Asset and Maintenance Management Workshop



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Quality Management of CERN Vacuum Controls

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The vacuum controls Section (TE-VSC-ICM) is in charge of the monitoring, maintenance and consolidation of the vacuum control systems of all accelerators and detectors in CERN; this represents 6 000 instruments distributed along 128 km of vacuum chambers, often of heterogeneous architectures and of diverse technical generations. In order to improve the efficiency of the services provided by ICM, to vacuum experts and to accelerator operators, a Quality Management Plan is being put into place.

The first step was the standardization of the naming convention across different accelerators. The traceability of problems, requests, repairs, and other actions, has also been put into place (VTL). This was combined with the effort to identify each individual device by a coded label, and register it in CERN's standard Computerized Maintenance Management System –Infor/ MTF. Occurring in parallel was the gathering of old documents and the centralization of information concerning architectures, procedures, equipment and settings (EDMS). To describe the topology of control components, the data structure is being defined, for later implementation in Layout-DB. Future plans include the usage of the standard Controls Systems Configuration Service and introducing the Vacuum Controls data into it.

Once complete, the quality and efficiency of ICM services can only improve, and appropriate performance indicators will be in place to display them.

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