

SIOX

The main target of the new SIOX Project (Scalable I/O for Extreme Performance) is the development, the deployment and the application of a concept for I/O-analysis and I/O-optimization, mainly for HPC environments.

The analysis and optimization covers all software and hardware layers which are participating in an I/O-command. Generally, the user application, high-level I/O-libraries like MPI/I/O, NetCDF or HDF5, the operating system, the file system and also the typically used RAID controllers provide opportunities for optimizations in specific use cases.

Goals of the project are:

- Development of standardized interfaces to obtain access information from all relevant software and hardware layers.
- Efficient storage of access information in a data base.
- Automatic analysis and assessment of access patterns.
- Proposed optimizations by the SIOX system.

The project will start on July 1st, 2011 and run for three years. Project results will be tested and used with real world applications already during the project life time. More project information will be disseminated at a dedicated web site soon after the project start.

