

An Object Oriented Control System for the Third Storage Ring RF Unit at the ESRF, C. DAVID, J. JACOB, J. MEYER, A. PANZARELLA, J.-L. PONS, J.-L. REVOL, ESRF - The ESRF was initially equipped with turnkey radio-frequency transmitters including the control systems of the RF plants. They still perform according to the original specification. However, since they do not comply with the control philosophy of the ESRF, their maintenance and upgrade are increasingly difficult. At the occasion of the construction of a third RF unit for the storage ring, it was therefore decided to build a new control system. It contributed to a large extent to the successful commissioning of the new RF unit which is now in continuous operation. The object oriented design provides the flexibility required for easy technical evolution and maintenance. The interlock system for the slow and fast protections of the transmitter and cavities was fully redesigned. Standard tools provided by the ESRF Computing Service are used to control the various devices. The upper level consists of a sequencer for the RF state machine, a graphical user interface based on synoptic and fast signal monitoring. Improved data logging developed for the new RF unit has proved to be an efficient tool in analysing the history of trips. In the coming years, it is foreseen to upgrade the hard and software of the old RF stations.