

Nordavind

THE GROUP OF COMPANIES



**Products
and technologies**

About the company

Nordavind is a pioneer in the development of security systems based on highly reliable operating system Linux. Today we are a united team of professionals who has had extensive research work of R & D for the benefit of the Ministry of Interior and Ministry of Defense of Russia. Today our projects portfolio includes solutions for all modern desktop (Windows, Linux and MacOS) and mobile platforms. Our products and solutions are on guard for the security of both small business and large public and social objects.

Today we are a modern dynamic group of companies with a wide range of competencies in information technology including cloud computing, video analysis, streaming media technologies and many others. We are ready to apply our knowledge and experience to implement unique solutions for our clients and customers!

CEO of Nordavind

I.S. Svirin, Ph.D.



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Multifunctional video server based on OS Linux

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Unique multi-brand cross-platform video surveillance software

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The most productive license plate recognition system

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Software for centralized monitoring of security systems and ATMs

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The system of automated accounting of human and traffic flows

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TeleWizard

Multifunctional video server based on OS Linux

[\(click for a detailed description \(russian\)\)](#)

PURPOSE

Designed to build professional security surveillance systems with high levels of reliability. The system is integrated with a set of intelligent video analyze modules (people detector, optical ignition signs detector and super resolution module).

KEY FEATURES

- High reliability because of the use of embedded OS Linux distribution.
- Efficient storage of archive video and quick access to them in synchronous and asynchronous modes.
- Ability of simultaneous use of both analog and IP-cameras.
- Architectural protection against computer viruses.
- Built-in video analytics module within the base version.

TeleWizard-HD

Unique multi-brand cross-platform video surveillance software

[\(click for a detailed description \(russian\)\)](#)

PURPOSE

Designed to build professional heterogeneous security surveillance systems with high levels of reliability based on the operating systems Linux, Windows and MacOS.

KEY FEATURES

- Ability to build heterogeneous systems
- Support for hundreds of types of IP-cameras of different producers, the ability to receive events from the built-in IP-camera analytics.
- Client software for all modern mobile platforms (Android, Blackberry, iOS, Symbian and WinPhone).
- Unique multi-threaded video storage providing streams storage with balanced depth and quick access to the archive in the synchronous mode.
- Ability to use simultaneously both analog and IP cameras.
- Support for open standards and protocols (XML-RPC, RTSP/RTP, RTMP, etc.).



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OUR PRODUCTS

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TeleWizard-AUTO

The most productive license plate recognition system

[\(click for a detailed description \(russian\)\)](#)

PURPOSE

Designed to automatically recognize license plates of vehicles with placing the information about events into the internal journal with a capacity of more than 50,000 items. There is a database with allowed license plates and integration with access control and relay boards that allow to automatic control.

KEY FEATURES

- Algorithm of recognition with no configuration speeds up the installation of the system.
- Unprecedented performance of recognition algorithm – processing up to 16 channels of video 2CIF real time on P-IV 2,4 GHz!
- Open records for integration and ready SDK for Linux and Windows.
- Recognition algorithm adaptable to run on different hardware platforms (x86, SPARC, MIPS, ARM) allows its use in server and IP-camera firmware.
- Ability to offer a recognized license plate number to the port RS232 in Wiegand protocol format allows connection “TeleWizard-AUTO” as a regular reader for access control system (tested with ACS GATE)!
- The ability to use both analog and IP-cameras (including modern megapixel ones!).

SmartIntegrator

Software for centralized monitoring of security systems and ATMs

[\(click for a detailed description \(russian\)\)](#)

PURPOSE

Designed for centralized monitoring of heterogeneous security systems and ATMs equipped with equipment from different companies (Hitron, Heitel, Mitsubishi, etc.). A great number of terminals are allowed to be merged into a single hierarchical system of monitoring.

KEY FEATURES

- Ability to create a distributed hierarchical monitoring system across the country, however, it is possible to have fragmentary development of the system to joint single system.
- Registration of events in a distributed system and updating of terminals' status in real-time.
- Formation of the archive in real-time and downloading archives from terminals on the schedule (during less busy channels for business transactions)
- Local graphic and web-interface.
- Integration in a single interface for monitoring equipment of different companies.

RIGHTS: Joint development with “ArmoSystems” company.

AutoHub

The system of automated accounting of human and traffic flows

[\(click for a detailed description \(russian\)\)](#)

PURPOSE

Designed to automate the access for objects with nontrivial logic of accessing and additional monitoring requirements. Integration with a wide range of external systems and equipment such as access control, license plate recognition systems, weighting equipment that makes «AutoHub» flexible platform for building automation systems optimized to the requirements of a particular client or customer.

KEY FEATURES

- Ability to obtain detailed information related to the vehicle, the time of its entry, departure and length of its staying in the facility.
- Forming of statistics about object's utilization.
- Ability to obtain information about the vehicles that are on the facility at the moment.
- Flexible interfaces of functionality expansion allows you to adopt the system to individual requirements.

Technology of video streaming

[\(click for a detailed description \(russian\)\)](#)

PURPOSE

Designed to create video core of large-scale video surveillance systems «Safe City» with a lot of video sources (cameras) and consumers (clients) with different access permissions. Technology provides reception of audio streams from modern IP-cameras and video servers Axis, Smartec, Beward, Cisco, Sony, Arecont Vision, Hikvision, Tra13 and a lot of other models of the world's leading companies as well as an efficient retransmission of streams by using RTSP/RTP (rfc -2326), RTMP (Adobe RTMP spec.1.0), HLS (HTTP live streaming).

Technology of video streaming

[\(click for a detailed description \(russian\)\)](#)

KEY FEATURES

- Ability to use NordavindStreaming in the construction of cloud surveillance solutions with the help of the latest technologies of virtualization.
- Tested interaction with Cisco VSM.
- Unprecedentedly high efficiency. Tested peak load of 200 incoming streams while keeping 200 streams in the local archive and broadcasting all streams to remote clients when it is consumed 20 Mb of memory on a stream, 15 MHz CPU resources on stream.
- Unique ability to receive audio and video streams from mobile cameras (phones and tablets) with special mobile applications.
- Ability of cyclic archive formation of received streams in a dedicated storage that is optimized for storing and quick access to streaming data with subsequent translation of archive to remote clients using RTMP and HLS.
- Continuous monitoring of the state of video streams and the provision of statistical information to external monitoring systems.
- Dynamic balance function, loading between multiple instances streaming server.

RIGHTS: Joint development with CJSC «Technokert».

Technology of video analyze

The most productive license plate recognition system

[\(click for a detailed description \(russian\)\)](#)

PURPOSE

Designed for the detection and identification license plates of the vehicle in the video stream. The technology consists of three phases: detection of the plate's location on the video frames, optical signs recognition and postprocessing (forming the result based on a sequence of recognized plates for the same vehicle).

KEY FEATURES

- Ability to determine the direction of the vehicle movement and its speed.
- Algorithm does not require any configuration and is fully adaptive (except for the speed estimation algorithm).
- Ability to work on all current hardware platforms including miniature low-end which allows using the technology to create embedded solutions.

Technology of video analyze

Technology “Super resolution”

[\(click for a detailed description \(russian\)\)](#)

PURPOSE

Designed to improve video quality by intelligent increasing the resolution. In contrast to the standard bilinear and bicubic interpolation the technology uses a sequence of video frames to create a scene of a higher resolution. The technology can be used effectively for the transition from analog or simple digital D1-systems for modern megapixel images as well as means to improve the efficiency of other modules in intelligent video such as face recognition, license plate numbers, etc.

KEY FEATURES

- Ability for intelligent double and fourfold increase resolution by software in digital video surveillance and biometrics.
- Work in real time.
- The algorithm does not require any configuration and is fully adaptive.

Technology of video analyze

Other video analyze technologies

[\(click for a detailed description \(russian\)\)](#)

- Optical detection of signs of fire.
- Finding people in the field of camera view.
- Sabotage detector (closing or defocusing camcorder).
- Camera shake compensation (antishaker).



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OUR TECHNOLOGIES



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