

Airport

Dallmeier CCTV/IP solutions for airports

Modern video surveillance in airports requires flexible solutions which fulfil stringent quality and security demands: Distributed cameras, recording and transmission of video signals, live presentation, use of digital networks, intelligent picture processing, integration of audio channels and control as a video system via a higher-order (often already existing) building-management system.

Due to the layout of modern airports with numerous separate buildings and areas, the need arises for multi-area surveillance systems with the flexibility to set up secondary control centres as well, for example. Emergency scenarios and the integration of mobile control stations also play an important role (e.g. PDA).



Picture processing – Picture transmission – Picture storage

The Dallmeier product range offers the most modern solutions for the requirements of today's airports. By using the Digital Matrix and the numerous Intelligent Video Analysis Systems (from automatic number plate recognition to abandoned suitcases in the terminal area), solutions ensuring maximum security are created.

The Virtual Matrix from Dallmeier enables the transmission and recording of video and audio signals in broadcast quality via an Ethernet/IP network. Using this technology, which is based on the DIS devices, any number of cameras at an airport can be analysed, recorded and, if necessary, transmitted via the IP network. The implemented MPEG-2/4 compression enables camera pictures to be transmitted in real time and with the best possible quality and frame rate, even allowing convenient control of PTZ cameras. Recording also occurs in broadcast quality into a ring memory, which is automatically overwritten after a preset time has passed (e.g. 14 days).

Intelligent video analysis systems from Dallmeier are especially suitable for outdoor applications, e.g. for fence surveillance. They can analyse relevant video pictures and, for example, identify a person moving in a certain direction within a certain area as suspicious and alert the higher-order management system. The live picture is then switched to one of the surveillance monitors by the Virtual Matrix. The most modern algorithms, such as object classification, ensure that the false alarm rate from ambient environmental influences is minimised.



In addition, the DI-Detector is also available for use inside the terminal or in the baggage claim area. It enables amongst others the monitoring of static objects and can alert the central security office if, for example, a suitcase was set down in a critical area and left for a longer period of time.

In parking garages and near access points, the system enables identification of entering and exiting vehicles via automatic number plate recognition (NPR).

All Dallmeier devices can be integrated into the system network and enable simultaneous recording and playback of any connected camera via the time-shift method (Triplex mode). PTZ functions can be used. Additional functions, such as slow-motion playback, scalability of picture quality, numerous playback functions and integrated picture filters for improvement of picture quality (e.g. with noisy camera signals) show the range of capabilities of our devices and predestine them for use in airports.

Dallmeier provides a variety of management systems for control of all the devices, and also different interfaces for integration into an existing infrastructure.

Picture generation



The Dallmeier high-resolution colour video cameras with Cam_inPIX® technology fulfil all the requirements of modern camera technology and are especially well suited for use in highly complex video surveillance systems of airports, with their wide variety of operating conditions. In conjunction with Dallmeier picture transmission and recording technology, the operator is in control of a complete security system with the best components, fine-tuned to one another, from one source.

The cameras, which are especially distinguished by their Ultra Wide Dynamic Range, have an advantage over previously known methods in that they can show considerably more detail in shadowy and very bright areas of a picture simultaneously. When used with the software developed especially for the security field, cameras with Cam_inPIX® technology also provide clear, high-contrast pictures in every situation, even in very difficult lighting conditions when monitoring different areas of an airport and its grounds.

Cameras in the Cam_inPIX® series are attractive not only because of their outstanding picture quality, but also thanks to easy start-up and extreme user-friendliness. Their convenient factory presets offer optimum picture quality out of the box in almost any operating conditions. Subsequent changes to the presets or adaptation of individual parameters can be carried out with little effort directly via the video cable of a modern Dallmeier digital recorder or a PView station.

Due to their very large dynamic range, Dallmeier cameras are ideal for use in airport terminals, for example, in which a variety of lighting conditions (including direct sunlight) are found over the course of the day due to large-size glass facades. Difficult lighting conditions of this type are also dealt with on a continuous basis in the loading and unloading zones of freight terminals. At city-train stations, this newest generation of cameras also provides picture material which is highly suitable for secure surveillance of the platforms, even in backlit conditions.

In garage parking entrances and exits, Cam_inPIX® cameras combined with Dallmeier CCTV intelligent video analysis systems guarantee secure detection and monitoring of vehicle number plates, even with the headlights of a car switched on. Dallmeier video cameras are used with intelligent video-sensor technology in the field of outdoor security. Last, but not least, suspicious people and vehicles are reliably detected and the security control centre is alerted in any conceivable lighting conditions, even in rain, hail or snow, due to the excellent quality of the picture material generated.

Requirements:

- Implementation of a state-of-the-art video surveillance solution
- Flexible and scalable expandability and adaptation to future requirements
- Use of the most modern technologies available for networking, cameras and video technology
- Use of the most advanced algorithms for picture processing and event analysis based upon them (CCTV video analysis systems)
- Integration into the existing infrastructure