Delivering HDF5 Exascale Features to the Users

The HDF Group Data & Vis SDK Team
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The HDF Group Goals for Data & Vis SDK

• Provide ECP HDF5 users with *production quality* HDF5 software that integrates HDF5 optimizations and new features created by the ECP project teams for HDF5.
  • Automated daily regression testing on ECP systems

• Equip ECP HDF5 users with tools and best practices to
  • Minimize HDF5 learning curve
  • Optimize I/O performance on ECP platforms

• Our overall strategy
  • From “standalone” HDF5 package and HDF5 features prototypes to a member of E4S via Spack and DAV SDK

Maintain ➔ “Spack” ➔ Integrate with DAV ➔ Integrate with E4S
HDF5 and Spack

• The HDF Group is now an official maintainer of HDF5 in Spack
  • GNU Autotools builds and testing
  • Defaults to HDF5 1.10.7
  • HDF5 develop and 1.12.0 variants are available

• Imminent change (in review by the Spack team)
  • CMake builds and testing
  • Additional variants
    • Compression plugins including ZFP and SZ
    • ExaIO HDF5 VOL connectors (Async, Cache, external pass-through)
    • Variants based on HDF5 1.13.* for the early releases of ECP features

• Come to HDF5 BoF at 3:00 pm Central for details
HDF5 Learning Resources and Outreach

• help@hdfgroup.org
• https://forum.hdfgroup.org
• Webinars and Tutorials

• Announced on HDF-FORUM, ECP Training Events page and ECP Training Newsletter

• HDF User Group Meeting in October 2021
• New: Call the Doctor - The Weekly HDF clinic (on Tuesdays at 8:30 am or 1:00 pm Central)
Questions?