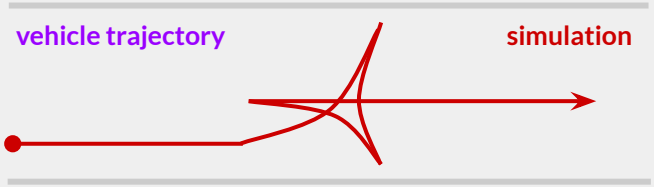
vehicle_dynamics_sim

Arne Baeyens

FOSDEM ‘26

The Experience



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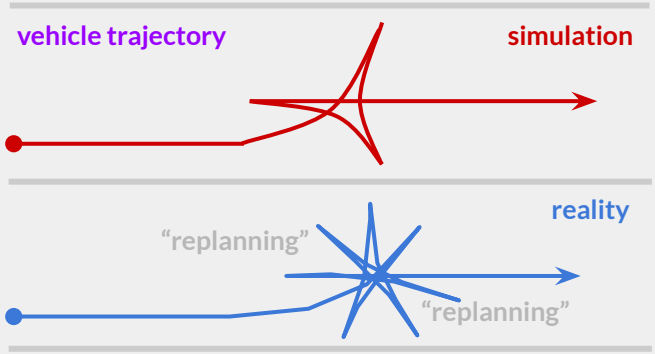

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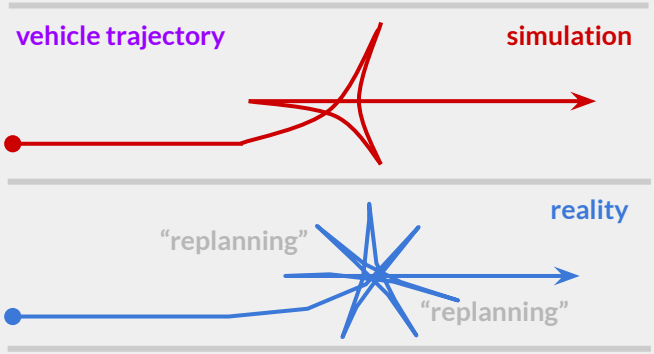

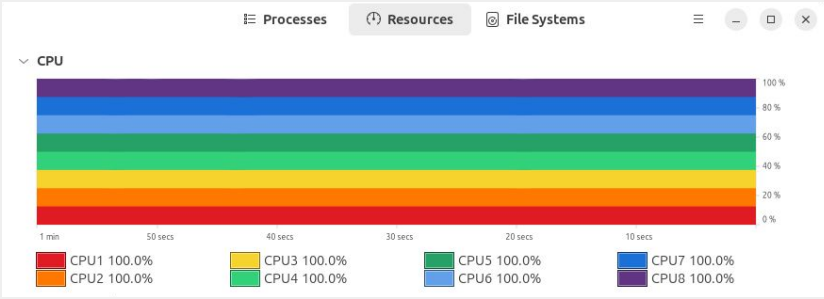

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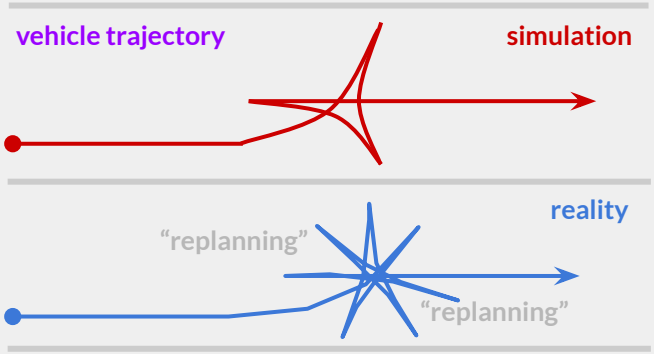

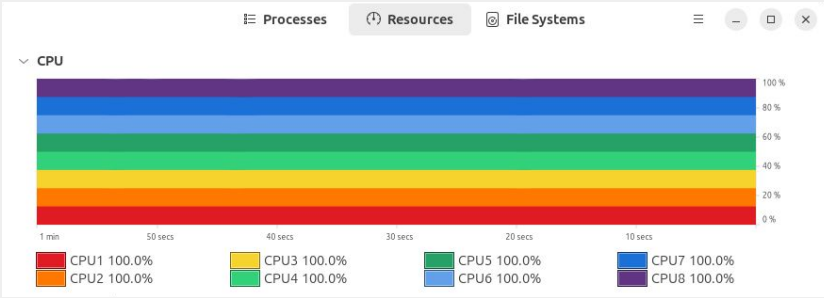

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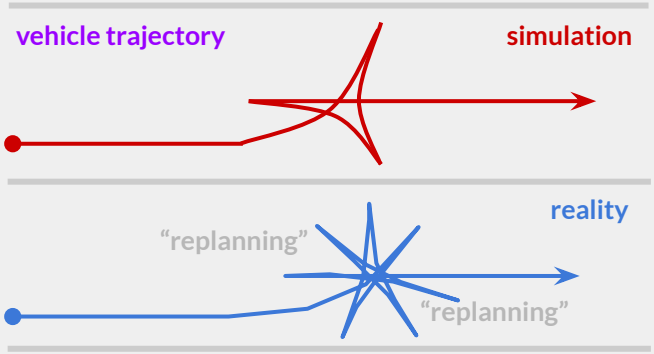

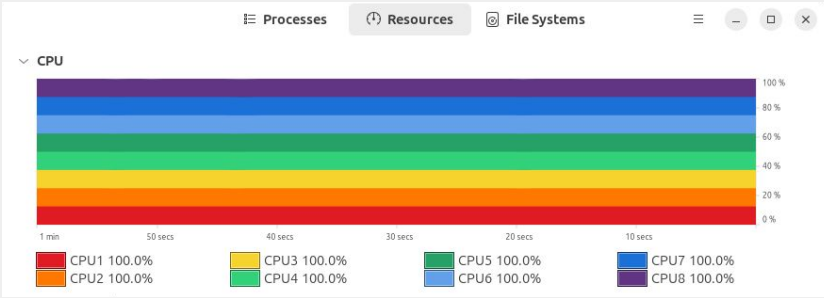

- “Simulation is costly”
- “Simulation slows down development”
- **“Simulation doesn’t deliver”**

What can we change ?

Pain points
and
Ideas

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unrealistic dynamics
good default vehicle models
no custom code required

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=> **vehicle_dynamics_sim** <=

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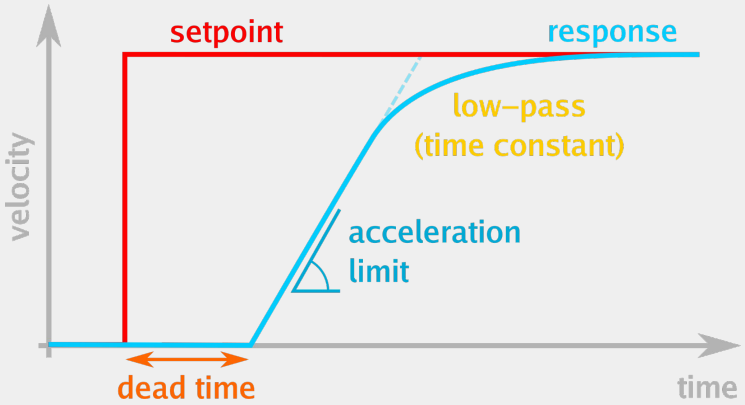

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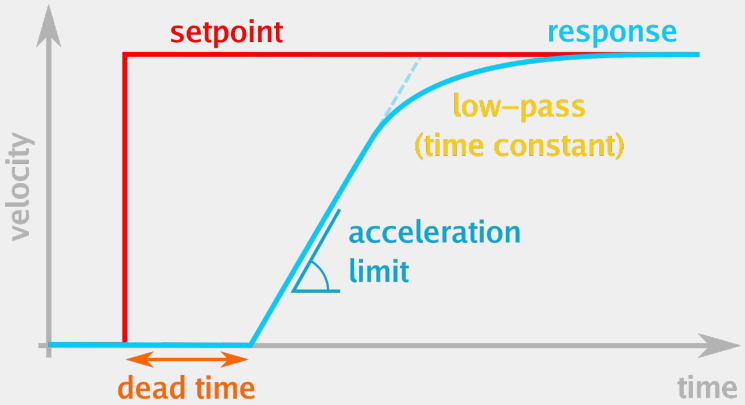

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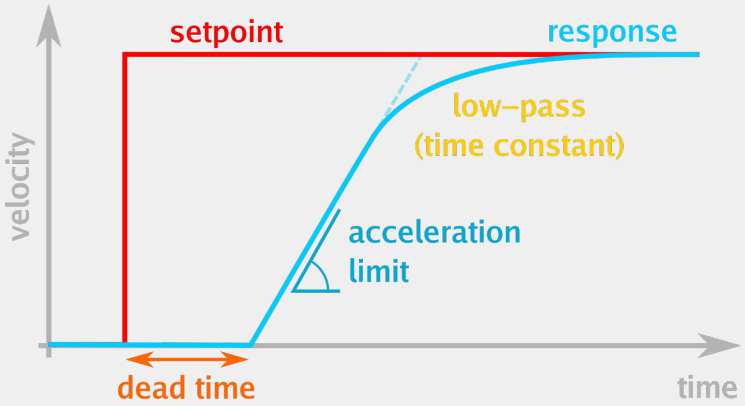

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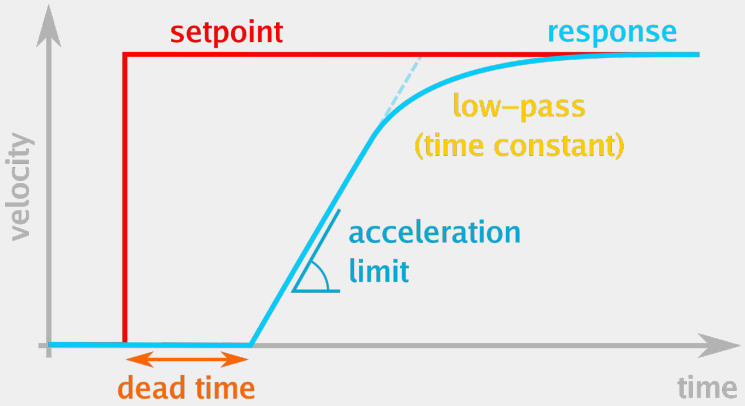

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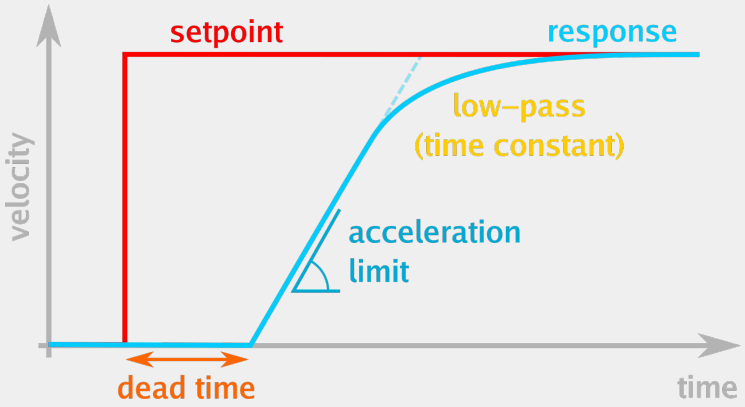

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How to measure dead time etc.?

1. Apply step **reference**
2. Measure **response**
3. Read params from graph

Nav2 demo video

vehicle_dynamics_sim

! thanks !

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