Übung Mensch-Maschine-Kommunikation

Submission is by email to `mmi1@hcilab.org`

Program Your group must send in a executable version of your program for the experiment. Send in an **executable** JAR file (test on different machines). If the submission is not working the submission is invalid.

Results Please use a PDF attachment named **exercise1-groupN.zip** (N is the number of your group). Each group must hand in one solution. Text must be written in English or German.

Deadline for submission of your program: **27.10.2006, 9 a.m.**. Submit the results of the experiment by **friday, 3.11.2006, 9 a.m.**

Topic: In this exercise you will learn about the theory and application of rapid and aimed human movement. In particular we will have a closer look at *Fitt's Law* and its implications to the field of HCI.

Task 1 (P) Experimental Investigation of Human Pointing Performance

Develop an experiment and create a program to experimentally assess the pointing performance of a user. The users task is to move the systems pointer from a start point to a target area.

Develop a program that your group will use to carry out the designed experiment. Your program needs to do the following things:

a) Record the starting position.

b) Position the target area (a square or a circle).

c) Record the time of task (pointing) execution.

d) Vary the size and distance of the target (use a reasonable minimum size).

e) Automatically log the results.

For brevity, it is sufficient to print your results to the console and copy them into a text file for further processing. For more sophisticated logging and formatting we recommend log4j [1] For the implementation, you may use a technology of your choice. However your results need to be executable on a Windows XP machine and the latest Java version.

Bitte wenden!

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[1] http://logging.apache.org/log4j/docs/

Task 2 **(P) Execution of the Experiment**

Perform the experiment with the software you developed. Use at least four different participants. You can use the next exercise (27./30.11.2006) to conduct the experiment or to settle appointments with other students. Run at least two series of tests, one with variable target distance and one with variable target width (the other parameter remains fixed). Optionally run a third series with both parameters variable.

3.11.2006, 9 a.m. Submit your solutions to `mmi1@hcilab.org` containing:

- A data file containing the collected data and graphical analyses (use Open Office Calc or MS Excel)

- A file with your interpretation of the results (in plain text) (PDF format)

- A brief summary of your own understanding of Fitt's Law (approx. 100 words) (PDF)