

Synthesis and optimization of railway signalling layouts

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UiO : **University of Oslo**



RailCOMPLETE

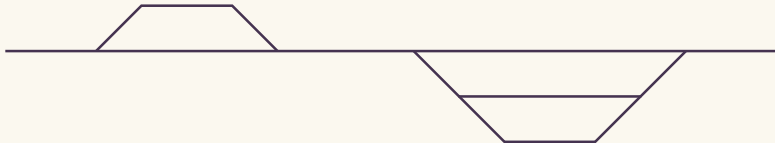


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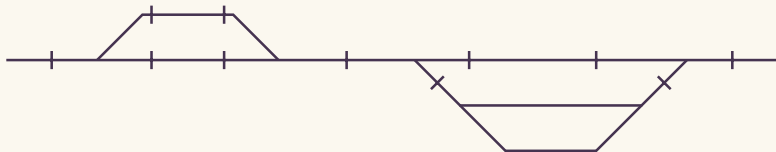


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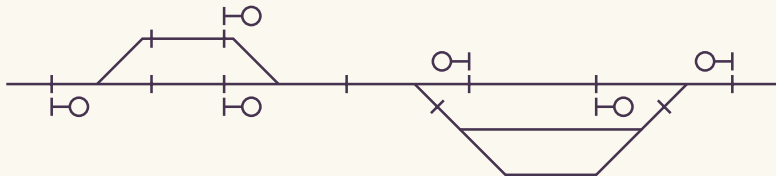
Layout of signals and detectors



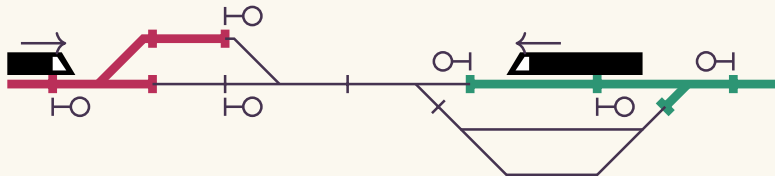
Layout of signals and detectors



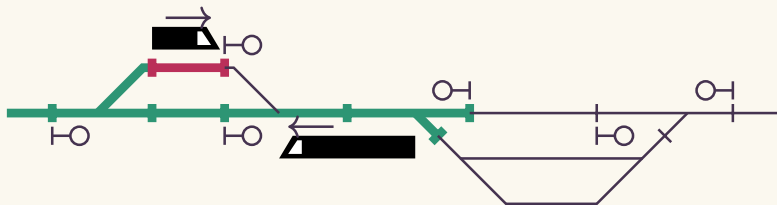
Layout of signals and detectors



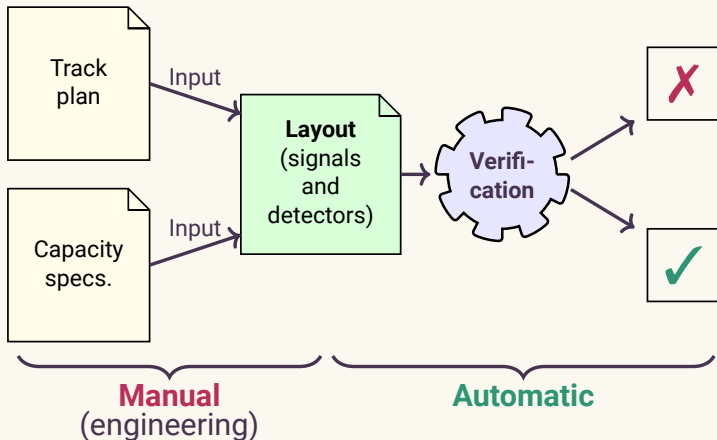
Layout of signals and detectors



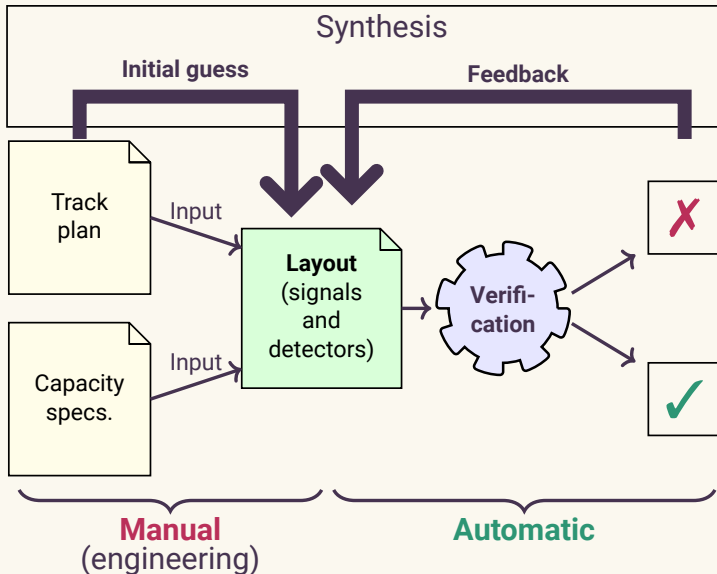
Layout of signals and detectors



Verification of layout capacity

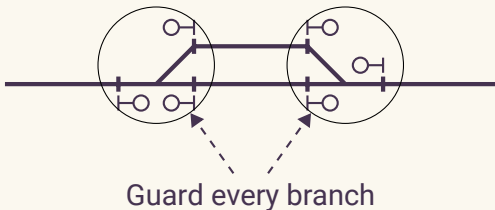


Verification of layout capacity



Branching: (→ discrete planning)

- ▶ Initial guess: **Maximal** schedulability design.



- ▶ **Optimization**: find unnecessary signals by planning.

Non-branching: (→ local search)

- ▶ **Add/remove** signals to improve timing.
- ▶ **Move** signals locally to improve timing.