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The thermometry system of superconducting magnets test bench for the NICA accelerator complex

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Precise temperature control in various parts of the magnet and thermostat is one of the vital problems during cryogenic tests.

The report describes design of the thermometry system, developed in LHEP JINR. Hardware consists of resistance temperature detectors of TVO and PT100 types, precision current sources and multi channel high resolution acquisition devices from National Instruments. Software is developed using Tango control system framework. It consists of few Tango modules performing ADC data acquisition, digital filtering, temperature calculations, database storage access and standalone web application providing operator interface.

Besides that, the report describes generic software tools, developed for Tango-based control system web client software design.

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