Traffic Control Systems

With a system aimed at the future.
Already.
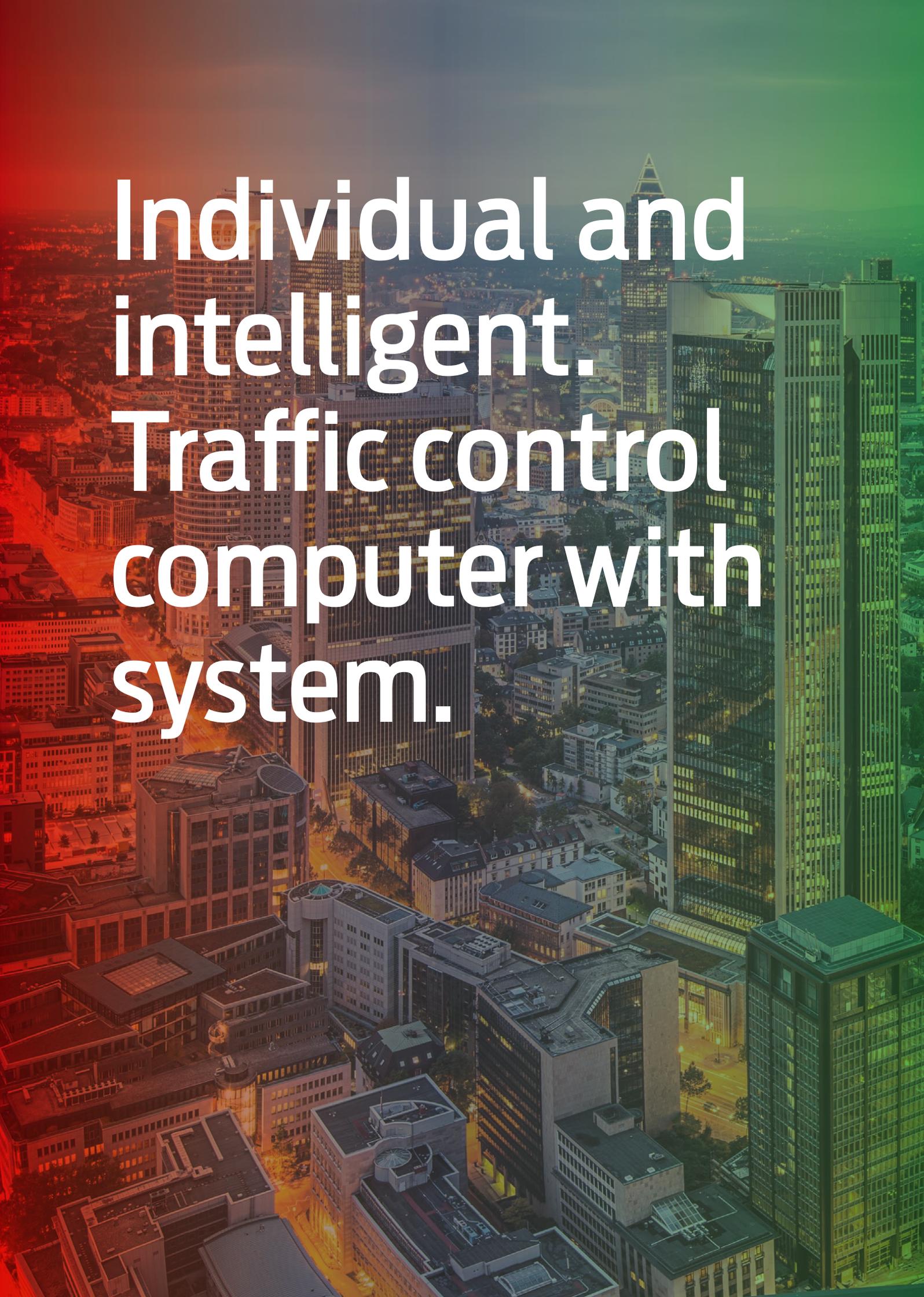
AVT STOYE

Individual and intelligent. Traffic control computer with system.

The guiding principle:
Open-mindedness

And this since 1999, the year the foundation stone was laid for the development of the innovative **PENTA**traffic traffic computer concept. AVT STOYE has actively shaped this process in the ODG as well as other OCIT groups since the start of the OCIT idea. Today, over 15 years later, **PENTA**traffic has established itself in the system landscape of traffic engineering.

Logical modular arrangement, the **PENTA**traffic system concept combines AVT STOYE's proven know-how in traffic engineering with the current IT requirements for traffic management and successfully implements this in the development and operation of modern traffic control centres.

› **Traffic control systems in Germany:**
  · Stadt Frankfurt am Main, Stadt Wuppertal, Stadt Rüsselsheim,
    Stadt Remscheid, Stadt Herzogenrath

› **Traffic control systems in Switzerland:**
  · Gemeinde Emmen (Canton Luzern), Stadt Olten (Canton Solothurn),
    Stadt Solothurn (Canton Solothurn)

Individual problem solver

PENTAtraffic provides clients with cost-effective system solutions which can be fully tailor-made for the individual requirements of individual cases with their complex issues. Coordinated modular system components form the ideal, economically-minded basis, especially for investments to expand your system. The time periods scheduled for planning and future-proofing can be ensured through the flexibility of the **PENTA**traffic system concept and extended for years.

Intelligent system integration

The **PENTA**traffic system is installed standard as a high-availability system in a virtual system landscape appropriate for the client's state of technology. Due to the redundant hardware and the fully automatic switchover from one resource to the other in the event of a failure, an extremely high level of reliability is achieved. The concept of **PENTA**traffic allows for the implementation of any constellations and configuration levels. Two product versions are presented below as solution approaches which completely cover the full spectrum of traffic demands. The boundary here between one version and the other is blurred.

👍

Our claim – Your advantage: Technically with us, you are always up to date.
› **Alignment of system development to OCIT standards**
› **The current OCIT interfaces (out and instations) as well as the OTS interfaces of the OCA are integrated**

👍

The PC-based modern **PENTA**traffic system concept corresponds to the future demands of operators, planners and engineering offices:
› **reliable**
› **user-friendly**
› **failsafe**
› **OCIT-capable traffic signal systems can be connected to systems from other manufacturers**
› **flexible**
› **future-proof**

The basis:
PENTAtraffic® city manager

Basic configuration

The **PENTA**traffic **city manager** is the classic traffic computer. This is the simplest configuration level of the typical entry into the world of traffic computer systems. This means that even the basic level of **PENTA**traffic **city manager** offers all the necessary functionalities that a modern traffic computer system needs to have today:

› Latest graphics and intuitive easy-to-use user interfaces
› Operating message system with an archive function
› Automatic, time-dependent, central program selection (JAUT) and event control
› Real-time online signal plan note taking
› Manual control of all connected traffic signal controllers
› Archive access to all raw data (signalling data, detector edges, etc.)
› View of past switching operations

Open without limits

The **PENTA**traffic **city manager** can be upgraded gradually as required. It also features a powerful platform for incorporating geographical information systems (GIS) which are increasingly used in metropolitan areas. Extra optional functions are available when expanding:

› Flexible program selection allowing for freely selectable input variables (automatic macroscopic traffic control)
› OCIT-compliant remote supply of traffic signal controllers by the supply data server (OIVD server)
› Green wave view (online and offline)
› Fully automatic message forwarding by SMS, voice, fax, e-mail
› Fault management
› Dynamic individual intersection view (display all status changes in real time)

› Dynamic overview card with virtually any view details (intersection status, traffic volume, etc.)
› Incorporation of monitoring cameras and video detection systems
› Delivery of traffic data to third parties (internet, MDM)
› Computer-based management systems: Information about the operating situation of public transport
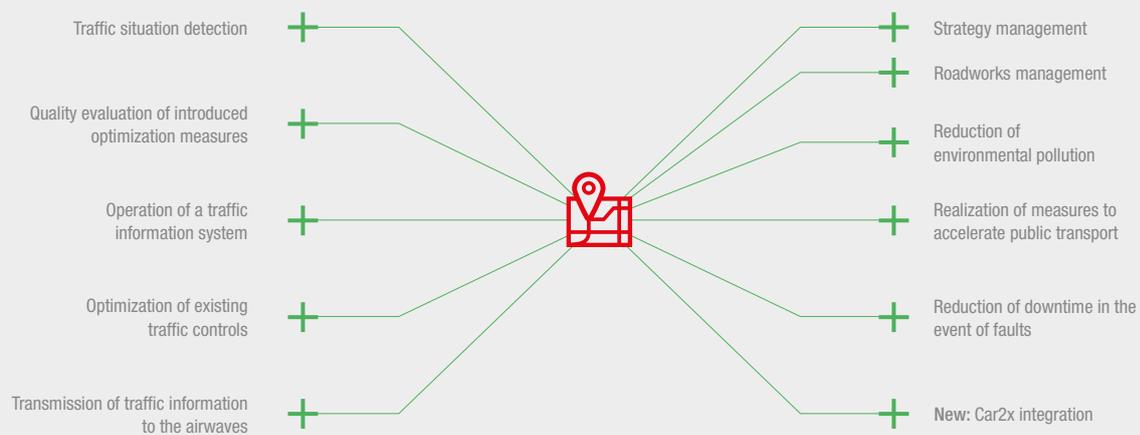› Parking guidance systems: Evaluate the traffic occupancy for stationary traffic

This is only a glimpse.
More information at www.avt-stoye.de

The evolution:
PENTAtraffic® management system

Responding to new challenges

The challenges, that the increasing traffic volume in cities pose, continually grow. There is no end in sight for this trend. Therefore, more and more communes are having to deal with new issues.

Traffic situation detection

Quality evaluation of introduced optimization measures

Operation of a traffic information system

Optimization of existing traffic controls

Transmission of traffic information to the airwaves

Strategy management

Roadworks management

Reduction of environmental pollution

Realization of measures to accelerate public transport

Reduction of downtime in the event of faults

New: Car2x integration

Optimal modularity

The **PENTA**traffic **city manager** is the ideal modular platform that takes over all the tasks of a traffic computer and can be upgraded to a complete traffic management system.

Thanks to the diverse interfaces available, the **PENTA**traffic **city manager** can easily be incorporated into an existing traffic management system or can be upgraded into one. Due to the intensive collaboration with GEVAS software GmbH, their traffic management components can be optimally combined directly with the **PENTA**traffic system. GEVAS software GmbH is one of the leading players in traffic management in German speaking regions and Poland and ideally complements the **PENTA**traffic system.

GEVAS SOFTWARE

More information
www.gevas.eu

Compatibility: PENTAtraffic® in use

PENTAtraffic supports currently standardized interfaces, such as in Car2x communication:

Interfaces

OCIT-O	OCIT-Outstations for traffic signal systems for uniform operation, monitoring, measurement recording and remote supply of traffic signal controllers. Supported versions/profiles: OCIT-O V1.1, OCIT-O V2.0, Profile 1, Profile 2, Profile 3 traffic signal controllers
OCIT-I VD-LSA	OCIT-Instations TSS supply data (in short: OIVD) as a standardized supply interface of traffic signal controllers from the traffic engineer's workstation. Supported version: OCIT-I V1.1 (KD 0010)
OCIT-I PD-LSA	OCIT-Instations TSS process data (in short: OIPD) as a transmission interface for standardized process data for function and quality checks, as well as for connecting external adaptive network controls. Supported version: OCIT-I V1.0 (KD 0022), OCIT-I V1.1 (KD 0010) as well as older versions
OTS	The standard OTS contains the standard OCIT-I (OIVD and OIPD) and upgrades this with two additional documents which relate to process data. Supported versions: OTS 1.1 (KD 0010)
OCIT-Center to Center (in short: OCIT-C)	standardized interfaces between central components and systems
OZS	Open central interface (FESA Logik GmbH, Switzerland)

Traffic Signal Controllers

Interfaces	› OCIT-O V1.1, OCIT-O V2.0 (each profile 1, profile 2 and profile 3) › STOYE AKP/SKP › BEFA 15/16 › DVI 35 › SSI
Data transmission (depending on the interface)	› DSL › LWL › LTE / UMTS / EDGE / GPRS (each secured via VPN) › analogue modem

Other

Capacity	› almost unlimited number of traffic signal controllers can be connected (all components are virtually freely scalable) › Data recording can be set for any length of time (requires corresponding database capacity)
Data management	› data integrity due to a relational database (ORACLE/PostgreSQL) › Data security through RAID system › Access controls through flexible, powerful user management › Reliable, long-term data archiving by means of a fully automatic backup solution

Hanau Branch
Dieselstraße 8
63456 Hanau
Tel.: +49 6181 6902 62
Fax: +49 6181 6902 72
info.hanau@avt-stoye.de

Bad Salzungen Support Centre
Am Langen Streif 3
36433 Bad Salzungen
Tel.: +49 3695 6008 16
Fax: +49 3695 6008 17

Cologne Branch
Longericher Straße 177
50739 Köln
Tel.: +49 221 2616 0
Fax: +49 221 2616 599
info.koeln@avt-stoye.de

Stuttgart Support Centre
Am Kirchberg 23
73734 Esslingen-Berkheim
Tel.: +49 711 305 3293 0
Fax: +49 711 305 3293 1

Munich Branch
Lerchenstraße 14 (Haus 3b)
80995 München
Tel.: +49 89 35 72 78 0
Fax: +49 89 35 72 78 11
info.muenchen@avt-stoye.de

**Do you have any questions or would you like personal advice?
We look forward to hearing from you.**