



What is AI-driven Video Analytics?

We leverage the power of artificial intelligence (AI) to enable users to understand their environment more deeply, so they can respond proactively. And ultimately, predict unforeseen or future situations. Our mission is to guide security professionals, consultants, specifiers, and end-users toward building predictive solutions. With over 20 years of experience developing algorithms for video sensors in the automotive industry, we apply the same expertise to our video analytics. AI-driven

Video Analytics help users protect people and property. They also provide valuable insights like parking occupancy, people counting, and vehicle classification to drive applications beyond security. Video Analytics use metadata to add sense and structure to captured video footage, which helps users understand scenes and situations at an ever-deeper level. Ultimately, we want to give users the power to predict so they know what's next.

Evolution of AI

TODAY

TOMORROW: MOVING TOWARD PREDICTIVE



Human review

Secure

- Meets evidence-based requirements
- Emphasis on high image quality
- Limited approach due to considerable data and many cameras



Assisted review

Secure, safe, and smart video systems

- Emphasis on high image quality
- Al provides data for actionable insights



Automated review

Secure, safe, smart, and easy

- Elevate efficiency and safety
- Accelerate digital transformation
- Al combined with IoT (AIoT) offers real-time alerts to users



Predictive

Prevent and go beyond security

- Spot new business opportunities
- Alert and pre-empt unwanted situations and prevent damage
- Automate preventative measures based on detection

We offer a menu of Video Analytics that deliver highly accurate data, are easy to use, future proof, and integrate seamlessly with various video management systems.



Intelligent Video Analytics Pro (IVA Pro) Buildings

Based on deep learning, this is ideal for advanced intrusion detection in and around buildings. It automatically detects persons and vehicles while ignoring false triggers, like rain, snow, blowing leaves, lighting changes, or a shaking camera. It offers people counting and alerts operators when the occupancy threshold is reached and can track 64 simultaneous objects in complex environments unlike other previous versions. It also detects objects or persons entering a pre-defined zone or loitering. With no onsite calibration required, it is easy to use and deploy.



Intelligent Video Analytics Pro (IVA Pro) Perimeter

This is well-suited for long-distance intrusion detection alongside perimeters of buildings, energy facilities, and airports, even in extreme weather. It is highly sensitive to directed motion and can detect intruders who roll, crawl or camouflage themselves in an attempt to breach fencing, entryways, or runways under various environmental and lighting conditions while minimizing false triggers.



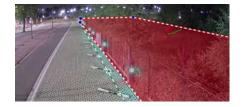
Intelligent Video Analytics Pro (IVA Pro) Traffic

Founded on deep learning, this supports strategies that enhance mobility, safety, and the efficient use of roadways. By achieving accuracy levels beyond 95 percent in vehicle counting, IVA Pro Traffic can replace expensive ground loops. It can reliably track 64 simultaneous objects and detect and classify vehicle subclasses - cars, bicycles, buses, motorcycles, and trucks - and classify pedestrians, even in crowded scenes. The algorithms ignore potential disturbances caused by vehicle headlights or shadows, extreme weather, sun reflections, and shaking cameras.



Essential Video Analytics

Essential Video Analytics is the first step in object detection and data collection. This technology is used for general security and safety applications in sterile environments indoors. It can trigger alerts for loitering, or when a person or object enters a pre-defined field. It can also help to enforce health and safety regulations such as no-parking zones and blocked emergency exits.



Intelligent Video Analytics

Designed for mission-critical applications, Intelligent Video Analytics is highly resilient to false triggers caused by snow, wind, rain, hail, and water reflections and withstand severe vibration encountered on bridges. It enables long-distance intrusion detection for perimeter security at airports, parking lots, critical infrastructure, and government buildings. Its resilience makes it suitable for ship tracking, unidentified objects and long range detection.



Camera Trainer (machine learning)

This technology can detect objects or situations to enhance parking management, railway crossing safety, and early flood detection. It improves security for people and property and unlocks new customized applications and uses. Camera Trainer helps teach video cameras to recognize and detect stationary objects or situations instead of being triggered by motion alone. It enriches video metadata, delivering more informative data, such as when objects are present or removed.

For more information:



Application videos



Easy to use and install



Secure by design



Seamless integration

Bosch Security and Safety Systems

Protecting lives, buildings and assets is our aim. Our product portfolio includes video security, intrusion detection, fire detection and voice evacuation systems as well as access control and management systems. Professional audio and conference systems for communications of voice, sound and music complete the range.