

Report

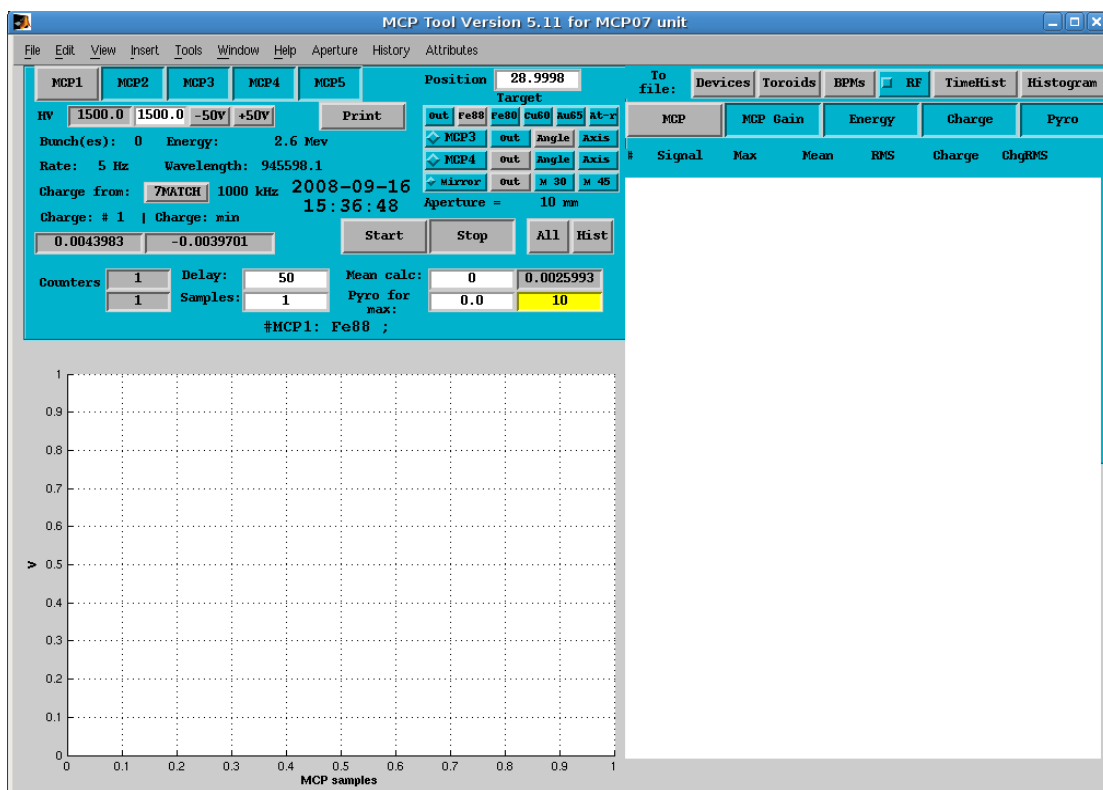
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Introduction

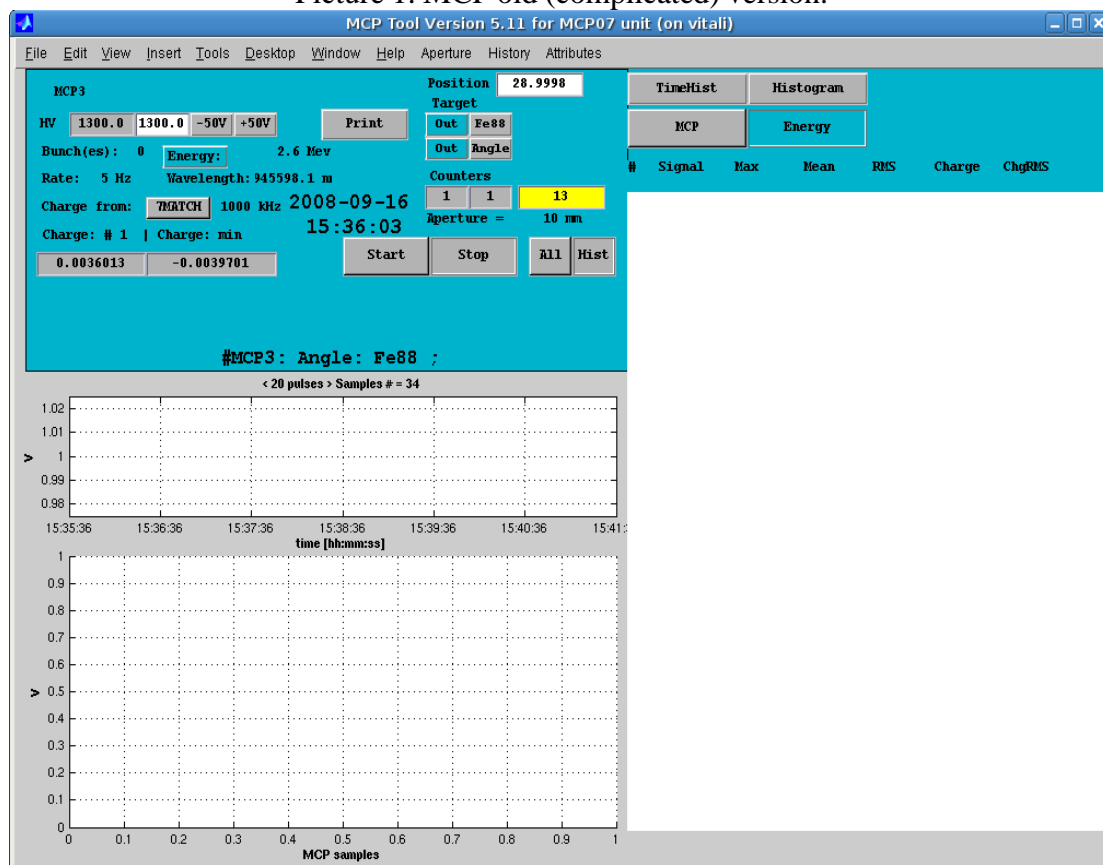
For 8 weeks I have worked on the MCS4 department. My supervisor was Raimund Kammering and Vitali Kocharyan helped me a lot with Matlab. I worked with DOOCS (Distributed Object Oriented Control System), which is a distributed control system that was developed for HERA and TTF applications. It is an object oriented system design from the device server level up to the operator console. MCS (Machine Control System) works on FLASH, and the programmes I worked with are for diagnostics of the SASE (Self-Amplified Spontaneous Emission) sector of FLASH.

My Work

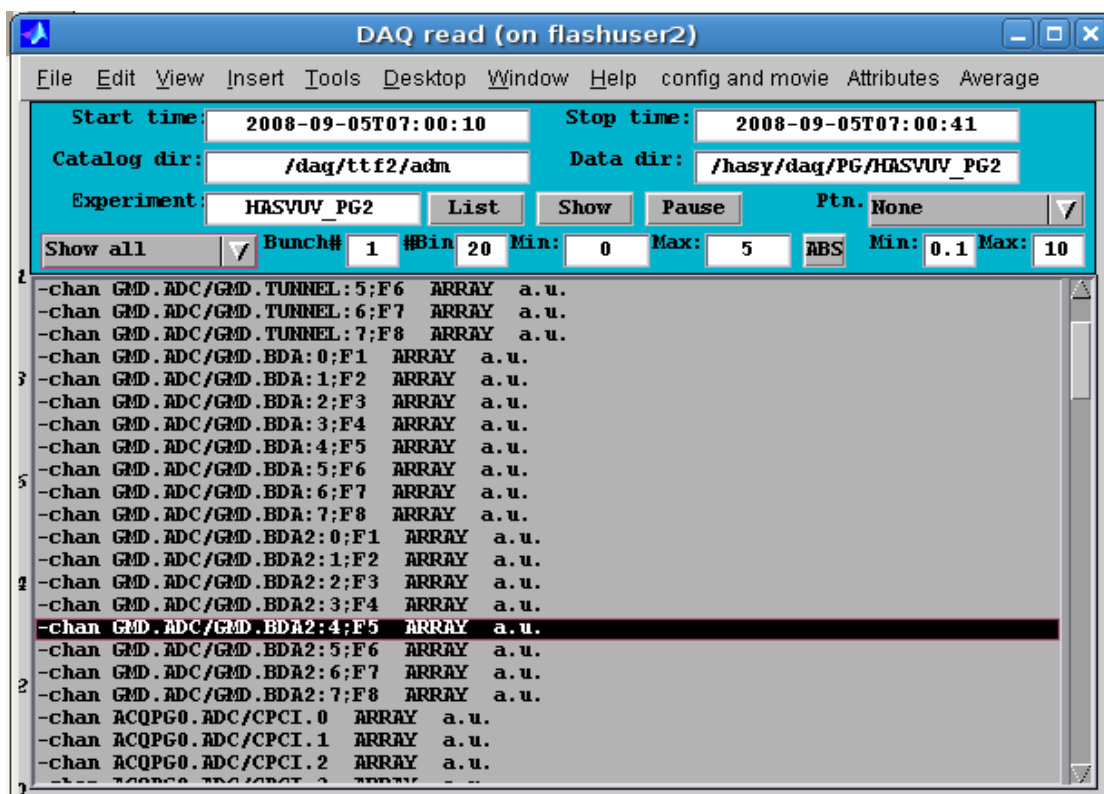
At the very beginning I had to learn more about special programmes, which read data from FLASH servers in real-time. Then I had to modify a programme MCP(Picture 1.), which is written in Matlab and uses the GUI (Graphical User Interface). I had to modify it because it is too complicated for a user. I modified some buttons and made some changes in the code itself so after my work this programme had the name "MCP-lite" and looked more simple, than the old one(Picture 2.). Then I had to learn more about new commands "daq_list", which shows a list of FLASH servers, where data is stored, and "daq_read_svr", which reads stored data from servers(for example the bunch frequency of the year 2006). And then, with help of this command write a programme, with help of which one could choose a special channel and make useful plots of stored data on servers (Picture 3-4.).



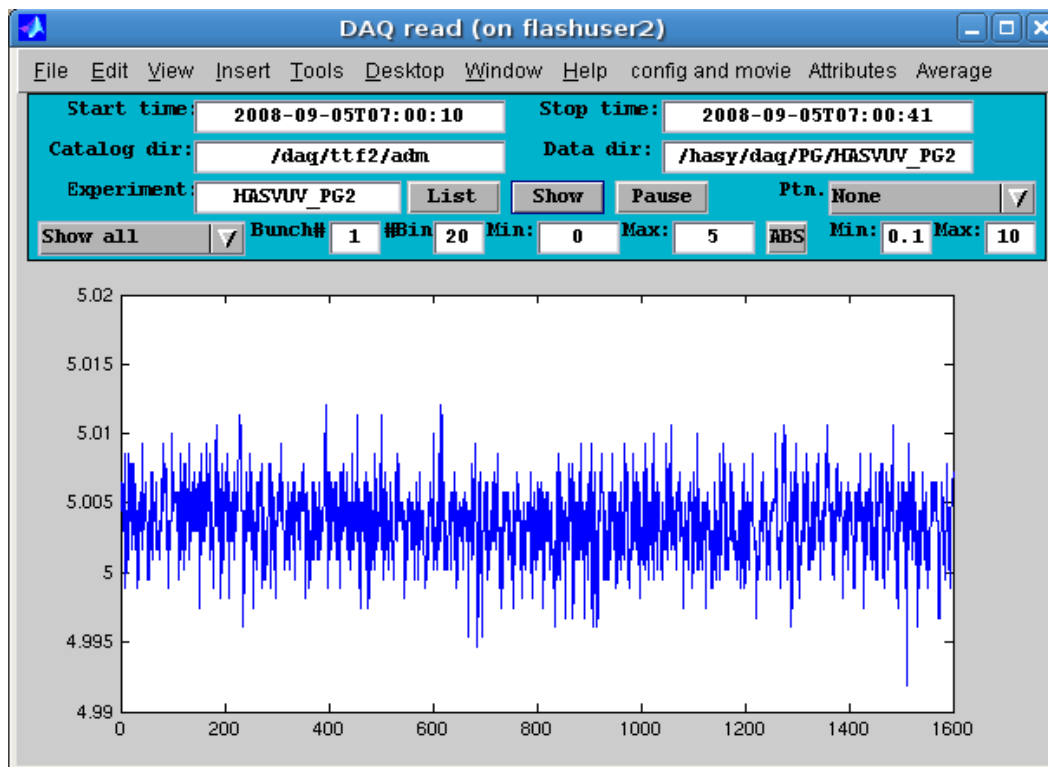
Picture 1. MCP old (complicated) version.



Picture 2. MCP_lite , new version.



Picture 3. The DAQ interface. Here we see the user chooses the channel.



Picture 4. DAQ, the plot is shown.