

# Blaize® Picasso® Analytics

PRODUCT BRIEF

# A framework and toolkit to build specialized, sophisticated analytics, simpler and faster.

Blaize integrated hardware and software solutions provide comprehensive platforms for video analytics applications at the lowest total cost of ownership (TCO), across industries, from the edge to the data center.

Blaize® Picasso® Analytics expands the functionality of the industry-leading Blaize Al Studio no-code development platform and Blaize® Picasso® SDK by equipping developers with the tools required to create customized analytics pipelines rapidly and

efficiently, with limited or no coding required. This reduces complexity and accelerates the time to result. The new Picasso Analytics platform integrates with Blaize's existing hardware and software platforms. It empowers Independent Software Vendors (ISV) and Video Management Systems (VMS) with a powerful and flexible software framework and libraries. The toolkit complements and enhances existing ISV and VMS products and solutions, enabling the delivery of additional value to their customers.

#### Sample Sophisticated Analytics Applications













#### **Benefits**

- Build specialized and sophisticated analytics
- Reduced complexity, development time, lines of code, and required expertise
- Enable use-cases otherwise not possible with traditional platforms and tools
- Create customized pipelines rapidly and easily with limited or no coding required
- Access a growing collection of turn-key solutions ready for deployment
- Utilize a fully integrated hardware and software platform with industry leading TCO from the edge to the data center

#### Delivering Value to Developers and Solution Vendors

Legacy GPU Platform

100 - 1000s lines of code

Days / Weeks of work

Expert Coder
Restricted by fixed functionality

Picasso Analytics

10s

lines of code

**Hours** of work

Junior Data Scientist

Enable sophisticated analytics not possible with traditional tools and platforms Blaize® Picasso Analytics PRODUCT BRIEF

#### Empowering VMS vendors, ISVs and developers



Enable faster deployment and lower cost of ownership with fine control over platform for new analytics solutions



Platform and toolkit to enable VMS and video analytics ISV providers to bring their solutions to Blaize



New opportunities to develop and deploy analytics-based solutions designed by customers, Blaize, or partners

### Summary of Supported Operations

Video Analytics	Example Application
Operations	ехапріе арріїсаноп
Object Detection	<ul><li>Object present and localized</li><li>Unusual location</li><li>Human or vehicle anonymization</li></ul>
Object Motion Detection	<ul><li>Object enters or exists a region</li><li>Speed and direction monitoring</li><li>Unusual activity</li><li>Path or route analysis</li></ul>
Intrusion Detection	Perimeter or region protection
Object Behavior and Action Detection	• Slip, trips, or falls
Group Behavior Detection	<ul><li>Loitering detection</li><li>Crowd forming</li><li>Tailgating detection</li></ul>
Object Recognition	<ul><li>Face recognition</li><li>Vehicle license plate recognition</li></ul>
Time Series Analysis	<ul><li>Descriptive statistical analysis</li><li>Heat mapping</li><li>Queue analysis</li><li>Dwell-analysis</li></ul>
Identification and Recognition	<ul><li>Access control</li><li>Vehicle tracking</li><li>Anonymization</li></ul>
Video and Image Signal Processing	<ul><li>Lens flare/glare minimization</li><li>Low light enhancement</li><li>Adaptive noise suppression</li></ul>
Semantic Instance Segmentation	Coming soon

## **Specifications**

Features	Benefits
Graph-based Framework	Rapid and easy development of complex and specialized video analytics applications with low latency, efficient execution, and reduced costs
Full Scene Understanding	Identification of circumstances leading up to an event by understanding relationships between participating objects
Pre-integrated with Blaize Solutions	Substantially reduced TCO through efficient hardware, clever resource sharing, and an asynchronous application programming model on a single device without batching, unlike GPU-based platforms
Growing Collection of Turn-key Analytics	Comprehensive library of ready-to- deploy functionality and reusable processing components, simplifying development and accelerating time to deployment
Future Integration with AI Studio	Integration with Blaize AI Studio, visual application builder, marketplace, and one-click deployment

