



Flagship Area 1:

Network management planning and control, Mobility Management in a multimodal environment & Digital enablers



**FP1 MOTIONAL**

European Rail Network and Mobility Management



# Coordinated Yard Planning with YCS

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Foto: Magnus Backman

- Three actors at the freight yard: Yard manager, Terminal manager and Line manager
- Arrival/departure yard has limited capacity
- Inefficient communication between actors
- Hard to deal with disruptions in an efficient way



# YCS – Yard Coordination System

- An operational planning system for the arrival/departure yard of Malmö freight yard
- All actors use the same application and have access to the same information at the same time
- Yard manager and Terminal manager indicate *track demands* (work periods) for trains and shunting movements
- Line manager allocates trains to tracks and makes *track reservations* based on arrival times, departure times and track demands

Foto: Magnus Backman

# YCS 2.0

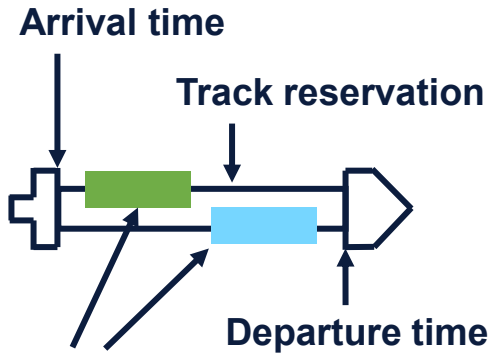
- Builds on YCS 1.0 (FR8RAIL III)
- Integration with Trafikverket's operational planning system Digital Graf
- Automation: default planning
- Conflict solution help for Line manager
- YCS is integration-friendly



Foto: Magnus Backman

Trains are automatically allocated to default tracks, with default track reservations.

Default track demands for trains are also set by the system.

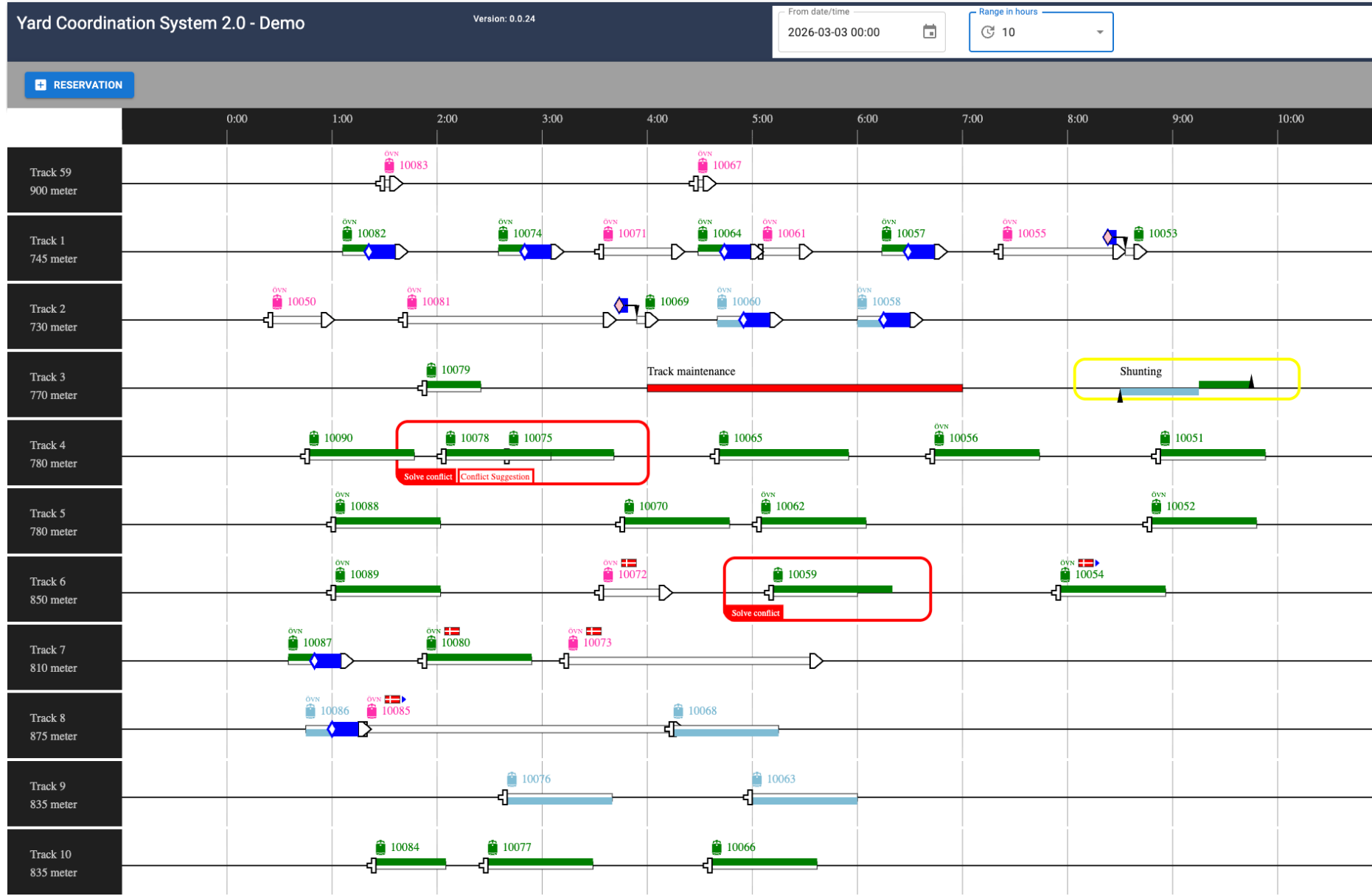


Track demands

Green trains belong to the classification bowl.

Blue trains belong to the multimodal terminal.

Pink trains are pass-through trains.



# Validation Event

- Malmö 25–26 March at Trafikverket's office
- WP5/WP12: test scenario
- WP5: three scenarios
- WP12: one scenario





## Results from Validation Event

- Valuable tool, as it provides all parties with a shared understanding of the situation at the arrival/departure yard.
- Criticism of user interface (UI) and user experience (UX)
- “Solve conflict” button useful
- Information about trains from Denmark less useful
- More automation needed

## YCS 3.0 – wave 2

- More automation
- TRL 7
- Better UI/UX
- Closer integration into Trafikverket's environment
- Pilot study



Foto: Magnus Backman



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## Founding Members

