



Consolidation of the Vacuum SCADA archiving system

Project code	74
Supervisor	Sebastien Blanchard
Department	TE
Title	
Consolidation of the Vacuum SCADA archiving system	
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 consolidation of the Vacuum SCADA archiving system: Study and evaluate performance of different solutions of archiving : single or parallel archiving with Oracle DB, influxDB or kuduDB.</p> <p>Develop an archive system within WinCC OA API and a Relational DB.</p> <p>Improve trending plot query performance.</p> <p>Interface the Vacuum application trending plot with Next CERN Accelerator Logging System.</p>	
Functions and Training Value	
<p>Improve experience in Relational DB.</p> <p>Learn Industrial Controls SCADA applications and frameworks.</p> <p>Improve experience with Relational DB and SQL, C++/Qt language.</p> <p>Develop team work skills.</p>	
Qualifications/Skills	
<p>Automation/Software Engineer.</p> <p>Oracle DB, WinCC OA, SQL, C++ language and Qt software.</p>	