t_cpxcmpdatt.h5	Output	ddl
Read / Write Complex Compound (Dataset)	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_t_cpxcmpd.h5	Output	ddl
Read / Write Enumerated (Attribute)	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_t_enumatt.h5	Output	ddl
Read / Write Enumerated (Dataset)	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_t_enum.h5	Output	ddl
Read / Write Floating Point (Attribute)	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_t_floatatt.h5	Output	ddl
Read / Write Floating Point (Dataset)	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_t_float.h5	Output	ddl
Read / Write Integer Datatype (Attribute)	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_t_intatt.h5	Output	ddl
Read / Write Integer Datatype (Dataset)	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_t_int.h5	Output	ddl
Read / Write Object References (Attribute)	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_t_objrefatt.h5	Output	ddl
Read / Write Object References (Dataset)	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_t_objref.h5	Output	ddl
Read / Write Opaque (Attribute)	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_t_opaqueatt.h5	Output	ddl
Read / Write Opaque (Dataset)	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_t_opaque.h5	Output	ddl
Read / Write Region References (Attribute)	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_t_regrefatt.h5	Output	ddl

Read / Write Region References (Dataset)	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_t_regref.h5	Output	ddl
Read / Write String (Attribute)	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_t_stringatt.h5	Output	ddl
Read / Write String (Dataset)	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_t_string.h5	Output	ddl
Read / Write Variable Length (Attribute)	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_t_vlenatt.h5	Output	ddl
Read / Write Variable Length (Dataset)	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_t_vlen.h5	Output	ddl
Read / Write Variable Length String (Attribute)	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_t_vlstringatt.h5	Output	ddl
Read / Write Variable Length String (Dataset)	C FORTRAN Java JavaObj MATLAB PyHigh PyLow	h5ex_t_vlstring.h5	Output	ddl