Capacity Improvement On the Shared-use Corridors by Applying Timetable Management Techniques

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Research Background:
- Interest in “higher-speed” or “accelerated” passenger trains is increasing pressure to create shared-use (freight/passenger) corridors
- Most corridors are already close to capacity limits, making introduction/increase of passenger trains challenging
- The new corridors offer closer resemblance to European shared corridors with high utilization, but different train configuration and operation philosophy

Research Questions:
- How do European and U.S. methodologies and tools compare when analyzing shared-use capacity?
- How to improve capacity utilization with focus on operations, instead of infrastructure capital improvements?

Research Steps:
Step 1: Literature review and obtaining U.S. and European capacity tools and software (RTC, RailSys, Open Track)
Step 2: Comparing and analyzing different capacity tools on a theoretical corridor
Step 3: Applying hybrid evaluation method (both European and U.S. approaches) on a real-life case study
Step 4: Developing an operational capacity improvement model for the U.S. shared corridors

RTC & RailSys – Hybrid Approach Application for Improving the Utilization of a Single Track Corridor

RTC & RailSys – Real Life Case Study; Impact of Using Crossovers along Baltimore-DC Corridor

Database Conversion – RTC to RailSys/Open Track

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