Yutraffic Office

The fully integrated solution for efficiently planned intersections and easily programmed controllers

YUNEX
TRAFFIC

One single Tool for all Tasks

Coordinated green phases, public transport prioritization, environmental conditions, or safety aspects for vulnerable road users. The traffic engineering requirements for traffic signal installations at intersections are getting ever more complex – and the range of software tools and their functionality correspondingly more varied.

With Yutraffic® Office we provide a completely integrated modular software system that incorporates all necessary tools based on a shared data pool – for the traffic engineer, the service technician and the operator. The modular structure of Yutraffic Office allows the step-by-step implementation of a complete system over an extended period of time. This is achieved through the successive activation of additional functions and function packages in line with new requirements.

Transparency is key

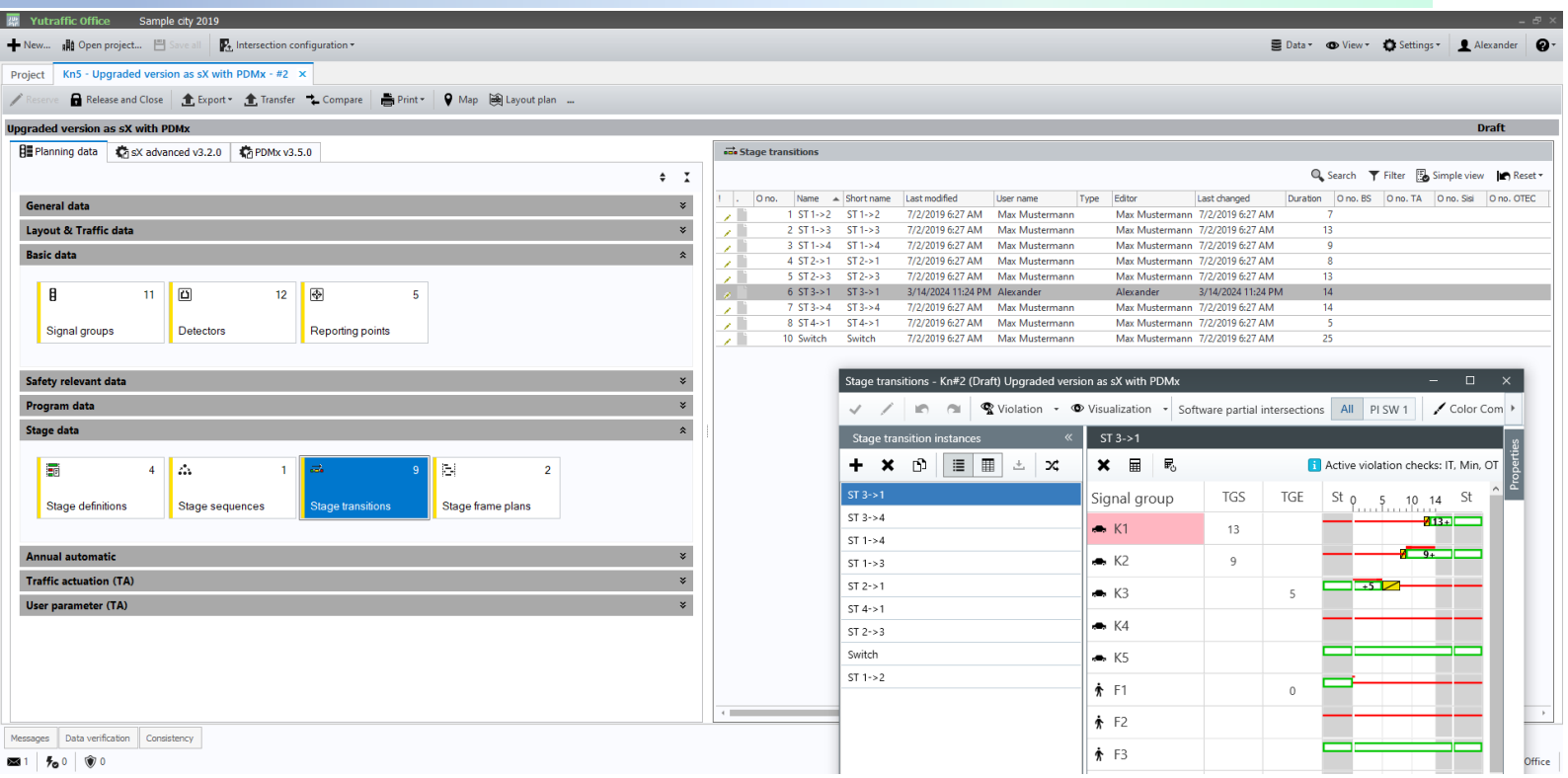
All Yutraffic Office software packages use a single central database. This means that the traffic planner has access to exactly the same data pool as the programmer of the traffic light controller or the service technician for maintenance. There is no internal data import or export whatsoever anymore, the need to enter the same data several times is eliminated and errors due to double entries are prevented. This saves time and increases system safety, because full consistency of all data at the traffic engineering workstations, the traffic light controllers and the traffic control center is ensured automatically and without any extra effort.

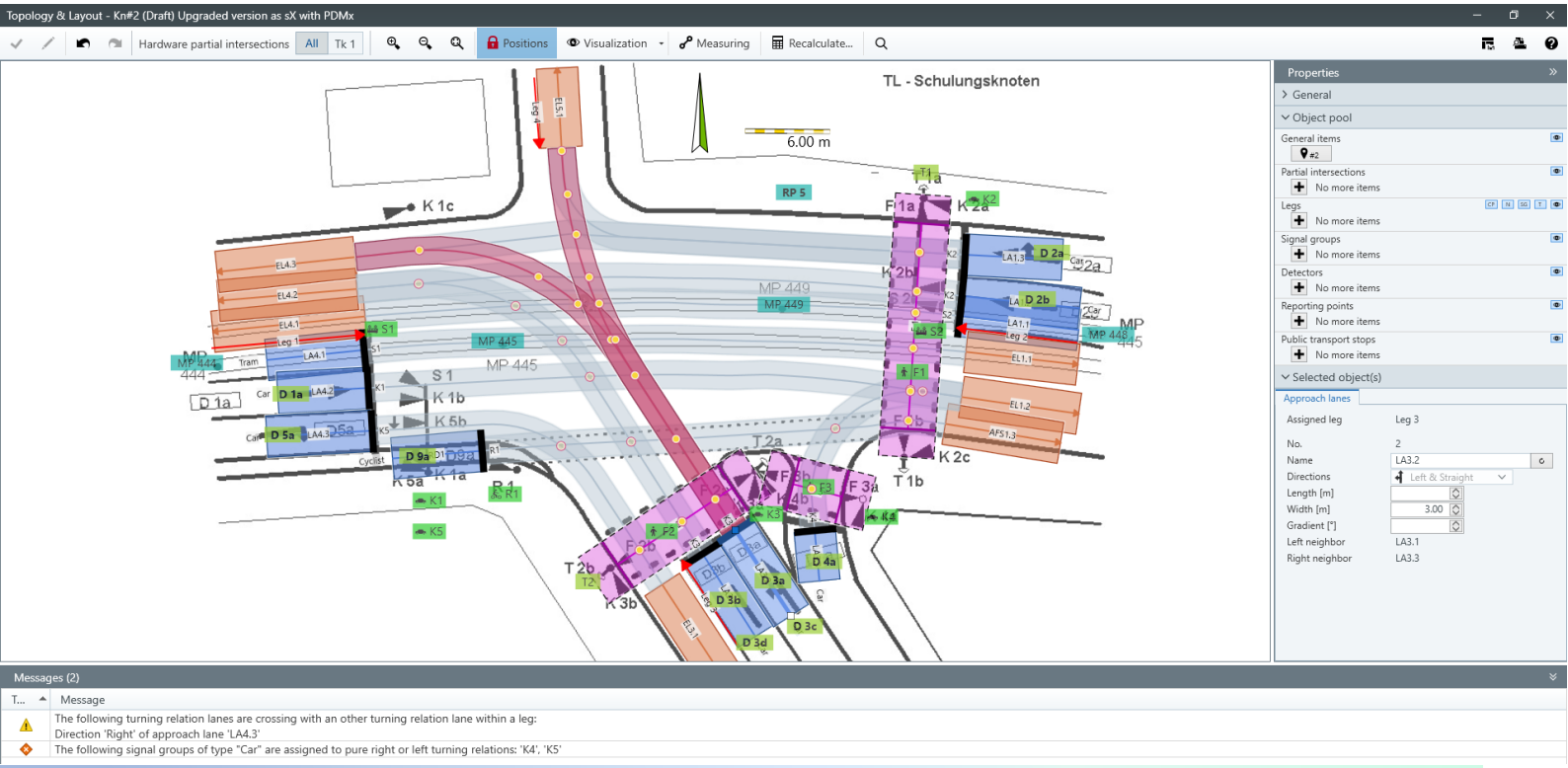
Optimum workflow as “by-product”

Yutraffic Office works according to the multi-user/multi-client principle. The administration of all projects and users within the system is organized in such a way that people at several workstations can work in parallel on the same project without problems or risk of confusion or data inconsistency – working in concertation instead of at cross-purposes. Different versions and states are automatically identified and marked for display in a variety of user-selectable ways.

Main Window

The main window of Yutraffic Office supports all workflows for intersection planning, controller supply and control center operations.





Combined Layout Plan Editor
The combined editor for the intersection layout is the starting point of the traffic engineering workflow for planning signalized intersections.

Advanced Intersection Planning

More punctual public transport services, minimized congestion, optimized signal programs, efficient traffic control during peak- as well as off-peak times – up to now, it was difficult for traffic planners to achieve all these goals at once. Yutraffic Office provides a range of powerful advanced tools that help traffic planners complete their tasks much faster and always based on reliable and consistent data.

Focusing on the essential

Whatever task the user of Yutraffic Office may currently be working on – planning a single intersection or a whole network of intersections, supplying configuration data for the traffic light controller or working in Yutraffic Scala – Yutraffic Office provides the matching visualization, called perspectives, for focusing on the relevant data and functionality for each workflow.

Templates save time

Yutraffic Office includes general, project-independent templates for intersections, intersection versions and the network layout. The templates contain default parameters that can also be customized depending on the country or project specific requirements. This reduces the need for duplicated and tedious parameter entering, simplifies the planning work and saves precious time.

Maximum system support

Yutraffic Office provides an optimum working environment for traffic engineers. For instance, it supports a versioned workflow. This is a well-known concept in related domains and provides more transparency especially for larger teams working collaboratively. Additionally, numerous auto-generation features, e.g. for signal programs, stages and stage transitions are available. Of course, subsequent manual editing is still possible as well and supported by Yutraffic Office with smart pre-selection and editing features.

Compliance with Guidelines

As the process of intersection planning is based on the respective laws and regulations, Yutraffic Office provides comprehensive user-support depending on the applicable guideline. This support includes various user-entry validations and verifications, e.g. for Intergreen- and minimum times, that give intuitive visual indication. Yutraffic Office supports the compliance with the guidelines and standards in Germany (RiLSA 92 & 2010), Austria (RVS 5.32), Switzerland (SN Schweiz) and Poland.

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Fully integrated Traffic Actuation

The traffic-actuation modules of Yutraffic Office offer a range of functions that every traffic expert will understand intuitively and be able to work with immediately. The programming and parameterization of the traffic-actuated control logic is completely integrated – for numerous additional benefits such as data consistency, shared central data management and versioning. A traffic-actuated control logic created on this basis can be supplied directly to the Yunex traffic light controllers or even to 3rd party controllers.

Fast and easy editing of logic-sequences and functions thanks to highly convenient, modern user interfaces: copy & paste functions as well as plausibility checks save time. All necessary objects (e.g. signal groups, detectors), together with their customer-specific designation, are directly accessible.

Phase-oriented control methods (PDM): time-saving function and user libraries

The PDM-libraries contain pre-programmed and fully tested function modules and solutions for all Yunex controllers (e.g. C800, C900 and sX). PDM provides you with a complete system-side library, e.g. for processing public transport prioritization based on classical R09 telegrams or the latest Car2X data, such as e.g. SREM. But it also offers functions for accessing data sent from the traffic control center or hardware connected to the controller. This is complemented by user-defined libraries, which can be flexibly combined with existing PDM modules. All predefined functions are incorporated into the user's "individual program code" for the traffic-actuated logic: the PDM libraries as well as the user libraries with their individually defined modules. In this way, each completed project adds valuable modules to the library, saving a lot of programming time in later projects.

Control logic (S-L): no programming needed – just parameterize

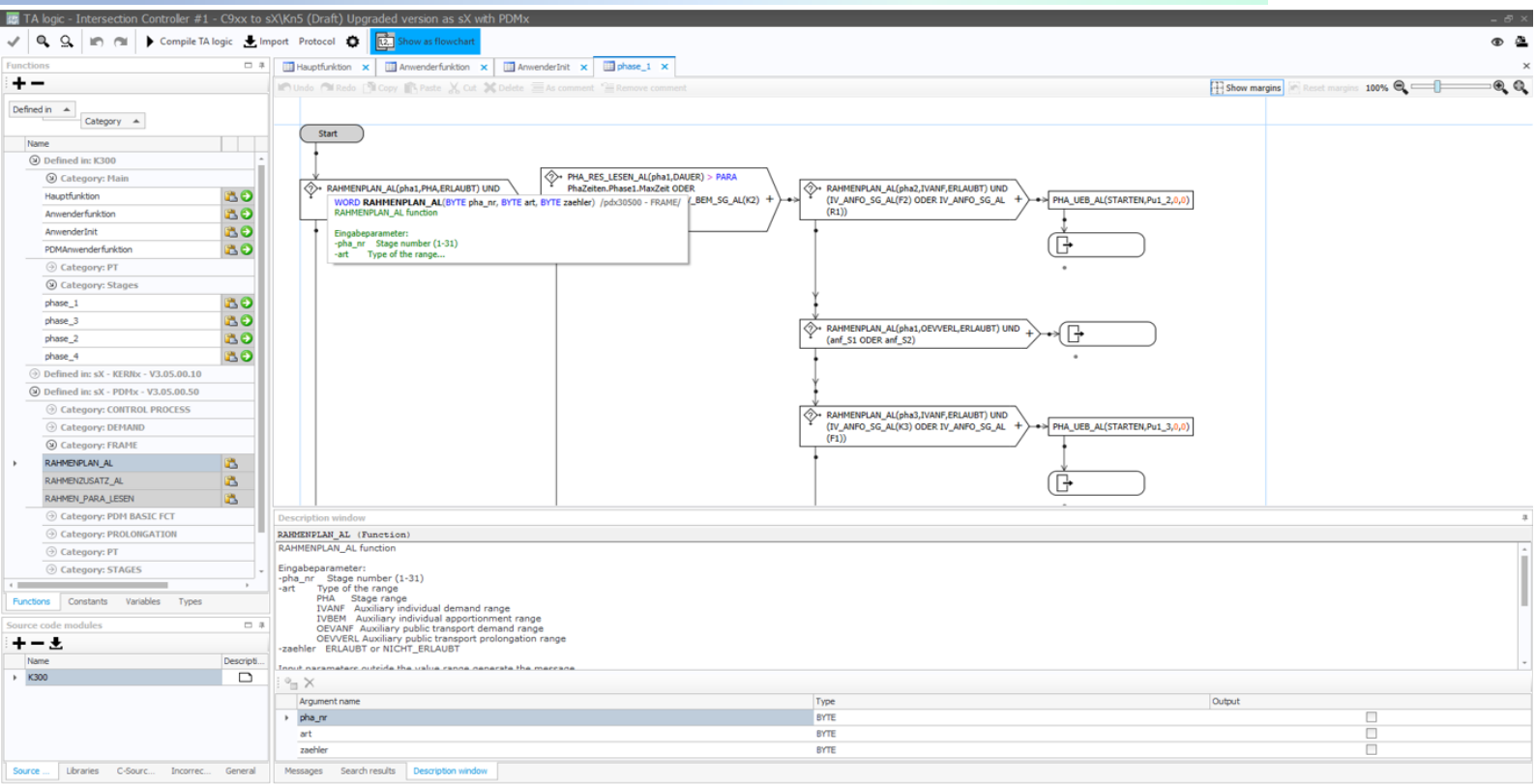
Standardized and highly flexible? With Yutraffic Office, this is no longer a contradiction because S-L is the answer of Yutraffic Office to the demand for simplification through standardization. All the users must do is to adapt the predefined logical sequences to the requirements of the intersection. Entering a few parameters via a simple supportive UI is enough, a task that requires no programming skills at all. And for all cases that call for special solutions or major modifications of the standardized solutions, the Yutraffic Office modules provide convenient tools that help solve these tasks elegantly and quickly. So additional programming is still possible, but not mandatory.

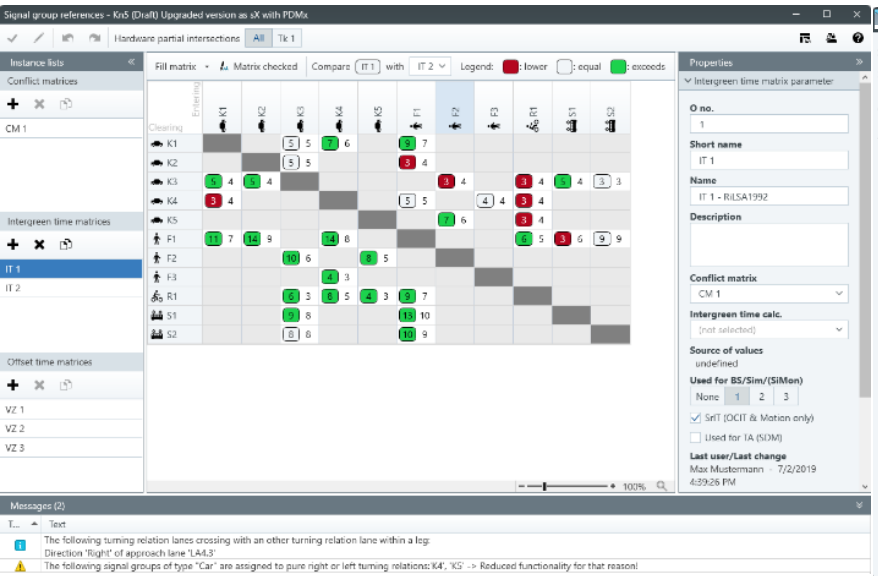
Simulation of traffic actuation logic

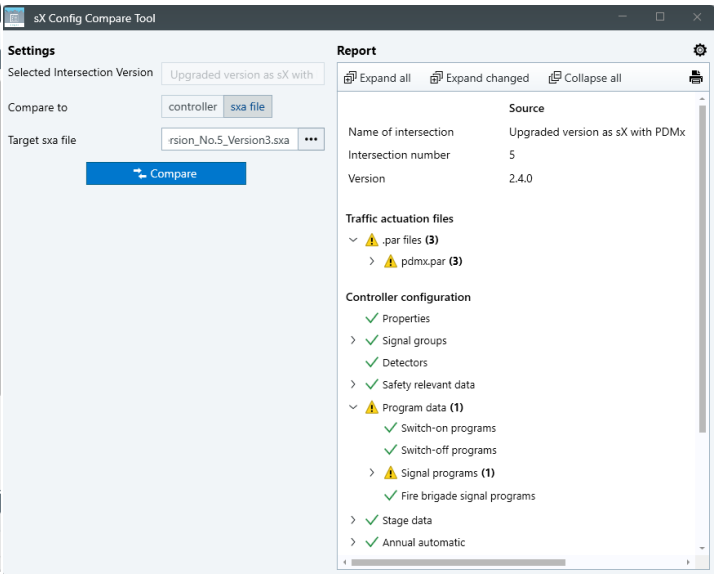
Before deploying a complex traffic actuation logic to the field, thorough testing is key. Office offers multiple export options to commonly used tools for microscopic traffic flow simulation.

Flow-Chart Editor

The flow-chart editor basically serves as the integrated development environment for the traffic-actuated control logic.







Compare-Functionality
Consistency and transparency of configuration data is one of the key-features, reflected in the whole application.

Consistency of Configuration Data

The traffic engineer carries out the intersection planning, defines the basic data, the traffic actuation parameters and compiles neat and complete documentation. Depending on the employed workflow, the implementation of the intersection planning, say the creation of the actual configuration data for the traffic light controller and the programming of the traffic actuation logic, are completely separate steps. This is a thing of the past – because Yutraffic Office allows the smooth transfer of controller-independent planning data to controller-specific configuration data. Dedicated plausibility checks indicate where controller-specific adaptions are required.

This integration puts an end to double entries or inconsistencies between planning- and configuration data, especially for traffic light controllers and the control center. In case of later revisions, the redesigned plans can be directly transferred to the controller; depending on the type of the modification and the available data links, this process can even be carried out remotely and for devices from different manufacturers.

Easy start-up thanks to the integration of Yutraffic/Sitraffic Control and other legacy tools

Yutraffic Office automatically imports available controller data from previous versions (Yutraffic/Sitraffic Office with Yutraffic/Sitraffic Control) during start-up. Existing Yutraffic Control projects can be taken over and seamlessly continued in Yutraffic Office. For the migration of a Scala system, too, all data are imported.

Simplified remote supply of controllers

Yutraffic Office can supply traffic light controllers from Yunex Traffic as well as from other manufacturers. The application allows planning and creating configuration data for all controllers based on the OCIT-O V2 standard and using the Yunex-licensed PDM/SL control method. This means that it is now possible to modify configuration data and parameters for the traffic-actuated control method PDM/SL right in the control center for all connected controllers from any manufacturer. Without the need for field trips or working with different manufacturer-specific software programs. Additionally, Yutraffic Office also provides optional connectivity to the Yutraffic VD Server for standardized remote supply according to the OCIT-standard.

Integrated traffic control center data supply and supply wizards help save time

Yutraffic Office also incorporates the data supply of the traffic control center. Permanent automatic data synchronization between the planning and supply modules ensures full consistency between control center and controller data so that all central functions are carried out exactly as planned.

Modifications are made especially easy thanks to our supply wizards. These guide the user through the steps required to create, change or delete supply data for typical changes (e.g. to signal programs). Any resulting changes, for instance the generation of an EPS plan following the modification of a signal plan, are executed automatically and the corresponding data exported to Yutraffic Scala.

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Yutraffic Office at a Glance

Technical Features

Traffic Controllers	• sX Controller family • C900 Controller family • C800 Controller family • M-Controller family (partially) • Generic OCIT Controller • Generic CANTO Controller
Local Traffic Actuated Control (selection)	• PDM – also licensed to 3rd party controllers • SL – also licensed to 3rd party controllers • VSp • FESA • STRIDE • NORRA • OML – C900 controllers only
System Pulse	• 1s – planning, controller- and TA configuration • 200ms – TA configuration • 100ms – partially planning, controller- and TA configuration
Microscopic Traffic Simulation	• AIMSUN.Next • PTV VISSIM
Traffic Control Centers	• Yutraffic Scala • Yutraffic Symphony
Adaptive Traffic Control	• Yutraffic FUSION • Yutraffic MOTION
Supported Guidelines	• RiLSA 2010/2015 • RILSA 92 DE and RILSA 92 Int • RVS 5.32 Austria • SN Switzerland • Polish Guideline
Centrals Communication Protocol	• OCIT 2.0 • CANTO 1.3 and 1.0 • TCP-IP_ZENTRALE • Befa 12 and AWA
OCIT-Export/Import	• OCIT-C 2.0 • OCIT-I 1.1 and 1.0
Data migration from legacy tools	• Yutraffic/Sitraffic P2 • Yutraffic/Sitraffic Language TL • Yutraffic/Sitraffic Control • Previous versions of Yutraffic/Sitraffic Office in general

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General Features

Product Variants	• Office Standalone • Multiple Office Clients connected to common data base – TE (**T**raffic **E**ngineering) Server • Multiple Office Clients connected to common data base as part of the traffic control center Scala/Symphony
License Model	• One-time purchase and license subscription • Based on required feature scope • Service packs and hot fixes free of charge – in case of preexisting license for the respective major version
Supported Languages	• German, English, Czech, Spanish, French, Italian • German and English for Traffic Actuated Control • Project-specific localization available upon request
Supported Operating Systems	• Microsoft® Windows 11 x64 – Office Client and Office Standalone • Microsoft® Windows 10 x64 – Office Client and Office Standalone • Microsoft® Windows Server 2022 x64 – TE-Server • Microsoft® Windows Server 2016 x64 – TE-Server
System Requirements	• PC or Notebook – x64 compatible • Minimum Dual Core – 2.8 GHz processor, 3.2 GHz recommended • Free hard disk at least 60 GB • Main memory: minimum 8 GB, 4 GB with loss of performance
Download full Product Version and free Demo Version	• Yunex Traffic Tools - Home • digitally signed setups for ensuring authenticity
Short Video Tutorials	• Youtube
Product Training	• upon request with Yunex Academy • available on-site or in Munich at Yunex Academy • E-mail: academy@yunextraffic.com • WWW: https://academy.yunextraffic.com/
Related Products	• Traffic Light Controllers • Adaptive Traffic Control • Traffic Centers • Connected Mobility Solutions • AIMSUN.Next
Technical Support	• E-mail: support-center@yunextraffic.com • WWW: https://customerportal.yunextraffic.com/en-US/

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