

Technical Summary

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JAPAN

溫故知新

- 溫故知新:On-Ko-Chi-Shin

- 孔子「論語」：“the Analects of Confucius”
- Ask Old knowledge and Get New Idea.
- Confucius said it is the way becoming a person who leads others.
- But It is also what the conference is for, I think.
- Ask what others do, and Get New Idea.

Special Invited Talk

- X-Ray Free Electron Laser in Japan
 - Dr. Tetsuya Ishikawa RIKEN/XFEL(Project Leader)/SPring-8
- Integrated System Engineering for Sustainable Mobility
 - Dr. Hideo Inoue (Toyota Motor Corp.)

Program Tracks

- Status Reports (11)
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- Safety/High Reliability and Major Challenges (2)
- Industrial Systems in Controls (6)
- Reconfigurable Hardware(2) 1 Canceled
- Fabric Management(4)
- Web Technology(4)

Status Reports

- MOB001 **ITER** Controls Design Status W.-D.Klotz (ITER)
- MOB002 Status Report of the **LMJ** Control System J.I.Nicoloso (CEA)
- MOB003 Status of the **LHC** Power Converter Controls Q.King (CERN)
- MOB004 Commissioning of the New Control Systems for the **PETRA3** Accelerator Complex at DESY R.Bacher (DESY)
- MOB005 The **CMS** Detector Control System R.Gomez-Reino (CERN)
- TUD001 Preliminary Design of the Australian SKA Pathfinder Telescope Control System J.C.Guzman (CSIRO ATNF)
- TUD002 The Newly Constructed EPICS-based Control System for **KSTAR** Tokamak Device M.K.Park (NFRI)
- TUD003 Supporting Multiple Control Systems at Fermilab D.J.Nicklaus (Fermilab)
- TUD004 **ALMA** Software Project Management - Lessons Learned G.Raffi (ESO)
- TUD005 Large-scale Fusion Research System Integration Based on the Superconducting Large Helical Device and Plasma Simulator at NIFS S.Sudo (NIFS)
- TUD006 Design Status of the **TPS** Control System C.H.Kuo (NSRRC)

Project Management and System Engineering

- MOC001 LLRF System Requirement Engineering for the European XFEL
Z.Geng (DESY)
- MOC002 Strategy for the Integration of the LMJ Control System J.C.Picon (CESTA)
- MOC003 SOLEIL Control and Acquisition Hardware Installation and Maintenance Management P.Betinelli (SOLEIL)
- MOC004 Controls Request Tracker K.S.White (ORNL)
- MOC005 Development of the ITER CODAC Core Systems F.Di Maio (ITER)
- MOC006 Towards Model Re-usability for the Development of Telescope Control Systems R.Karban (ESO)

Control System Evolution

- MOD002 TINE RELEASE 4.1: RESPONDING TO THE USER'S NEEDS Philip Duval (DESY)
- MOD001 A Generic Finite State Machine Framework for the ACNET Control System L.R.Carmichael (Fermilab)
- MOD003 TINE Video System: Proceedings on Redesign S.Weisse (DESY Zeuthen)
- MOD004 Evolution of the FLASH DAQ System T.Wilksen (DESY)
- MOD005 Evolution of the EPICS Channel Access Protocol K.Zagar (Cosylab)
- MOD006 Migrating Control Servers and Applications to **Virtual Machines** G.Wright (CLS)
- THA001 Tango Kernel Status and Evolution E.T.Taurel (ESRF)
- THA002 The CMS ECAL Detector Control System D.R.S.Di Calafiori (ETH)
- THA003 Using **Windows XP Embedded Based Systems** in a Controls System T.G.Gray (STFC/RAL/ISIS)
- THA004 UPGRADE of RF CONTROL SYSTEM AT SPring-8 Takahiro Matsumoto (JASRI/SPring-8)
- THA005 CERN Proton Synchrotron Complex High-Level Controls Renovation S.Deghaye (CERN)
- THA006 New Hardware and Software Developments for the XFEL Kay Rehlich (DESY)

Process Tuning and Feedback Systems

- THB001 Beam-based Feedback for the Linac Coherent Light Source
D.Fairley (SLAC)
- THB002 Stabilization of Beam Extraction Timing in J-PARC RCS F.Tamura
(JAEA/J-PARC)
- THB003 Diamond Light Source Electron Beam Position Feedback: Design,
Realization and Performance M.T.Heron (Diamond)
- THB004 New Fast Orbit Feedback Architecture Based on Libera Brilliance
Devices for the ESRF Storage Ring J.M.Koch (ESRF)
- THB005 Primary and Secondary Beam Stabilization at the ELBE Accelerator
Facility M.Justus (FZD)
- THB006 New Automatic Bunch Current Sensitive Fast Attenuator for RF
Front-end of Bunch-by-Bunch Feedback System at SPring-8 K.Kobayashi
(JASRI/SPring-8)

Operational Tools

- TUA001 The Best Ever Alarm System Toolkit Kay Kasemir (ORNL)
- TUA002 Automated Operation of the Metrology Light Source Storage Ring T.Birke (BESSY II)
- TUA003 National Ignition Facility Control and Information System Operational Tools C.D.Marshall (LLNL)
- TUA004 Automatic Inventory and Configuration Management Tools for the LHC Power Converter Controls S.T.Page (CERN)
- TUA005 Prototype of a DDS-Based High-Level Accelerator Application Environment N.Malitsky (BNL)
- THC001 Towards 3D Human-Machine-Interfaces: Generic "3DViewer" Extension for the Control Systems Displays at CERN P.Golonka (CERN)
- THC002 Control System Studio - Integrated Operating, Configuration and Development M.R.Clausen (DESY)
- THC003 A Sequencer for the LHC Era V.Baggiolini (CERN)
- **THC004** Orbit Display's Use of the Physics Application Framework for LCLS M.Zelazny (SLAC)
- THC005 The Implementation of the Software Framework in J-PARC/MLF T.Nakatani (JAEA/J-PARC)

Data and Information Management

- TUB001 Accelerator Data Foundation: How It All Fits Together R. Billen (CERN)
- TUB002 The National Ignition Facility Data Repository R. W. Carey (LLNL)
- TUB003 Event-Synchronized Data-Acquisition System for SPrin-8 XFEL
M. Yamaga (JASRI/SPring-8)
- TUB004 Infor EAM/MTF: The CERN's Global Equipment Data Repository
S. Mallon Amerigo (CERN)
- TUB005 Experimental Data Storage Management in NeXus Format at
Synchrotron SOLEIL A. Buteau (SOLEIL)
- TUB006 Marrying a High Performance Computer with Synchrotron
Beamlines R. I. Farnsworth (ASCo)

Hardware Technology

- TUC001 Results from the Commissioning of the ATLAS Pixel Detector with Cosmics Data Florian Hirsch (Dortmund University)
- TUC002 Recent Progress of RF and Timing System of XFEL/SPring-8 H. Maesaka (RIKEN/SPring-8)
- TUC003 Development of COM Express VME Carrier Board with Remote Management Capability T. Masuda (JASRI/SPring-8)
- TUC004 **The White Rabbit** Project Tomasz Wlostowski (CERN, Geneva)
- WEB004 Sub-sample Time-base Resolution in a Heterogeneous Distributed Data Acquisition Environment J.A. Stillerman (MIT/PSFC)
- WEB005 Power Supply Control System of NSLS-II Larry Hoff(BNL)
- WEB006 Demonstration of an ATCA Based LLRF Control System at FLASH S. Simrock (DESY)

Software Technology Evolution

- WEA001 Bringing the Power of Dynamic Languages to Hardware Control Systems J. M. Caicedo Carvajal (CERN)
- WEA002 Ontology Language to Support Description of Experiment Control System Semantics, Collaborative Knowledge-Base Design, and Ontology Reuse V. H. Gyurjyan (JLAB)
- WEA003 Evolutionary Plans For EPICS Version 3 A. N. Johnson (ANL)
- WEA004 New Wave of Component Reuse with Spring Framework - AP Case Study J. P. Wozniak (CERN)
- WEA005 Monitoring Applications Once They Are in the User Community S. Binello (BNL)
- WEA006 Data Distribution Service as an Alternative to CORBA Notify Service of the ALMA Common Software G. Chiozzi (ESO)
- FRA005 GumTree Decoded T. K. Lam (ANSTO)
- FRA006 Evaluating the OMG Data Distribution Service for Accelerator Control Systems N. Wang (Tech-X Boulder)

Protection Systems

- WEC001 Commissioning of the Control System for the LHC Beam Dump Kicker Systems E. Carlier (CERN)
- WEC002 Jefferson Lab IEC 61508/61511 Safety PLC Based Safety System K.L. Mahoney (JLAB)
- WEC003 Alba, the PLC Based Protection Systems D. Fernandez-Carreiras (CELLS-ALBA Synchrotron)
- WEC004 IEC 61508 Experience for the Development of the LHC Functional Safety Systems and Future Perspective P. Ninin (CERN)
- WEC005 An Overview of the ITER Central Interlock and Safety Systems L. Scibile (ITER)
- WEC006 The Accelerator Protection System Based on Embedded EPICS for J-PARC H. Nakagawa (KEK)

Safety/High Reliability and Major Challenges

- WED001 Measured Performance of the LHC Collimators Low Level Control System A.Masi (CERN)
- WED002 Development of a Remote Experiment Control System Y.Furukawa (JASRI/SPring-8)

Industrial Systems in Controls

- THD001 Integrating High Level Applications and Software Components Using a SCADA Tool A. Buteau (SOLEIL)
- THD002 A Mobile Platform for Remote Inspection Inside ESRF Tunnel J.M. Chaize (ESRF)
- THD003 UNICOS: an Open Framework H. Milcent (CERN)
- THD004 Options for Interfacing EPICS to COTS Hardware Through LabVIEW Thierry Debelle (National Instruments)
- THD005 Application of EPICS on F3RP61 to Accelerator Control J.-I. Odagiri (KEK)
- THD006 Cryogenics Controls in the ISAC-II Superconducting RF Accelerator R.B. Nussbaumer (TRIUMF)

Reconfigurable Hardware

- WEB002 FPGA Mezzanine Cards for CERN's Accelerator Control System J.Serrano (CERN)
- WEB003 ORION Gateway Design for Feedback Controls Connectivity L.R.Doolittle (LBNL)

Fabric Management

- WED003 Progress of the Virtual Laboratory for Fusion Researches in Japan
T. Yamamoto (NIFS)
- WED004 Management of the LHCb Online Network Based on SCADA
System G. Liu (CERN)
- WED005 Implementing High Availability with COTS Components and Open-
source Software R. Schwemmer (CERN)
- WED006 Upgrade of the SPring-8 Control Network for Integration of XFEL
T. Sugimoto (JASRI/SPring-8)

Web Technology

- FRA001 Introducing CAML II Matthew Boyes (SLAC)
- FRA002 A REST service for IRMIS3 G.Carcassi (BNL)
- FRA003 Service Oriented Status Monitoring for DIP Middleware B.Copy (CERN)
- FRA004 E-logbook Reloaded - or the Renovation of DESYs Electronic Logbook R.Kammering (DESY)

- xTCA
- WhiteRabbit
- Software framework

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- See you again at next ICALEPCS!