

Best Practice: Pan, Tilt, Zoom Cameras on Computer Algorithm



Category: Electronic Surveillance

Location First

Observed: Freeport, Bahamas

Date First

Observed: July, 2005

Description: The CCTV monitoring system employs a computer algorithm that continually moves multiple pan/tilt/zoom (PTZ) cameras in a pattern covering the range of each camera so the security specialist at the console can view the entire port area without manually moving each camera with a joystick.

Discussion: The port uses 42 cameras, many of which have PTZ capability. Rather than the security specialist monitoring the cameras having to manually move each PTZ camera one at a time, pre-programmed computer algorithms move several cameras at a time over the range of each camera, permitting the specialist to view far more area in the port at once. In the event the security officer notices something suspicious or of interest on any of the cameras, he can immediately over-ride the automatic pattern, and move any camera manually to pin-point any area in the camera's range. The security officer monitoring the system at this facility seemed to really like this feature, and feel it was effective.

Potential Down-side: Too many cameras, continuously moving, can be distracting to the guard monitoring the cameras, and can possibly cause him to miss something happening on one screen. This can be moderated by ensuring that a guard is not required to view too many camera images at one time, and / or adjusting the speed of the computer algorithm so the pictures don't move too quickly.

Conclusion: For facilities that can afford this technology, the use of CCTV with PTZ and an auto-tracking algorithm can significantly improve the electronic monitoring of a facility.

Cost: This is an option that would have to be purchased with a CCTV system and multiplexer, and costs will vary widely depending on the system purchased.