Models for Railway Rolling Stock Circulation Planning

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The presentation discusses two models for the planning of railway rolling stock circulations. An essential part of the problem is that the shunting rules in the stations have to be taken into account. This can be handled by finding paths in a so-called transition graph. The first model is a flow based model, and the second model is a path based model that can be solved by Dantzig-Wolfe decomposition. For both models computational results are presented based on instances of Netherlands Railways (NS).