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Modernization of sample environment Systems on IBR-2 Reactor Spectrometers in FLNP

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At present, many spectrometers of the IBR-2M reactor have carried out a comprehensive modernization of the control systems and management of experimental facilities.This paper presents the main approaches to the construction of control systems at the IBR-2M.

To connect the spectrometer hardware to PC the USB-RS485/232 interface is used.
Control system of executive mechanisms is based on interface RS 485. AC4 USB-RS485 adapter (OWEN) communicates with a PC via the RS485 group up to 32 stepper motor controllers OSM42 or OSM88 (Onitex) by RS485 link.Data acquisition system from sensors is also based on the RS485 interface. AC4 adapter communicates with a PC via the RS485 group up to 32 controllers LIR915 (SSI-RS485, «SKB IS"). Controllers LIR915 are used for information retrieval from the absolute multi-turn angular sensors MCD (FRABA Inc.).
To connect devices with RS232 interface to the RS485 line. RS485-RS232 converters are used. As part of spectrometers temperature controllers such as LakeShore (LakeShore Cryotroniccs Inc.) is used, DT670 sensors and thermocouples as E and K.

This paper presents examples of successful modernization of sample environment systems of the IBR-2M spectrometers.

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