

Motivation - Key Issues

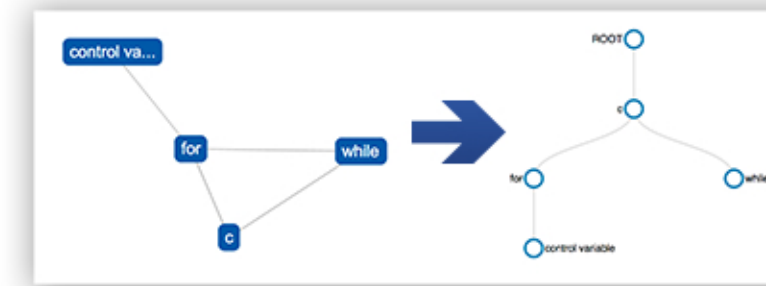
Graph Visualization

Navigation & Authoring

- graph density
- graph size

- lack of visual verification
- table interface for relations
- fixed graph layout
- no hierarchy support

Proposed Enhancements



extraction of hierarchy
coloring of nodes

SVG

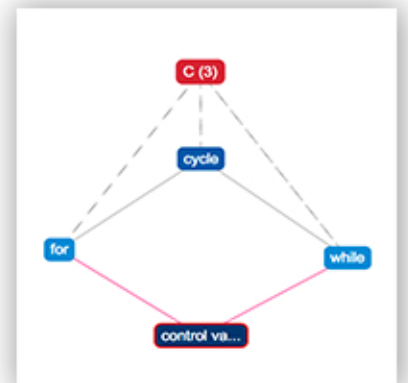
force directed layout

D3.js

filters

Reingold-Tilford tree layout

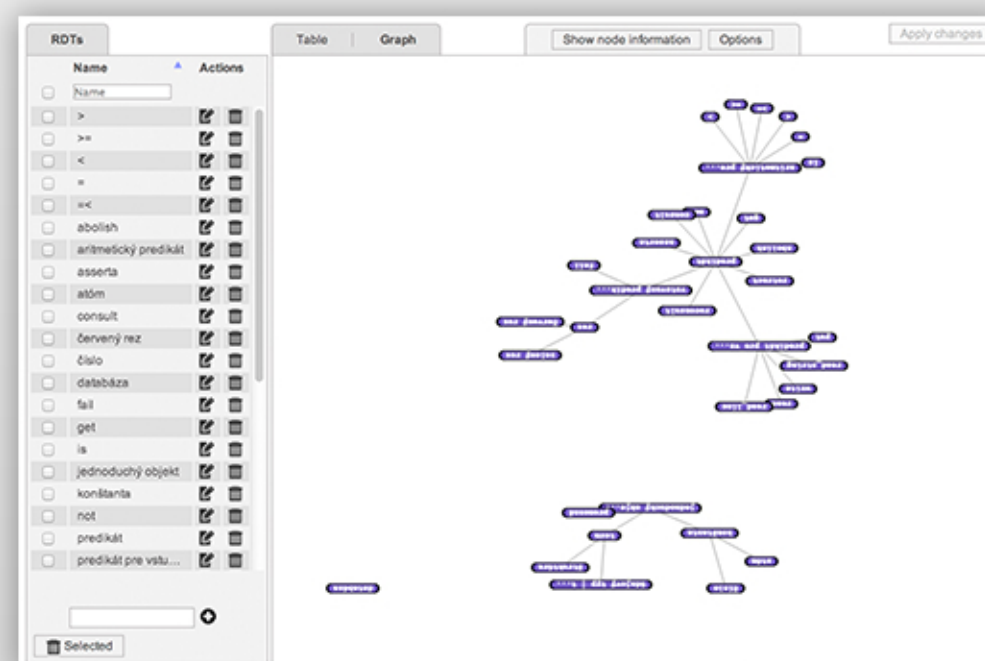
different types of lines



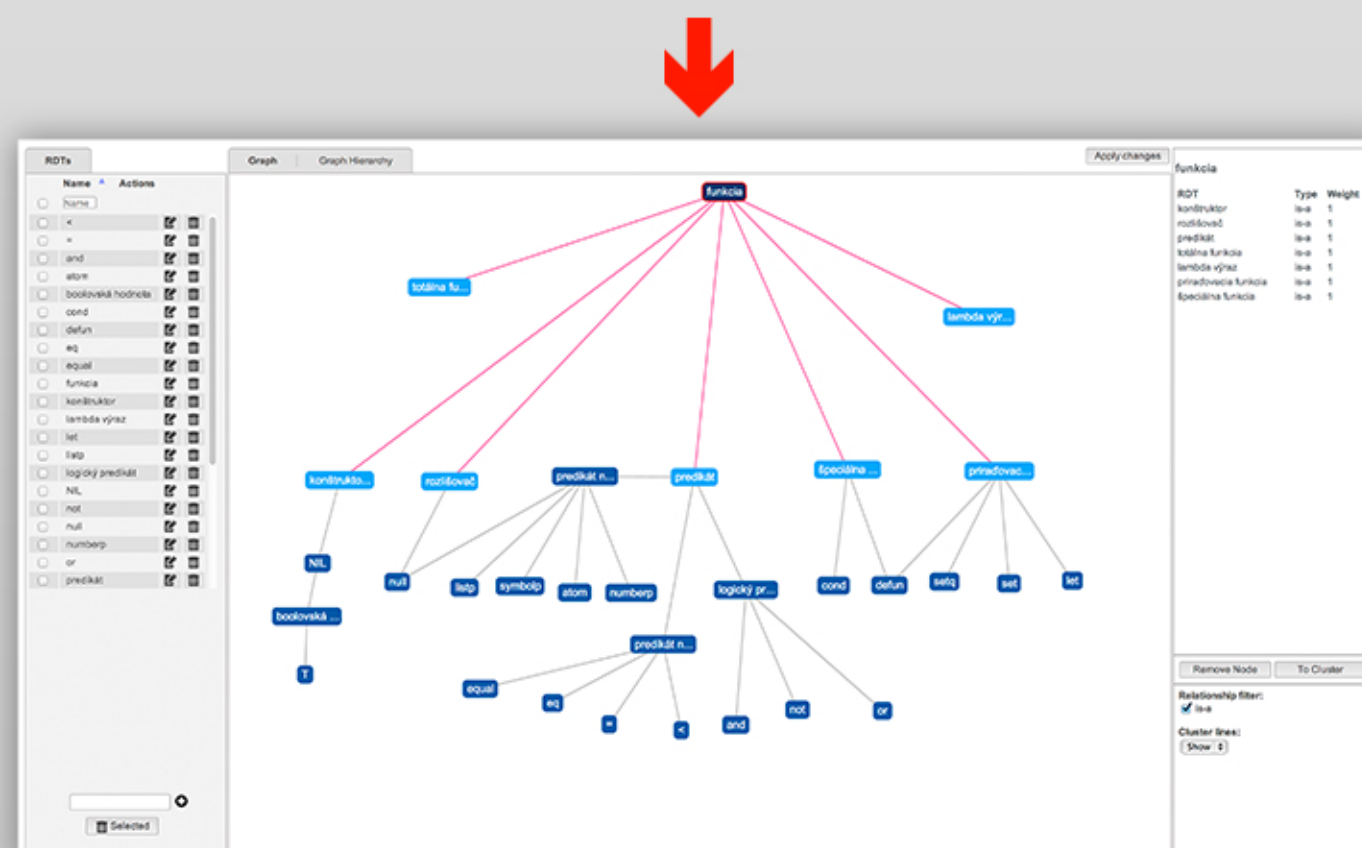
clustering

Result

Realized in the content management system COME2T.



COME2T Previous Interface



COME2T Current Interface

Usability Study: UX Lab Experiment

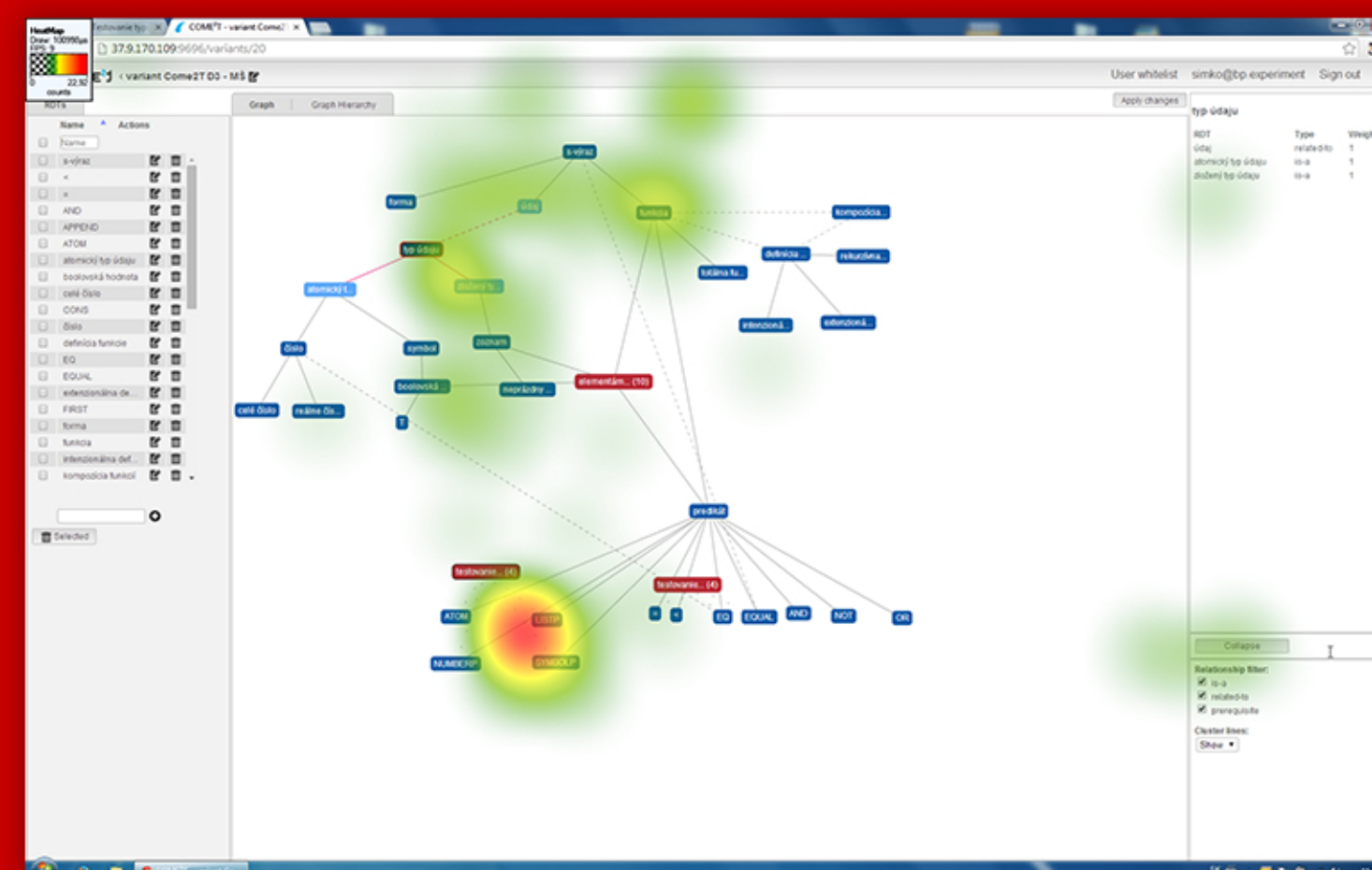
Task was to create domain model for provided LISP course.

Graph comparison to Gold Standard

	P	R	F
Participant 1	0.39	0.97	0.56
Participant 2	0.30	0.97	0.46

RDT set comparison to Gold Standard

	P	R	F
Participant 1	0.47	1.00	0.65
Participant 2	0.49	1.00	0.66



100% satisfaction with new interface.

- new UI facilitates creation of finer-grained domain model
- clusters appreciated and considered very important by users