

## How to Use PJND3CatBayes.exe

When the program starts, the following form appears.

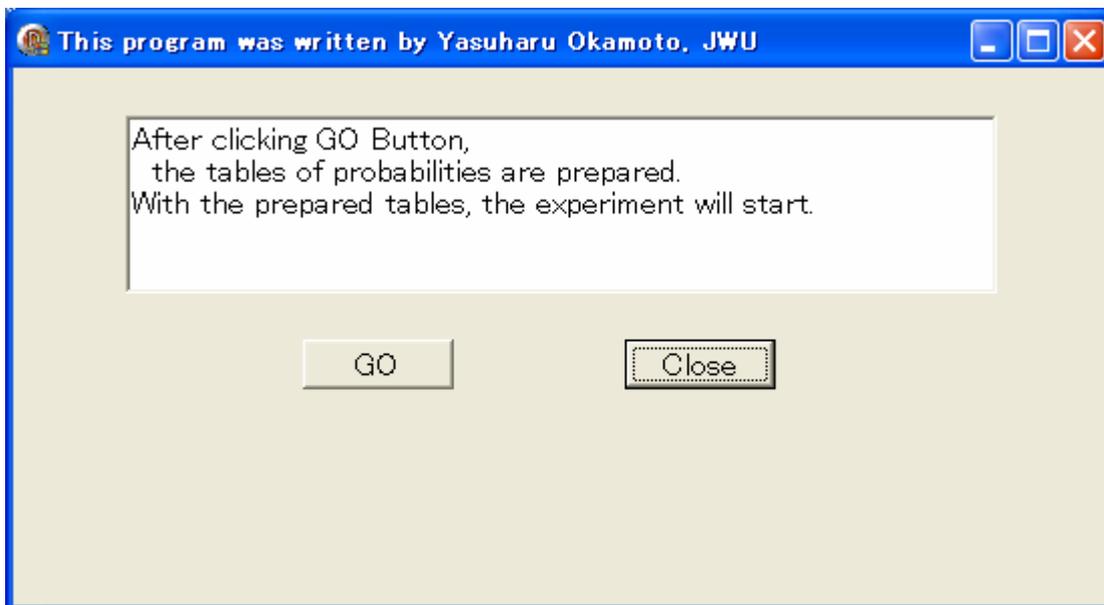


Figure 1

Click GO Button in Figure 1, then the tables of probabilities, which are used in Bayesian calculation, are prepared. During preparation, what step is going on is being shown in the memo component on the form (Figure 2).

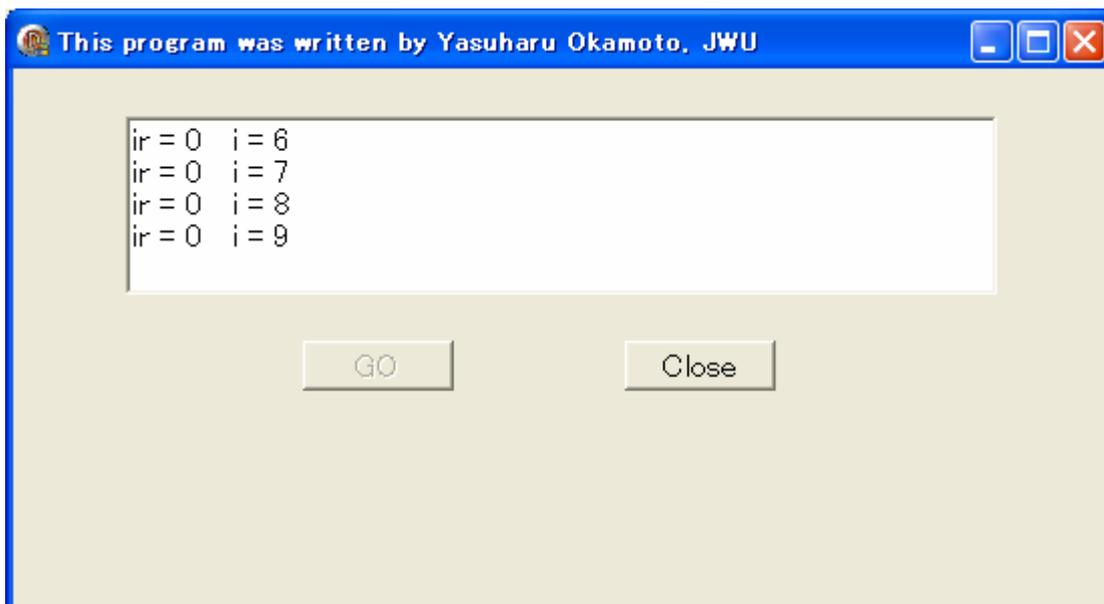


Figure 2

After the calculation of the tables, the stimulus on the trial is being calculated (Figure 3).

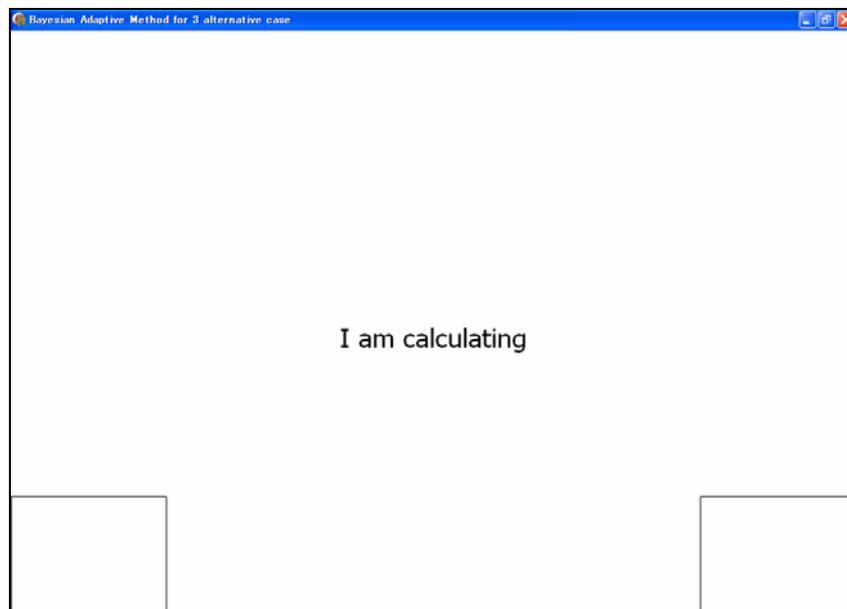


Figure 3

After calculation of the stimulus, the following form appears.

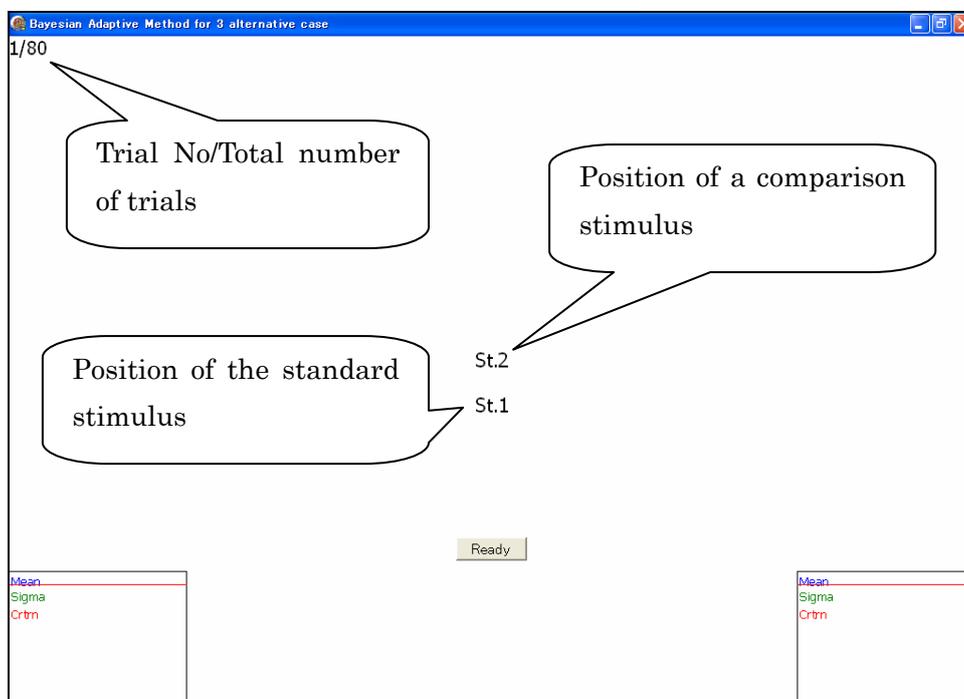


Figure 4

Click Ready Button in Figure 4, then the standard stimulus presented.

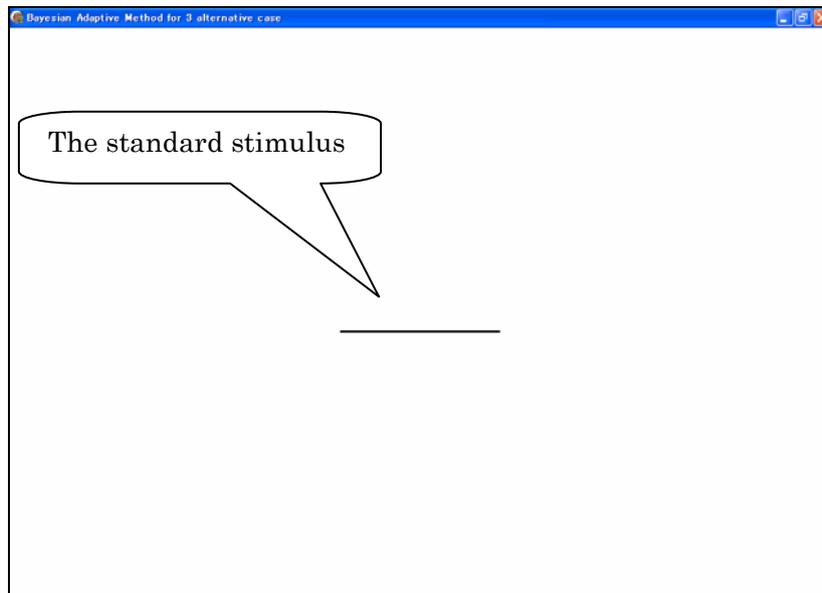


Figure 5

After the presentation of the standard stimulus St1, blank form appears (Figure 6).

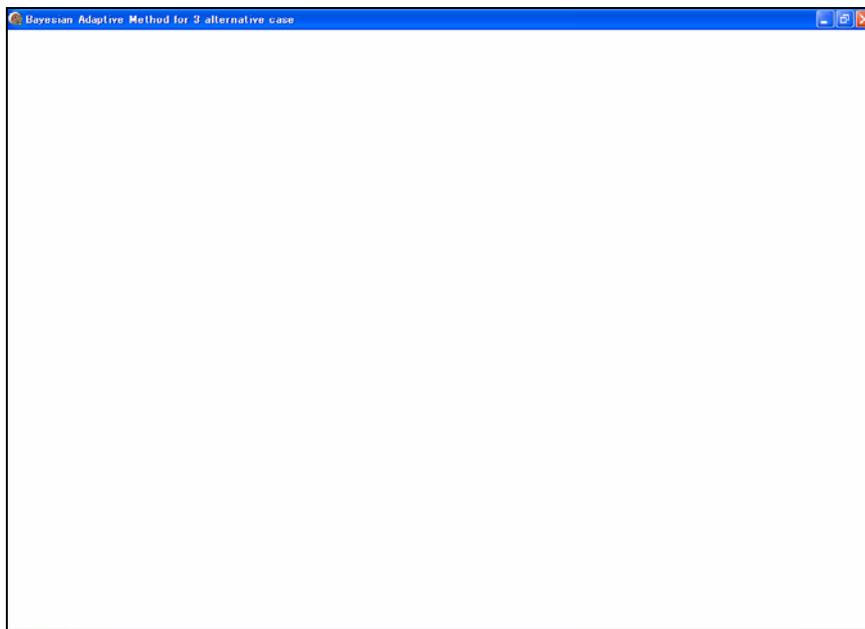


Figure 6.

Then a comparison stimulus St2 will be presented (Figure 7).

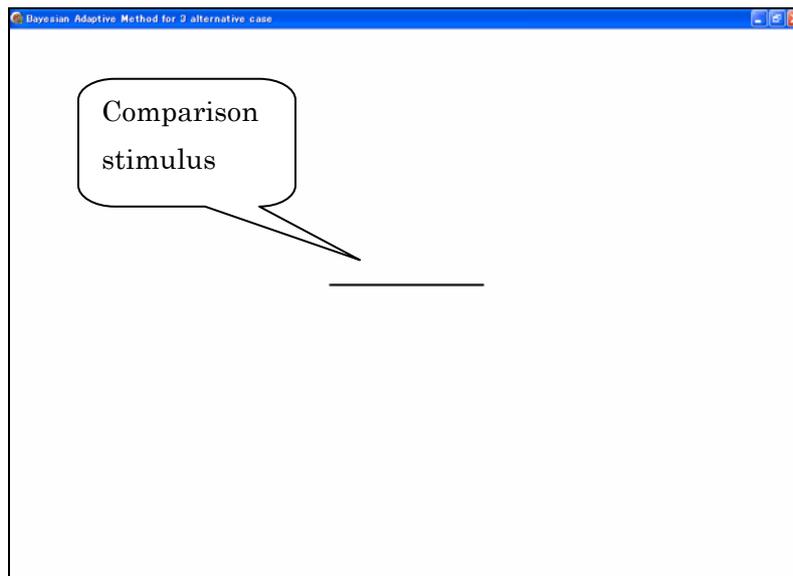


Figure 7

After the presentation of the St2, the response alternatives are presented (Figure 8).

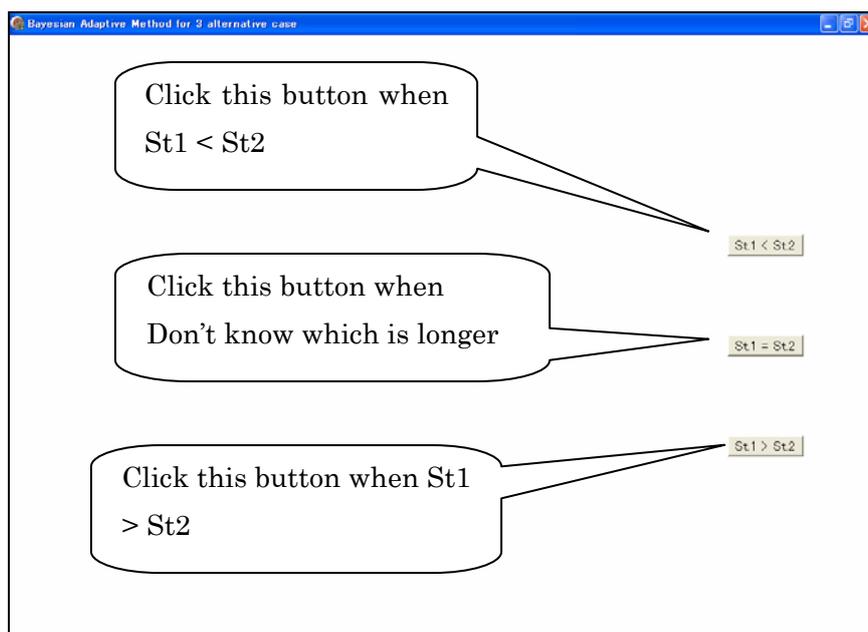


Figure 8

After clicking the button which you choose, the next trial start with the form shown in Figure 9.

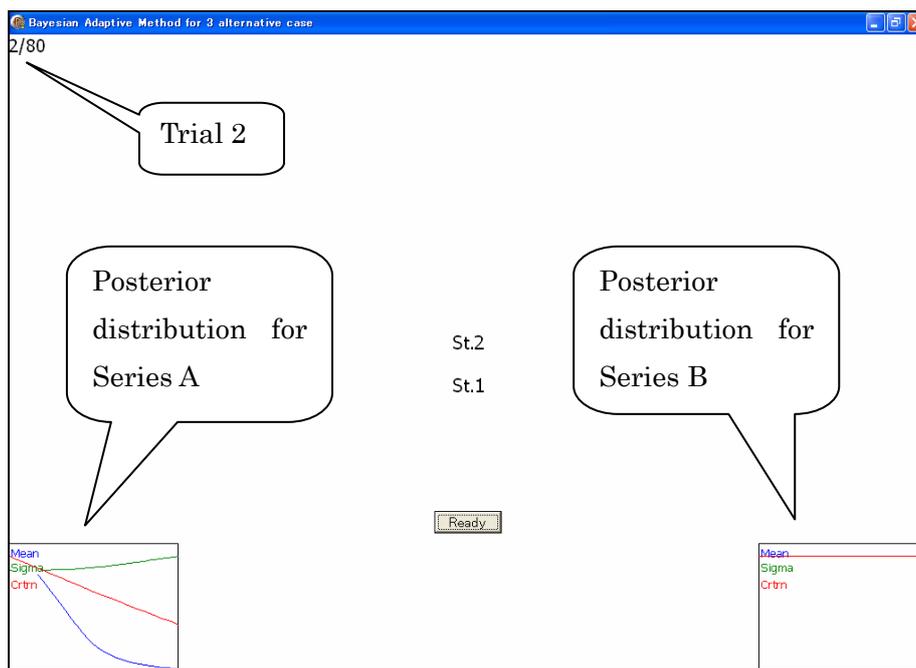


Figure 9

In the form, two sets of posterior distributions are shown. Each set corresponds to each series, which represents one Bayesian adaptive method. The experiment consists of 80 trials and each series of 40 trials. Series A and B are prepared to avoid alternation problem, which is characteristic of the Psi method. The experiment is a randomized sequence of the two series.

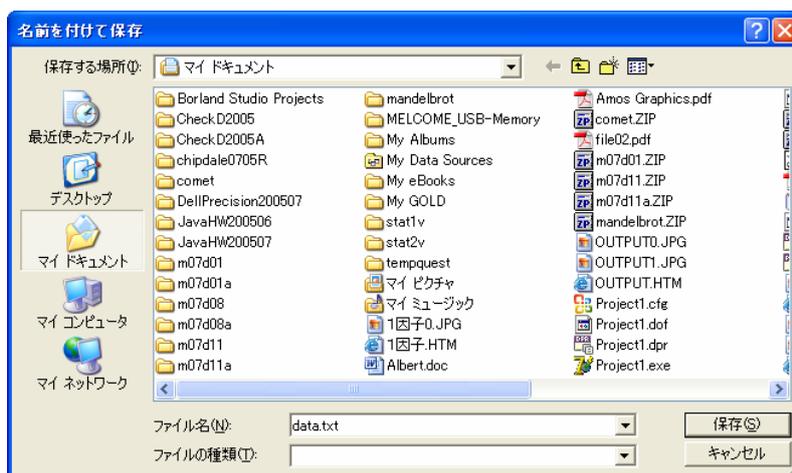


Figure 10

After 80 trial are run, Dialog asking for file name will be presented. In the text file with the name set by the dialog, data of the experiment is output. Graphical representation will be displayed as shown in Figure 11. Posterior distributions are

calculated from the merged data of series A and B.

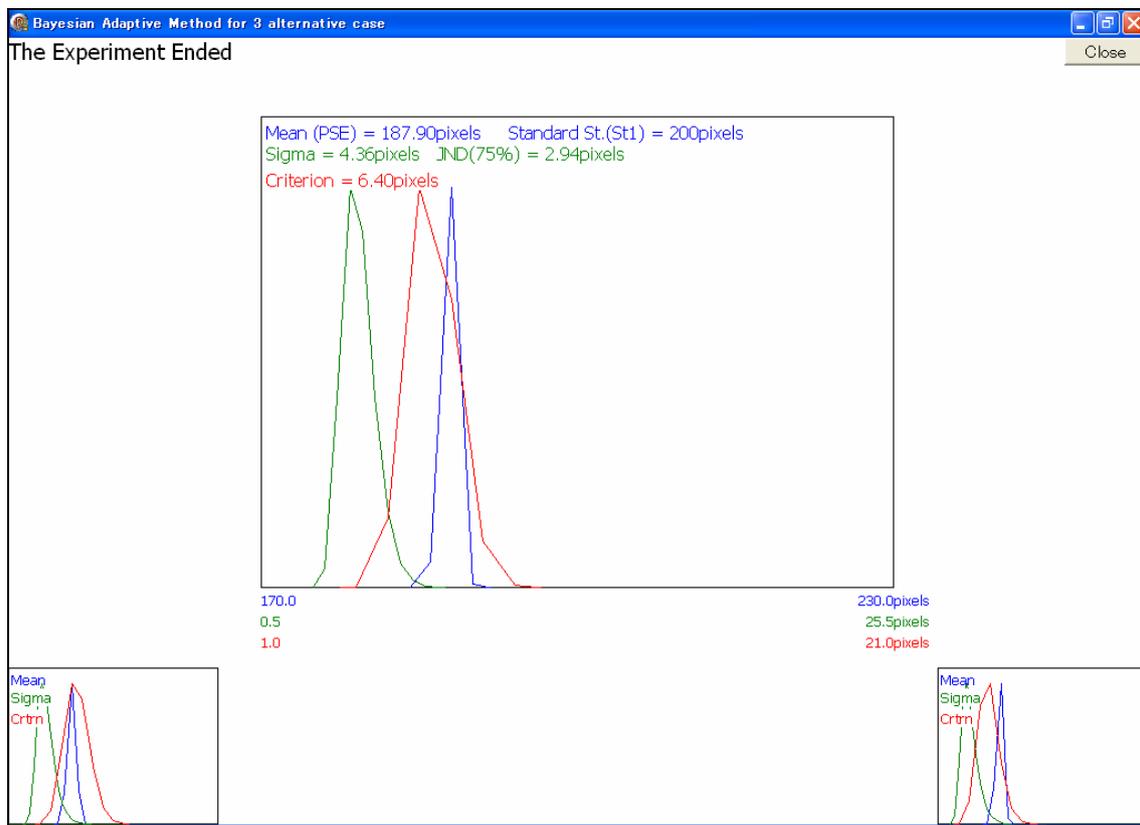


Figure 11