

AI-POWERED VIDEO ANALYTICS

Product Datasheet

What is Video Analytics?

AI-Driven Intelligence

Video analytics is an advanced technology that uses artificial intelligence, machine learning, and computer vision to automatically analyze video footage. Unlike traditional video surveillance, which relies on manual monitoring, video analytics enables real-time analysis, pattern recognition, and automated decision-making. It extracts meaningful insights from video data, allowing businesses and organizations to enhance security, optimize operations, and improve efficiency.

This technology is widely used across industries, from retail and smart cities to law enforcement and manufacturing. It enables intelligent video monitoring by recognizing objects, detecting movement, identifying anomalies, and even predicting future trends based on historical data.

Inside the Technology

Video analytics uses artificial intelligence, machine learning, and computer vision to analyze video feeds in real-time or post-processing. The system enhances video quality, filters noise, and applies deep learning models to identify objects, faces, and movements. When a predefined event occurs—such as unauthorized access, suspicious activity, or traffic congestion—it triggers alerts or automated actions. The processed data is stored for further insights, improving security, efficiency, and strategic planning.

Why It Matters

Video analytics plays a crucial role in security, preventing fraud, monitoring compliance, and enhancing workplace safety. It also optimizes operations by automating surveillance, tracking customer behavior, and improving logistics management. Businesses benefit from reduced costs by minimizing manual intervention and improving resource allocation. Smart cities leverage it for better traffic management, crime prevention, and public safety.

AI Framework

Versatile, Futuristic, & Unmatched Precision

Unlike traditional video processing methods that rely on pixel-based analysis, this AI-driven framework harnesses Deep Learning and Neural Networks to detect, classify, and interpret objects, movements, and activities with unparalleled accuracy. Built for scalability and adaptability, it seamlessly integrates across industries, transforming raw video data into real-time, actionable intelligence that enhances security, compliance, and efficiency.

Core Components

- **Edge & Fog Computing** – Distributes processing between cameras, edge devices, and fog nodes, minimizing latency and enabling real-time analytics even in low-bandwidth environments.
- **Unified Video Management Platform** – Seamlessly integrates with existing Video Management Systems (VMS) for effortless deployment without major infrastructure changes.
- **Flexible Cloud & On-Premise Deployment** – Supports hybrid models, offering businesses the flexibility to choose cloud, on-premise, or fog-enabled setups tailored to their needs.
- **Adaptive Learning Algorithms** – Continuously improves detection accuracy through real-world data feedback, making the system smarter and more efficient over time.
- **AI-Powered Automation & Alerts** – Enables proactive decision-making with event-driven notifications, automated responses, and predictive analytics for enhanced situational awareness.

AI in Action

AI-Driven Use Cases for Every Industry

Designed to perform in diverse environments and complex conditions, this advanced AI-powered video analytics suite is trusted across Smart Cities, Aviation, Mass Transportation, Enterprises, Critical Infrastructure, Retail, Defense, Law Enforcement, BFSI, Educational Institutions, and Healthcare, among others.

With over 100 cutting-edge use cases, the framework delivers real-time intelligence, automation, and efficiency, broadly categorized into the following segments:



Security & Surveillance Analytics



Traffic & Transportation Analytics



Retail & Customer Insights



Industrial & Workplace Safety



Behavioral & Crowd Analytics



Operational & Business Intelligence



Public Safety & Law Enforcement



Healthcare & Hospital Analytics



Smart Cities & Urban Management



Education & Campus Security

Enhancing Protection with Intelligent Monitoring

Security & Surveillance Analytics

Security is no longer just about recording footage; it is about real-time intelligence and rapid response. With advanced features like face recognition, intrusion detection, and unattended object identification, AI enhances situational awareness and reduces response time. Automated alerts enable security teams to react instantly to suspicious activities, preventing incidents before they escalate.

AI also minimizes human error, ensuring continuous monitoring without fatigue or lapses in attention. Whether securing critical infrastructure, corporate offices, or public spaces, AI-driven surveillance provides an unmatched layer of protection that adapts to evolving threats.

- **Facial Identification & Verification**
- **Face & Image Liveness Detection**
- **Gender & Age Classification**
- **Line Crossing & Intrusion Detection**
- **Fire and Smoke Detection**
- **Person Detection**
- **Object Detection and Classification/ Zone-Based Object Monitoring**
- **Unattended Object Detection**
- **Camera Tampering | Noise Detection**
- **Person Trespassing**
- **Tripwire**
- **Violence Detection**
- **Weapon Detection**
- **Theft Detection**

INTRUSION DETECTION



LINE CROSSING DETECTION



AI Driven Mobility for Safer Smarter Roads

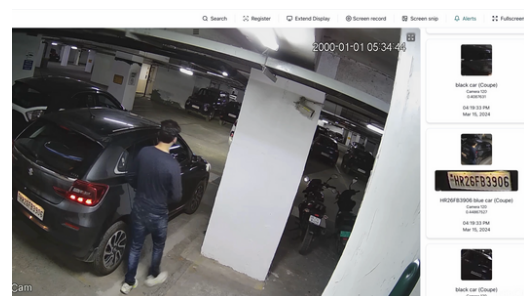
Traffic & Transportation Analytics

Efficient traffic management is crucial for urban development and public safety. AI-powered traffic analytics optimizes mobility by detecting violations, monitoring congestion, and ensuring smoother transportation flow. Intelligent systems track vehicle movement, analyze road usage patterns, and automate incident detection to reduce accidents and enhance commuter safety.

With solutions like automatic license plate recognition, wrong-way detection, and speed monitoring, AI assists authorities in enforcing regulations with precision. Public transport systems also benefit from AI-driven crowd analysis and scheduling optimization, reducing wait times and improving service reliability.

- **Automatic License Plate Recognition System (ALPR)**
- **Vehicle Colour Classification**
- **Wrong / One-Way Detection**
- **Train & Car Speed Detection**
- **Occupancy Monitoring**
- **No Parking Violation Detection**
- **Missing/Non-Standard License Plate Detection**
- **Prohibited Zone Monitoring**
- **Tailgating Detection**
- **Crash/Accident Detection**
- **Dead Zone Identification**

ALPR



PROHIBITED ZONE MONITORING



Turning Customer Behavior into Action Points

Retail & Customer Insights

Retail success hinges on understanding customer behavior and optimizing operations. AI-powered analytics enables businesses to make data-driven decisions by tracking foot traffic, analyzing shopping patterns, and preventing losses.

Face recognition and demographic classification help retailers personalize customer experiences, while queue management and heatmap analysis improve store layouts. Theft detection further enhance security, protecting businesses from financial losses. With AI, retailers can transform video data into valuable insights that boost sales, streamline operations, and deliver superior customer engagement, making every retail space smarter and more efficient.

- **Facial Identification & Verification**
- **People Counting**
- **Person Re-Identification**
- **Queue Detection/Crowd Analysis**
- **Heat Mapping of Crowd**
- **Attribute Analysis & Search**
- **Entry/Exit Count**
- **Object Tampering Detection**
- **Recognition & Tracking of Known Shoplifters**
- **Customer Dwell Time Analysis**
- **Mobile Usage Detection**
- **Object Tracking**
- **Theft Detection**
- **Abandoned Object Detection**

HEATMAPPING



UNIQUE PERSON COUNT



Automation That Prevents Hazards

Industrial & Workplace Safety

A safe workplace is essential for productivity and compliance. AI-driven safety analytics helps industries detect hazards, enforce protocols, and reduce workplace incidents. By continuously monitoring PPE compliance, identifying unsafe behaviors, and detecting fire or smoke in real time, AI minimizes risks and ensures regulatory adherence. Systems can also track personnel movement, restrict unauthorized access, and provide instant alerts for emergency response.

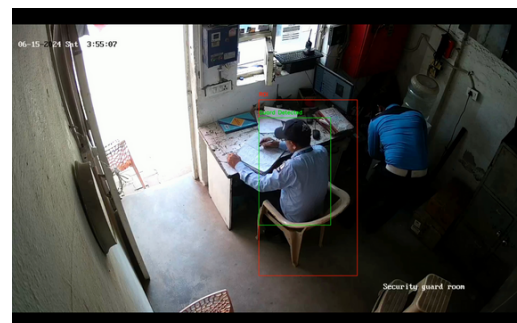
In high-risk environments like manufacturing plants and construction sites, AI-powered safety solutions act as a proactive shield, safeguarding employees and assets while optimizing operational workflows.

- **Facial Identification & Verification**
- **Uniform Detection & Tracking**
- **People In/Out Detection**
- **Person Collapses/Fall & Slips**
- **Fire and Smoke Detection**
- **Camera Tampering Detection**
- **Sound Anomaly Detection**
- **Attribute Analysis & Search**
- **PPE Compliance Monitoring**
- **Equipment & Machinery Usage Detection**
- **Employee Tracking**
- **Security Guard Detection**
- **Mobile Usage Detection**
- **Gesture Detection**
- **Entry/Exit Count**

SECURITY GUARD DETECTION



EMPLOYEE TRACKING



Preventing Chaos

Behavioral & Crowd Analytics

Managing large crowds and public spaces requires intelligent monitoring to prevent chaos and ensure safety. AI-powered behavioral analytics interprets movement patterns, identifies unusual activities, and detects potential risks in real time.

Crowd density analysis prevents bottlenecks in transit hubs, shopping malls, and stadiums, ensuring smooth crowd flow. Suspicious behavior detection helps security teams respond to threats such as loitering, sudden gatherings, or aggressive actions.

- **Facial Identification & Verification**
- **People Counting**
- **Person Re-Identification**
- **Heat Mapping of Crowd**
- **Queue Detection / Crowd Analysis**
- **Line Crossing Detection**
- **Person Tracking & Analysis**
- **Tailgating Detection**
- **Running Detection**
- **Street Fight Detection**
- **Object Tampering Detection**
- **Attribute Analysis & Search**

VIOLENCE & GUN DETECTION



RUNNING DETECTION



Maximizing Efficiency Through Smart Automation

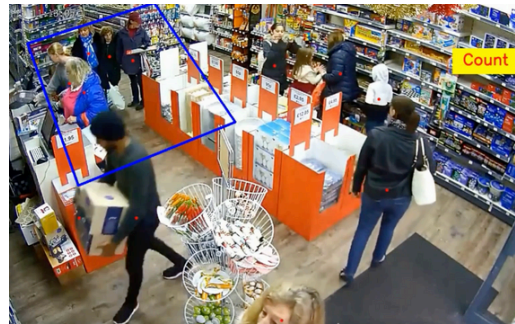
Operational & Business Intelligence

Business success depends on operational efficiency and data-driven decision-making. AI-powered video analytics transforms raw video data into meaningful insights that improve productivity and resource allocation. From tracking workforce efficiency and automating workflow monitoring to optimizing space utilization and asset tracking, AI enhances every aspect of business operations.

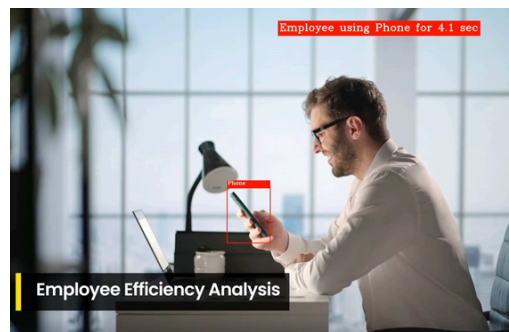
Intelligent systems provide real-time performance analytics, enabling organizations to identify inefficiencies and make informed strategic decisions. With AI-driven automation, businesses can reduce costs, improve service delivery, and achieve long-term scalability.

- **Facial Identification & Verification**
- **People Counting**
- **Entry/Exit Count**
- **Queue Management/Crowd Analysis**
- **Heat Mapping of Crowd**
- **Attribute Analysis & Search**
- **Employee Efficiency Analysis**
- **Equipment & Machinery Usage Detection**
- **PPE Compliance Monitoring**
- **Theft Detection**
- **Abandoned Object Detection**

QUEUE MANAGEMENT



EMPLOYEE EFFICIENCY ANALYSIS



Faster Crime Prevention

Public Safety & Law Enforcement

Law enforcement agencies require real-time intelligence to maintain public safety and prevent crimes before they happen. AI-powered analytics enhances policing efforts by identifying persons of interest, tracking criminal activities, and analyzing behavioral patterns.

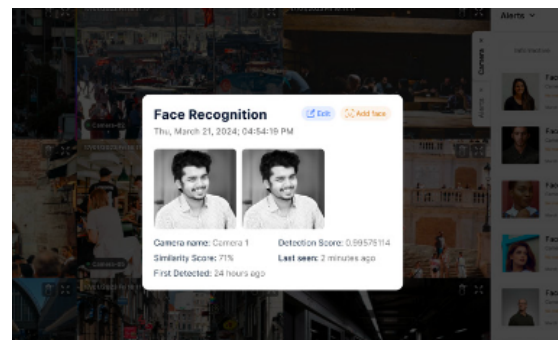
Face recognition and person re-identification help law enforcement locate suspects quickly, while anomaly detection flags suspicious actions in high-risk areas. Automated surveillance reduces reliance on manual monitoring, allowing officers to focus on strategic intervention. By integrating AI-driven analytics into public safety operations, law enforcement agencies gain a powerful tool to enhance security, improve crime response times, and foster safer communities.

- **Facial Identification & Verification**
- **Criminal/Wanted Person Identification**
- **Person Re-Identification**
- **Object Detection and Classification**
- **Violence Detection**
- **Weapon Detection**
- **Street Fight Detection**
- **Person Tracking & Trajectory Analysis**
- **Intrusion/Trespassing Detection**
- **Prohibited Zone Monitoring**
- **Missing/Non-Standard License Plate Detection**
- **Object Tampering Detection**
- **Theft Detection**
- **Tailgating Detection**

PICKPOCKET DETECTION



FACIAL RECOGNITION SYSTEM



Faster Crime Prevention

Healthcare & Hospital Analytics

In modern healthcare, patient safety, operational efficiency, and regulatory compliance are top priorities. With intelligent surveillance, hospitals can detect unauthorized access, monitor restricted areas, and prevent security breaches. AI-driven facial recognition helps identify patients, staff, and visitors, while anomaly detection flags unusual behavior, such as unattended patients or suspicious activity.

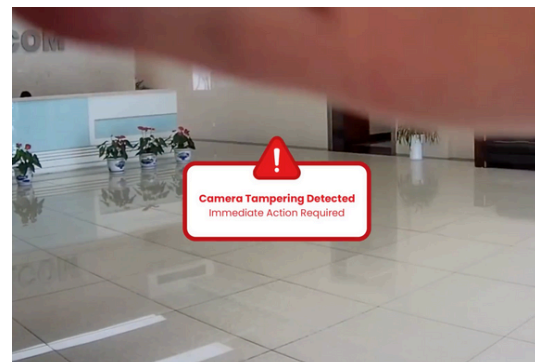
Beyond security, video analytics optimizes hospital operations. This transformative technology enhances patient care while significantly improving overall facility management.

- **Facial Identification & Verification**
- **People In/Out Detection**
- **Patient Movement & Activity Monitoring**
- **Staff Attendance & Productivity Monitoring**
- **Person Collapses/Fall & Slips Detection**
- **Camera Tampering Detection**
- **Unauthorized Access Detection**
- **Queue Detection in Waiting Areas**
- **Medical Equipment Tracking**
- **Entry/Exit Count**
- **Abandoned Object Detection**
- **Theft Detection**

FALL DETECTION



CAMERA TAMPERING DETECTION



Faster Crime Prevention

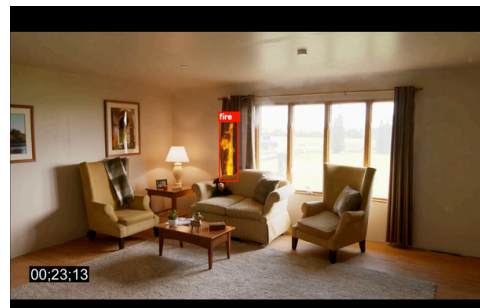
Smart Cities & Urban Management

The rise of smart cities demands intelligent, data-driven solutions to enhance security, optimize public services, and improve urban mobility. One of the primary applications of AI analytics in smart cities is public safety. Intelligent surveillance monitors high-traffic areas, detects suspicious activities, and prevents crimes by enabling proactive law enforcement responses. Additionally, AI-driven emergency detection, such as fire, smoke, or violence detection, allows authorities to respond faster and mitigate risks effectively.

With AI-driven video analytics, smart cities can transform traditional urban management into an intelligent, interconnected ecosystem. These solutions not only enhance safety and mobility but also drive sustainability, ensuring a smarter, more resilient future.

- **Crowd Density Estimation**
- **Queue Detection | Crowd Analysis**
- **Unattended Object Detection**
- **Fire and Smoke Detection**
- **Intrusion/Trespassing Detection**
- **Object Tampering Detection**
- **Perimeter/Fence Jumping Detection**
- **Graffiti & Vandalism Detection**
- **Crash/Accident Detection**

FIRE AND SMOKE DETECTION



UNATTENDED OBJECT DETECTION



Faster Crime Prevention

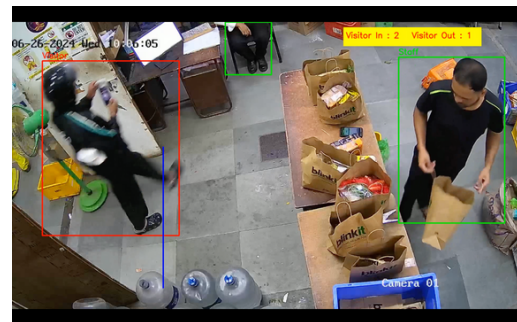
Education & Campus Security

Ensuring a safe and secure learning environment is a top priority for educational institutions. Campus security is significantly enhanced through AI-driven monitoring systems. Facial recognition enables automated attendance tracking, ensuring only authorized individuals access classrooms, dormitories, and restricted areas.

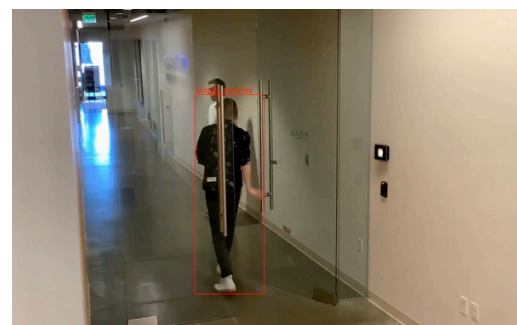
Beyond security, AI-driven analytics improve campus operations. By integrating AI-powered video intelligence, educational institutions can proactively address security threats, improve operational efficiency, and enhance the overall learning experience.

- **Facial Identification & Verification**
- **People Counting**
- **Entry/Exit Count**
- **Unauthorized Access Detection**
- **Camera Tampering Detection**
- **Student Attendance Monitoring**
- **Heat Mapping of Crowd**
- **Tailgating Detection**
- **Staff & Visitor Monitoring**
- **Mobile Usage Detection**
- **Theft Detection**
- **Intrusion/Trespassing Detection**

STAFF & VISITOR MONITORING



TAILGATING DETECTION



What is Video Analytics?

Key Highlights

I-Driven Precision

VIEW leverages advanced deep learning, computer vision, and pattern recognition to deliver accurate object detection, classification, and behavioral analysis across diverse environments.

Self-Learning & Adaptive Intelligence

Continuous self-learning enables automatic calibration and improved accuracy over time, adapting to real-world conditions without manual intervention.

Universal Compatibility

VIEW works seamlessly with any camera model and supports Windows, Linux, and macOS, ensuring smooth integration with existing infrastructure.

Scalable & Optimized Performance

High-efficiency architecture supports multi-threaded AI processing, maximizing computational resources while minimizing hardware costs.

Unified VMS Integration

Fully integrated with enterprise-grade VMS, ensuring seamless video management, optimized computing, and reduced IT costs.

Flexible Deployment

Supports cloud, edge, and on-premise installations, with hybrid and fog computing capabilities for scalable AI deployment.

Intelligent Alerting & Automation

Real-time alerts via email, SMS, WhatsApp, and chat, with API integrations for automated responses and third-party system connectivity.

Data-Driven Insights

Comprehensive analytics dashboards and reports provide actionable intelligence for security, operations, and business optimization.



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