BUILDING S.C.A.D.A. SYSTEMS IN SCIENTIFIC INSTALLATIONS WITH SARDANA AND TAURUS


Sardana and Taurus form a python software suite for Supervision, Control and Data Acquisition (SCADA) optimized for scientific installations. Sardana and Taurus are open source and deliver a substantial reduction in both time and cost associated to the design, development and support of control and data acquisition systems. The project was initially developed at ALBA and later evolved to an international collaboration driven by a community of users and developers from ALBA, DESY, MAXIV and Solaris as well as other institutes and private companies.

• The macro execution environment, multiclient and interactive is combined with the graphical interfaces the heart of the user experience.

• The communication layer is Tango, although Taurus interfaces can connect with various schemas. The data is handled and presented in various formats, depending on the needs and on the appropriate format for the nature of data.

• Due to the open source nature of the project, the Sardana development is likely to gain considerable momentum. The latest release, published in 2017, improves its performance, as well as the experiment configuration, plotting and access to data files. It also natively integrates continuous scans. Looking ahead to the upcoming versions, the efforts of the community will be focused among others in the configuration tools, full integration of 2D detectors, and continuous scans frameworks with complex movements and trajectories.

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