

ADAPTIVE TRAFFIC CONTROL

SIGNAL GROUPS SERVED ACCORDING TO CURRENT TRAFFIC CONDITIONS



Adaptive systems

Adaptive systems use detector data to adapt how signal groups are served to current traffic demand, and to coordinate the operation of intersections across the network.



Detecting
traffic demand



Real-time
service



Local
optimisation



Network
coordination

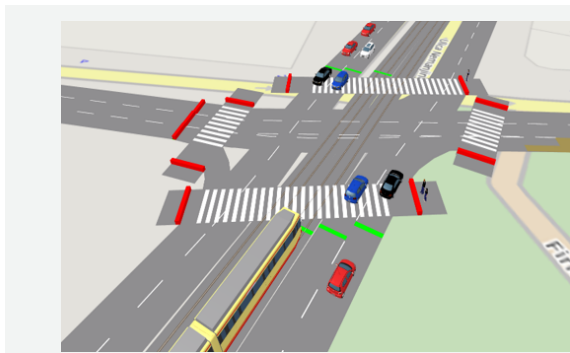


Monitoring
the effects

Goal: more efficient use of existing road capacity

PTV EPICS / PTV BALANCE / SAUS

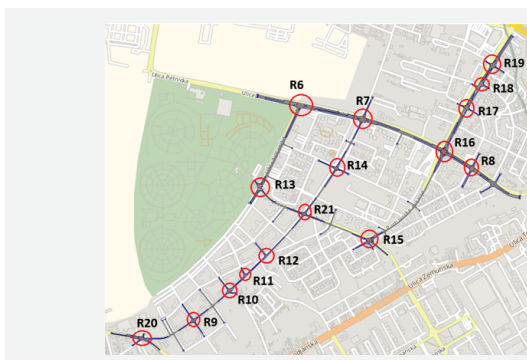
HOW THE ADAPTIVE CONTROL SYSTEM IS STRUCTURED



INTERSECTION

PTV EPICS

Optimises the control of a single intersection according to local traffic demand.



ZONE OR CORRIDOR

PTV BALANCE

Coordinates a group of intersections according to network load.

CYCLE

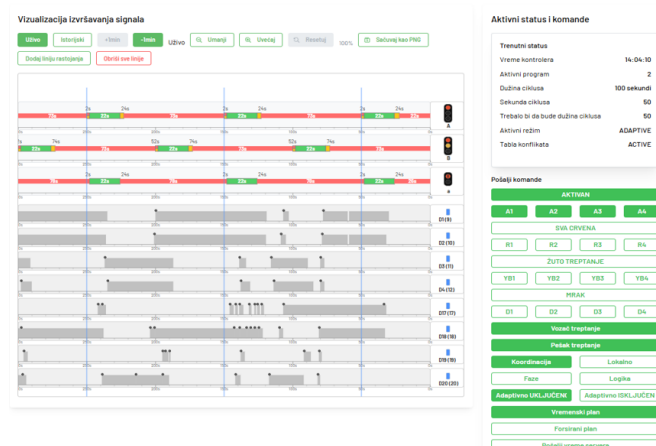
GREEN TIMES

GREEN-TIME OFFSETS

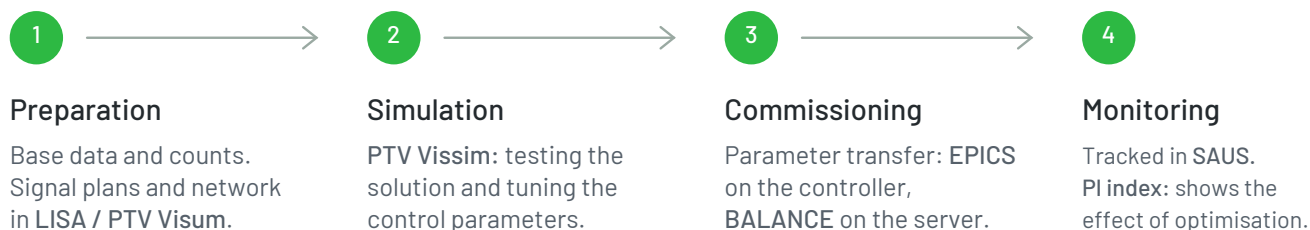
SAUS

Traffic Monitoring and Automatic Control System

- ✓ Monitoring of traffic signal equipment
- ✓ Signals and detectors on a map
- ✓ Controller programming
- ✓ Remote command of field devices
- ✓ Reports and coordination



Signal plan implementation



Feedback loop: detector data makes it possible to update the O-D matrix and calibrate the model, with control parameters re-checked in simulation.