Support Tip

Did you know how to select the correct responses in BrainVision Analyzer 2?

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Let us assume that two stimulus markers (S1 and S2) and two response markers (R1 and R2) were used during the recording. The correct response maps R1 to S1 and R2 to S2, and we would like to evaluate all segments together which contain correct responses regardless of the stimulus type. Today I would like to show how this can be done using BrainVision Analyzer 2.

As you may know, it is possible to automatically reject or keep segments. The conditions are defined using the Advanced Boolean Expression function, which can be found in the second window of the Segmentation Wizard. In this example, the two stimulus markers have been selected as reference markers. We can start to build the Boolean expression:

```
CURR(Stimulus, S1) AND FIRST(Response, R1, 100, 700)
```

Where the "CURR" expression identifies the S1 segments, while the second part looks for the first R1 response between 100 and 700 ms relatively to the reference marker. Therefore if the S1 is followed by R1 during this time interval the segment will be kept. What happens if the subject gives a wrong answer and corrects its mistake within the time window? The segment will not be rejected. If you want to avoid this outcome, the expression should be modified thus:

```
CURR(Stimulus, S1) AND FIRST(Response,*, 100,
700).$Description =R1
```

The second part looks for the first response in the time window regardless of the description, and the segment will be kept only if the response is R1.

Only one more task remains, namely to expand the expression to include the S2 segments:

```
(CURR(Stimulus, S1) AND FIRST(Response,*, 100,
700).$Description =R1) OR (CURR(Stimulus, S2) AND
FIRST(Response,*, 100, 700).$Description =R2)
```

The expression will have to be adapted to your experiment, as will the type and description of the stimuli. The time interval will also need to be changed. More detailed explanation is available in the User Manual of the BrainVision Analyzer 2. ●