VICON

Introducing Vicon's New Suite of AI-Based Analytics

Vicon's enhanced lineup of Roughneck® AI Cameras and our latest VMS release—Valerus 23.1—combine to deliver powerful object classification, tracking, recording, and forensic searching.

AI
ANALYTICS INSIDE

Overview

Vicon's AI-based analytics intelligently identify people and vehicles to help you perform more meaningful searches in Valerus and diminish those nuisance alarms triggered by irrelevant motion. This tight integration between our new cameras and Valerus further enhances Vicon's established position as an end-to-end solutions provider.

Come see our new AI-based analytics solution in action at ISC West (Booth #5081); we'll show you first-hand how these analytics can make object classification work for you.
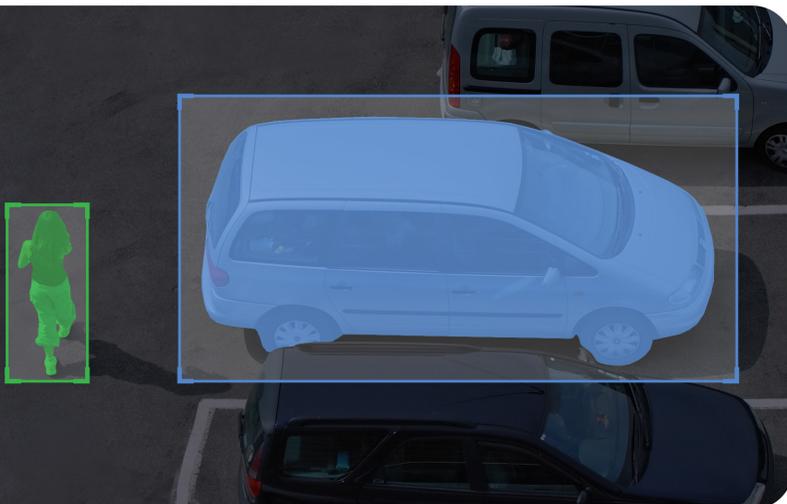
Benefits at-a-Glance

▸ **More Efficient Searches**
Filter out non-relevant video in post-incident searches so you can find the info you need faster and easier.

▸ **Real Time, Meaningful Alarms**
Be instantaneously notified about events that are important to you, like people or vehicles in a restricted area, without being distracted by meaningless nuisance alarms.

▸ **Edge-Based Analytics**
Our analytics reside on the camera, which allows you to be more efficient with your server resources, ultimately saving you money.

▸ **Plug-and-Play (No Setup Required)**
Connect your Roughneck AI camera to Valerus 23.1, and you're ready to go; no setup required on the camera in order to send/receive metadata, or perform object-based recording and Museum Search.

▸ **Available to All Valerus 23.1 Users**
Both the Valerus PRO and Valerus ENTERPRISE tiers leverage the new AI-based analytics when used in conjunction with Vicon's Roughneck AI Cameras.

Introducing Our New AI-based Analytics Cameras: the Roughneck AI Series

Vicon's Roughneck AI Cameras—with impressive features like advanced analytics, adaptive IR, Starlight low-light technology, and -40° operating temps—**now include built-in AI-based analytics**. These analytics allow all Roughneck AI cameras to distinguish people and vehicles from other objects in a scene. This is referred to as "object classification," and the camera's ability to classify those objects (people and vehicles) enables object-based recording (where Valerus records only when the camera detects one of those objects in a scene). Object-based recording via Valerus, and the ability to filter out "environmental noise" that can trigger a motion alarm (e.g., shadows, swaying trees and bushes, etc.), significantly increases operational efficiencies. The result?

Filter out non-relevant video for faster incident resolution

Diminish nuisance alarms that are often triggered by non-relevant motion

Reduce storage requirements (by limiting recording to just object-based motion)

Respond to genuine threats quicker, and with fewer resources

Filter Out Non-Relevant Video In Post-Incident Searches. With the release of Valerus 23.1, you can leverage its new AI filters in two ways:

Museum Search

You can apply object classification filters to your search, and limit your results to just people and/or vehicles, as opposed to "motion in general." This delivers more meaningful search results, and reduces the amount of non-relevant video you have to watch.

Event/Alarm Search

Search for events triggered by the object (i.e., people or vehicle) you specified in your camera. For example, if you indicated on the camera that you only want to see when people (as opposed to cars or other objects) enter a specific area, your search results will only include events triggered by people.

Museum Search Scenario: Vehicle break-in in the parking lot during normal business hours (8AM – 5PM). You use Museum Search to find the event based on the parking space.

Without Object Classification	With Object Classification
Found: 28 events	**Found:** 5 events
Events Include: • Shadows passing over region • Vehicles passing between camera and region • Swaying bushes behind region • Other people passing by region • The incident in question	Events Include: • Non-relevant people passing by region • The incident in question
Est. Time to Review: **10 minutes**	Est. Time to Review: **2 minutes**

(Assumes about 20 seconds to load and review of each clip)

▶ Click play to see how the AI filters in Valerus 23.1 eliminate non-relevant video so you can find what you need easier and faster.

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Be Notified—In Real-Time—About Events that are Important to You

These new object classification analytics combine with our current suite of analytics to trigger real-time, meaningful alarms. It's more than just a motion detection alarm; it's motion triggered specifically by a person and/or vehicle.

Because the camera is only looking for events involving people and/or vehicles, you will not be inundated with those nuisance alarms commonly triggered by fast moving shadows, trees swaying, and other environmental distractions that can activate a motion-based alarm.

Live monitoring becomes easier, allowing you to manage more cameras.

Make Object-Based Classification Work for You

Here are some use cases for you to consider, whether you're performing
live monitoring or forensic searches.

Video Analytics	Object Classification	
	Show Me People	Show Me Vehicles
Motion Detection The camera detects motion within a specific area	A car was stolen from my parking lot. I want to know about instances of a person approaching the area around the car when it was in my lot, but I don't want to be distracted by non-relevant movement from shadows, trees, and other cars driving by.	I want to see every time a vehicle pulls into our loading dock area, but I don't need to know about the dozens of people who pass by that area each day, or be distracted by the shadows, passing clouds, and blowing tree branches that can trigger motion detection.
Intrusion The camera detects when an object is in a certain area, including stationary objects	We've been having issues with people breaking into our construction area after hours and vandalizing the site. I want to know about instances of people being onsite at night, but I don't need to know about the tons of construction equipment that's also there.	My facility's parking garage closes at 8PM, and we've been having issues with cars being parked there overnight. I want to know about instances of vehicles still parked in the garage after closing time.
Loitering The camera detects when an object remains in an area for too long	We've been having issues with catalytic converters being stolen from cars in our long-term lot. I want to know when people are lingering in the lot for longer than five minutes, but I don't need to know about all of the stationary vehicles in that lot.	I want to know about instances of a vehicle stopped at an entrance gate but not proceeding through that gate. This could be indicative of a non-registered visitor waiting for a valid badge holder to come grant them entrance to our secured facility.
Line Cross The camera detects when an object crosses over a defined line, including "wrong way" crossing	Our highly-trafficked main gate has vehicles coming and going all day and night, but pedestrians on foot are strictly prohibited from using that entrance/exit. I want to know when a person crossed that line, but I don't need to know about the thousands of daily vehicle crossings.	We're trying to crack down on vehicles who exit through the entrance-only ingress of our garage. I want to know when a car is going the wrong way out an entrance.
Tailgating / Piggybacking The camera detects when an object follows closely behind an authorized entrant in an attempt to avoid showing credentials	We're trying to keep track of how many deliveries we're getting through our loading dock door on a daily basis. I want to know each time a person goes through that door, but I don't want my camera to pick up instances of an accompanying handcart, which can often be misidentified as tailgating.	We've been having an issue with vehicular tailgating at our facilities entrance. I want to know when a car or truck tailgates, but I don't need to know about instances of a person coming in on foot behind that vehicle.
Crowding The camera detects when the maximum number of objects in an area has been exceeded	There should never be more than two occupants in a prison cell at a given time. I want to know about instances where there are three or more people in a cell at the same time, without being distracted by other anomalies that could be identified as a person (e.g., a shadow, reflection, etc.).	We have a small parking area—12 spots total—dedicated for patients only (but we also have a remote lot that we can open if necessary). I want to know whenever there are more than 12 vehicles in our patients' lot, but I don't want people to be included in that count.

Save Money and Be More Efficient with Your Server Resources

There are a number of benefits to edge-based analytics and object classification recording.

- The analytics are performed on the camera, so there's no need for additional costly processing hardware.

- Sending less video over the network minimizes the network load and reduces storage requirements.

- Perform continuous recording in low-res (e.g., 720p) and then switch to hi-res (e.g., 4K) when object-based motion (person and/or vehicle) is detected. This way, recording is always available but doesn't put unnecessary strain on your storage and bandwidth requirements.

Roughneck AI Series Model Numbers

- The Roughneck AI model numbers and product codes are identical to those of the former Roughneck Pro series.
- There are new 8-18mm lens options for the Roughneck AI Domes and Roughneck AI Bullets.

Model	Product Code	Description
Roughneck AI Domes		
V2005D-W313MIR	10553-10	OUTDOOR VANDAL DOME STARLIGHT CAMERA; 5 MP; true WDR; 3.1-10 mm motorized varifocal lens; IR; advanced analytics; NDAA/GSA/TAA compliant
NEW V2005D-W818MIR	10575-00	OUTDOOR VANDAL DOME STARLIGHT CAMERA; 5 MP; true WDR; 8-18 mm motorized varifocal lens; IR; advanced analytics; NDAA/GSA/TAA compliant
V2008D-W310MIR	10553-15	OUTDOOR VANDAL DOME STARLIGHT CAMERA; 8 MP; true WDR; 3.6-10 mm motorized varifocal lens; IR; advanced analytics; NDAA/GSA/TAA compliant
NEW V2008D-W818MIR	10575-10	OUTDOOR VANDAL DOME STARLIGHT CAMERA; 8 MP; true WDR; 8-18 mm motorized varifocal lens; IR; advanced analytics; NDAA/GSA/TAA compliant
Roughneck AI Micro-Domes		
V2005D-W28IR	10555-05	OUTDOOR MICRO DOME STARLIGHT CAMERA; 5 MP; true WDR; 2.8 mm fixed lens; IR; advanced analytics; NDAA/GSA/TAA compliant
Roughneck AI Panoramic Domes		
V2360W-12-1	10559-05	OUTDOOR PANORAMIC CAMERA; 12 MP; true WDR; fisheye 1.5 mm fixed lens; IR; built-in microphone; NDAA/GSA/TAA compliant
Roughneck AI Multi-Sensors		
V2020-WIR-360	10517-20	MULTI-SENSOR STARLIGHT CAMERA; 20 MP; 360° coverage; four 5 MP image sensors; smart IR; four motorized 3.1-10 mm lenses; H.264/H.265; true WDR; provides remote positioning and presets; includes mounting cap; NDAA-compliant
V2032-WIR-360	10517-25	MULTI-SENSOR STARLIGHT CAMERA; 32 MP; 360° coverage; four 8 MP image sensors; smart IR; four motorized 3.6-10 mm lenses; H.264/H.265; true WDR; provides remote positioning and presets; includes mounting cap; NDAA-compliant
Roughneck AI PTZs		
V2005D-PTZ	10561-10	5 MP PTZ DOME STARLIGHT CAMERA; vandal-proof IP66, integral 1/2.8" day/night camera with 5.2-148 mm 30X zoom lens; NDAA/GSA/TAA compliant
Roughneck AI Bullets		
V2005B-W313MIR	10554-10	OUTDOOR VANDAL BULLET STARLIGHT CAMERA; 5 MP; true WDR; 3.1-10 mm motorized varifocal lens; IR; advanced analytics; NDAA/GSA/TAA compliant
NEW V2005B-W818MIR	10576-00	OUTDOOR VANDAL BULLET STARLIGHT CAMERA; 5 MP; true WDR; 8-18 mm motorized varifocal lens; IR; advanced analytics; NDAA/GSA/TAA compliant
V2008B-W310MIR	10554-15	OUTDOOR VANDAL BULLET STARLIGHT CAMERA; 8 MP; true WDR; 3.6-10 mm motorized varifocal lens; IR; advanced analytics; NDAA/GSA/TAA compliant
NEW V2008B-W818MIR	10576-10	OUTDOOR VANDAL BULLET STARLIGHT CAMERA; 8 MP; true WDR; 8-18 mm motorized varifocal lens; IR; advanced analytics; NDAA/GSA/TAA compliant
Roughneck AI Box		
V2008-W-NL	10556-00	BOX CAMERA; 8 MP; true WDR; CS/i-CS lens mount; advanced analytics; NDAA/GSA/TAA compliant

V-CELL and Corner Camera Model Numbers

Model	Product Code	Description
Roughneck AI V-CELL High Security Camera		
V-CELL-HD-C	10578-00	Roughneck AI C-CELL High Security Corner Camera; 5 MP day/night; 2.4 mm fixed lens, true WDR; 940 nm IR; mic/speaker; stainless steel housing; NDAA/GSA/TAA compliant
V-CELL-HD-CMOD	10578-10	Roughneck AI C-CELL Camera Module (retrofits into existing V-CELL housing); 5 MP day/night; 2.4 mm fixed lens, true WDR; 940 nm IR; mic/speaker; NDAA/GSA/TAA compliant
Roughneck AI Corner Camera		
V-CELL-HD-C	10579-00	Roughneck AI Corner Camera; 5 MP day/night; 2.4 mm fixed lens, true WDR; 940 nm IR; mic/speaker; aluminum housing; NDAA/GSA/TAA compliant

Vicon is taking orders for these new AI-based analytics today, and they will begin shipping at the end of the month. If you would like to participate in early testing of these analytics, please reach out to your Vicon Regional Sales Manager.

Click the link or visit vicon-security.com to upgrade your system today.
Or contact your regional sales representative to request a free demo.