

# EXPRESS Data as HDF5 Software Installation Guide

*This document describes the EXPRESS/HDF5-related software and its installation.*

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## 1. Introduction

This document explains how to download and install the software that maps EXPRESS and HDF5.

### Warning:

Very limited software exists for the V0.2 specification.

### 1.1. HDF5 Software

The HDF5 software is available from the Obtaining the Latest HDF5 Software link on the HDF5 support site. The software is available for multiple platforms.

For the development of the V0.2 specification, Release 1.6.4, C language programming coding under cygwin has been the testing environment. HDF5 does not specifically claim support for the cygwin platform but the source code was downloaded, compiled and used successfully. The following subset of the HDF5 Installation Instructions directions were followed

3. Quick installation For those that don't like to read ;-) the following steps can be used to configure, build, test, and install the HDF5 library, header files, and support programs. "#" in "hdf5-1.6.#" below stands for the release number, for example "3" for hdf5-1.6.3, or for release and subrelease versions, for example, "3-snap4" for hdf5-1.6.3-snap4. \$ gunzip < hdf5-1.6.#.tar.gz | tar xf - \$ cd hdf5-1.6.# \$ make check \$ make install

### 1.2. C Test Software Installation

For the HDF5 C API testing done so far, no additional installation is required. Simply use HDF5 to compile the C programs into executables and then run the executables.

## 2. C Test Software

A small set of C programs testing HDF5 and EXPRESS-driven data are now available. The test process has been as follows.

- Hand-code a C program to test the EXPRESS/HDF5 aspect of interest.
- Under cygwin, compile the C program using a copied and edited version of the Makefile as was used for the compilation found in the hdf5-1.6.4\example folder.
- Execute the C program under cygwin, which creates the specified HDF5 file.
- Use the h5dump.exe utility that comes with HDF5 to write out the contents of the

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generated HDF5 file.

HDF5 itself comes with a set of example programs showing how various tasks are accomplished. Those programs are available at the [HDF5 Source Code Examples FTP site](#).