

LaneGard - Toll Lane Digital Video and Event Recorder



Digital Toll Lane Video and Event Recording Tool for Toll Audit and Lane Troubleshooting

This system will allow you to certify your system's automatic and manual classification accuracy with hard presentable evidence. Auditors can work in a relaxed environment and replay the video clips and event overlays any number of times as necessary. Video and event capture are completely independent of the transaction management system and are stored in separate databases at each plaza to ensure audit integrity.

Real Time Lane Viewer

The Live Viewer provides real time access to the live video camera feed and the overlaid lane event data for audit, monitoring, or maintenance situations. This viewer is implemented as a webpage that is viewable by a browser on any workstation with access to the network, whether locally or by an authorized individual over a secure network connection. The playback screen allows the viewer to select individual auditable event types for presentation to the user.

Recorded Lane Playback

The web site also provides the ability to view easily the video and event data that has been stored for non-realtime auditing and classification history. This is very useful in evaluation of lane classifications, both automatic and manual.

Remote Camera Setup and Control

The color digital IP camera can be remotely configured, aimed, zoomed and focused over the network. This greatly simplifies the installation and maintenance of the camera system. Additional cameras can be added to the system.

- Digital Video Recording

- Single Camera Per Four Lanes

- Digital Lane Event Recording via Ethernet

- Web Based Review

- Standard PC Server

- Fiber Camera Ethernet

- Video Playback with Event Overlay By Lane

- Expandable to Multiple Cameras for More Lanes

- Remote Camera Alignment and Control

- Time and Event Search Functions by Lane

- Used on Highways, Bridges, Tunnels, Ferries, and Border Crossings,



LaneGard System

The TDS LaneGard toll lane digital recorder system consists of a server in the computer room and a single overview camera located approximately 100 to 150 feet downstream from the lanes on a pole approximately 20 feet above ground on the side of the roadway. The LaneGard camera provides continuous video via a fiber Ethernet connection to the LaneGard server. This video is stored in time stamped flat files each containing a segment of video. The file naming convention uniquely identify each video segment in time. The LaneGard server will be connected to the local area network. The lane controller from each lane being recorded will send all event messages in real time to this server via this network. The server will time stamp these event messages and put them into a table in the database on the server.

LaneGard Camera

The LaneGard camera is a Vivotek SD8314E/24E. Using an 18x optical zoom lens, the camera is able to capture details at top-notch quality. The IP66- and NEMA 4X-rated housing protects the camera body against rain, dust, and corrosion within a wide temperature range of between -40°C to 55°C. This feature ensures operation under extreme weather conditions and hazardous environments. It is especially suitable for monitoring wide open indoor/outdoor spaces such as airports, highways and parking lots where high-level reliability and precision are always required.

The SD8314E/24E supports high-performance H.264/MPEG-4/MJPEG compression technology and offers extra smooth video quality with resolution up to 30 fps @ D1. Boasting WDR Pro Technology, the SD8314E/24E can also cope with challenging lighting conditions and generate image quality close to the capabilities of the human eye. As with all VIVOTEK true day/night cameras, the SD8314E/24E features a removable IR-cut filter, maintaining clear images 24 hours a day.

The camera has a PTZ capability for initial alignment of the camera such that it provides a view of the traffic in all four lanes. This can be done using a laptop computer via the Ethernet connection to the camera. The offset from the roadway will allow the user to accurately determine the class of the vehicle in each lane. The camera will provide high quality imaging under all lighting conditions and will prevent blooming due to light focused or aimed at the cameras. Its location at 20 feet above the ground surface and its location in full view of the booths will secure it from unauthorized access, control, tampering, or disruption (including cabling). Cabling should be done via conduit.


LaneGard Server

The LaneGard server is a standard Intel based product that will be equipped with enough data storage to provide for 90 days of data storage at a minimum. Software on the unit will automatically purge data that is older than 90 days (configurable parameter). The data may be viewed on any PC that is connected to the host network and has the appropriate passwords.

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