
Subject: CDF and HDF5 problems

Posted by [Matthew Argall](#) on Thu, 22 May 2014 12:49:10 GMT

[View Forum Message](#) <> [Reply to Message](#)

I read both CDF and HDF5 files and am running into similar problems for each. There are two routines that slow things way down, CDF_OPEN and H5A_GET_NUM_ATTRS. My program gives

IDL> profiler, /report

Module	Type	Count	Only(s)	Avg.(s)	Time(s)	Avg.(s)
CDF_OPEN	(S)	8	21.990163	2.748770	21.990163	2.748770
H5A_GET_NUM_ATTRS						
	(S)	184	16.309904	0.088641	16.309904	0.088641

However, if I try the same operations from the IDL prompt, this time is reduced to a fraction of a second. Does anyone know why this would be?

Subject: Re: CDF and HDF5 problems

Posted by [Matthew Argall](#) on Sun, 20 Jul 2014 21:27:24 GMT

[View Forum Message](#) <> [Reply to Message](#)

Some progress on this...

There is a new CDF_SET_VALIDATE procedure that turns file validation on and off. In IDL 8.0 file validation became the default when CDF files are opened. Turning validation off, as the documentation states, significantly decreases the amount of time needed to open a file.

As for H5A_* functions, below is a link to a program that illustrates the compounding slowness of H5A_OPEN_IDX and H5A_OPEN_NAME. I am so far unable to reproduce the same problems with H5A_GET_NUM_ATTRS and H5A_GET_NAME; however, I have encountered the same problem with those as well.

https://dl.dropboxusercontent.com/u/42944960/test_h5a_v2.pro

Here is a link to a data file

http://www.rbsp-ect.lanl.gov/data_pub/rbspa/MagEphem/def/2012/rbspa_def_MagEphem_TS04D_20120831_v1.0.0.h5

At the bottom of the program, there is a main-level script. Simply change the location of the data file and

IDL> .run test_h5a_v2
