

SOFTWARE ARCHITECTURE OF THE U-70 ACCELERATOR COMPLEX NEW CONTROL SYSTEM

V. Voevodin, Ihep Protvino Russia

The software of the new control system of the 70 GeV accelerator complex are built around the distributed real time DBMS SSUDA with emphasis on control of technological process, not equipment. SSUDA was designed to store current states of dynamic parameters and supports 3-D tables. The tables are distributed around all levels of CS, including equipment controllers. So, DB access protocols are used to access ECs. There are only two data-oriented atomic objects an applications deal with: vector and structure. All tasks interact exclusively through DBs and each task belongs to one of three weakly related types: data processing, hardware I/O, man-machine interface. The organization of parameters values storage is standardized, so data processing and I/O applications are highly unified. The only console program serves the MMI for all tasks are solved by operator and accelerator physicists.