

# Model Railway with TPP

In 2007 the [railway demonstrator](#) was equipped with a new controlling software, stored on the TTP nodes. Before starting a demonstration of navigating up to 11 trains on the course read this **carefully** .

## starting a demonstration

- switch on 'Main', '12V' and 'TTP' on the switch panel
- switch on power supply of TTP node 9 -> the left green LED should blink
- press tiny button 1-2 seconds -> the green LED lights permanently

## emergency stopping / resuming

- press tiny button at most 1 second -> the red LED will be turned on / off

## ending session / restoring initial state

- again press tiny button 1-2 seconds -> the upper yellow LED will blink
- finish is signed by a permanently lighting yellow LED

## lights on / off

- press tiny button at least 3 seconds; note that this will not work during emergency stop

## section & block reset (necessary after adding some trains/taking trains away)

- reboot node 9 (switch off -> on)

## cluster reboot

- activate emergency stop
- press tiny button 1-2 seconds

**CAUTION:** Don't reset sections or reboot cluster while not all trains are moved to initial position -> the controller will not find them on track (due to static schedule)

## leaving room

- make sure that all devices are off (except the VPN relay)
- switch lights off

## further information

**OUT-OF-DATE** damage is fixed!

- a contact of the pair KH\_ST\_2 con 0 is broken, so the trigger event often comes late and the engine will touch the next block -> power supply overload is possible and will be signalized by a beeping TTP node
- overcome this situation by moving the train back by hand some cm

## Simulation

The simulation of the railway which uses the Modelgui can be found in /home/railway/simulation. When you copy it to your home, you first have to execute

```
make copyrebuild
```

To use your controller with the simulation, you have to include RailwaySimuSCADE/railway.h instead of railway.h and kicking.h. And you need not link to librailway.

To start the simulation

- start the model gui: cd Executables; java -jar modelgui-6b1.jar
- open the railway svg
- start your controller, make sure that railway.cnf is in the same directory

For the complete documentation, see Christian Motikas Studienarbeit.