CVEDIA

AI Analytics Plugin For VMS

Designed for diverse applications

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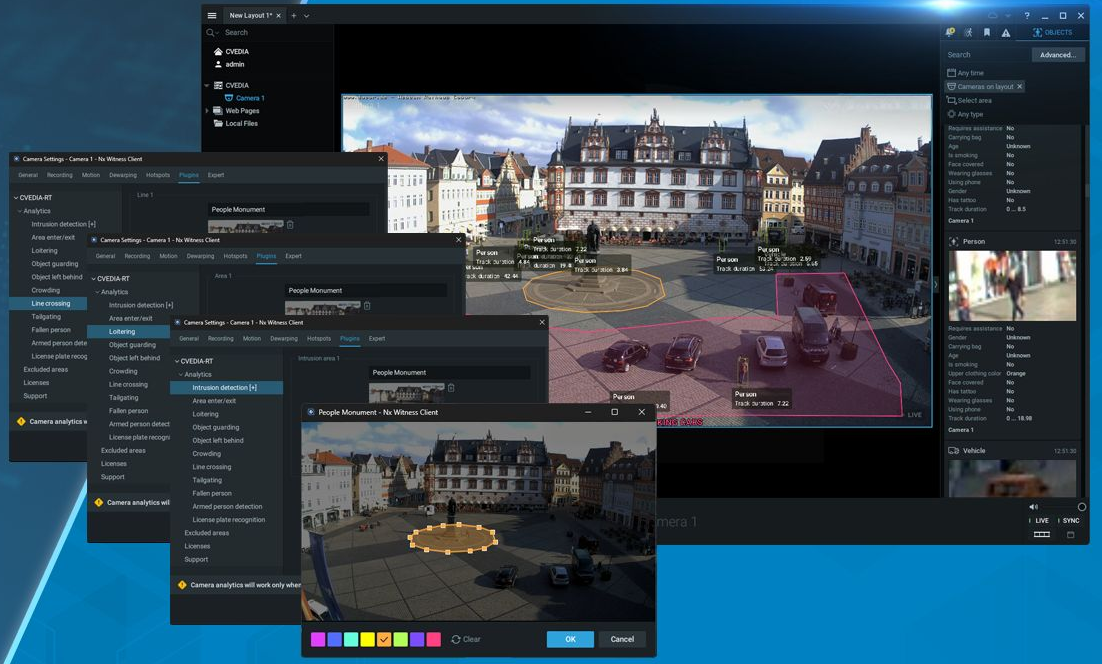
What is CVEDIA-RT?

AI-driven video analytics with real-time detection, forensic search, and intelligent alerts.



What is CVEDIA-RT?

Industry-leading accuracy & ease-of-use



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What is CVEDIA-RT?

Reliable performance and scalability



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Added Value

- High-accuracy AI, guaranteed customer satisfaction
- Easy-to-use native integration to VMS
- Proactive hands-on technical support during deployment
- Affordable licensing, no costly server upgrades
- Complex behavioral analytics and forensic search

System Requirements

- *Windows 10+ x64, Ubuntu 18, 20, 22, 24*
- *~10GB disk space for installation*
- *Runs on any NVIDIA GPU with Compute Capability greater or equal to 7.5*
- *Also compatible with a variety of accelerators*
- *Minimum CPU requirements:*
  - *6th or newer generation Intel Core processors*
  - *1st or newer generation of Intel® Xeon® Scalable processors*
  - *Intel Atom® processor with Intel® Streaming SIMD Extensions 4.2 (Intel® SSE4.2)*



Hardware



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NVIDIA A400

5MP @25FPS	25 AI Channels

Vendor	Dell
Device	Precision 3660
CPU	i7-12700k
Memory	32GB
GPU	UHD 770
VPU	A400 (4Gb)



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NVIDIA A1000

5MP @25FPS	45 AI Channels

Vendor	Dell
Device	Precision 3660
CPU	i7-12700k
Memory	32GB
GPU	UHD 770
VPU	A1000 (8Gb)



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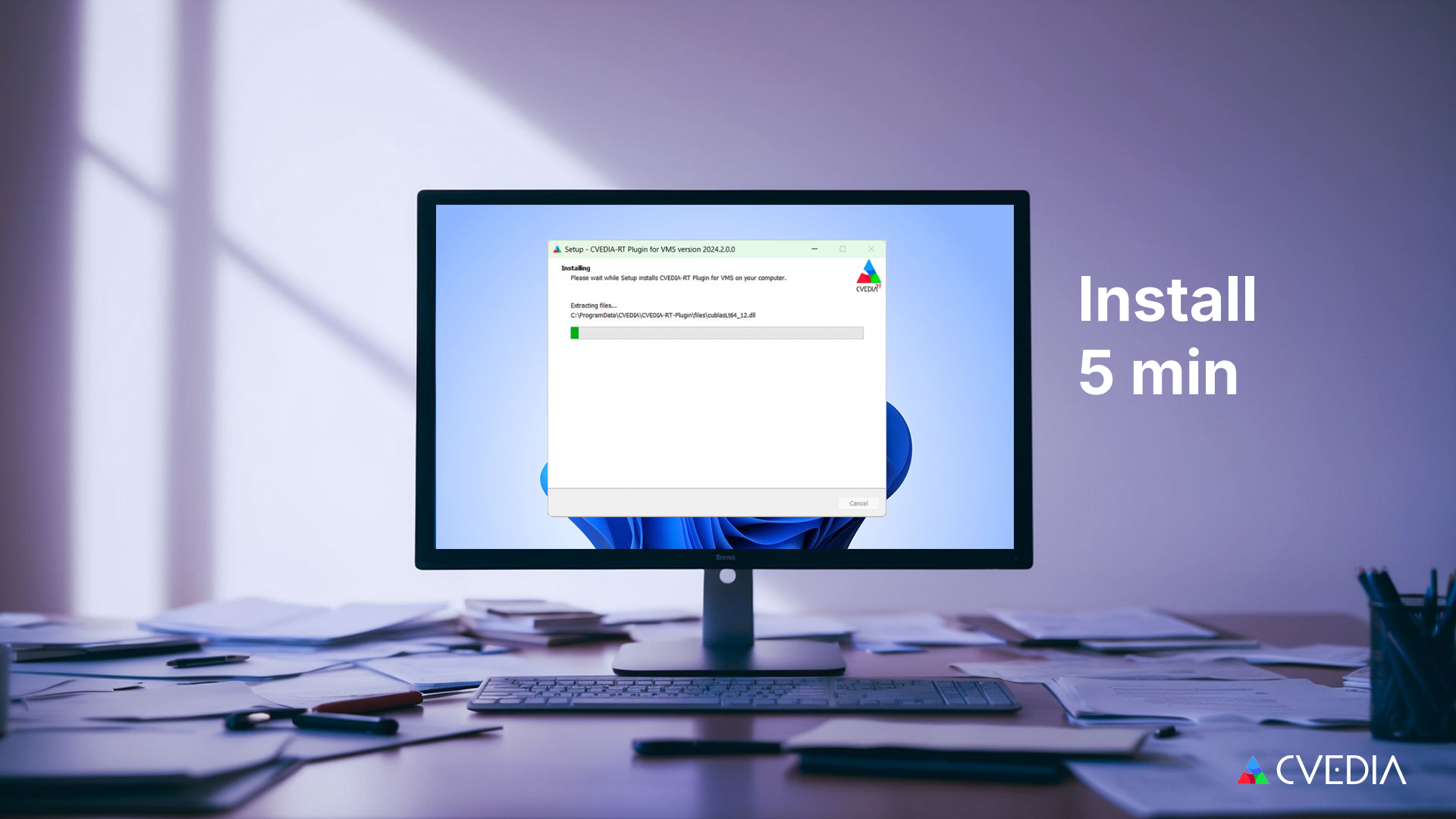
ASUS NUC

5MP @25FPS	13 AI Channels

Vendor	ASUS
Device	NUC 14 Pro Ultra 9
CPU	Intel Core Ultra 9 185H
Memory	32GB
GPU	Intel Arc
VPU	-



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Setup - CVEDIA-RT Plugin for VMS version 2024.2.0.0
Installing
Please wait while Setup installs CVEDIA-RT Plugin for VMS on your computer.
Extracting files...
C:\ProgramData\CVEDIA\CVEDIA-RT-Plugin\files\cublasLt64_12.dll
Cancel
Install
5 min
CVEDIA

Configure
3 min



CVEDIA



Monitor 24/7

CVEDIA


Find
incidents
in seconds
CVEDIA

Why CVEDIA?



CVEDIA

*CVEDIA's algorithms are reliably detecting common animals, e.g. cats, dogs, spiders, and birds, enabling security operators to receive **relevant** intrusion **alarms***





CVEDIA

CVEDIA models are trained to perform well in ***challenging conditions****, like rain, fog, wind, moving vegetation, and environments with different lighting*





CVEDIA

CVEDIA solutions are designed to eliminate persistent false alarms caused by irrelevant motion, such as foliage, spider webs, or shadows.



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Customer Feedback

CVEDIA



Matt Bischof, PSP
CTO & President - ES

NJB Protection LLC

*"There's something to be said of their **models**, they're just **more accurate**. When you inherit existing cameras the way we often do, you deal with dirt, you deal with condensation, you deal with flaws, and CVEDIA is **the only AI solution** that did well with cameras suffering from image clarity and optical issues, particularly at **extremely long distances**."*

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Features



Standard Security Features



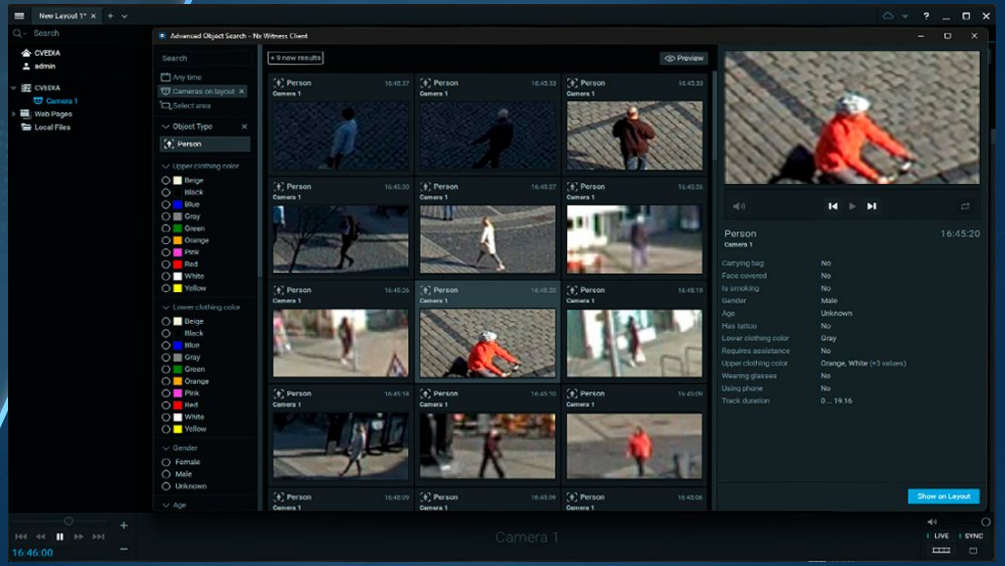
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Standard Security

Real-time detection and appearance search

Vehicle:
Type and Color

Person:
Gender, Wearing glasses, Age, Using phone, Carrying bag, Upper clothing color / Lower clothing color, Tattoo



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Premium Features

- *Armed Person Intrusion*
- *Fallen Person Detection*
- *ALPR*



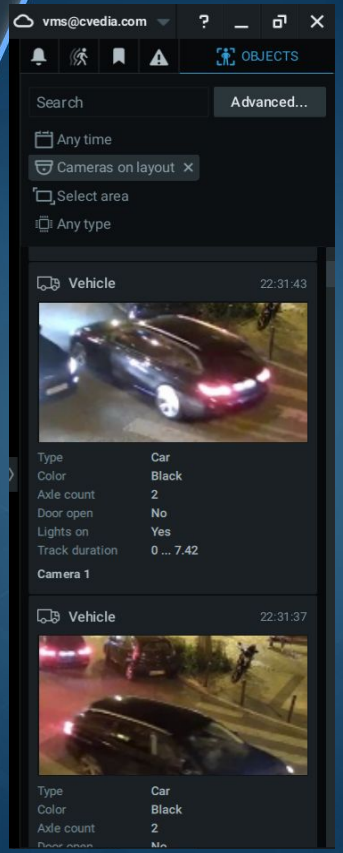


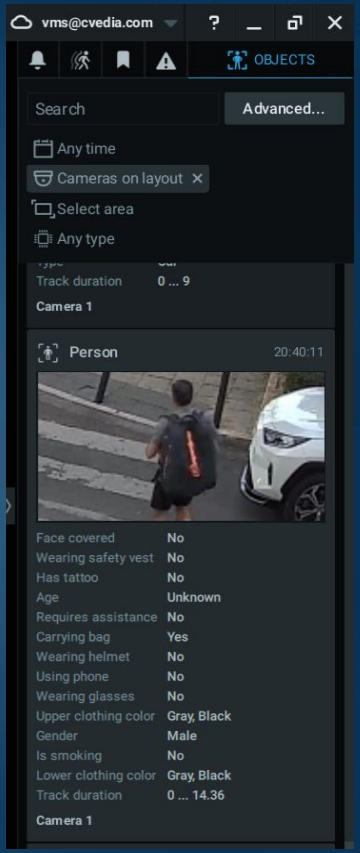


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Full list of collected metadata

- Color, Type, License Plate Number
- Gender, Wearing glasses, Age, Using phone, Carrying bag,
  Is smoking, Face covered,
  Requires assistance,
  Upper clothing color /
  Lower clothing color,
  Has tattoo, Surrender





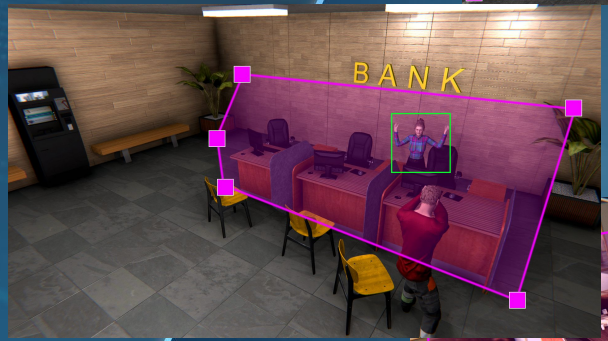
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Experimental Features

Experimental Features (in beta)

- *Remote Vehicle Guarding (“door open” + “lights on”)*
- *Surrender Detection (“person in surrender pose”)*
- *Face Covered Detection (“person with face covered”)*
- *Vehicle Speed*







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Use Cases

Designed for Diverse Applications



Car Dealerships

Improve vehicle security in low-traffic, low-visibility areas.

Features: Loitering Detection, Intrusion, Line Crossing, Attribute Search, Vehicle Guard



Retail and Shopping Malls

Theft prevention and public safety in retail spaces

Features: Appearance Search, Fallen Person, Armed Person, Crowding, Queue management

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Small Businesses

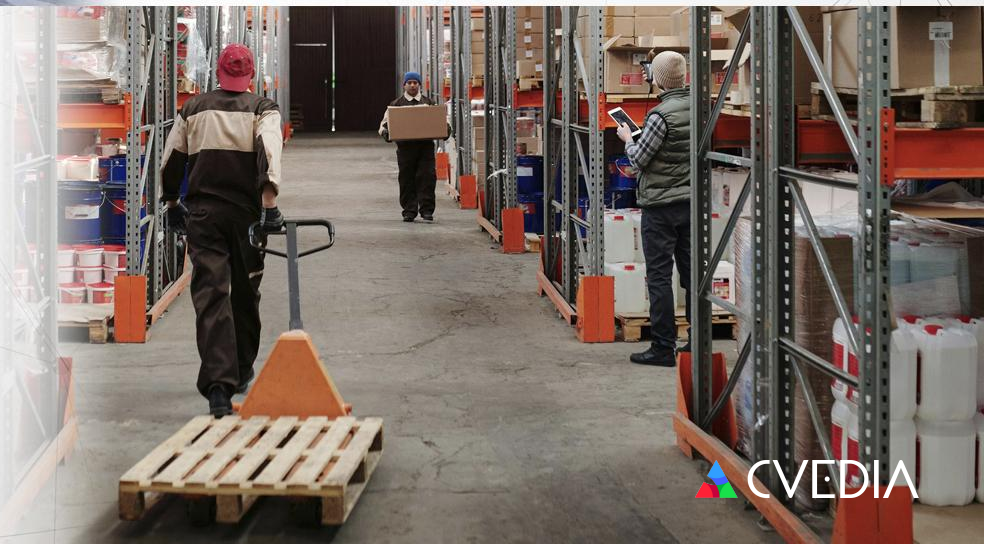
Prevent break-ins and vandalism in areas of interest

Features: Intrusion Detection, Loitering Detection

Protect Assets

Respond to unusual activity near critical areas (e.g., luxury cars, warehouses)

Features: Intrusion Detection, Loitering Detection

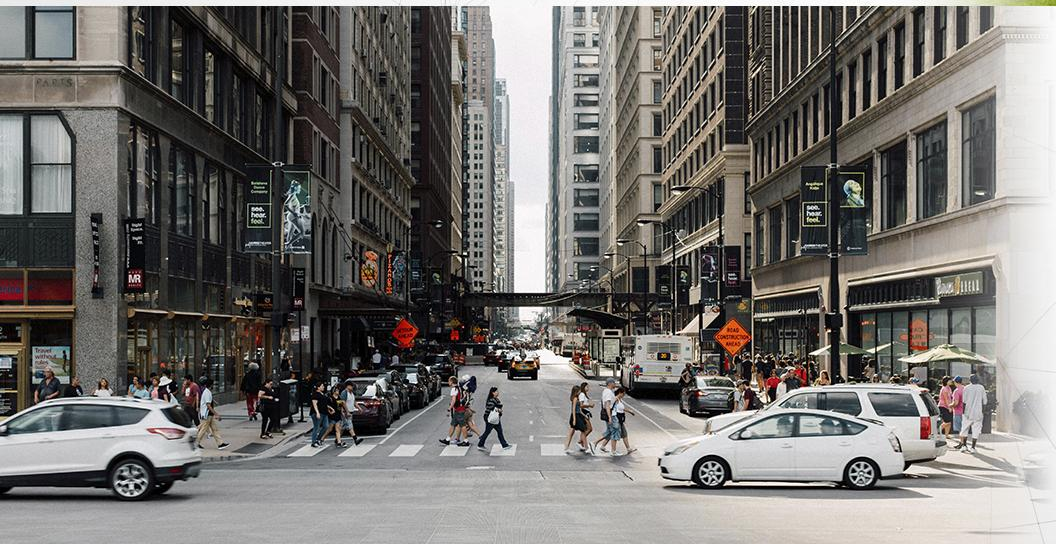


Schools

Locate incidents in crowded areas (e.g. near lockers, parking lots, or recess areas)

Features: Intrusion, Loitering, Line Crossing, Appearance Search





Busy Roads

Search for incidents on high-traffic roads.

Features: Appearance Search

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Nightclubs & Restaurants

Identify events faster in high-traffic zones. Prevent theft and vandalism

Features: Line Crossing, Loitering, Appearance Search, Fallen Person, Armed Person

Queues & Crowds

Monitor crowd density and optimize customer experience

Features: Crowding, Line Crossing, Appearance Search





ATM Security

Monitor and address loitering or crowd accumulation in public areas, such as ATMs or bus stops

Features: Crowding, Loitering, Intrusion Detection

Access Control

Monitor restricted areas for unauthorized access by individuals or vehicles

Features: Tailgating, Line Crossing, Identity Concealing (face covered)



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Success Stories

E-bike store incident: stopping a break-in before it happened

"An e-bike store owner was having ongoing security issues, with repeated break-ins despite having barred windows and heavy locks. We set up the plugin on his existing cameras, which weren't high quality but were already installed. One morning, he called and said, 'Thank you — your system stopped a break-in yesterday.' The loitering alarm had triggered, and he saw someone attempting to cut a padlock through his camera feed. He used the system to speak through the camera and scare them off before they could break in."

Powered by CVEDIA-RT

Success Stories

Warehouse diesel theft prevention

"A local business was dealing with repeated thefts of diesel being siphoned from buses parked overnight. We set up the plugin with a PTZ camera to monitor the buses and configured intrusion detection rules. They told me it's been incredibly reliable and has already prevented several incidents. While they occasionally had cleaners set off the alarm, they now know any movement near the buses at night is detected immediately."

Success Stories

Nightclub enhanced security

"A nightclub was facing frequent incidents where they needed to review footage daily. After running the plugin in their environment for a trial, they realized how much time they were saving. They said, 'This makes it so much easier — we can find incidents in seconds instead of spending hours reviewing footage.' They loved how the plugin could instantly locate events, especially in high-traffic areas like entrances and checkpoints."

Success Stories

High-traffic roads and pedestrian safety

"One customer had a camera monitoring a busy road where incidents involving pedestrians occurred frequently. They said, 'Before using the plugin, searching for footage was impossible — motion search would bring up every passing car. With the plugin, we can filter for pedestrians only, making it simple to find exactly what we need.' It saved them hours of reviewing irrelevant footage."

Success Stories

School safety

"Schools often need to review footage of crowded areas like locker rooms or parking lots. One school admin shared, 'We used to spend an hour manually searching footage for incidents. Now, with the plugin's retrospective search, it takes us seconds to locate the event.' This not only made their operations more efficient but also highlighted the value of the plugin for managing high-density environments."

Integration Diagram

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Video Management System

VMS License

VMS

- Camera Setup
- Video Recording
- Event Database
- Rule-based Actions
  - · Bookmark
  - · Play sound
  - · Send email
  - . Show/send notification
  - · Custom actions
- Advance Search

AI Analytics

Plugin License

AI Plugin

- Analytics Configuration
- Ai Inference Engine
- Events Generation

Video Feed

Events on Timeline

Analytic Event

Filter by Class and Attributes

· ***Filter by event type and object class***
· ***Vehicle attributes:*** Door open, Lights on, License Plate (Search by plate number), Color, Type
· ***Person attributes:*** Gender, Wearing glasses, Age, Using phone, Carrying bag, Smoking, Face covered, Requires assistance,Upper clothing color / Lower clothing color, Tattoo, Surrender

Powered by CVEDIA-RT

- · Intrusion detection
- · Area enter/exit
- · Loitering
- · Crowding
- · Line crossing
- · Tailgating
- · Object guarding
- . Object Left behind
- · Armed Person
- · Fallen Person
- · ALPR

Getting Started

- Download via *https://rt.cvedia.com*
- Run installer (≈ 10 min total)
- Activate trial license

Step-by-Step Walkthrough



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Available Resources

- *Video Library (Demo, License Activation, Smart Search)*
- *Brochures*
- *Comprehensive User Guide*
- *Best Practice Guide for Analytics*
- *Hardware Benchmarking results*
- *Max Detection Distance Calculator*



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Who is CVEDIA?

- *Leader in AI-driven video analytics since 2017*
- *Deployed in multiple verticals: Defense, Smart Cities and Security*
- *Technology deployed on ≈900k cameras*
- *Strategic Investor: FLIR*
- *Focus: Real-time detection, appearance search, and complex situational alerts*



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