

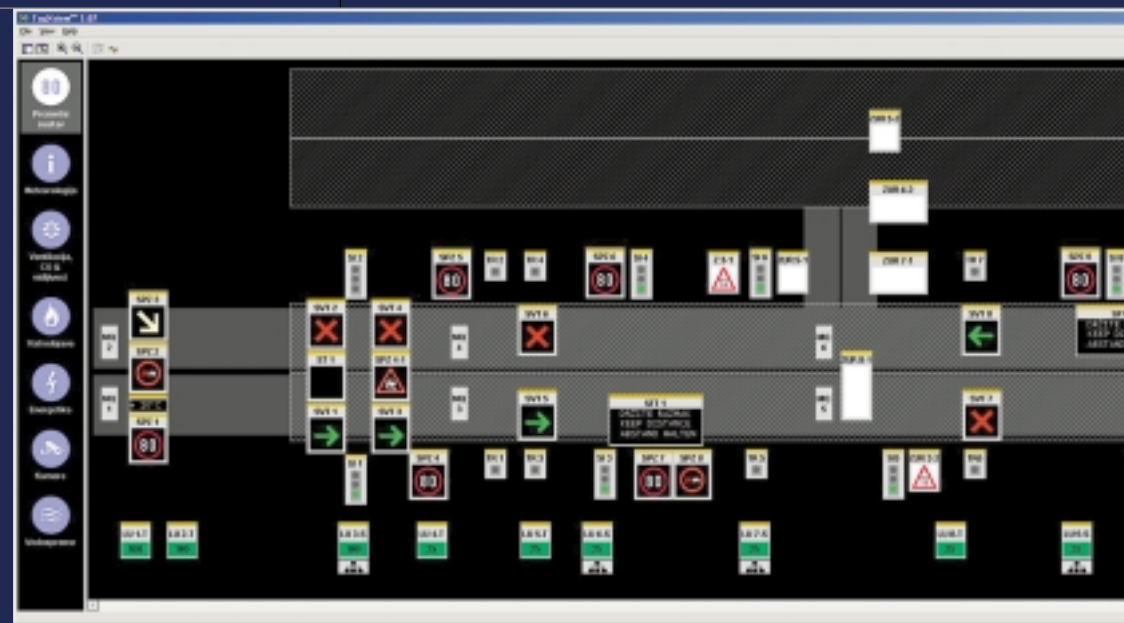
Program system



- Ergonomic
- Modular
- Universal
- In Control



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Program system



Main components are:

- > the system core
- > interfaces to sub-systems (called "drivers")
- > clients, including graphical user interface
- > the "historian", connecting to a database
- > automation components
- > other smaller components



The TOP X VIEW Central User Interface provides simple and consistent control and overview of the state of systems deployed in tunnels and on highways, and is intended to run on a single workstation.

Utilizing the top level integration of all installed systems, TOP X VIEW offers complete and ergonomically advanced interface for centralized traffic control and integration of all systems thus greatly improving security of all parties involved in traffic.



Software components called drivers connect to various subsystems, and convert different protocols and logic to the universal TOP X VIEW protocol. This allows for scalability and easy implementation of additional protocols. Currently many protocols are supported, such as:

Currently many protocols are supported, such as:

- > industry-standard MODBUS
- > manufacturer-specific (e.g. Telefon-Gradnja) protocols for the traffic system and emergency roadside telephony
- > ISS Autoscope™ interface for automatic camera detection
- > interface toward Barco™ video-wall
- > various video-switches, etc.

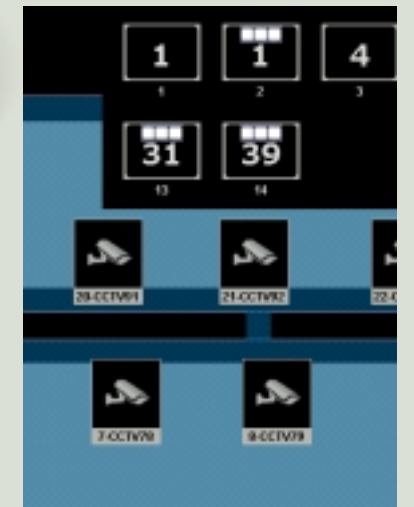
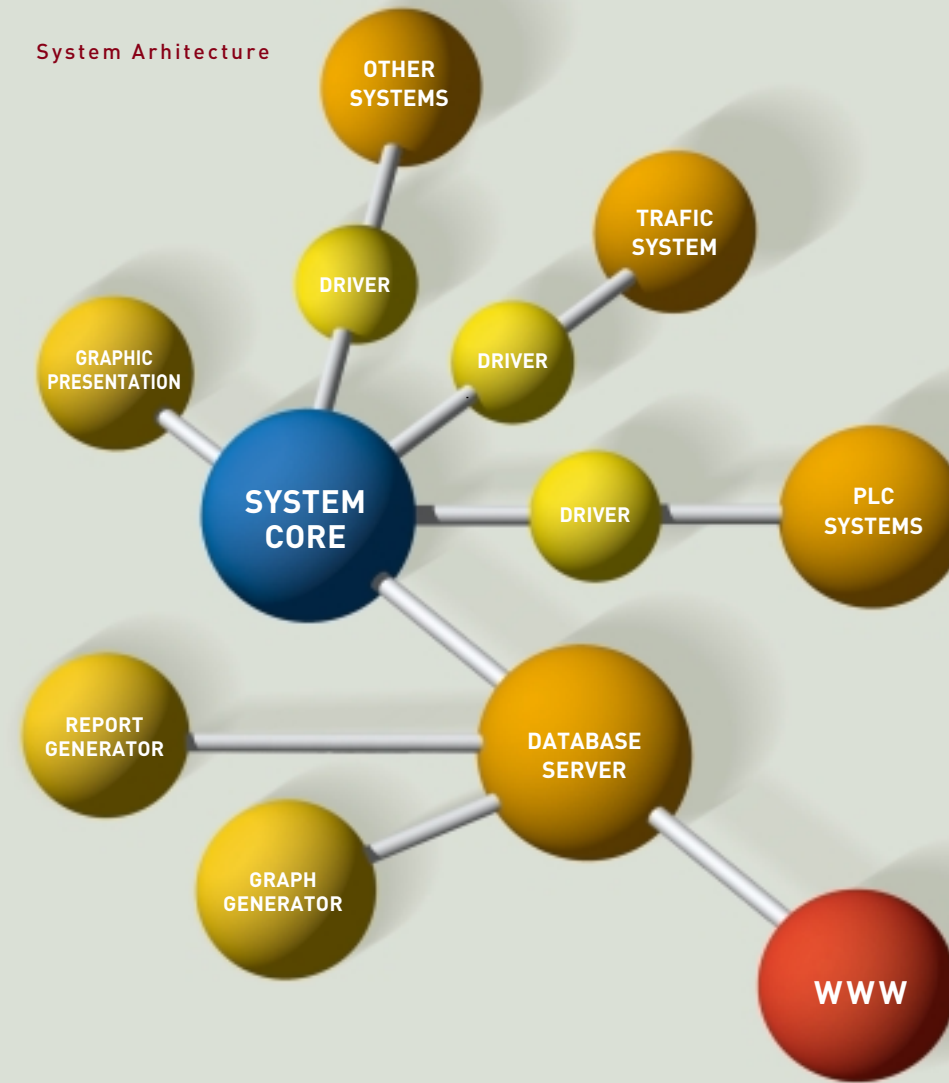
Drivers are also available upon request.

Many drivers can be configured to work together, enabling easy integration of large and diverse systems. The drivers are usually installed as system services

The Core acts as a gateway for information flow between various components. One important component is the historian, a program that connects to a database and records all events in a system. All reports are available through a easy-to-use Web interface that can be invoked from the TOP X VIEW main user interface, or can be used stand-alone. The Core and the historian are usually installed as system services.

The Main User Interface is the central point for user interaction: all systems and devices are presented in a clear and unambiguous manner, divided in different layers, or concentrated in a single view. The view can be scrolled and zoomed, and a thumbnail navigation is provided. Schematic and GIS-like views are available.

System Architecture



The traffic system is controlled through our proprietary traffic central, connecting to any TLS-compliant traffic system via serial communication or TCP/IP network. All standard devices, such as variable message signs, traffic lights, variable displays, road outstations, barriers, vehicle detectors, etc. are supported.

Through the traffic system data from weather stations are also gathered. Data can be used for automated response within the traffic central, and can also be relayed to the other applications such as Vaisala NowCast/IceCast™ short-term forecast and warning system and similar.

Various devices can be interfaced through the industry-standard (e.g. MODBUS) protocol. Virtually unlimited number of controllers and register ranges can be accessed. One can collect information from environment and security (e.g. fire) sensors, etc., and control devices such as: ventilation fans, water tanks, lighting switches, etc.

Our emergency roadside telephony system also can be controlled with the TOP X VIEW. The cameras, monitors, video-walls, and video-switching units can be interfaced and controlled through various drivers depending on the actual installation.

A wide range of automated, semi-automated and manual scenarios and standard procedures are available through the scenario manager. Besides standard operator notifications, other notifications (sound, visual, e-mail, and SMS alerts, etc.) are available together with all commands and programming logic (branching, sub-scenarios, waiting, etc.); the scenarios are executed by automation components that connect directly to the core.

The application is currently available in English and Croatian.



System requirements:

- > Windows 2000/XP
- > at least 512 MB of RAM
- > Intel Celeron 2.6 MHz or better
- > required hardware interfaces (network, serial ports, etc.)