

New Products

How to control the BrainVision Recorder from stimulus presentation software

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Most EEG laboratories automate as many steps as possible in their experiments in order to reduce the workload of the operators, as well as to decrease the likelihood of human errors. For example, to start the recording of the incoming EEG requires only a few button presses, but forgetting to press the button may have costly consequences. This article introduces a handy little tool that makes it possible to perform the most important steps in our data acquisition software automatically.

The master computer of the laboratories is definitely the one, where the stimulus presentation software runs: it displays the visual stimuli, plays the auditory ones, controls the timing of the events and frequently also collects the responses. Since this computer is anyway the conductor of the experiment, this is the ideal candidate for controlling the activity of the data acquisition software.

The BrainVision Recorder offers OLE automations from the very beginning; consequently it can be controlled externally. However, it is possible, unfortunately it cannot be realized conveniently for the most popular stimulus presentation applications, which are typically running on another machine. The Remote Control for BrainVision Recorder software is the one, which is able to tackle the problem: on one hand, it acts as an interpreter, it translates simple text messages into OLE commands, for example the "S" character leads to starting the recording. On the other

hand, it is a transmitter: opens a TCP/IP port, therefore the controlling can be realized remotely. Several commands are available, the Remote Control is able to start the Recorder, open a workspace, define the name of the EEG data files and activate the impedance or the monitoring mode. Certainly it is also possible to start, stop, pause and continue the recording.

The setup of the new tool can be done quickly: the Remote Control has to be installed on the PC, where the Recorder runs. It requires network connection to the stimulus presentation computer. If it is not available the two workstations can also be connected directly. Any stimulus presentation software can be used in combination with the Remote Control, which is able to handle TCP/IP ports. Two example experiments are available on our website: one for E-Prime and another for Presentation®. The E-Prime paradigm contains a package as well, which makes the programming more easy and convenient for the users of the E-Prime Professional edition. The Presentation® is able to handle TCP/IP ports from the version 14.0, the commands can be sent simply by one line, once the connection is established.

The Remote Control for BrainVision Recorder software is available on our website: <http://www.brainproducts.com/downloads.php?kid=2&tab=7> ●

