

Proposal to organize windows project files inside HDF5

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Several weeks ago, we proposed to re-organize windows project files inside HDF5. At that time the whole group agreed that we could remove all.zip and put windows project files into individual directories. However, the detailed design had not been discussed. After xuan did some experiments before he left, I discussed with Elena about the best approach so far to handle this. I would like to summary our discussion and present our preference.

Approach 1:

Put windows project files into the individual directories of HDF5

For example, dtypes.dsp is located under hdf5/test/dtypes when using winzip to extract all.zip. We then should create a directory called <dtypes> under hdf5/test directory and put dtypes.dsp under there. The advantage of this approach is that we don't have to rebuild the whole HDF5 windows system. However, we found this approach will cause conflictions with other platforms. For example, this will cause HDF5 compiling failed on Linux. The problem is due to the name confliction. When compiling dtypes.c on linux platforms, the executable file <dtypes> is supposed to be generated. However, when the C compiler at Linux finds that a directory called <dtypes> has been already generated, it will issue an error and stop compiling.

How to fix:

- We can change windows directory name dtypes to other names but that may involve modifications of the whole HDF5 windows project system, for example, updating batch files.
- There are about more than 100 project files, the test directory will become very crowded.

I am not satisfied with this approach.

Approach 2:

Put all windows stuff under windows directory

That includes windows project files, windows output files and batch files. In this way, it seems that we strictly make windows separate from other platforms.

There are two big disadvantages for this approach:

- The work for this approach will be tremendous. We need not only update all project files, but also all batch files, documentation and we have to train users to follow this way.
- Actually HDF5 source codes won't be moved to windows directory and the goal to strictly separate windows stuff from other platforms is not really true.

Approach 3:

Because of the disadvantages of the above approaches, we came to the third approach.

We will keep all windows project files and batch files under windows directory. But we keep all the output files under individual directories as before. If you don't build HDF5 on windows, all those output files won't be generated. So it won't affect other platforms. Furthermore, we don't need to change our batch files and documentation. The only thing we need to do is to copy all the batch files and three windows specific source files into the appropriate folders before we build and test HDF5. Before xuan left, he already modified most project files. Still some significant work needs to be done but they are doable and it can be finished before 1.8 releases.

Both Elena and me think this is the better approach.