Brief Instructions for the Analyzer Program

The Analyzer Program can process single or multiple output files. If it is run without parameters, it displays the Help screen, which displays the parameters. The program can be run from either the console (i.e., the DOS window) or from the Shortcut. To analyze a single file, after the name of the program give the name of the input file and the name of the output file. To analyze multiple files, use a wildcard (e.g., * or ?) and the program will analyze all the files in the current directory that fit this specification (e.g., typing *.out will analyze all the files with the .out extension in the current directory). The output file is written in a format that can be directly imported into Excel, saved in Excel format, and imported into statistical programs (e.g., SPSS). For multiple analyses, each line contains the results of processing a single input file (e.g., one participant or case).

The parameters control the operation of the Analyzer Program. The first parameter [-m] is for purposes of backward compatibility with older versions of the mouse registry program, and thus is likely of no use. The parameter [-r] allows one to output a time series of distances from the center of the screen (i.e., circle). It is simply a temporal trajectory of mouse distances (which can be displayed in Excel as an example of a temporal trajectory of judgment). The parameters [-X] and [-Y] allows one to override the assumed position (in pixels) of the center of the screen. By default, these parameters are read from the first line of the mouse register's recording. The parameter [-sk] tells the Analyzer Program to delete from analysis the first *N* records. By default, the cursor starts at the center of the screen and the participant needs some time to position it to reflect his or her initial feeling toward the stimulus. (We have found that approximately 2 sec. [e.g., 20 recordings, sampled every 100 ms.] is the minimal time necessary to calibrate participants' initial feelings.).

The precision of the statistics produced by the Analyzer Program (described in next section) is controlled by the parameter [-p]. (The default for each statistic is 3 decimal points.) The missing data value (default is –99) is controlled by the parameter [-b]. The parameter [-D] limits the maximum distance to be included in the analysis. The parameter [-nc] removes the header of the output files. Change this to "no" if your files don't contain headers (i.e., are purely numeric).

Output

The first column of the output is the name of the output file. The last few columns contain information identifying the analyzed file (e.g., the date and the name of the input file). The remaining columns are as follows:

Skipped: The first valid recording for which statistics are computed (e.g., 4 means that the first 3 are skipped).
Rest_eps.: minimal difference between recordings to qualify as no cursor movement. (This is necessary because of the finite precision of numerical representation of the cursor position in the computer.)
Target_X and Target_Y: The assumed x and y coordinates of the middle of the screen, from which the distance is calculated. To check if this is correct, divide the screen resolution by two.
RECORDS: The recordings for which statistics are computed.

MDIST: Mean distance over the entire recording period.
SD_MDIST: The standard deviation of the distance over the entire recording period.
M_VEL: Mean speed of cursor movement (pixels/sec.) over the entire recording period.
SD_MVEL: Standard deviation of speed of cursor movement over the entire recording period.
M.ACC: Mean acceleration of cursor movement over the entire recording period.
SD_MACC: Standard deviation of acceleration over the entire recording period.

d1: The number of recordings for "close to the target." The actual trajectory of recordings is divided in half. The "close" recordings are cursor positions within the half close to the target. The above statistics (MDIST, etc.) are then computed for this region.
d2: The number of recordings for "far from the target." The "far" recordings are cursor positions with the half far from the target. The above statistics (MDIST, etc.) are then computed for this region.
The division of trajectory distance into "close" and "far" is a default setting of the Analyzer and can be overridden to divide the distance into any number of intervals you desire.

WHOLE_TIME: Total time of analyzed recording.
REST_TIME: Total time without cursor movement.
REST_TIME_d1: Total time without cursor movement "close to the target".
REST_TIME_d2: Total time without cursor movement "far from the target."

RECORDS_t1: Total number of recordings in the initial time period (i.e., 1st of 3).
The above statistics (MDIST, etc.) are recorded for the initial time period, including these statistics for "close to" and "far from" the target.

This set of statistics is then repeated for the 2nd and 3rd time periods. They follow, respectively, RECORDS_t2 and RECORDS_t3. Three is the default number of time intervals and this can be overridden into any number of time intervals you desire.

Within each time interval, if there no recordings for a given distance interval (e.g., "close" or "far"), the number representing missing data (by default, -99) is inserted.