A New Alarm System Processor for ELETTRA, P. MICHELINI, C. SCAFURI, Sincrotrone Trieste, Padriciano 99, 34012 Trieste, Italy - The new ELETTRA alarm system processor consists of a set of programs used to log alarm events, report them to the control room operators and feed them to analysis tools. The system is based on an object oriented distributed architecture with an extended client/server communication model. The experience gained shows that the object oriented paradigm is a natural choice for building event driven programs and that it is possible to encapsulate Remote Procedure Call based servers into C++ classes. The Motif graphical user interface is also written in C++ and is based on the concept of component by Douglas Young.