

Academia-Industry Matching Event on the Mutual Impact of Industry 4.0 and High-Energy Physics

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Industry 4.0 with Tango Controls –open-source SCADA for science and industry

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Abstract:

Industry 4.0 requires specific features from SCADA (supervisory control and data acquisition) software. These include among others high flexibility in terms of adjustment to concrete applications, hardware integration, support for variety of communication protocols. These requirements were present at large scale scientific infrastructures like synchrotrons, from the beginning. Tango Controls developed by community of European synchrotrons (among others ESRF, Soleil, Alba, Elettra, MAX-IV, Solaris) is response to these requirements. It is now mature yet constantly maintained and developed to follow present and future technologies and needs. While being open-source it provides quality which allow for 24/7/365 operation of the facilities. With its modularity, objectivity, distributed structure and variety of available tools is perfect for Industry 4.0 applications. The talk will give an overview of the Tango Controls related to Industry 4.0 and IoT.

About the speaker:

Piotr Goryl is CEO of S2Innovation start-up company. The main company mission is to join scientific and industry world and its main expertise is related to Tango Controls (www.tango-controls.org). For 7 years he has been Head of IT and controls at Solaris Synchrotron UJ (Krakow, Poland, www.synchrotron.pl) working as both a manager and a developer. The Solaris, and more than ten other European synchrotron laboratories and scientific projects, is using Tango Controls for integration of control system and running experiments on beamlines (acquiring data from hardware, processing, archiving, visualising and remote controlling). He has found that the Tango Controls could also be useful for other scientific projects as well as for industry. He also expects that there are far more technologies developed in the scientific world, waiting to be applied outside of science. This experience has pushed him to move from the research facility and run the company.

Presenter: GORYL, Piotr (S2Innovation)

Session Classification: Internet of Things