



VCA

As video security is continuously evolving, Arteco presents **VCA**: the video analysis suite that brings the Extreme or uSee licenses to the most advanced level of intelligence. It automatically **pulls meaningful and relevant information from video streams** to detect people, objects and their surroundings, while continuously analyzing them, their movements and behavior.

Based on pattern analysis and machine intelligence, VCA algorithms can improve the efficiency of security systems, reduce costs of management and decrease risk margins with the prospect of further developments on the horizon.

The VCA suite is a stand-alone application that must be installed on a dedicated workstation with Windows based OS.

HOW IT WORKS

VCA processes video, **identifies objects in the video footage** (people, vehicles, and other items), and indexes them so that footage can be easily and quickly browsed and analyzed for different purposes:

- 1) to conduct **post-event investigation and forensics searches**
- 2) to enhance security **situational awareness** in real-time.

DEEP LEARNING

VCA technology is rooted in the Deep Learning machines learning model in which neural networks are being trained to extract patterns from massive amounts of data. As a result, the video analytics software is able to process video streams and contemporarily detect and classify every object that appears on screen.

VCA is equipped with two Deep Learning engines, one that performs the object detection (DL Object tracker) while the other performs exclusively the people detection function (DL People tracker).

The DL Object Tracker allows the automatic classification of the following objects in the scene:

- People
- Car
- Forklift
- Van
- Bus
- Truck
- Motorcycle
- Bicycle
- Bag

The DL People Tracker allows the automatic classification of people present in the scene, therefore it is particularly suitable in the following cases:

- Presence detection
- People Counting

ANALYTICS	
Tamper	Tampering detection, lack of video signal
Rules and Algorithms	Presence, Enter, Exit, Appear, Disappear, Stop, Dwell, Direction, Count, Abandoned object, Color filter, Speed filter, Tailgating, Repeatedly, AND/OR/NOT logical rules
Deep Learning Object tracker	Automatic detection and classification of 8 object classes.
Deep Learning People tracker	Automatic detection and classification of people and faces.

Minimum system and camera requirements

OS	Windows 10
CPU	Intel i3 generation 8 or latest, or Intel Xeon E series
RAM	8GB or higher
GPU	NVIDIA Cuda series
Network	Ethernet, 1 Gigabit
HDD Space	1TB HDD
Arteco VMS Version	10.0 or higher
Encoder video stream	H.264, H.265
Resolution	320*240
Framerate	10 fps

Recommended system and camera requirements

OS	Windows 10
CPU	Intel i7 or i9 generation 8 or latest, or Intel Xeon W series or higher
RAM	16 GB or higher
GPU	NVIDIA Cuda series
Network	Ethernet, 1 Gigabit
HDD Space	1TB HDD
Arteco VMS Version	10.0 or higher
Encoder video stream	H.264, H.265
Resolution	480P [Max 720p]
Framerate	15 fps