CONTROL SYSTEM FOR NEW COMPACT ELECTRON LINAC.

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A task to develop control system (cs) for newly designed compact electron linac which being planned to be industrial installation was solved. During the first stage of cs development, flexible modern DAQ boards were installed in conventional PC and were used to control subsystems of the accelerator. To normalize signals for acquisition and generate signals to control, existing analogue blocks were applied. All data acquisition and control algorithms were implemented under PC version of LabView 4.0 together with some simple operator interface to test and study subsystems of the accelerator. The PC, played a role of front-end level, was connected through Ethernet to another remote PC worked under Linux and supported operator interface and simple data-base. During the second, final stage of cs development "industrial type" control system was developed. Front-end PC with analogue electronics was replaced with few members of "Smart device" family -- intelligent front-end controllers, working via CAN-bus under DeviceNet high level protocol while the same operator console under Linux was used.