

## R/O Device based on USB1.0 for Spectroscopy DAQ

*Thursday 6 September 2007 16:45 (1 minute)*

A novel read-out (R/O) device based on universal series bus (USB1.0) for spectroscopy data acquisition (DAQ) together with software controlling analog-to-digital converters (type of Canberra, model 8715) will be presented. The interface exploiting the USB1.0 standard has two advantages: USB1.0 is spread out on all platforms and almost computers are equipped with this communication port; and, the speed of such devices (about 1Mb/s) is sufficient for spectroscopy with average number of events detected per second at the level up-to 50kHz. FTDI chips together with prepared software libraries of the Future Technology Devices International Ltd. were used for the realization of several examples of the read-out device. The response of the constructed devices was compared with the response of a Cicero multi-channel analyzer made by Silena. Equal devices were also tested using statistical tests with intention to verify their perfect functionality as well as their long-term stability. Results of these tests will be also presented.

**Primary author:** Mr MASEK, Petr (FEE CVUT Prague, Czech Republic)

**Co-authors:** Mr SLAVICEK, Tomas (IEAP CVUT Prague, Czech Republic); Dr LINHART, Vladimir (IEAP CVUT Prague, Czech Republic)

**Presenter:** Mr MASEK, Petr (FEE CVUT Prague, Czech Republic)

**Session Classification:** Poster session