

VCA Technology Video Analytics helps shield Glasgow Museums' exhibits

William Herbert, 1st Earl of Pembroke would no doubt be impressed that a unique set of armour made over 460 years ago for him and his horse, is being watched over by security cameras equipped with VCA Technology Video Analytics, at Glasgow's Kelvingrove Art Gallery and Museum.

Despite the fact that the priceless exhibit is the only known surviving set of armour of its kind, the Museum's curator has been determined to allow visitors to have an unobstructed view of the highly impressive artefact.

With the risk of unintentional damage being caused by visitors getting too close to the exhibit in their enthusiasm to have a close up view of the magnificent workmanship carried out by 16th Century craftsmen, the Museum has put its trust in the detection capabilities of VCA Technology Video Analytics software, to alert security personnel to the danger.

The VCA Technology Video Analytics software has been configured to analyse the images captured by ceiling mounted dome cameras which are constantly monitoring the exhibit. An alarm is generated the moment anyone strays into a pre-defined detection zone, allowing security personnel to quickly respond by guiding the visitor to a safer distance away from the exhibit.

This solution is just one of a number of projects carried out by Glasgow based Visual Management Systems Ltd (VMS) for Glasgow Museums, where VCA Technology Video Analytics software has been applied.



Study
Case

The Challenge

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This solution is just one of a number of projects carried out by Glasgow based Visual Management Systems Ltd (VMS) for Glasgow Museums, where VCA Technology Video Analytics software has been applied.

VMS have provided an IP network based video surveillance system which utilises 200 cameras to monitor activity across all of the Glasgow Museum buildings. Security personnel are able to control and monitor live or recorded images captured by all the cameras via VMS' proprietary Titan Vision video management software platform which also acts as an integrated security management platform to provide visibility and control over a variety of other systems, including intruder and fire detection, HVAC and access control systems.



"In addition to helping protect the 1st Earl of Pembroke's suit of armour, the VCA Technology Video Analytics has assisted us to provide Glasgow Museums with a security solution which has generated cost savings of more than £500,000 a year, whilst equipping security personnel with a powerful tool to react quickly to any security incident," said Graeme Anderson, Regional Business Manager of VMS. "At some of the buildings we have installed new cameras which incorporate the software, but we have also been able to upgrade existing camera capabilities where necessary, by linking them to VCA Technology encoders."

At some of the Glasgow Museum buildings, such as the Riverside Transport Museum and the Burrell Collection, VCA Technology Video Analytics has been deployed as a highly reliable method of simultaneously accurately counting the number of visitors that stream through a large number of entrances. The statistical data gathered by the software, which can be configured to distinguish between adults and children, is used in support of Glasgow Museum's funding applications. The data can also be used to reduce costs by identifying busy and quiet periods so that staff are efficiently deployed.

At other sites the software is being utilised to detect any unauthorised movement of exhibits as an early indicator that a theft may be taking place. From a potential terrorist activity point of view, it offers a feature which creates an alert if an item, such as a briefcase, is left unattended and is not moved for a defined period of time.

VMS have also taken advantage of VCA Technology Video Analytics' intruder detection capabilities to enhance Glasgow Museums' sophisticated out of hours detection system.

VCA Technology Video Analytics operates effectively with both indoor and outdoor cameras. The software can be used for a wide range of applications including intrusion detection, vehicle monitoring, abandoned object detection and loitering detection. It can even detect camera tampering and failure. The software can also be used to ensure Health and Safety compliance and is capable of identifying potentially dangerous situations before they occur. Operators can be alerted, for example, when fire escapes are obstructed or when items are left in walkways.

Multiple overlapping detection lines and zones can be designated to ensure that only specific activity is recorded. Direction of movement is defined so that the software only triggers when individuals or objects move in a particular direction across a zone, or when they move into a zone but not when they leave it. A rapid 'learning time' of just two seconds means that images are detected and classified almost instantaneously.

Success

"We found that the VCA Technology Video Analytics software was very easy to configure to match each of the building's requirements," said Graeme Anderson. "Equally important, Glasgow Museums' control room operators, security personnel and facility managers have found that with very little training they can take full advantage of the highly valuable data collectively provided by the VCA Technology software and our Titan Vision video management platform."

Glasgow Museums is the UK's largest local authority museum service with a collection of 1.2 million objects of national and international interest which are valued at over £400 million. The collection is curated in 13 different buildings most of which are themselves of outstanding significance. In addition to the Kelvingrove Art Gallery and Museum, the estate also includes the Glasgow Museums Resource Centre which is a 6,000 square metre environmentally controlled storage facility and visitor centre, and the Burrell Collection which can claim to be the UK's largest collection created by a single person. The estate receives approximately 2.6 million visitors every year.

For further information about VCA Technology video analytics:

Email: info@vcatechnology.com

Visit: www.vcatechnology.com

