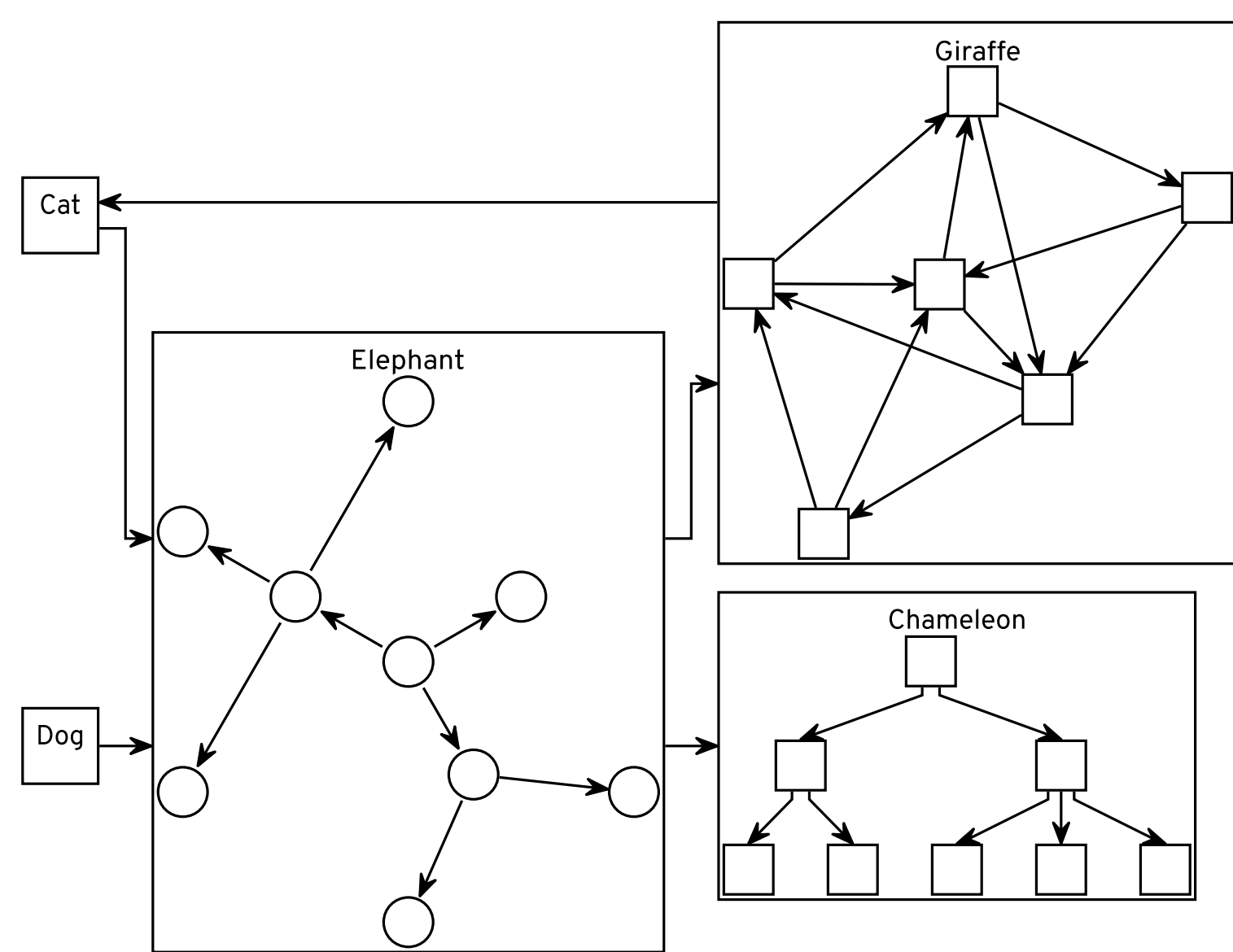


Philosophy

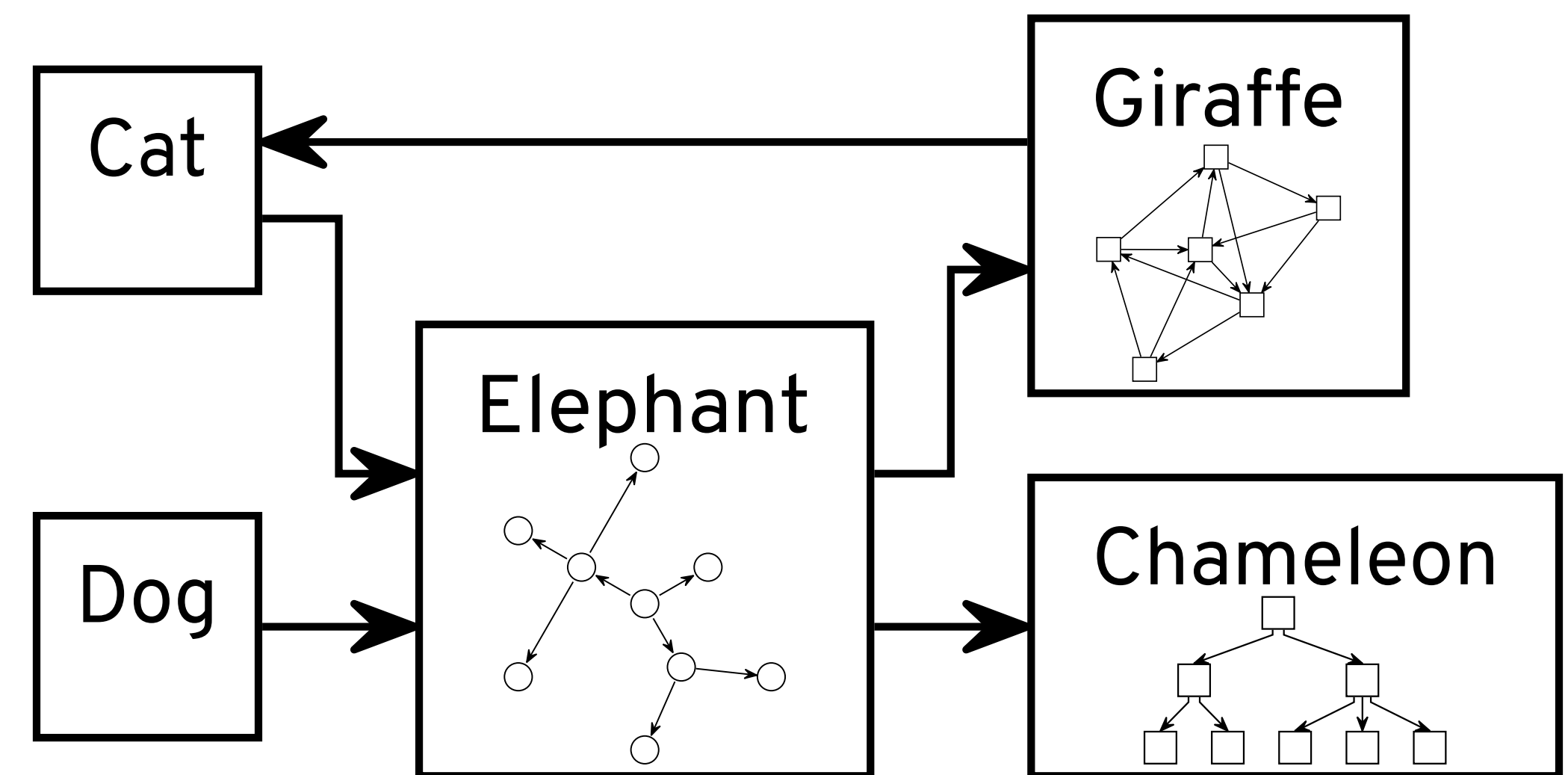
ELK facilitates open-source development and aims to make automatic layout accessible by researchers and industry alike.

The ELK Recursive Layout Engine

Bottom-Up Layout



Top-Down Layout



The ELK Layered Processor Infrastructure

Pre- and post-processing enable usage of specialized graph data structures

Constraints

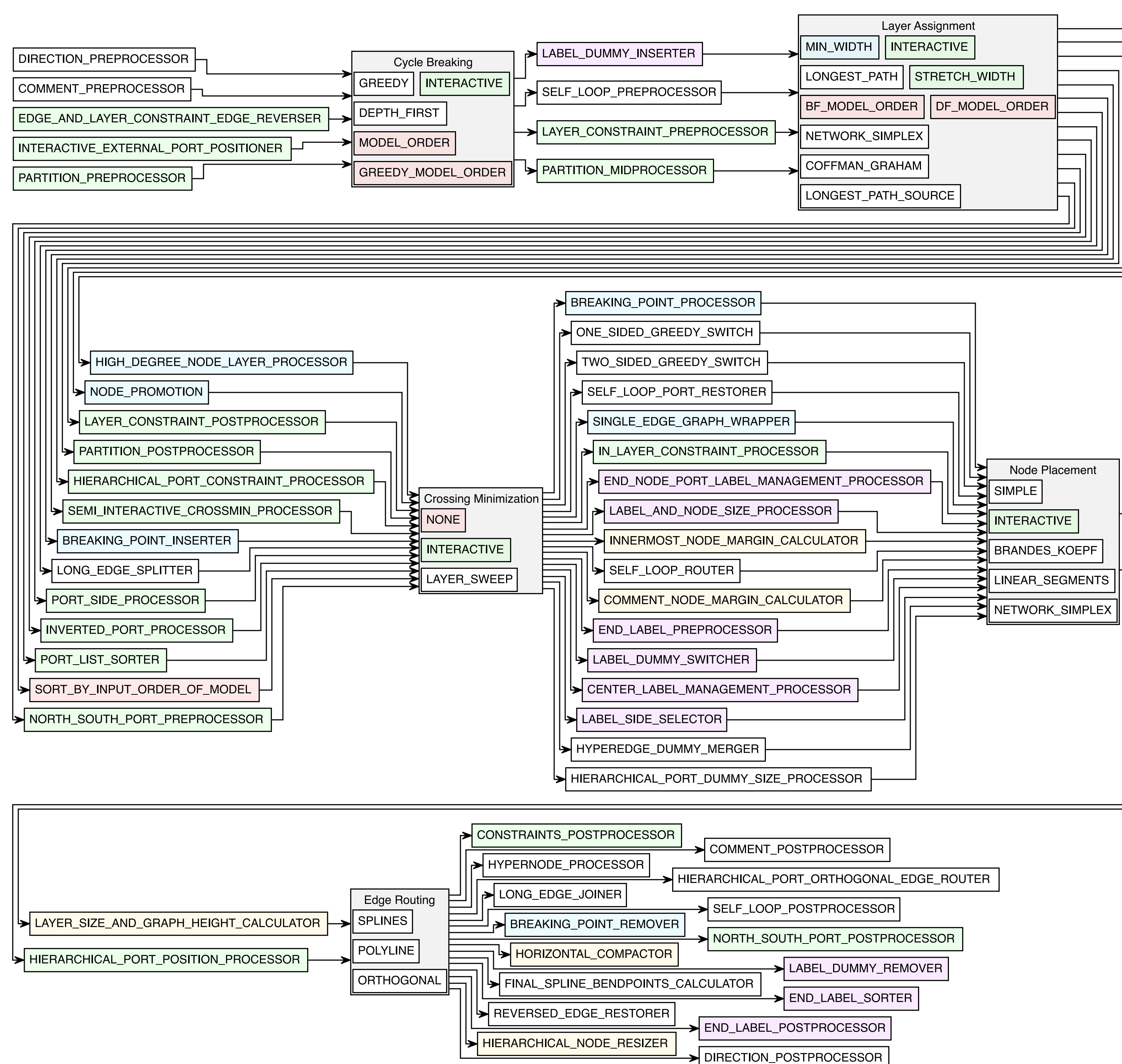
Constrain the order of nodes, edges, and ports
Allow diagram interaction

Spacing and Compaction

Configure spacing between nodes, edges, ports, labels, comments, and separate components

Model Order

Utilize the input model
Visualize secondary notation



Multiple Strategies

Build interchangeable strategies
Allow modular development

Labels

Place labels on nodes, edges, and ports
Optimize label placement

Prescribed Drawing Areas

Control the size of the layout

Open Research Questions

Standalone Edge Routing with Port Constraints

In-Layer Edge Routing

Whatever you want to try out

Contact Persons

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http://rtsys.informatik.uni-kiel.de

Related Publications

- [1] S. Domrös, R. von Hanxleden, M. Spönemann, U. Rüegg, C.D. Schulze, The Eclipse Layout Kernel, 2023, <https://doi.org/10.48550/arXiv.2311.00533>
- [2] M. Kasperowski and R. von Hanxleden. Top-Down Drawings of Compound Graphs, 2023, <https://doi.org/10.48550/arXiv.2312.07319>
- [3] K. Sugiyama, S. Tagawa, and M. Toda. Methods for visual understanding of hierarchical system structures. IEEE Transactions on Systems, Man and Cybernetics, 11(2):109–125, February 1981. doi:10.1109/TSMC.1981.4308636.



ELK
Eclipse Layout Kernel

On the web:
<https://eclipse.dev/elk/>

