Reconfigurable component connectors

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Reconfigurable Component Connectors
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1. Reasoning about dynamically reconfigurable component connectors requires sound structural and semantical models, and good tool support (this thesis).
2. Automata theory and process algebra are well-suited for describing the semantics of component connectors (Chapter 3 and 4 of this thesis).
3. (Distributed) graph transformation provides a powerful means for modeling, analyzing and implementing reconfiguration of component connectors (Chapter 5 and 6 of this thesis).
4. Model checking enables formal analysis of static as well as dynamically reconfigurable component connectors (Chapter 4 and 5 of this thesis).
5. A key task in the area of dynamically reconfigurable systems is the analysis of the (possibly unintended and harmful) interplay of the execution and the dynamic reconfiguration. This can be achieved only by integrating structural and behavioral models (Chapter 5 and 7 of this thesis).
6. Compositionality of a semantic model should and can be achieved at the structural level of component connectors, i.e., with respect to a gluing operation for connector graphs (Chapter 7 of this thesis).
7. Simplicity and compositionality of a semantic model are more important than a (seemingly) larger expressive power.
8. Occasionally, a visual animation tool that can handle only hundreds of states can be more helpful than a model checker that can handle millions of states.
9. The benefits of model-driven approaches for software development and system analysis cannot be valued high enough.
10. The only difference between a theoretical computer scientist and a software engineer is that the former compiles her work with LaTeX, whereas the latter uses Java or C. After all, the most important part of their respective jobs is that they have to prove the usefulness and novelty of their work.