

#### Background

The Denver Museum of Nature & Science is the premier sponsor of informative and popular science exhibitions in the Rocky Mountains.

Popular exhibits, however, can translate into long lines and extended wait times for visitors. In an effort to improve the visitor experience, the museum sought a system to manage visitor traffic and reduce the wait times into the highly attended *Expedition Health* exhibit.

The museum came to Alvarado for expert advice and a solution.



#### Challenge

The museum originally tried using overhead counting equipment. The overhead system, however, didn't count accurately and couldn't process data fast enough to provide real time occupancy totals.

The museum wanted: (1) to accurately count the visitors entering and leaving the exhibit; (2) track in-exhibit visitor totals in real time; and (3) provide its staff a mechanism to monitor the exhibit occupancy level.

“The existing overhead counters were too slow. The museum was looking for a solution that gave instant visitor counts. We turned to Alvarado as the expert on people counting solutions.”

- Steve Lemon  
Senior Project Manager  
Siemens Building Technologies

#### Solution

After reviewing the project requirements with the museum and the local integrator, Siemens Building Technologies, Alvarado proposed the installation of its Supervisor 500 barrier free optical counting lanes at exhibit entry and exit points, and the use of its GateWatch patron counting software.

The Supervisor 500 lanes would accurately count visitors and instantaneously transmit the count data to the GateWatch software. Current in-exhibit totals would be displayed on a numeric LED display easily visible to museum staff.



corporate entry control | queuing/public entry | asset protection | entertainment venue solutions

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### The Alvarado Advantage

Alvarado's highly reliable equipment and software provides instant real time visitor counts. The software maintains all historic data and includes a number of reports which assist customers in evaluating traffic flow patterns. GateWatch's SQL database also allows customers to easily pull and combine visitor count data with information from other systems to help users perform data analysis.

Alvarado has been providing patron counting systems for nearly 20 years. Its systems and software are installed in hundreds of locations throughout the world. Prominent installations include the majority of major league baseball stadiums, the St. Louis and Columbus Zoos, Universal Studios, dozens of casinos and the largest stadiums in Australia and New Zealand.

Alvarado also has a vehicle counting system which is installed at such facilities as Harrah's casino in St. Louis and at the largest parking garage in North America.

“ The installation went great and we are accurately counting visitors in real time. The museum loves the solution Alvarado was able to provide! ”

- Gannon Kashiwa  
Director of Digital Media  
Denver Museum

### Impact

The Denver Museum now knows how many visitors are in the *Expedition Health* exhibit at all times. Instead of guessing at exhibit occupancy levels, museum staff can accurately determine current attendance simply by looking at an LED wall display. This ensures compliance with local codes and allows systematic crowd management for an improved visitor experience.

The solutions provided by Alvarado have improved museum operations. Alvarado's GateWatch system provides the museum with the ability to statistically analyze staffing and traffic flow patterns. Improved capacity controls alleviate overcrowded exhibitions, provide a better visitor experience and give the museum an important management tool.



The Supervisor 500 optical counting lanes provide accurate visitor counts instantly.

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