Experiment Control Suite

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Stand alone script based hardware control

Since a long time it is possible to combine our *Viewer* video tracking solution with our script based experiment control plug-in to control external hardware based on the video tracking data. This combination is for example used to conduct complex learning experiments in the *HomeCage Plus* setup or in Optogenetics where the laser is controled based on the animals behavior in the setup.
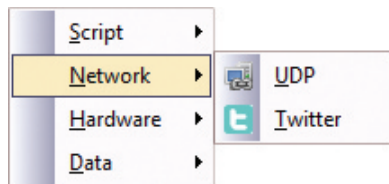
After several demands to use this comfortable scripting tool without video tracking we made the step. We seperated the script based experiment control from the *Viewer* tracking software and launched it as an independent stand alone product. The *Experiment Control Suite* consists of two components: The *Experiment Control Designer* and the *Experiment Control Conductor*.
The *Designer* is used to configure the available channels and to create the script that controls all components in the experiment.
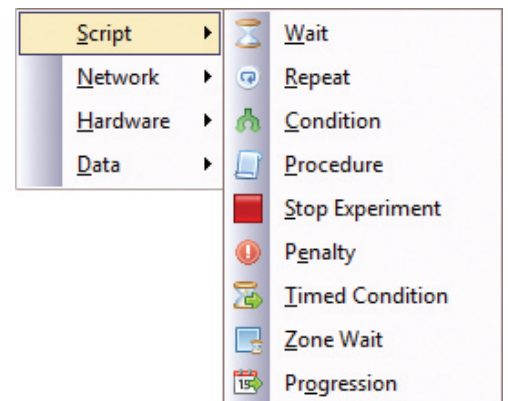The *Conducter* is the program that executes the script during the trial.
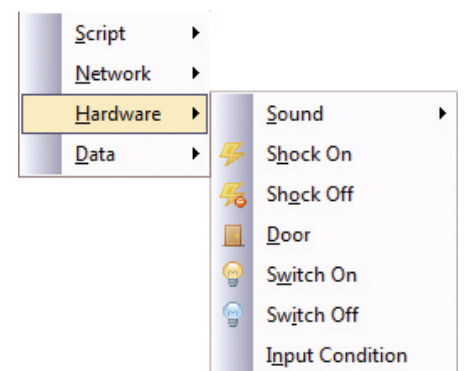
Some examples what you can do:
The Script options provide general commands like wait steps, running sub-scripts, generating loops in the script (repeat), conditions and of course stop the experiment.

With the Network options you can send UDP messages to other programs to control addidional software and with the Twitter option you can tweet script events to stay informed even if you are not in the lab.

The Hardware options allow you to switch external hardware on and off with TTL signals and to wait for incoming signals of hardware components (e.g. light barrier interception).

Integration of 3rd party hardware
Using standard TTL signals as outputs and inputs already allows the usage of a wide range of 3rd party hardware to control devices (e.g. light, sound, feeders) and incoming TTL signals (e.g. light barriers) as trigger events.
In addition to that we also fully integrated hardware of other vendors like National Instruments or Razel Scientific Insruments. Via the *Experiment Control Suite* you have full access to National Instruments cards and can control the cards based on events in the trial.