

Efficiency through Automation



Welcome note to the 1st edition of EtA workshop

8th October 2023

Welcome to the first edition of “Efficiency through Automation” workshop...

*...to discuss our **shared challenges and solutions**, when facing the **growing scale** of experiments and expectations, with **unceasing operational constraints** of cost, manpower, physical limitations of hardware and software.*

... to talk about the need of efficiency and automation.

The audience today

ALBA Synchrotron

ANL, Argonne National Laboratory

Brookhaven National Laboratory

CERN

DESY

Diamond Light Source

EBG MedAustron GmbH

European Synchrotron Radiation Facility

European Xfel GmbH

Helmholtz-Zentrum

INFN-LNL

Institute Of Modern Physics

Lawrence Livermore National Laboratory

Observatory Sciences Ltd

Paul Scherrer Institute

Procon Systems

RadiaSoft LLC

S2innovation

Shanghai Advanced Research Institute

SLAC National Accelerator Laboratory

South African Radio Astronomy Observatory

UKRI

Topics, questions, ideas

Highlights of submitted topics to discuss, thanks to Your contributions:

- From the **abstract ideas** about the efficiency to **concrete solutions**
- On-the-fly scanning, **coordination among device control**, time synchronization, and data handling.
- Auto data reduction/online processing for **live feedback** → experiment steering.
- Challenges and solution to **improve the equipment maintenance** (e.g, vacuum and cooling system, etc.)

And a dedicated talk after the coffee break:

- Ana García-Tabares, XFEL

Agenda for today

Your convener:

Lucas Burdzanowski, CERN
Beams Department [BE]
Controls Software and Services group [CSS]
@CERN Controls for past 10+ years

Msc. Eng. in Electrical Engineering
Software engineer & analyst

Let's discuss, ask,
exchange the ideas,
share our challenges and
the solutions...

Thank you all and
let the workshop begin 😊

<https://indico.cern.ch/event/1307323/>

08:00

Arrival Tea & Coffee

Introduction & workshop overview

Lukasz Burdzanowski

Efficiency and software automation

Lukasz Burdzanowski

09:00

Case-study: the Sequencer, status update, the outlook

Lukasz Burdzanowski

Tea & Coffee

10:00

Automation solutions - an overview: TBC - contributions from workshop participants

Room 7, CENTURY CITY CONVENTION CENTRE4 Energy Lane, Century City, Cape Town www.ccconferencecentre.co.za
10:00 - 11:00

11:00

Collaboration opportunities, group-discussion

Closing remarks

Lukasz Burdzanowski