

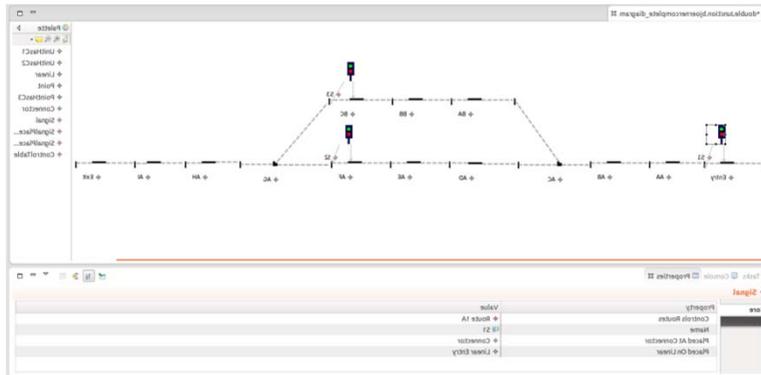
OnTrack: an open tooling environment for railway verification

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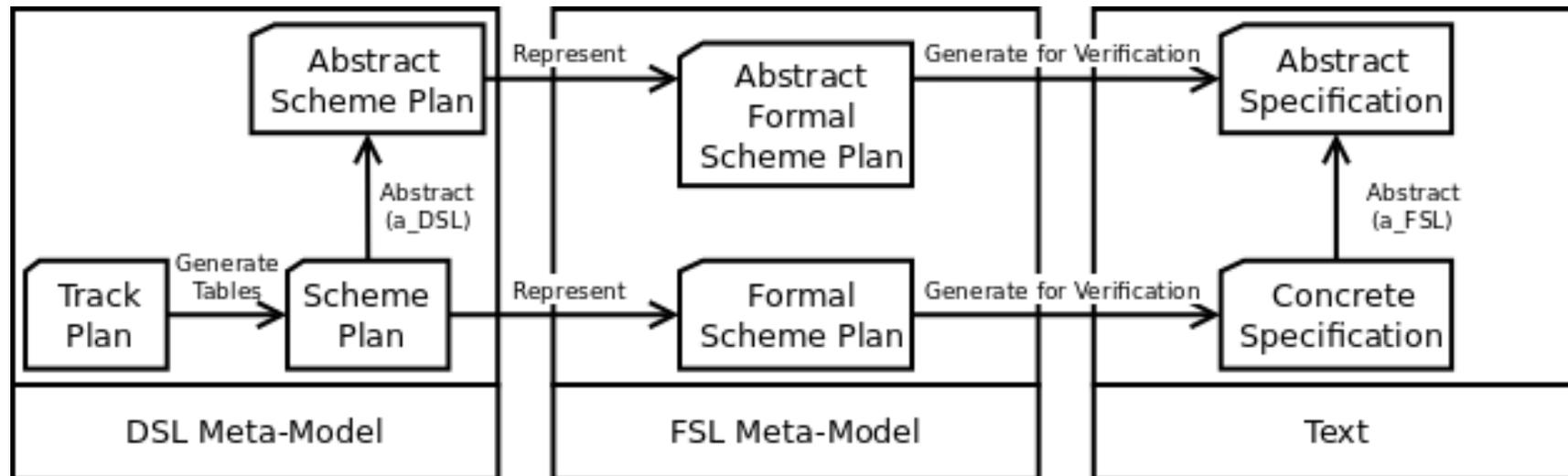
Phillip James
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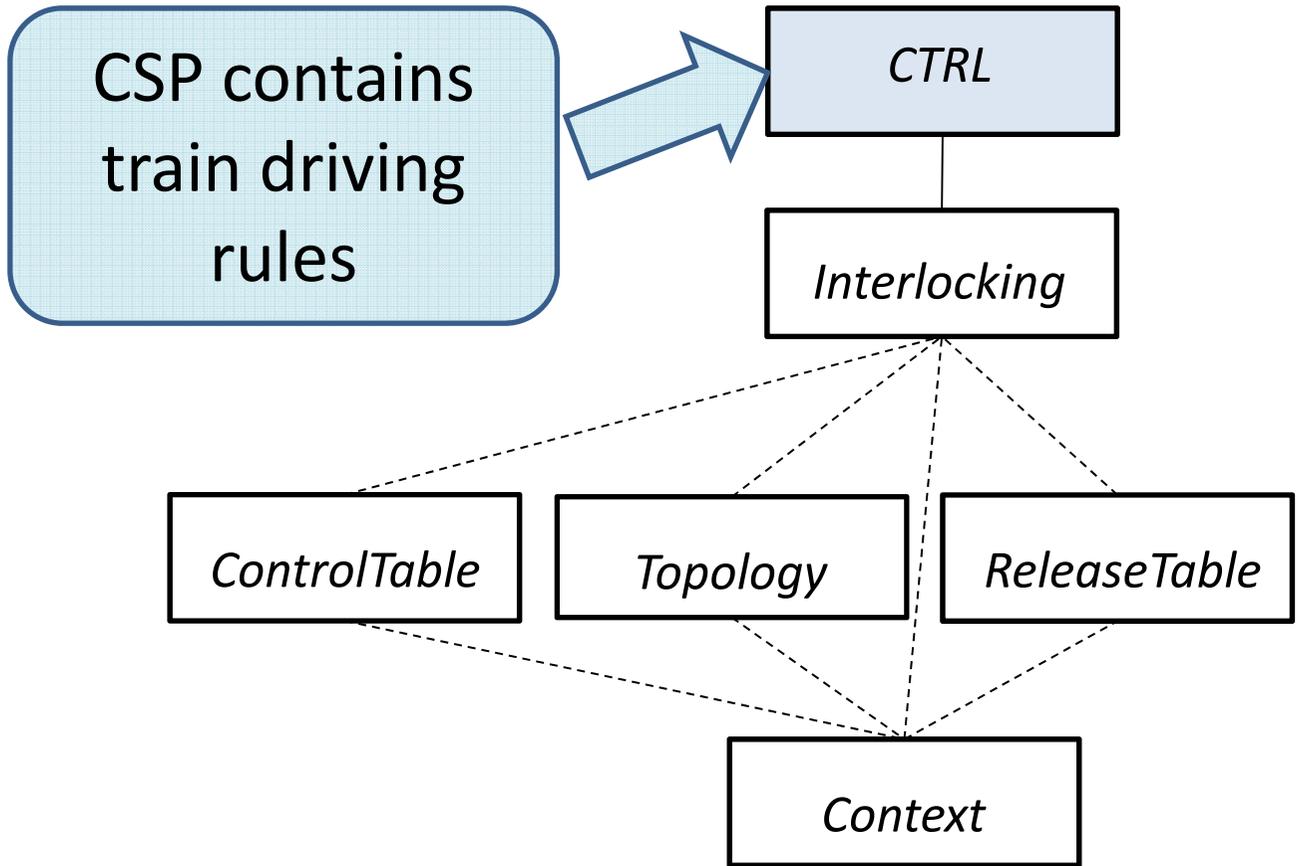
Automatic Generation of Formal Models using Meta-Modelling



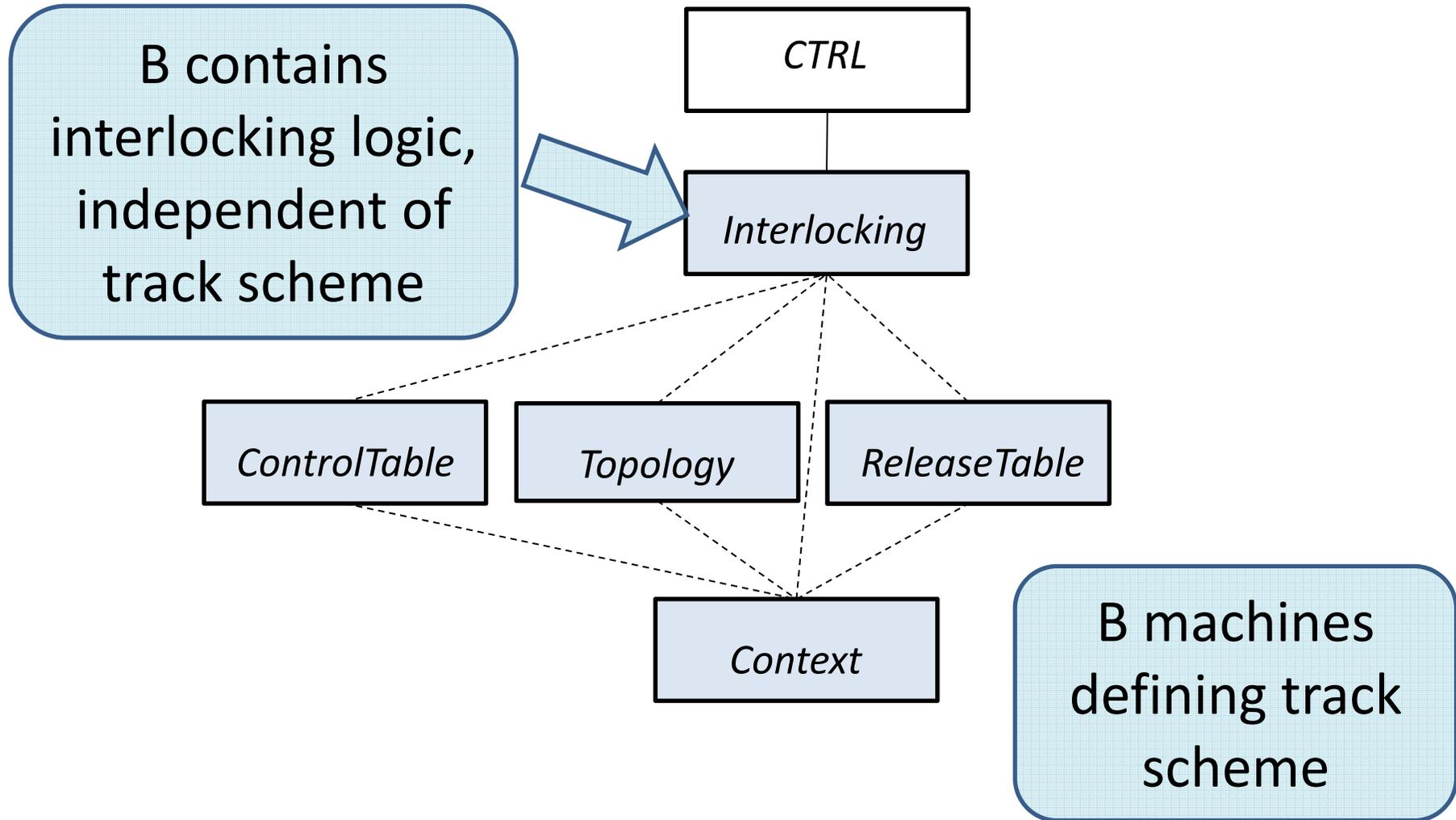
Implemented using the Epsilon framework



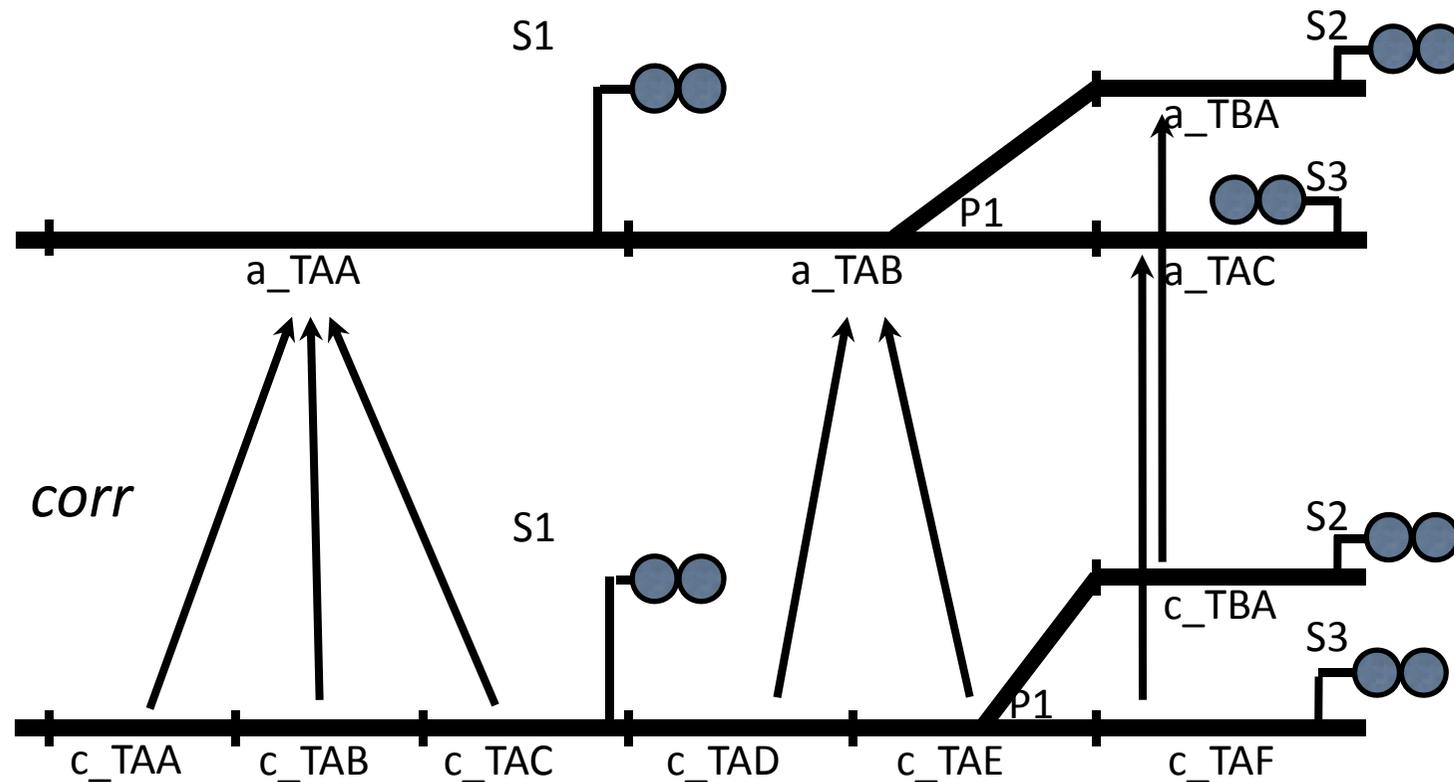
CSP||B Architecture



CSP || B Architecture



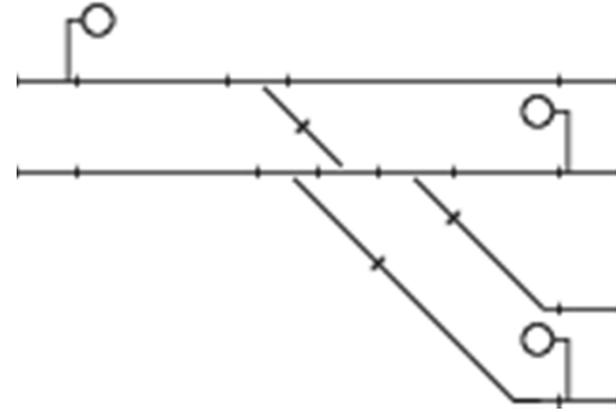
OnTrack currently deals with abstraction and finitisation



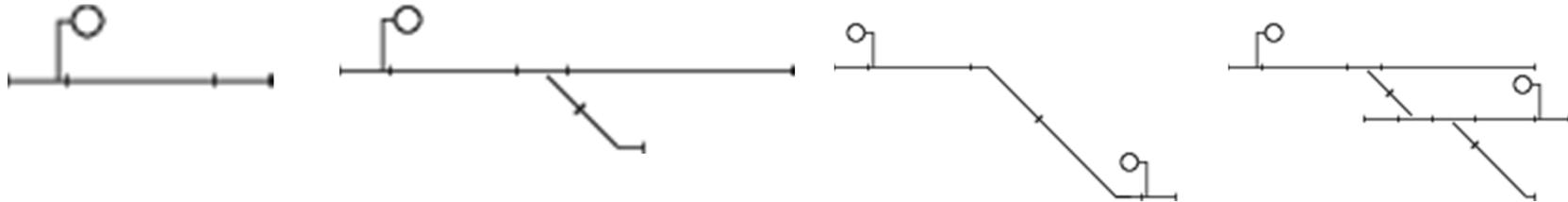
- Abstraction** - reduce the number of tracks in the topology
- Finitisation** - reduce the number of trains in the models

OnTrack will deal with covering in the future

Original Network



Some of the sub-networks



Covering: reduce the network of sub-networks

Summary

- Domain analysis provides powerful abstractions
- Tool support enables repetitive generation of reliable formal models
- Advertisement: AVOCS 11-13th September 2013, Guildford, Surrey, UK, submission deadline 7th June, 2013.