ERANDO

Integrated Security Systems




ERANDO
Security Consulting and Trading Ltd.

In the security business there are facilities which are in high security level, which have to meet with international requirements and regulations. These objects have to meet special security requirements. To meet with this requirement is a prerequisite to operate the facility. The priority is reliability and high-tech solutions and to ensure the user-friendly operation. For this task the ERANDO Ltd. developed E-SecureZone software package to integrate different security systems.

Integrated management system

All of the facilities which are in high security level need its own, tailor made solution. The task of the integrated management center to interconnect these systems and remote control the,. The integrated management system can control the following subsystems:

Electronic:

- perimeter detection system
- intrusion detection system
- access control system
- video surveillance system
- fire alarm system

Mechanical:

- fences, gates
- barriers, lock chambers
- special speed gates
- mechanical obstacles

E-SecureZone

Integrated Security Solution

Perimeter Detection Subsystem

All of the devices are connected to a redundant Crossfire bus, which provides online information in the surveillance center. With its ring design and two-way communication the system still can communicate with the working devices in case of cable or device failure. The perimeter detection devices can be volumetrical or optical sensors installed to the fence, or installed in the ground (invisible) special capacitive sensor systems, which exceeds the reliability of the normal outdoor (outdoor PIR, dual sensors, IR barriers etc.) sensor systems.

Video Surveillance Subsystem

The state of the art IP based video systems can be integrated. The operation of the video system can be automated with different control instructions, while the video system provides different other information (movement detection alarm, etc.) to help the integrated surveillance system. With advanced picture analyze software its possible to monitor highly protected areas with the system, even with 'turned off' monitors, so the operator is not under the pressure of constant attention. That mode called 'black screen monitoring'.

Intrusion Detection Subsystem

Each of the intrusion detection sensors connected to the system such as normal supervised inputs. The state of them are supervised online, the display of them always shows the actual state on the map.

Main references

MVM Hungarian Electricity Private Limited Company
MAVIR Hungarian Independent Transmission Operator Company Ltd.
MÁV Hungarian State Railways
National Media and Infocommunications Authority
National Power Line Company Ltd.
Paks Nuclear Power Plant Ltd.
National Radioactive Waste Repository Ltd.
Counter Terrorism Centre

Access Control Subsystem

The access points are displayed on the map, their symbols can vary according to the current state. It is possible to track the persons within the area or display the status of the rooms. The advantage of the integrated system that the system can automatically turn on or off the intrusion alarm of empty rooms, facilitate the work of the operators.

Fire Alarm Subsystem

In consideration to the special provisions of the built-in fire alarm systems, the integration of these kind of systems only optional. In this case the integration means that there is a client program runs on the common display, but as it displayed on the operators graphical interface, it is a virtually integrated system.

Display

The complexity of such integrated systems requires special DLP display monitor wall technology. These DLP walls are made for continuous 24/7 operation. The display software is a graphical monitoring and control program, which interconnects the input information of the subsystems, display their actual status on the screen and transmit the automatic commands and commands issued by operators via the corresponding outputs to the subsystems. The flexibility of the system indicates that the controls can be made through simple contacts, but mainly takes place at software interface points. This is developed uniquely in each case.

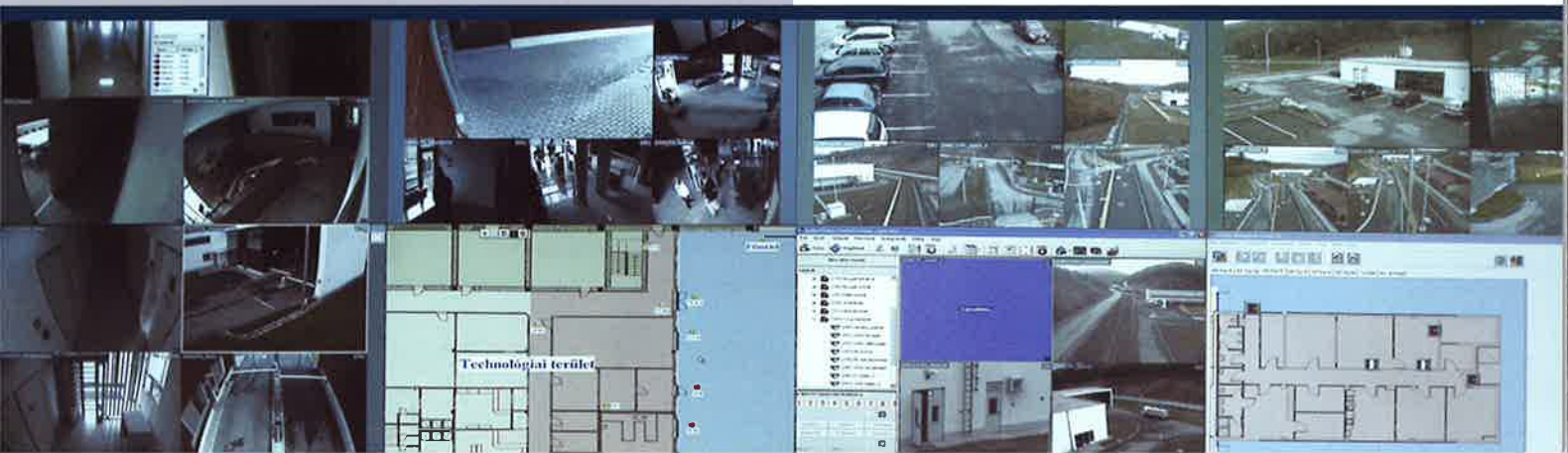
Interactions

Each subsystem can affect other subsystems through the common surveillance software. A change in a subsystem can start an automated response of another system. These can be status changes of sensors which are connected to another subsystems, closuring or opening of electromechanical controlled access points, automatically display camera images, automatic control of speed dome cameras etc.

Description of a typical automatic reaction in case of alarm:

A highly protected facility is always have different level of protection zones. These levels can be: external protection zone, internal protection zone, protected building, highly protected premises. In case of alarm, the following reactions start in an integrated system:

- breach at the perimeter detection system
- the visual and voice display on the central graphic display interface of the breached area
- the staff alert process is starting.
- the speed dome cameras which are controls the area are automatically turns to the breached area, the picture of the alarmed cameras are automatically displayed in the surveillance center
- the surveillance of the internal protection zone devices
- activation of the sensors of the protected facility
- message for the employees of the highly protected premises to leave the room immediately
- the automatic closuring of windows and doors of the highly protected premises
- the full mechanical closure of the highly protected zone
- graphical information for the guards about the process of inquiry and acknowledgment
- every steps of the occurred event (alarm, reaction) logged into the continuously updated online database



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