

Brief:
Active Attention
Monitoring for
Multi-Screen
Security

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Introduction

This document will briefly describe VizKinect's patented technology that can provide organizations with a simple and cost effective solution to enhance security monitoring and operations where multiple screens need to be monitored.

I. The Challenge

Increased levels of exposure are occurring at every level of secured facilities. Outside intruders, inside risks and professional fatigue contribute to a higher level of threat exposure than ever before. From school district hall monitoring to maximum security prison management there are challenges that need to be met. Far too many institutions have out dated equipment designed to meet yesterday's threats and do not have the financial resources to replace that equipment.

If you study this picture the problem is obvious – there is potential for constant activity



across 16 monitors. How can only two security guards hope to assess and identify every critical element in each of the 16 screens? How can they hope to see the subtle trends that portent something problematic or catastrophic?

They cannot hope to monitor and anticipate

every potential problem because they cannot effectively monitor each screen with the same degree of accuracy that one guard with one screen can manifest. And yet the economics of most security operations will not allow assignment of 16 guards.

In smaller environments where one person is on guard, and not professionally trained, how will that individual keep a keen eye on every event and monitor every minute of the day? It is not possible and that is why the VizKinect **Active Attention Monitoring System** was developed. Vigilant during the day and every bit as vigilant at night, our cost effective device augments the individual and enhances the technology of most systems.

The conventional methodology is to videotape all areas and rely on replaying these tapes following an event. The need for an immediate and rapid response to an event calls for a system that provides real-time alerts to the individual on duty. In an environment in which there is often low activity on the monitors, boredom can easily become a factor and boredom presents a significant challenge for effective monitoring. While replaying videotapes one or more times can assist in ascertaining what just happened it does not assist in the primary directive of most institutions, which is to stop the problem before it starts.

II. About VizKinect

VizKinect has a different view of attention monitoring and offers a solution that is a low cost, retrofitable monitoring device. VizKinect monitors multiple displays, activates an alarm if attention is required on a particular screen, sends a wireless alert to designated mobile devices, and then, if necessary, escalates customized reports, alarms and conditions to a control center.

III. Attention Monitoring

VizKinect recognizes the immense challenge for security guards when asked to monitor a wall of monitors. Using VizKinect's eye-tracking analysis with C.I.R.C.L.E.S.™ technology, a secured facility can incorporate the Active Attention Monitoring System (AAMS) which will validate whether or not the security guards are focusing their attention at the monitor when critical action is occurring.

Our solution is simple and the advantages are obvious. We monitor the video feeds, we identify significant changes using client defined parameters (as illustrated in image to the right), and then we ensure the guard sees the event. We alert the guard that something has changed and direct him/her to look at a specific monitor. Once we have the guard's attention, we replay the change that was detected, while continuing to capture the live video feed so that no coverage is lost.



Diverting the sentinel's attention is no longer a problem as we direct the guard to look at video displays where potential problem activities might be occurring. Assessing the

problem is still the professional’s primary requirement, but we make sure that while he or she is assessing the potential problem on any particular screen that nothing is missed in any of the other screens.

This is **particularly** important, if full-time security personnel are not assigned, as in the case of many of our schools. If the designated security person is off-site patrolling the grounds or facility or attending to their primary responsibility, then we can send **an alert** to the designated individual via wireless device, that something has occurred in one of the areas of monitoring and we can allow them to access our system where they can see the event replayed.

As shown in the image to the right, VizKinect can provide very simple features that can **be** easily deployed for new installation or **to** integrate into existing security systems. VizKinect features include:



- Display of all real-time camera feeds (See the four (4) camera feeds shown above)
- Logging of all events, as defined by the client. (See the list of events on the left side of the screen shot above) Can be archived by location, date, feed and time.
- Ability to record videos associated with the event, without interrupting on-going continuous live feeds.
- An intuitive seek bar that allows the designated security personnel to quickly jump to any point in an event and to string multiple events together even if they are coming from different video sources.
- Ability to view any recorded event with standard Stop, Pause, Rewind, Delete, or Forward capabilities.
- Scheduling for week, month or year with a 24 hour axis.
- The ability to custom configure event parameters including motion, facial coding, or time and place filtering.
- System can integrate into CCTV systems with our software changes or can offer additional camera sensitivity to augment existing systems and can **also** be used as a low cost stand-alone system
- **The AAMS offers the** smallest footprint on the market with no PC requirement

Our Active Attention Monitoring System operates independently, and we do not denigrate the integrity of an existing system nor require integration into existing software. We offer a variety of monitoring and control options, such as object and facial recognition and threat gestures, beyond the central security station that may require a systematic or in depth review. Whatever your current security system is and regardless of your budget VizKinect's Active Attention Monitoring System can provide a heightened level of assurance and peace of mind to your facility

IV. Other Value Based Analyses Available from VizKinect

VizKinect has developed patent-pending technology and has been validated in several other market areas, including:

- Active Attention System application in Security, Safety, Medical, Transportation, Heavy Machinery, Mining, and other industrial environments
- TV Commercial, Website Usability, and Mobile Media Ad Analysis
- Product Placement Analysis (Motion Picture, Television Programming)
- Print Analysis (Magazine, Newspaper, Mailer)
- Outdoor Analysis (Billboard, Bus Stop, Mall Signage)
- Expert Training Video Production/Analysis for Trainees in high performance areas
- Legal Animation Video Production/Analysis
- Biosensor Analysis (Neural Optical, Pulse Rate: Panelist reaction to visual content)

V. Conclusion

All of us have an enormous responsibility to ensure people and assets are protected and facilities are secure. VizKinect offers a monitoring system that is easy to install, will not interfere with normal security operations, and will provide a safety measure to alert responsible personnel, wherever they might be, when unexpected events occurs and give them real time alternatives to reporting and managing those events

VizKinect is eager to explore working with organizations where security is required. We encourage you to try us out and see the difference we can offer.