



## Agent Vi Enhances Security and Safety at Montreal's Convention Center

**Product:**

Vi-System – Real-Time Video Analytics

**Application:**

Security &amp; Safety

**Customer:** Palais des congrès de Montréal  
(Convention Center)**Location:** Montreal, Canada**Vertical Market:** Entertainment & Hospitality**Agent Vi Partners:**

Axis Communications – Encoders

Genetec – Video Management Software (VMS)

SimplexGrinnell – Systems Integrator

## Challenge

The Palais des congrès de Montréal (convention center) is an exceptional venue in downtown Montreal that boasts a unique architectural facade of rainbow colored glass panels. A public institution with a commercial vocation, the Palais generates important economic and intellectual spin-offs for Quebec and contributes to enhancing Montreal's international reputation as a first-class destination.

Since it opened in 1983, the Palais des congrès has hosted more than 4,300 events and 12.6 million visitors. With buildings covering 1.4 million square feet, and a mission of attracting and hosting conventions, exhibitions, trade shows, conferences and other events, security and safety are major factors to consider. The Palais des congrès therefore sought a solution to protect the facilities as well as provide a safe and secure environment for the guests at the multiple events occurring simultaneously at this vast site.

## Solution

After receiving recommendations for Agent Vi from other sites of similar size and purpose, the Palais des congrès chose Vi-System – Agent Vi's real-time video analytics solution. The site has 125 analog cameras, including both fixed and PTZ (pan-tilt-zoom) cameras. Of these, 76 cameras were enabled with analytics capabilities by connecting them to Axis video encoders, which transform the analog video signal into digital video stream. Vi-System was installed by embedding the Vi-Agent component in the AXIS Q7406 Video Encoder Blades.

Agent Vi's distributed analytics architecture – which splits the video analysis between the encoder (via the Vi-Agent component) and the server – enabled the use of a single analytics server to handle all 76 cameras.

*“With over 400 events annually, we face risks and physical security threats to our building and guests on a daily basis. We looked for a solution that would allow us to increase our level of security and safety without employing additional security staff. We chose Vi-System to automate the task of monitoring our surveillance system and this has dramatically improved our response rate, allowing us to act rapidly as the incident unfolds.”*

**Associate Director of Security  
& Building Services**  
Palais des congrès

The following real-time detection rules are active on the site's cameras:

- **Person crossing a line** to detect and alert to directional motion which is against the traffic flow;
- **Person moving in an area** to detect and alert to presence of persons in restricted areas which are not open to the public;
- **Loitering** to detect suspicious activity in sensitive areas;
- **Suspicious Object** to detect unattended objects in specific zones;
- **Tailgating** to detect unauthorized vehicles entering / exiting the car park by following an authorized vehicle through a secured entry / exit point;
- **Count People** to detect and tally the number of people entering and exiting each of the exhibition / event halls and foyers.

The Palais des congrès employs Genetec Omnicast 4.7 as their VMS recording and viewing application, which is fully integrated with Agent Vi's software. Real-time events are transmitted to Genetec Omnicast and associated with user-defined custom events.

## Result

The deployment of Vi-System has helped the Palais des congrès to overcome multiple security and safety challenges. Indeed, the security team now has much greater awareness and enhanced ability to respond to concerns and incidents, providing a more secure environment for guests and staff alike.



Vi-System generates real-time alerts when there is suspicious behavior like an unauthorized entry or an unattended object, enabling the guards to respond immediately

For example, certain doors are used for guests entering the building, and other doors are used for guests exiting, and in the past, the only way to determine if there was unauthorized entry was to post a security guard at the doors. With the installation of Vi-System, an alert is generated for every instance of a person entering through the doors designated for exiting, and the security guards then determine how to respond.

Similarly, Vi-System alerts to persons being in areas that are off-limits. Guards respond to the alerts received in the monitoring room by reviewing the footage and deciding what actions to take, depending on the level of threat they ascertain from the video footage.

For areas that have been determined to be particularly sensitive and vulnerable, Vi-System has been configured to detect loitering. If there is an individual, or a group of people, that has been present in an area for longer than the user-defined period of time, an alert is generated to notify the security staff. This way, the security guards pick up suspicious behavior before it progresses to more serious security threats and incidents.

*“Vi-System is the right solution for this expansive site. It is easy to deploy, requires minimal amount of time spent tweaking the analytics, and can perform high-level analytics on a large number of cameras from a single server.” He added that “Agent Vi’s products integrate seamlessly with our best-of-breed solution comprised of Axis video encoders and Genetec’s recording software.”*

**Integrated Systems Sales  
Representative  
SimplexGrinnell**

Suspicious objects left in main foyers and stairwells are also a major challenge, with security staff wanting to know about left objects as quickly as possible so as to prevent potential tragedy. Vi-System provides accurate detection of static objects that have been left unattended, allowing staff to take control of such situations immediately.

Another concern is the entry of unauthorized vehicles into the car park. This occurs when an authorized vehicle (that has an access card) is followed by another vehicle into the car park. Vi-System detects such instances of tailgating and sends an alert, allowing the guards to investigate immediately.

Furthermore, Vi-System enables critical people-counting capabilities, which allows the security team at the Palais des congrès to know if maximum room capacity has been reached. Each of the convention center halls has different room capacities depending on the hall size, and it is important that these levels are not breached to ensure the highest level of safety for guests. Rather than appointing a staff member with a manual counter at each entrance and exit, Vi-System automates the counting and delivers real-time figures regarding the number of people in a defined area at any one time.



**Vi-System undertakes automated people-counting which helps the security team to manage crowds and know when maximum room capacity has been reached**

Robert Charron, Associate Director of Security & Building Services at the Palais des congrès, said that “With over 400 events annually, we face risks and physical security threats to our building and guests on a daily basis. We looked for a solution that would allow us to increase our level of security and safety without employing additional security staff. We chose Vi-System to automate the task of monitoring our surveillance system and this has dramatically improved our response rate, allowing us to act rapidly as the incident unfolds.”

Christian Beaudin from SimplexGrinnell who serves as the Systems Integrator for the project, stated that “Vi-System is the right solution for this expansive site. It is easy to deploy, requires minimal amount of time spent tweaking the analytics, and can perform high-level analytics on a large number of cameras from a single server.” He added that “Agent Vi’s products integrate seamlessly with our best-of-breed solution comprised of Axis video encoders and Genetec’s recording software.”

## About Agent Vi

Agent Video Intelligence (Agent Vi) is a leading provider of open architecture, video analytics software deployed in a variety of security, safety and business intelligence applications worldwide. The comprehensive video analytics solutions offered by Agent Vi extend from real-time video analysis and alerts to forensic search and post-event analysis, and are fully integrated with a range of third party edge devices and video management systems.

Integrating Agent Vi’s advanced video analytics capabilities into existing or new surveillance networks enables users to benefit from the true potential of their surveillance networks, transforming them into intelligent tools that respond to the practical challenges of the 21st century.

## About Vi-System

Vi-System is Agent Vi’s real-time video analytics software, which transforms standard surveillance networks into intelligent and effective detection and alert systems.

By performing real-time analysis of the video stream, Vi-System identifies and generates alerts for a variety of user-defined events relating to people, vehicles and objects. Used for applications such as security, safety and business intelligence, Vi-System offers effective monitoring of multiple video sources in parallel, enabling automatic detections, alerts and responses to events, as they emerge.

Based on Agent Vi’s open architecture, pure-software approach, Vi-System can be easily integrated with a wide range of edge devices and video management systems, in both new and existing surveillance networks.

Vi-System boasts the combined benefits of superior detection performance, high scalability, installation simplicity and ease of use, making Vi-System the most advanced, comprehensive and cost effective real-time video analytics solution on the market.