Looking beyond the horizon: Evaluation of four compact visualization techniques for time series in a spatial context

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User Study Walkthrough

Supplementary Material

In the following we give an overview of the different stages of the user study. Names in brackets e.g., *[0_3_Training_example]* refer to files in "Screenshots.zip".

The participant is welcome and instructed about the purpose and the procedure of the experiment. The participant is reminded that his/her participation is completely voluntary and anonymous *[0_1_Intro].*

The participant is then asked to fill out a demography questionnaire (gender, age, field of study, vision, experience with visualization techniques) *[0_2_Demography].*

When the actual experiment starts, the upcoming technique is explained with images and text. Each participant solves all tasks for one technique and then proceeds with the next technique. The order of the tasks is fixed, while the order of techniques is counter balanced *[1_BHG_Intro_1, 1_BHG_Intro_2, 2_CBP_Intro, 3_CHG_Intro, 4_HG_Intro].*

For each task the participant can solve several training questions to get familiar with the technique. During training, the participant will be informed whether the given answer was correct or incorrect *[0_3_Training_example].*

After the training session, the evaluation of the actual task begins. The tasks are generally repeated 2 times with different data and different time intervals. Task 8 is repeated 3 times. The participant can skip the current repetition, which will then be discarded. In contrast to training questions, the participant will not be informed about the correctness of the given answer. In case the participant wants to review the explanation of the current technique, he/she can do so by pressing the "Explain Visualization" button *[e.g. 2_CBP_Task8].*

After each task, the participant is asked to rate the difficulty of the task with the current technique as well as his/her confidence in the given answer *[e.g. 1_BHG_Task1_postTask].*

When the participant finished the experiment, he/she will be thanked for his/her participation.