"spack install {hdf5-vol-async, hdf5-vol-log and hdf5-vol-external-passthrough}" succeeded with no additional command arguments on cori, crusher, perlmutter, spock and summit. Theta needed ^cmake@3.22.2 to provide a sufficiently updated CMake version. "spack install <vol package> %<alternative compiler> will sometimes fail to build one or more of the required spack packages. Generally those packages that fail to build can be substituted by the one already built with the default spack compiler (gcc).

These specific packages failed to build with the listed compiler, but the VOLs built successfully using the gcc build of the package:

Cori with Intel 19.1.3.304 built with <u>^perl@5.34.1%gcc@10.1.0</u>.

- hdf5-vol-async %intel@19.1.3.304 ^perl@5.34.1%gcc@10.1.0 <u>^hdf5@develop-1.13%intel@19.1.3.304</u>
- spack install hdf5-vol-external-passthrough %intel@19.1.3.304 
  ^perl@5.34.1%gcc@10.1.0 
  ^hdf5@develop-1.13%intel@19.1.3.304

Crusher with cce 13.0.1 built with ^ncurses@6.1%gcc@11.2.0 with rocmcc 8.3.3: no args needed.

- spack install hdf5-vol-async %cce@13.0.1 <u>\^ncurses@6.1\%gcc@11.2.0</u>
- spack install hdf5-vol-async %cce@13.0.1 <u>^ncurses@6.1%gcc@11.2.0</u>
- spack install hdf5-vol-external-passthrough %cce@13.0.1 \(^ncurses@6.1\) gcc@11.2.0

Perlmutter with aocc 3.1.0: no args needed with cce 13.0.1 built with <a href="https://ncurses@6.1%gcc@11.2.0">https://ncurses@6.1%gcc@11.2.0</a>

- spack install hdf5 %cce@13.0.1 <u>^ncurses@6.1%gcc@11.2.0</u>
- spack install hdf5-vol-async %cce@13.0.1 \(^ncurses@6.1\)\(gcc@11.2.0)
- spack install hdf5-vol-log %cce@13.0.1 \(^n\)curses@6.1\(^g\)cc@11.2.0
- spack install hdf5-vol-external-passthrough %cce@13.0.1 \(^ncurses@6.1\)\( gcc@11.2.0 \)

Spock with cce 13.0.1 built with ^openssl@1.1.1n%gcc@11.2.0, ^openssl@1.1.1n%gcc@11.2.0 rocmcc 4.5.0: no args needed

- spack install hdf5-vol-async %cce@13.0.1 <u>^openssl@1.1.1n%gcc@11.2.0</u>
- spack install hdf5-vol-external-passthrough %cce@13.0.1 ^openssl@1.1.1n%gcc@11.2.0 <u>^openmpi@3.1.6%gcc@11.2.0</u>

Summit with XL 16.1 built with ^ncurses@6.1 <u>^numactl%gcc@8.3.1</u> with PGI 20.4 built with <u>^m4%gcc@11.2.0</u> (hdf5-vol-log only)

- spack install hdf5-vol-external-passthrough %xl@16.1 ^ncurses@6.1 ^numactl%gcc@8.3.1 ^hdf5@develop-1.13%xl@16.1
- spack install hdf5-vol-log %pgi@20.4 ^m4%gcc@11.2.0 ^hdf5@develop-1.13%pgi@20.4