

Controls GUI Strategies @ICALEPCS 2023

Report of Contributions

Contribution ID: 1

Type: **not specified**

Introduction & workshop overview

Saturday 7 October 2023 08:30 (10 minutes)

Presenter: RODERICK, Chris (CERN)

Contribution ID: 7

Type: **not specified**

Workshop Closeout

Saturday 7 October 2023 17:10 (5 minutes)

Presenter: RODERICK, Chris (CERN)

Contribution ID: 8

Type: **not specified**

Radiasoft low-code GUIs

Saturday 7 October 2023 15:00 (30 minutes)

For the past ten years RadiaSoft has been developing browser based GUIs for accelerator simulations. Recently we have begun integrating these simulation tools with control displays that are automatically generated using lattice files for accelerators and beamlines. Our software automatically configures the display and provides users with visualizations that replicate those seen in the control room. This can be connected to the control system for processing of live data and for comparison with simulations or other online models. We will provide a demonstration of our software tools and show how they can be applied to different machines.

Presenters: CARLIN, Evan (RadiaSoft); EDELEN, Jonathan (RadiaSoft)

Session Classification: Zero/Low-code Solutions

Contribution ID: 9

Type: **not specified**

Taranta Status Update & Demo

Saturday 7 October 2023 13:40 (30 minutes)

Presenter: CANZARI, Matteo

Session Classification: Zero/Low-code Solutions

Contribution ID: **10**

Type: **not specified**

GUI Situation & Strategy @ CERN

Saturday 7 October 2023 08:40 (35 minutes)

CERN Accelerator Controls strategy for GUI is based on two technology stacks and two development approaches. In this session, we will explain the scope of the different solutions and give their development statuses.

Our plans to remove older technologies will also be discussed.

Presenter: DEGHAYE, Stephane (CERN)

Session Classification: GUI Technologies & Evolution Plans Overview

Contribution ID: 11

Type: **not specified**

GUI Situation & Strategy @ MAX IV

Saturday 7 October 2023 09:15 (35 minutes)

Presenter: HARDION, Vincent

Session Classification: GUI Technologies & Evolution Plans Overview

Contribution ID: **12**

Type: **not specified**

Taurus

Saturday 7 October 2023 13:10 (30 minutes)

An introduction of the Taurus library [1] (PyQt based) and demos of:

- The TaurusGUI framework (creation of GUIs without programming but with: a wizard, drag and drop and floating panels)
- Creating Taurus widgets/applications with the Qt designer.
- A brief demo of the Taurus evaluation scheme for making quick operations on the model data later on visualized by the widgets.

[1] [https://accelconf.web.cern.ch/ICALEPCS2015/papers/thhc3o03.pdf#search=%20domain%3Daccelconf%2Eweb%2Ecern%](https://accelconf.web.cern.ch/ICALEPCS2015/papers/thhc3o03.pdf#search=%20domain%3Daccelconf%2Eweb%2Ecern%2Ech)

Presenter: Mr RESZELA, Zbigniew (ALBA Synchrotron)

Session Classification: Zero/Low-code Solutions

Contribution ID: 13

Type: **not specified**

CERN Accelerator Controls WRAP GUI Platform

Saturday 7 October 2023 14:10 (30 minutes)

WRAP (Web-based Rapid Application Platform) is a zero-code platform that allows anybody to easily configure GUI applications to interact with CERN's accelerator control system. In this session, we will briefly explain the motivation for WRAP, the technologies used, the current status and key challenges, as well as a demo.

Presenter: DEGHAYE, Stephane (CERN)

Session Classification: Zero/Low-code Solutions

Contribution ID: 14

Type: **not specified**

GUI Situation & Strategy @ Other Institutes

Saturday 7 October 2023 11:25 (45 minutes)

A summary overview of the GUI situation & strategy at other participating institutes. It is foreseen to have an open discussion around the various approaches, ideas, challenges, etc.

Presenter: RODERICK, Chris (CERN)

Session Classification: GUI Technologies & Evolution Plans Overview

Contribution ID: 15

Type: **not specified**

SVG Synoptics

Saturday 7 October 2023 16:10 (10 minutes)

Presenter: HARDION, Vincent

Session Classification: Controls Synoptics

Contribution ID: 16

Type: **not specified**

Example Charting & Data Decimation @ CERN

Saturday 7 October 2023 15:30 (25 minutes)

Presenter: ASKO, Anti (CERN)

Session Classification: Charting Solutions & Data Decimation

Contribution ID: 17

Type: **not specified**

Synoptic generation based on accelerator data & SSVGs

Saturday 7 October 2023 16:20 (20 minutes)

CERN has extensive data describing the accelerators and their beam-lines and several user communities expressed the wish to be able to leverage the data to produce dynamic synoptic views. While we are still in a prototyping stage, we would like to share with the community our requirements and initial implementation choices in order to gather experience-based feedback.

In addition, we will show the Stateful Scalable Vector Graphics (SSVG) application and how it has been integrated into CERN's WRAP platform.

Presenter: DEGHAYE, Stephane (CERN)

Session Classification: Controls Synoptics

Contribution ID: **18**

Type: **not specified**

Open discussions around Synoptics

Discussion amongst the participants on how synoptics are being implemented in different institutes, what is working well and what ideas people have in mind.

Everyone is encouraged to speak up and even showcase things from their institute according to the on-going discussion.

Presenter: RODERICK, Chris (CERN)

Session Classification: Controls Synoptics

Contribution ID: 19

Type: **not specified**

Open discussion around Charting & Data Decimation

Saturday 7 October 2023 15:55 (15 minutes)

Discussion amongst the participants on how charting and data decimation is being implemented in different institutes, what is working well, what challenges people are facing, and what ideas people have in mind.

Everyone is encouraged to speak up and even showcase things from their institute according to the on-going discussion.

Presenter: RODERICK, Chris (CERN)

Session Classification: Charting Solutions & Data Decimation

Contribution ID: 20

Type: **not specified**

Packaging the WRAP application for the CERN Control Centre

Saturday 7 October 2023 16:40 (30 minutes)

The deployment of web applications directly in browsers for the accelerators control rooms can lead to integration and UX issues. In this session, we would like to report on our experience with the two leading solutions for the web application packaging, Electron and Tauri. We will present the benchmark results and well as how the development pipelines were set up to include package creation and deployment.

Presenter: ASKO, Anti (CERN)

Session Classification: Web Application Packaging & Deployment

Contribution ID: 21

Type: **not specified**

Open discussions around Packaging

Discussion amongst the participants on how packaging is being implemented in different institutes, what is working well and what ideas people have in mind.

Everyone is encouraged to speak up and even showcase things from their institute according to the on-going discussion.

Presenter: RODERICK, Chris (CERN)

Session Classification: Web Application Packaging & Deployment

Contribution ID: 22

Type: **not specified**

GUI Strategy @ CEA

Saturday 7 October 2023 10:20 (20 minutes)

Presenter: SAINTIN, Katy

Session Classification: GUI Technologies & Evolution Plans Overview

Contribution ID: 23

Type: **not specified**

GUI Strategy @ ESRF

Saturday 7 October 2023 10:40 (20 minutes)

Presenter: GUIJARRO, Matias (ESRF)

Session Classification: GUI Technologies & Evolution Plans Overview

Contribution ID: 24

Type: **not specified**

GUI Strategy @ ESS

Saturday 7 October 2023 11:00 (25 minutes)

Presenter: BOLLING, Benjamin

Session Classification: GUI Technologies & Evolution Plans Overview