

intellisection®

AIDE






Proactive traffic monitoring and incident management solution.



Technology Overview

Intellisection® AIDE (Automatic Incident Detection Engine) combines AI-driven video analytics, sensors, and data integration tools to make modern road networks safer and more efficient. Unlike traditional monitoring, which relies on passive observation, Intellisection® AIDE proactively detects irregularities, predicts risk, and supports rapid decision-making. Through automation and real-time analytics, cities and transportation agencies gain the ability to respond instantly to safety-critical events and build a data foundation for long-term infrastructure improvement.

Core Capabilities

-  Continuous multi-lane monitoring 24/7.
-  Real-time alerts and automatic event logging for operational analysis.
-  Integration with traffic management centers, law enforcement, and emergency dispatch systems.
-  Supports Vision Zero and other initiatives aimed at reducing traffic fatalities and serious injuries.
-  Improved situational awareness for operators and first responders.

Key Features

INCIDENT EVENT DETECTION

Includes sudden speed changes, animals on the road, traffic jams, accidents, illegal parking, wrong-way driving, pedestrians in restricted areas, smoke & fire, debris on the road, and more.

FLEXIBLE CONFIGURATION

Establish rules for detecting and classifying traffic incidents.

ATTENTION AREA MAPPING

Define specific roadway zones for traffic incident detection.

VEHICLE AND PEDESTRIAN MONITORING

Detection and classification of vehicles, pedestrians, and other road users.

ROAD USER BEHAVIOR INSIGHTS

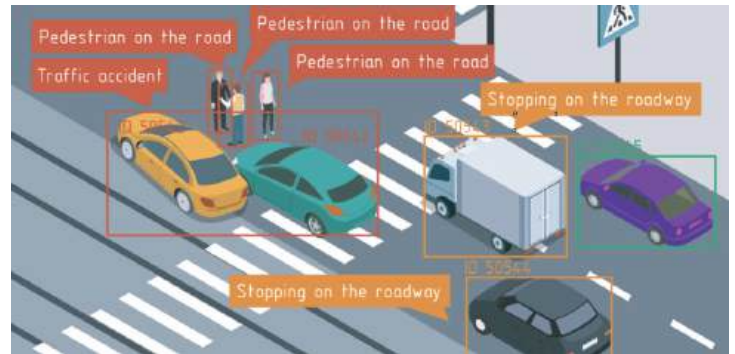
Analyze road user behavior and detect traffic incidents proactively.

INCIDENT DATA SHARING

Send detected incident data to third-party traffic control systems for databasing and analysis.

Automated Incident Detection

Intellisession® AIDE provides continuous, AI-powered surveillance of roadways to automatically identify events that endanger drivers, pedestrians, or traffic operations. Leveraging neural networks and rule-based analytics, the system detects, classifies, and reports incidents in real time — providing both live alerts and recorded evidence.



Solution Specifications

Software	
Operating System	Windows 11 Pro; Windows Server 2019 / 2022.
Camera Technical Data	
Supported Camera Types	Fixed (box, dome) and PTZ cameras.
Supported Camera Views	Overview / angled.
Minimum Required Resolution	640×480 (maximum resolution not limited). Cameras supporting two video streams recommended: one low-resolution stream (640×480 @ 15 FPS) for analytics and one high-resolution stream for video archiving.
Advanced Incident Detection Requirements	High-resolution stream (1920×1080 @ 15 FPS) recommended.
Minimum Required FPS	15 frames per second.
Additional Technical Data	
Minimum Linear Size of Detected / Tracked Object	<p>Cars: side of bounding box \geq 5% of image width.</p> <p>Motorcycles: side of bounding box \geq 8% of image width.</p> <p>Pedestrians: object height \geq 8% of image height.</p> <p>Animals: object height \geq 8% of image height.</p>
Object Classifiers	Person, Vehicle, Animal.
System Output Data	Camera Name, Camera ID, Detector Name, Event Name, Event Description, Timestamp of Event, Snapshot of Entire Frame (with coordinates of object that caused the event).
Supported Detectors	Pedestrian in restricted area, traffic jam, vehicle on sidewalk, vehicle stopped in restricted area, suspected vehicle crash, confirmed vehicle crash, wrong way driver, animal on roadway, over-speeding, minimum speed violation, abrupt increase or decrease in speed.
Supported Video Formats	
Video Codec Support	H.264, H.265, MxPEG, MJPEG, MPEG-4.
Ordering information	
IF-INT-AIDE-1	Intellisession® AIDE (per camera). Open license - one Detector.
IF-INT-AIDE-2	Intellisession® AIDE (per camera). Bundle of any 3 Detectors.
IF-INT-AIDE-3	Intellisession® AIDE (per camera). Bundle of any 5 Detectors.
IF-INT-AIDE-4	Intellisession® AIDE (per camera). Bundle of all Detectors.
IF-INT-AIDE-SMOKE	Intellisession® AIDE - Smoke and Fire Detection Module (per camera).
IF-INT-AIDE-DEBRIS	Intellisession® AIDE - Debris Detection Module (per camera).