Universität Rostock Traditio et Innovatio

Toward Using Matrix Visualizations for Graph Editing

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Visual Editing of the Graph‘s Structure – Node-Link- vs. Matrix Visualizations

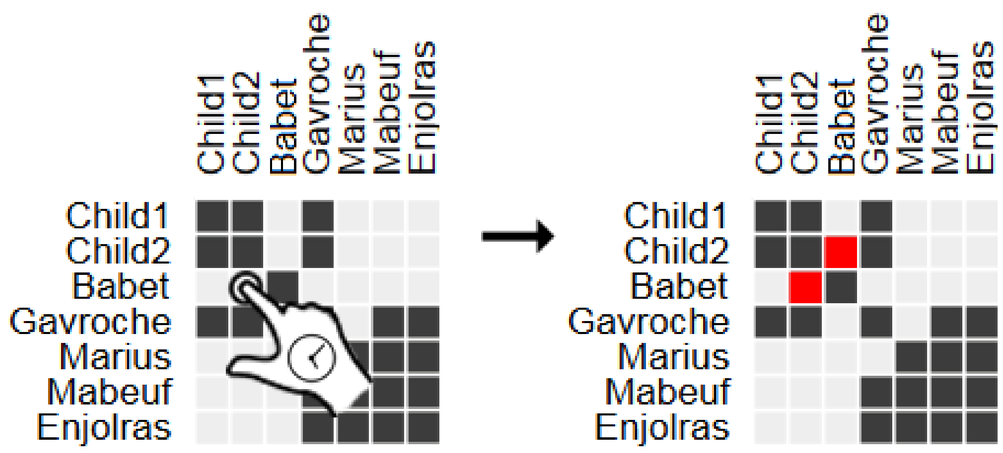
	Node-Link Visualization	Matrix Visualization
Good for:	+ Overview of sparse graphs + Identification of paths in sparse graphs + Interaction with nodes	+ Overview of dense graphs + Identification of existing/non-existing edges + Interaction with edges
Difficult:	- Communication of dense graphs - Interaction with edges	- Identification of paths - Interaction with nodes

→ It makes sense to consider matrices for graph editing!

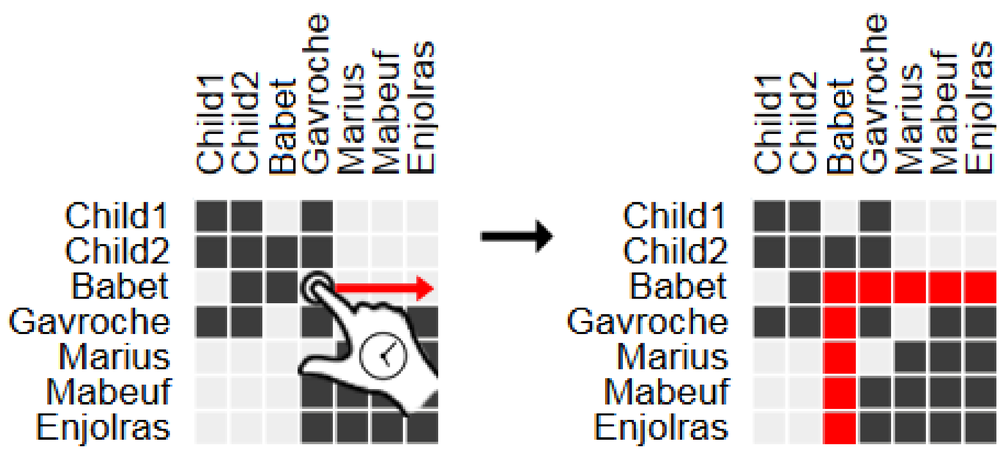
Edge Editing Using Matrix Visualizations

- **<u>Direct Touch</u> interaction for edge editing**

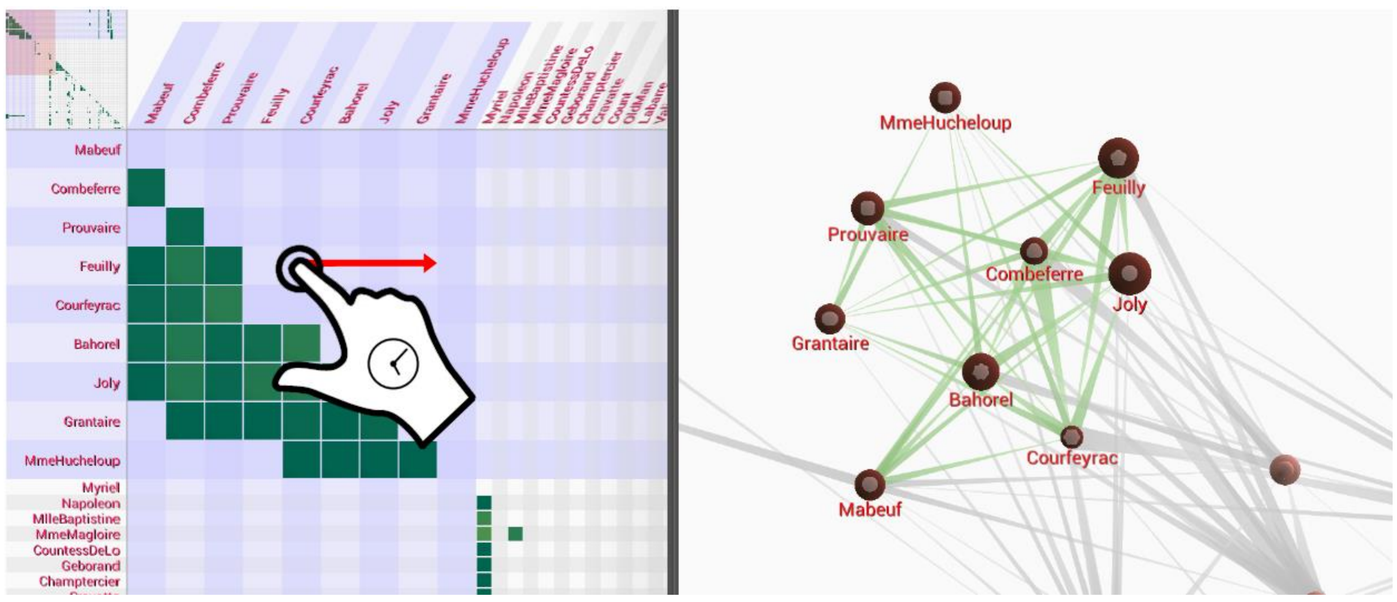
Insert/Delete single edge: long press cell



Insert/Delete multiple edges: long press cell → drag



Graph Editing Using Both: Node-Link- & Matrix Visualizations



- **Combine strength of both visualizations by using interlinked views**
- **Editing of nodes in node-link view (traditional techniques)**
- **Editing of edges in matrix view (novel techniques)**
- **Automatic matrix-reordering upon selection in node-link view**

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