



WHO GIVES THE GREEN LIGHT FOR EVERY ROAD?

IMPLEMENT YOUR TRAFFIC-ADAPTIVE SIGNAL CONTROL

Traffic-adaptive signal control is one of the most efficient and effective instruments for avoiding stop-and-go and keeping inner-city traffic moving without having to spend a lot of money expanding road infrastructure.

PTV Epics is the perfect traffic-adaptive control instrument. It was developed specially for single nodes and runs directly inside the control unit. The model-based process observes local conditions and calculates numerous control options every second. PTV Epics then uses its internal model to evaluate the different control options before applying the best one. In this process, it takes all modes of transport into account - from individual motorised transport and pedestrians to prioritising public transport.

3 REASONS WHY

YOU SHOULD RELY ON PTV EPICS

BENEFITS



USER-FRIENDLY & EFFICIENT

Continually optimised switching for traffic lights at individual nodes, which reduces planning and data transmission costs. This saves you time and stops road users from waiting unnecessarily at red lights. PTV Epics also allows the integration of public transport prioritisation.



PERFECTLY INTEGRATED

Use PTV Epics to optimise your traffic lights from second to second at single nodes; PTV Balance for preparation and to coordinate traffic lights across multiple nodes; and PTV Vissim to perfectly calibrate and test both processes.



RELIABLE CUSTOMER SERVICE

Become part of a large international community of users and benefit from an expert support team, professional customer service, comprehensive documentation, an extensive training programme, and user seminars and workshops which offer you intensive exchange of knowledge and constant dialogue.

USING PTV EPICS

IN PRACTICE

PTV Epics analyses traffic conditions locally and determines the best control option for the single node based on the situation at hand. The model-based control system decides in seconds whether a stage should be omitted, shortened or lengthened, or if the phase sequence should be changed. PTV Epics also allows the prioritisation of public transport.

In order to operate, PTV Epics must be supplied with data from its own signal control editor - an expanded version of Vissig. Vissig is a module of the PTV Vissim simulation software into which PTV Epics is directly integrated, providing an ideal test setting.

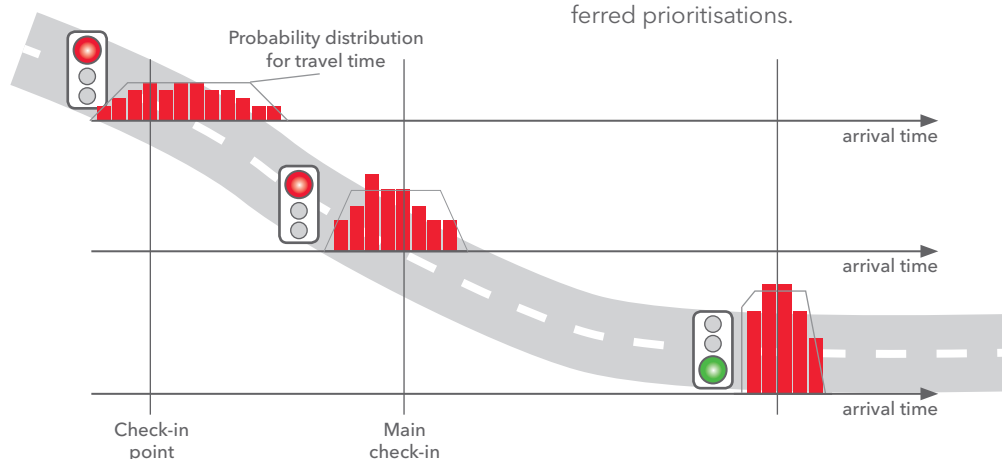
The traffic engineer defines the underlying fixed time signal program and its weighting for PTV Epics, along with a range of other parameters such as minimum and maximum phase duration, and green times for the different signal groups. The engineer also configures the permitted phase sequences and the weighted requirements for private and public transport as

well as pedestrians. The weightings for the different elements feed into the total performance index, which summarises e.g. the resulting waiting times and blocking backs during the evaluation of a control option for the node.

In operation, PTV Epics accesses the detector data for the node, uses it to recognise the incoming vehicle flows, and adjusts its simulation model for calculating the effects of different control options based on this. In less than a single second, PTV Epics optimises the phase sequence and its timings by optimising the total performance index. In this way, for example, a bus will receive priority at the intersection if public transport is prioritised by being assigned a high weighting. PTV Epics stands out in particular by being very intuitive and quick to implement compared to traditional rule-based control systems,

Traffic engineers wishing to coordinate signal lights traffic-adaptive over multiple nodes can also implement PTV Balance alongside PTV Epics. As a model-based network control system, PTV Balance transmits the ideal timing for a particular phase to the local signal control system, allowing vehicles to travel down a corridor on a green wave, for example. PTV Epics then adapts the superordinate plan in response to short-term variations at individual intersections and puts the focus on the user's preferred prioritisations.

A HIGHLIGHT: PTV EPIC'S TRAFFIC MODEL FOR PUBLIC TRANSPORT

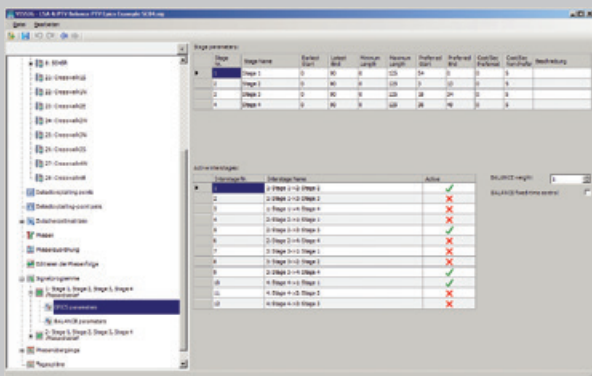


WORKING WITH PTV EPICS

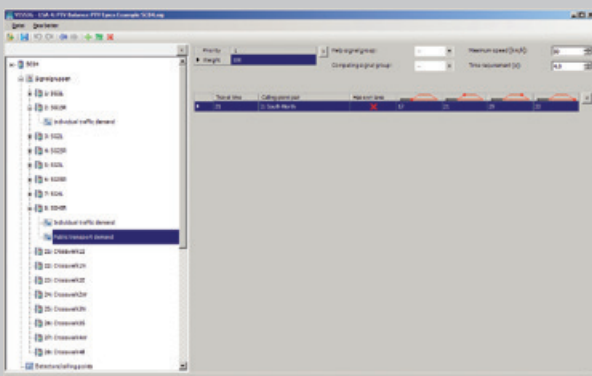
Perfectly integrated in PTV Balance and PTV Vissim, nodes can be optimized very easily with PTV Epics.



Using PTV Balance additionally to PTV Epics, you can compare an existing control system with the recommended optimization: The web-based GUI gives information about the Performance Index and displays the level of service descriptively. Furthermore, you can configure the parameter you would like to analyze easily.



Data provision is comfortable working with PTV Epics thanks to its signal editor, an extended version of PTV Vissim's module Vissig. Here within you can set all stage parameters and interstages. Thus, you can coordinate e.g. green waves.



With PTV Epics you can prioritize specific modes such as public transport at a single node. To do so, you can individualize travel times, calling-point pairs and lane information in Vissig.

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