

The Virtual Institute of I/O



Limitless Storage
Limitless Possibilities

<https://hps.vi4io.org>

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Introduction



Goals of the Virtual Institute for I/O

- Provide a platform for I/O enthusiasts for exchanging information
- Foster training and collaboration in the field of high-performance I/O
- Track and encourage the deployment of large storage systems
 - ▶ Hosting information about high-performance
 - ▶ Supporting the IO-500 and the Data Center List

<https://www.vi4io.org>



Open Organization



- The organization uses a wiki as central hub
 - ▶ Everybody (registered users) can edit the content
 - ▶ Major changes should be discussed (see below)
 - ▶ The wiki uses tag clouds to link between similar entities
- Supported by mailing lists
 - ▶ Call-for-papers
 - ▶ Announce list for relevant information
 - ▶ Contribute list to discuss and steer organizational issues
- Major changes should be discussed on the contribute mailing list
- Members can vote for changes

Everybody is welcome to participate

Outline



1 Overview

2 Comprehensive Data Center List (CDCL)

Comprehensive Data Center List (CDCL)



The CDCL contains system characteristics for sites, supercomputer and storage

System Model

- Based on an extensible JSON schema, optimized editor
- Supports now (all) logical components and subcomponents
- Characteristics and peak values
- Measured values *-500

Components with characteristics

- Site, supercomputer, online storage, tape archives
- Compute nodes, storage nodes, local storage, accelerators, ...
- Supporting: e.g., CPU type, memory available, ...

Status



New: Unified data center representation for webpages

- Provide a HTML stub for embedding into any data center web page
 - ⇒ Towards a **standardized presentation** of systems!
 - ▶ Allowing the site to describe and visualize their system
 - ▶ Hosted by the site directly
 - ▶ Allowing a simple export into VI4IO data center list
- Editor: <https://www.vi4io.org/hpsl/addpage>

Others

- CDCL: form to create stubs for pages: <https://www.vi4io.org/cdcl-add>