

# vs | mate

Test. Simulate. Understand.



## Testing Before Field Deployment – Reproducible and Realistic

vs | mate enables the testing and simulation of vs | plus controls.

With vs | mate, parameterizations created manually in vs | studio or generated automatically can be verified and analyzed, allowing optimizations to be carried out before the control deployed in the field.

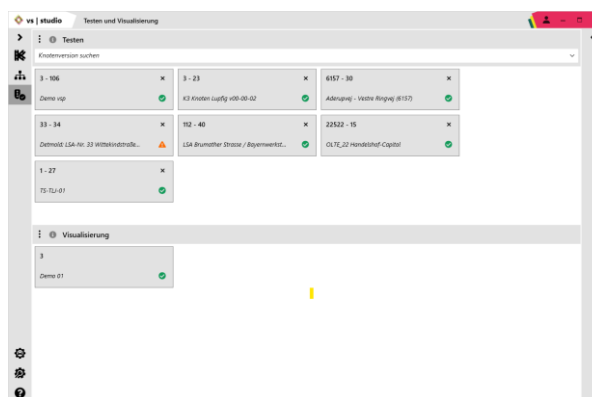
Since vs | mate uses the same vs | plus core as the controller in the field, its behavior during testing corresponds exactly to real system operation.

## Your Benefits with vs | mate

- **Realistic testing**  
Identical control behavior in the field using the original vs | plus core within the emulator.
- **Systematic & reproducible**  
Structured testing instead of subjective evaluation.
- **Coordinated testing**  
Multiple, different intersection versions can be simulated and evaluated in parallel.
- **Transparent analysis**  
Visualization of process data, access to vs | plus messages, activation and deactivation of traffic actuation and yearly automation, and much more.
- **Iterative optimization**  
Improve, compare, and validate controls in a targeted manner.
- **Risk reduction**  
Detect errors before they occur in live traffic.

## Typical Areas of Application

- **Preliminary testing of new controls**  
Verification of newly created or modified vs | plus parameterizations.
- **Analysis of signal timing plans**  
Traceability of demands, clearances, intergreen times, and system responses.
- **Load and scenario studies**  
Comparison of different parameterizations under identical conditions.
- **Project-accompanying quality assurance**  
Safeguarding complex controls during planning and implementation.
- **Control analysis and diagnostics**  
Visualization of internal vs | plus states to understand processes and identify issues precisely.



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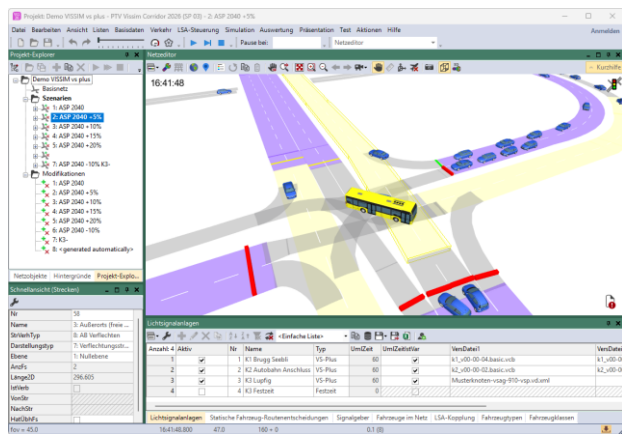


### Simulation with PTV Vissim

vs | mate can be connected to PTV Vissim, enabling simulation of traffic-actuated vs | plus controls within realistic traffic models.

The combination of:

- the real vs | plus control core
  - realistic traffic simulation
- delivers clear and reliable results for well-founded decision-making.

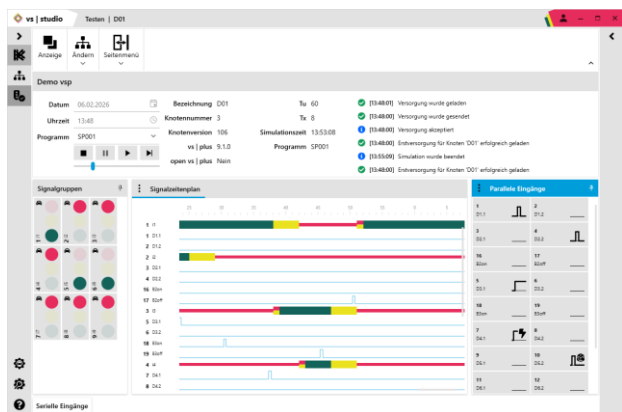


### Iterative Workflow – From Design to Optimal Performance

vs | mate is seamlessly integrated into the planning process:

- Parameterization in vs | studio
- Testing & simulation with vs | mate
- Adjustment of the parameterization in vs | studio
- Re-testing – iteratively, until the result meets all requirements

This cycle enables continuous optimization of the control – efficient, transparent, and without risks in live traffic.

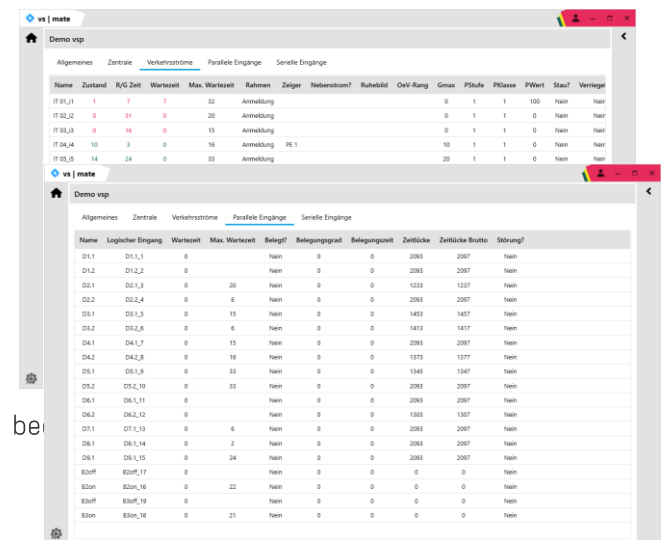


### Making Process Data Visible

vs | mate makes internal processes transparent:

- Calls and waiting times
- Signal groups, clearances, and red times
- Time profiles and system responses of the control

Interdependencies become visible, optimization potential becomes clear, and control behavior



### Seamlessly Integrated into the vs | Ecosystem

vs | mate is part of the tool environment of vs | verkehrssysteme ag:

- vs | plus  
The foundation of traffic light control.
- vs | mate  
For systematic testing and realistic simulation prior to field operation.
- vs | go  
For optimization of the control under changing traffic conditions.
- vs | edge  
For forecasting and advanced operational analyses.

Together, these tools create a continuous workflow from planning through to commissioning.

### Test Safely Instead of Experimenting in the Field

vs | mate enables realistic testing and simulation of controls directly from your workstation. This increases control quality, saves time, and reduces operational risks.

