Beyond surveillance, network cameras as tools for advanced visual solutions

Canon’s camera expertise is leading to new value-added solutions

Based on the camera and camcorder technologies Canon has cultivated since its foundation, we produced our first cameras for security and surveillance in the mid-1990s. Less than two decades later, in 2013, in response to the rising demand worldwide for safety and security, we formally established our network camera business. 

Canon’s camera expertise is leading to new value-added solutions. In addition to expanding far beyond surveillance and surveillance, we are seeking to realize more advanced capabilities for network cameras and to develop new video analysis technologies for use in a wide range of fields.

Colaborative product development between Canon and Axis

Canon and Axis, featuring the same high-performance image sensor and image processor employed by Canon digital cameras, is an industry and market leader ever since. In 1996, Axis was the first company to develop network cameras for surveillance and has been an industry and market leader ever since. Its lineup includes such innovative products as modular cameras that can be installed inside ATMs and thermal cameras capable of capturing images in the dark by detecting heat radiation. An outstanding range of network image processing technologies enables Axis to offer smart security solutions in 179 countries and regions through approximately 90,000 partner companies.

In April 2017, Canon and Axis launched our first jointly developed interchangeable-lens network camera

The AXIS Q1659 interchangeable-lens network camera is the first product co-developed by Canon and Axis. Featuring the same high-performance image sensor and image processor employed by Canon digital cameras, this network camera is capable of capturing approximately 20-megapixel color video at 8 frames per second to support high-resolution surveillance applications. Seven different EF and EF-S interchangeable lenses, ranging from wide-angle to telephoto, developed for use on EOS-series cameras can be used to satisfy surveillance needs in such environments as city streets, the areas in and around airports and at crowded stadiums. Axis’s proprietary video-processing and image-compression technologies ensure that video surveillance operation is highly efficient. Through cooperation that leverages the respective strengths of Canon and Axis, our ongoing collaboration is expected to bring further advances in high-performance network cameras to the market.

Milestone software expands the capabilities of network cameras

Integrating Axis’s network image processing technology with Canon’s proprietary imaging technology is opening the door to new solutions. Canon and Axis are seeking to realize more advanced capabilities for network cameras and to develop new video analysis technologies for use in a wide range of fields.

Accurate, real-time search and tracking of individual targets

Canon is researching high-speed searching and tracking technology that traces a target person across a wide area, even as wide as a large city, using network camera imaging. This technology enables search by tracking not only using facial features, but clothing and other physical characteristics as clues, making identification possible even when the target’s face is hidden from the camera view. Utilizing videos from multiple cameras dispersed over a wide area, the system can trace the target in real-time and visually display the moving path on a map. Expectations are high for the use of this technology to search and track suspicious individuals in airports and commercial facilities and to search for lost children.

Network cameras that feature AI technology are becoming the eyes of the IoT

By coordinating multiple cameras, advanced network camera systems can monitor remote wide-spread areas as well as track a single moving subject across crowded spaces. To push these functions to the limit requires high-level video management software that provides centralized management of high-resolution images.

Denmark-based Milestone Systems, which joined the Canon Group in 2014, is the leading provider of open-platform video management software (VMS), which can perform centralized management of multiple videos on a server. Conducting business in 130 countries and regions worldwide, Milestone holds a top share in the VMS market.

Working together, Canon and Milestone are seeking to realize more advanced capabilities for network cameras and to develop new video analysis technologies for use in a wide range of fields.

Milestone’s image management software enables centralized management of video

The day is near when network cameras become an integral part of daily life, supporting a safe and secure future.