Tunnel Security
Surveillance Solution

DuoTech
6622 Southpoint Dr. S. | Suite 310 | Jacksonville, FL 32216
P: 904.296.2807 | F: 904.296.4103 | info@duotech.com

www.duotech.com
Duos Technologies designs, develops and delivers turnkey automated remote-access tunnel security and surveillance systems. A combination of intelligent technologies is used to automatically detect intruders and suspicious activities within a user-defined security zone.

The following technologies can be customized to your specific security objectives.

- Remote Video
- Day/Night
- Pan/Tilt/Zoom
- Automatic Digital Recording
- Automatic Alarming
- Live Streaming

Duos rvspro™ (Remote Video Server Programmable), is a high performance digital video recorder, multiplexer, and transmission server in one. The rvspro™ provides world-class performance and reliability for real-time digital video recording and monitoring functions.

The PRAESIDiUM® software can be combined with additional intelligent mapping software which will visualize the type and location of a suspected security breach. The mapping software is browser based and will also function as a management platform in a network-centric environment. It will enable decision makers to evaluate threats in real-time and collaborate using the same data. The system will provide next-generation geo-spatial visualization capabilities.

False Alarm Mitigation: A combination of “Smart” video interpretation software and hardware will automatically perform continuous highly reliable, low false-alarm-rate detection of moving objects. The system will distinguish between train traffic and people movement. While trains will be “permitted” to cross the Security Zone, persons will be considered intruders unless the system has been deactivated to allow maintenance personnel to enter the security zone.

A technology solution designed with railroad companies in mind

Tunnel Temperature Sensor

Sensors, controls and logic can be added to provide an early indication of a fire in a tunnel.

Electric current readings are translated to temperature readings via software code. Control logic code allows for a variety of conditions to eliminate false alarms (i.e. temperature fluctuations due to engines or other expected heat sources traveling through the tunnel).

Temperature data and alarms will be added and integrated into the Graphic User Interface (GUI). An alarm is activated on the operating screen any time a suspicious event occurs (for example: the temperature exceeds a specific operator defined maximum value, or the temperature increase is trending at an exceedingly high rate while there is no traffic in the tunnel).

Weather Station

The weather station will collect meteorological data at the portal of the tunnel.

The data will be available for “real time” viewing as well as historical data archived separately, via designated access points.

Data collected includes temperature, wind direction, wind speed, barometric pressure, humidity, solar radiation and rain fall.

The sensors are connected to a Weather Report Logger (WRL). From there, all data will be transmitted to a locally installed PC where the data is stored, organized in tables and distributed through a LAN or WAN.

Centralized Controls

Defined Perimeter

- Sophisticated Motion Detection
- Pan/Tilt/Zoom Day/Night
- Cameras with Hot Spot Alarming

Yellow Zone:

- Audio Warning
- Strobe Lights
- Automatic Digital Recording

Red Zone:

- Automatic Alarms
- Automatic Digital Recording

Geo-Spatial Visualization

Large-scale installations include a graphic representation of the specified security zones and is presented in an interactive, browser-based electronic map. Operators will be able to zoom in to any individual zone and click on camera icons to launch one or more individual browser windows containing the respective real-time video. It will process and display imagery of the security zones. Critical assets, sensor positions, and alarm types and locations are displayed on the map in addition to being viewed in a command display with zoom-in on demand.