Supplemental Material for
"Visual Adjacency Lists for Dynamic Graphs"

1 Stimuli
In the following, we provide example images of the stimuli for all tasks and graph sizes:

- **Task 1**: Decide if a link exists between two marked nodes (Figure 2).
- **Task 2**: Decide if incoming or outgoing links are more equally distributed with respect to their number (Figure 3).
- **Task 3**: Select the node, where the weights of its incoming links cover the largest value range (Figure 4).
- **Task 4**: Select the node, where the weights of all incoming links have a large increase between two subsequent time steps (Figure 5).

2 User Ratings
After completing all tasks, the participants were asked in a questionnaire to rate the suitability of the methods for all tasks on a Likert scale ranging from 1 (good) to 5 (bad). Figure 1 shows the results. The Shapiro-Wilk test rejected normal distribution for all data. According to the Kruskal-Wallis test, significance ($p < 0.05$) between techniques occurs for all tasks. The posthoc Wilcoxon rank-sum test was used to test pairwise significance ($p < 0.05$). For Task 1, there is only a significant difference between adjacency lists and node-link diagrams, the other pairings exhibit no significant difference. In the case of Task 2, a significant difference between adjacency lists and the other two techniques occurs. There is no significant difference between adjacency matrices and node-link diagrams. A significant difference between node-link diagrams and the other two techniques occurs in Task 3, while there is no significant difference between adjacency lists and matrices. Finally, Task 4 exhibits a significant difference between all techniques.

According to these results, the participants see the strength of adjacency lists for tasks related to the link distribution (Task 2) and weights, for both static (Task 3) and dynamic graphs (Task 4). Furthermore, they think it is more difficult to determine the existence of a link (Task 1) with adjacency lists than with the other two techniques. In their opinion, adjacency matrices are good for solving tasks related to weights (Task 3 and 4) and checking the existence of links (Task 1), and node-link diagrams are most suitable for the first task which is related to direct connections between nodes.
Fig. 2. Example stimuli for Task 1 for the small graph (top row) and the large graph (bottom row).

Fig. 3. Example stimuli for Task 2 for the small graph (top row) and the large graph (bottom row).
Fig. 4. Example stimuli for Task 3 for the small graph (top row) and the large graph (bottom row).

Fig. 5. Example stimuli for Task 4 for the small graph (left column) and the large graph (right column).