



Development of a supervisory alarm system for the CERN Vacuum applications

| | |
|--|---------------------|
| Project code | 71 |
| Supervisor | Sebastien Blanchard |
| Department | TE |
| | |
| Title | |
| Development of a supervisory alarm system for the CERN Vacuum applications | |
| Description | |
| <p>The Vacuum, Surfaces and Coatings (VSC) group is in charge of the design, construction, operation, maintenance and upgrade of high & ultra-high vacuum systems for accelerators and detectors as well as coatings, surfaces treatments, surface and chemical analysis for Accelerators and Detectors.</p> <p>The Interlock, Controls and Monitoring Section (ICM), which is part of the VSC group, is in charge of the monitoring, maintenance & consolidation of the vacuum control systems of all accelerators and detectors. Within the ICM section, this project consists in the development of a supervisory alarm system for the CERN Vacuum application:</p> <p>Development of the alarm screen using Qt/C++ framework in the Vacuum WinCC OA supervisory application. Upgrade the vacuum framework core to integrate alarm feature in device behaviour (WinCC OA CTRL language, C++, Qt).</p> <p>Interconnect this alarm system with other control systems at CERN.</p> | |
| Functions and Training Value | |
| Learn Industrial Controls SCADA applications and frameworks. Improve C++ language and Qt framework experience. Develop teamwork skills. | |
| Qualifications/Skills | |
| Automation/Software Engineer. WinCC OA CTRL language, C++, Qt software. | |