



Sardana - Scientific SCADA Suite

Zbigniew Reszela, Carlos Pascual, Carlos Falcon, Marc Rosanes,
Guifré Cuní, David Fernández
ALBA Synchrotron

Audience

- Workshop was oriented to the Sardana Suite (Sardana & Taurus) beginners
- There were 20 participants from various organizations (only 4 from synchrotrons)
- Objectives:
 - Let the participants understand the system architecture and its components
 - Demonstrate the most important features of each of the components
 - Show how to use and customize the system by developing plugins



Covered topics – Installation & Sardana



- Installation and configuration of Sardana system from scratch
 - Various installation ways: Debian packages, PyPI or repository checkout
 - How to create a complete simulated environment in 3 simple steps?
- Integration of hardware in the Device Pool via controllers
 - Interfaces of the most common laboratory elements e.g. moveables, channels,...
 - How to integrate a new hardware to the system by developing controller plugins
- Programming your own experiments with macros
 - Introduce all the available features when programming user procedures
 - How to program a macro for a real scientific requirement?
 - Demonstrate macro features in the real use cases of the Alba beamlines

Covered topics - Taurus



- Building a graphical user interface using Taurus library
 - Demonstrate the most interesting features of the Taurus widgets
 - Create a complete Taurus GUI without programming a single line of code!
- Accessing different data sources from within Taurus
 - Different approaches on how to access data sources with Taurus
 - How to access the microscope image with the evaluation scheme?
 - How to develop your own scheme on example of the HDF5 file?

Conclusions

- It was the first edition of the Sardana Workshop satellite to the ICALEPCS
- Participants questions during the workshop lead to interesting discussions
- We consider this workshop successful and would like to thank all the participants for sharing their experience with us



Workshop materials



- Training can be repeated by the everybody at home by following the materials
- More advanced exercises are also available
- Sardana Suite training (users directory):
`www.github.com/sardana-org/sardana-training`
- Sardana documentation:
`www.sardana-controls.org`
- Taurus documentation:
`www.taurus-scada.org`