Hettel, Thomas

MSc (Computer Science) from the University of Karlsruhe, Germany

Thesis Title:

Model Round-trip Engineering

Supervisors:

Prof Kerry Raymond (Principal)
Dr Michael Lawley (Associate)

Citation:

In model-driven software engineering, keeping the description of the system in a consistent state is crucial and therefore, changes made to some models have to be reflected in other models. To restore a coherent state after a change, this research presents a step forward to better support synchronisation on the basis of more practical (non-injective) model transformations. This was achieved by applying a logic programming variant that allows the reasoning from an observation to its cause in the context of a background theory. By combining this approach with a heuristic search, a small number of good solutions can be computed quickly.