



Brief overview of ICS architecture for Neutron Instruments.

Workshop on Neutron Instrument Architecture for Data Acquisition, Instrument Control, and Data Storage

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ICS "Logical" Structure



Core Components Integration Support

CS Infrastructure





The ICS Approach

Stakeholder System Users

ICS

Stakeholder System





The ICS Approach, cont.

Stakeholder System Users

Software & Services

Protection [MPS, PPS]

Hardware [Control Boxes, Timing]

Stakeholder System

Integration Support





The ICS Approach, cont.

Stakeholder System Users

Stakeholder System Software

Networks, Cables & Wiring, Data Centre etc.

Device configuration, Archiving, (Metadata) Services, Engineering Screens etc.

Access Control, Equipment protection etc.

Crates, IOs, Triggering, Timestamping etc.

Detectors

Motion Control

Sample Environment Beamlines, etc.





The ICS Approach, cont.

DMSC

Experiment Data

Networks, Cables &

Device configuratio Services, Engir

Access Control, Equipment protection etc.

ng, Data Centre etc. Metadata & Control

chiving, (Metadata) g Screens etc.

Crates, IOs, Triggering, Timestamping etc.

Detectors

Motion Control

Sample Environment Beamlines, etc.





Challenges / Issues

- Detailed connections between systems (requirements etc.)
- Device, Metadata configuration (BLED)
- "User Software" Interface
- Onsite processing (computational) resources
- (Integration with and definition of) CS Services
- Define Integration Support (lines of responsibilities, scopes, support responsibilities etc.)
- Define User Support (responsibilities, scopes etc.)