AI VIDEO SURVEILLANCE SOLUTION

DaoAI World SkyVision

Born in Canada, Built for the World

SIEMENS / ADIENT BASF We create chemistry brose Technik für Automobile

R&D CENTER

Vancouver

2018

Founded in Vancouver

2019

Partnered with Brose

2021

Part of the Siemens Ecosystem

OPERATION OFFICE

Beijing

Wuhu

Chongqing

Video Surveillance Pain Points

01 Fragmented algorithms with high maintenance costs

02 Heavy reliance on expert AI engineers

03 Poor adaptability to complex environments, causing false alarms

04 No business loop—only detection, no workflow

05 Difficult model optimization and no iteration mechanism

06 Limited scene adaptation and low accuracy

Challenges in AI Video Surveillance

Rigid Algorithms

Most AI boxes and fixed-function models are built for specific detection tasks only. This limits flexibility—users can’t add new scenarios or adjust detection logic on their own.

Dependence on Vendors

Users are unable to retrain or optimize models by themselves. Any change in environment or requirements requires vendor involvement, slowing response times and driving up long-term maintenance costs.

Data Security Constraints

Enterprise surveillance systems demand strict data protection. Video footage typically cannot be uploaded externally, yet many AI solutions rely on cloud-based training, creating potential security and compliance risks.

Core Value Proposition

Faster Development with Less Effort

No AI team needed—build and train models directly with your own data.

Flexible Use Across Many Scenarios

Detect objects, people, or behaviors without being limited by fixed algorithms.

On-Prem Deployment for Data Security

Training and inference stay fully local, keeping all video data on-site.

Key Highlights

Train Your Own AI

Build and refine visual AI models in-house, tailored to the way your operation actually runs.

Flexible Workflows for Diverse Scenarios

Configure detection logic to match your real operations—no coding, no rigid rules, and no vendor delays.

One Platform for the Entire Vision Pipeline

Manage cameras, deploy models, and receive alerts all in a single, unified system.

01

Customizable Visual AI Models

From Training to Deployment in Three Simple Steps

DaoAI World Self-Training Models

1. Upload your data and complete quick labeling.
2. Build your detection workflow .
3. Connect cameras and assign tasks.
4. Start detection.

DaoAI Pre-Trained Models

1. Build your detection workflow.
2. Select the pre-trained model..
3. Connect cameras and assign tasks.
4. Start detection.

Build Visual AI Models Tailored to Your Operations

DaoAI World Self-Trained Models for High-Precision Scenarios

Best for data-rich environments where you need fine-tuned accuracy and control.

- **Fine-Grained Segmentation**
- **Dedicated Object Detection**
- **Keypoint Detection**
- **Precision Classification**

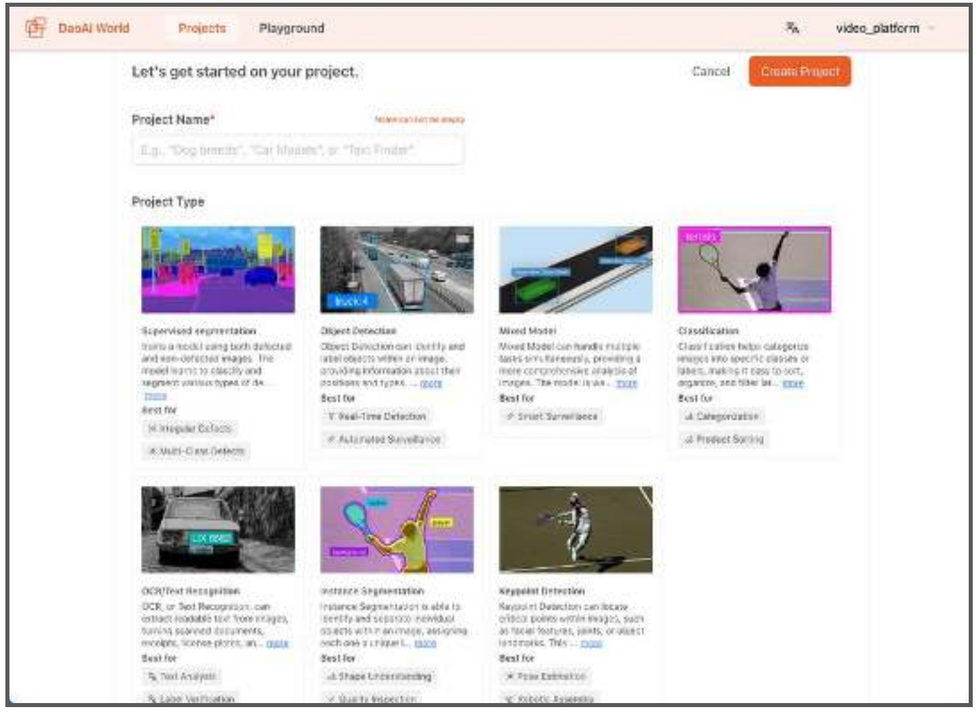
DaoAI Pre-Trained Models Fastest Way to Deploy Your Own AI

Deploy immediately using out-of-the-box models that adapt to your on-site data—often within an hour.

- **No Training Required**
- **No Labeling Needed**
- **Rapid Segmentation**

DaoAI World

7 Self-Training Models



Select Model › Upload Data › Label Data › Test Model › Deploy Model

Segmentation Model

Breaks down an image into distinct regions for detailed analysis.

Object Detection Model

Identifies and locates specific objects within the frame.

Classification Model

Categorizes an image into predefined classes.

Hybrid Model

Extracts both object attributes and categories at the same time.

Instance Segmentation Model

Separates each object instance individually within a single frame.

Keypoint Detection Model

Locates key body or object points for pose or movement analysis.

OCR Model

Extracts text directly from surveillance footage.

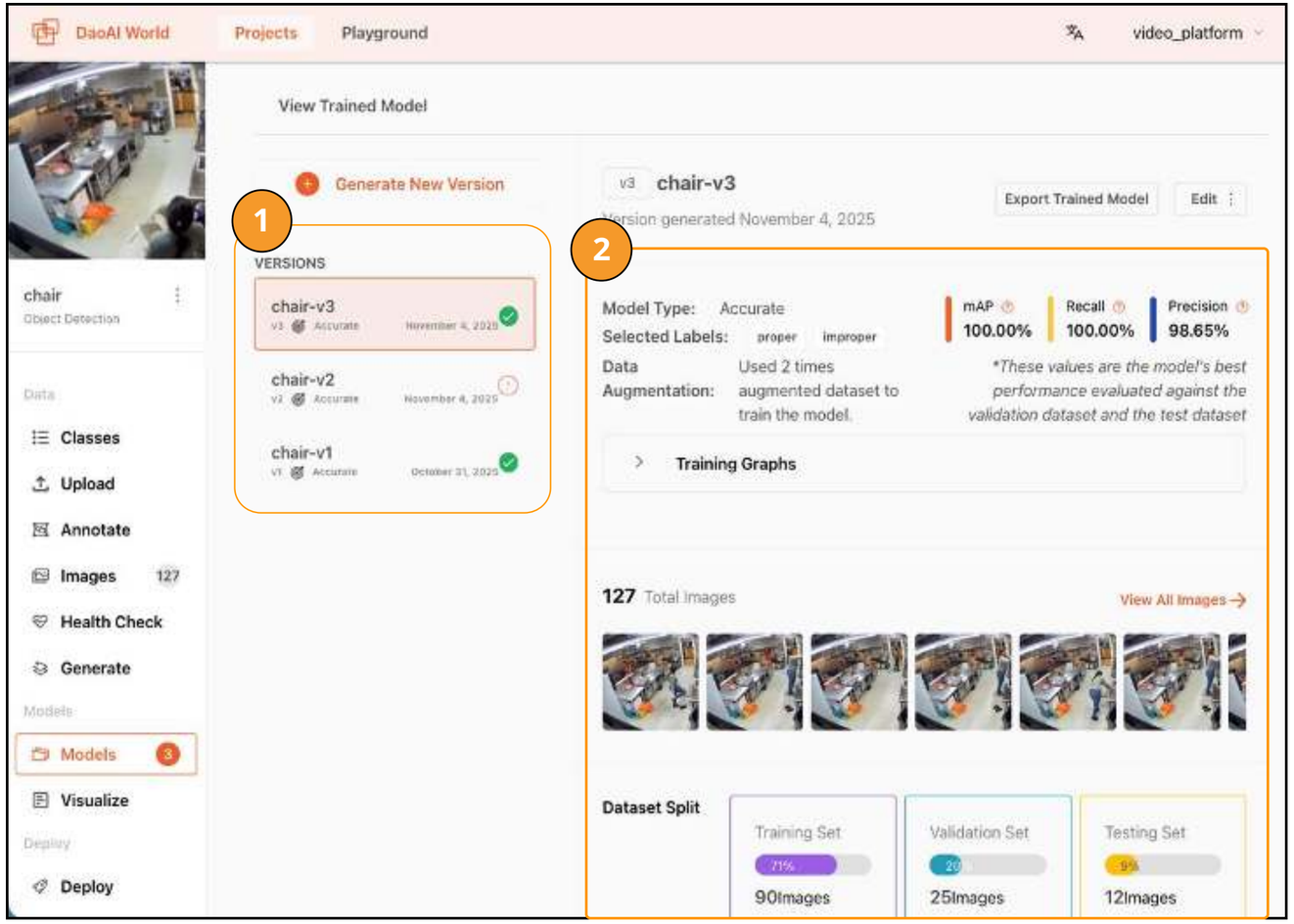
Train your Model on DaoAI World

1.Continuous Model Improvement

Every new dataset automatically updates and refines the model, ensuring performance improves over time.

2.Full Visibility Into Training Data

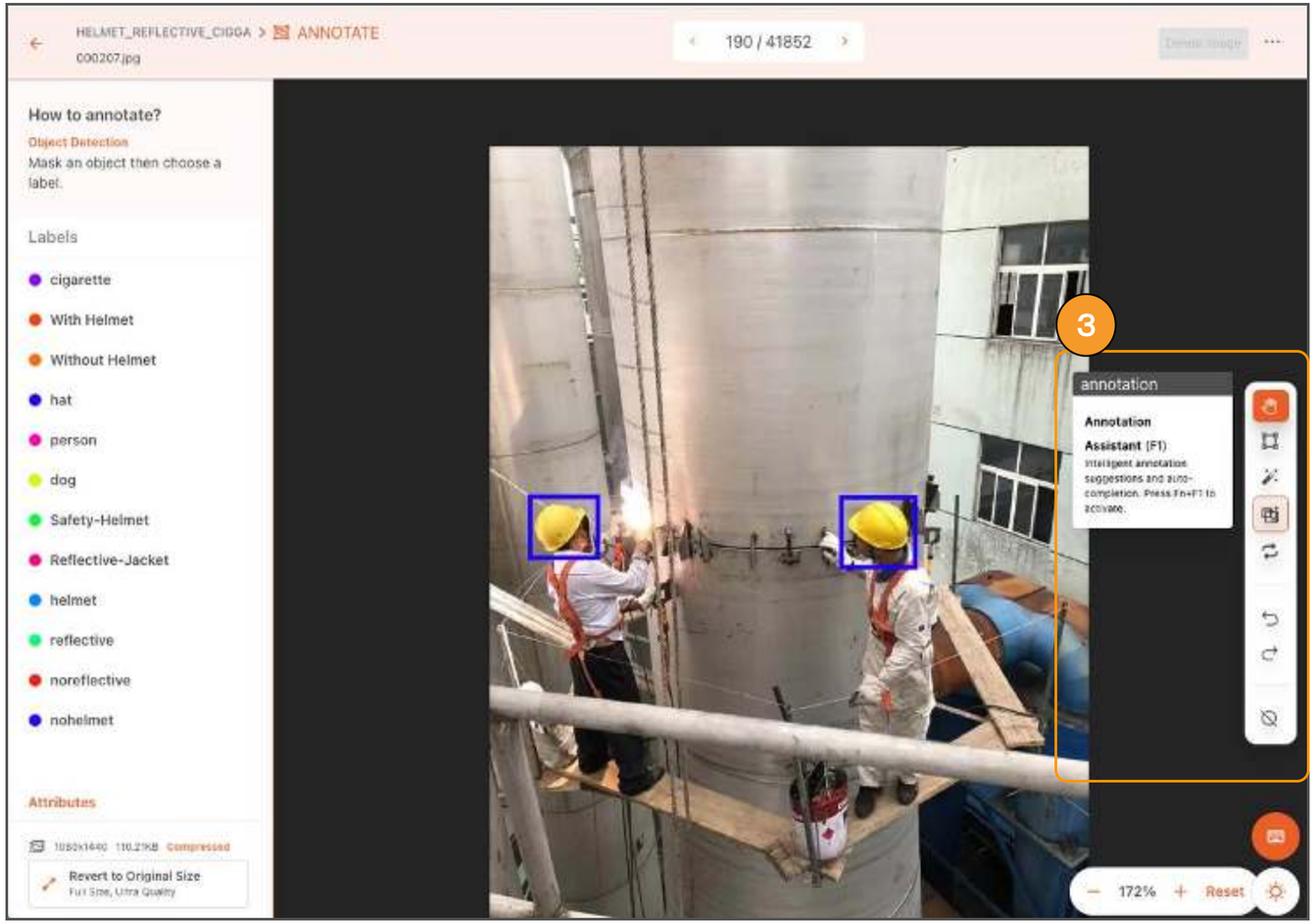
See exactly which images were used, how labels are distributed, and how each dataset compares—making it easy to validate differences across versions.



Train your Model on DaoAI World

3.Accurate, Efficient Labeling Tools

Use smart annotation tools to quickly label people, equipment, and safety gear in each frame—boosting accuracy while reducing manual effort.



DaoAI Pre-Trained Models

Use instantly—no labeling or training required.

Fast Object Detection

Quickly identify common objects in the scene.

Example: Detect people, vehicles, and other frequently appearing items.

General Object Detection

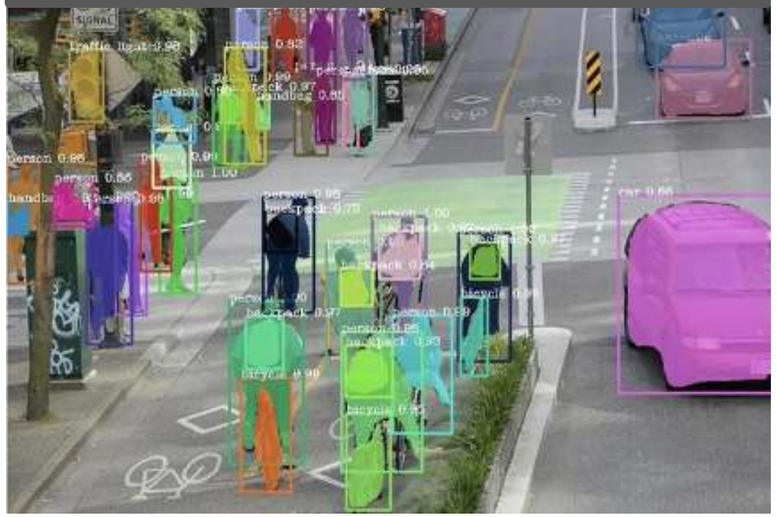
Recognize specific targets relevant to your operations.

Example: Detect workers, vehicles of different colors, etc.

General Instance Segmentation

Individually segment every object in the frame.

Example: Separate people, cars, bikes, and backpacks.



Iterative Model Updating

Your model keeps learning as new data arrives — always improving, never static.

Original Recognizable Patterns

+

New Variations Seen During Inspection

=

Updated Model with Expanded Recognition

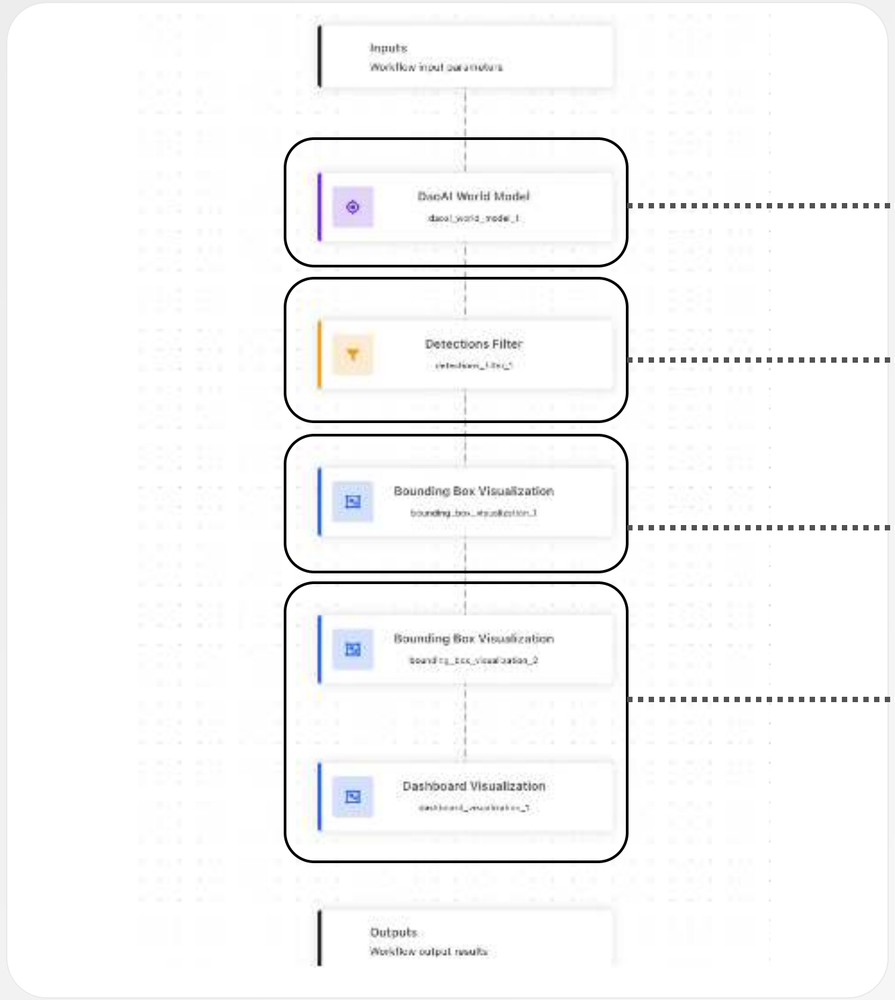
Higher Accuracy Over Time

Lower False Alarms Over Time

02

Flexible Detection Logic All Without Writing Code

Configure Inspection Tasks with a Flexible Workflow



Four Core Workflow Modules

Model Selection :
Choose the AI model for your inspection task

Filtering :
Focus on specific regions or target objects

Logic Rules :
Define conditions and triggers based on detection results

Result Visualization :
Display outputs on screen or dashboards

Configure Any Inspection Task Without Algorithm Limits

Extend functionality with custom Python modules

Model

Choose from pretrained models or load your own trained models.

Visualization

Add overlays or annotations to detection results.

Logic Processing

Define workflow rules and conditions to filter results or trigger actions.

Data Storage

Store inspection data locally or send it to external systems via Webhook.

Notifications

Send alerts through email, messaging apps, or system integrations when conditions are met.

Video

Track objects in video streams, analyze trajectories, or measure motion speed.

Transformation

Apply post-processing to model outputs: filtering, conversion, merging, or restructuring data.

Classical CV

Use traditional CV algorithms such as edge detection, measurement, morphology, or template matching.

Highway Traffic

Process license plates, vehicle attributes, and traffic behavior in high-speed scenarios.

Advanced

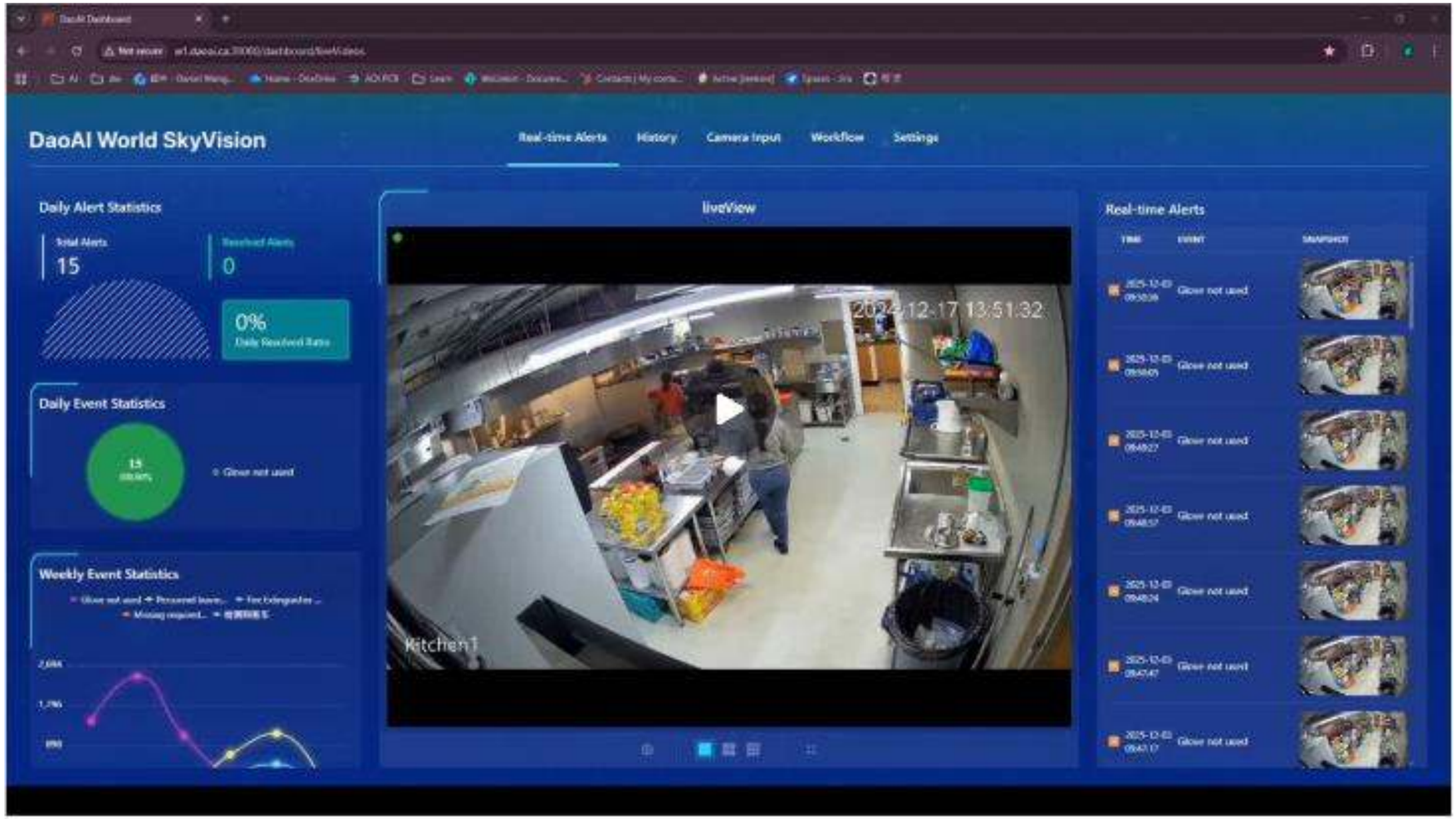
Run downstream analytics by combining multiple model outputs or feeding results into custom modules.

Workflow Demo

Example: Detecting Whether Kitchen Staff Are Wearing Gloves

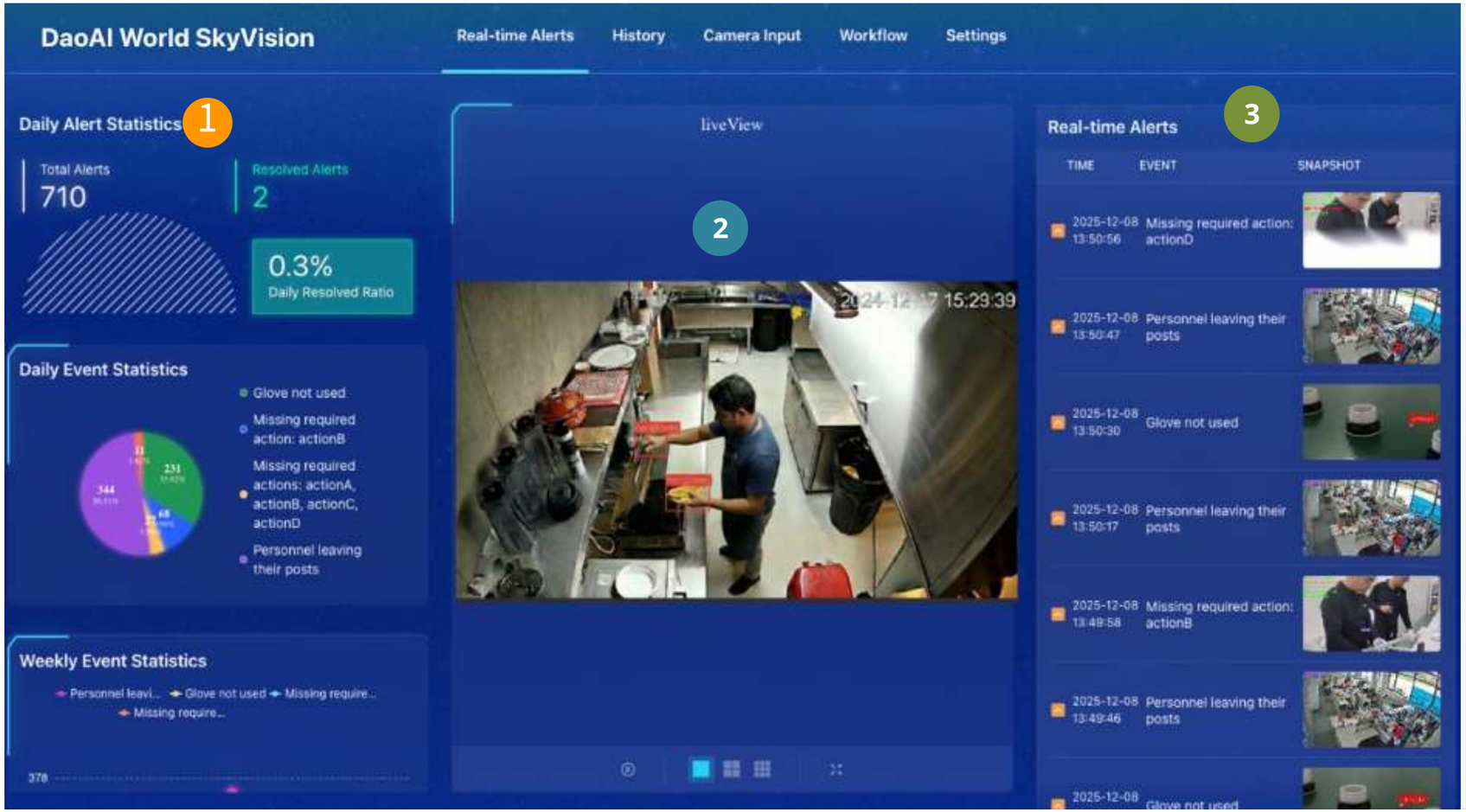
[Click to play or go to](#)

daoai.com/skyvision-demo.html



03 An All-in-One Platform for Cameras, AI Models, and Alerts

Dashboard



1 Alert Statistics

Visualize daily, weekly, and historical alert trends to identify high-risk periods and recurring issues.

2 LiveView

A centralized live view showing camera feeds, detected behaviors, and equipment status to help managers review events in real time.

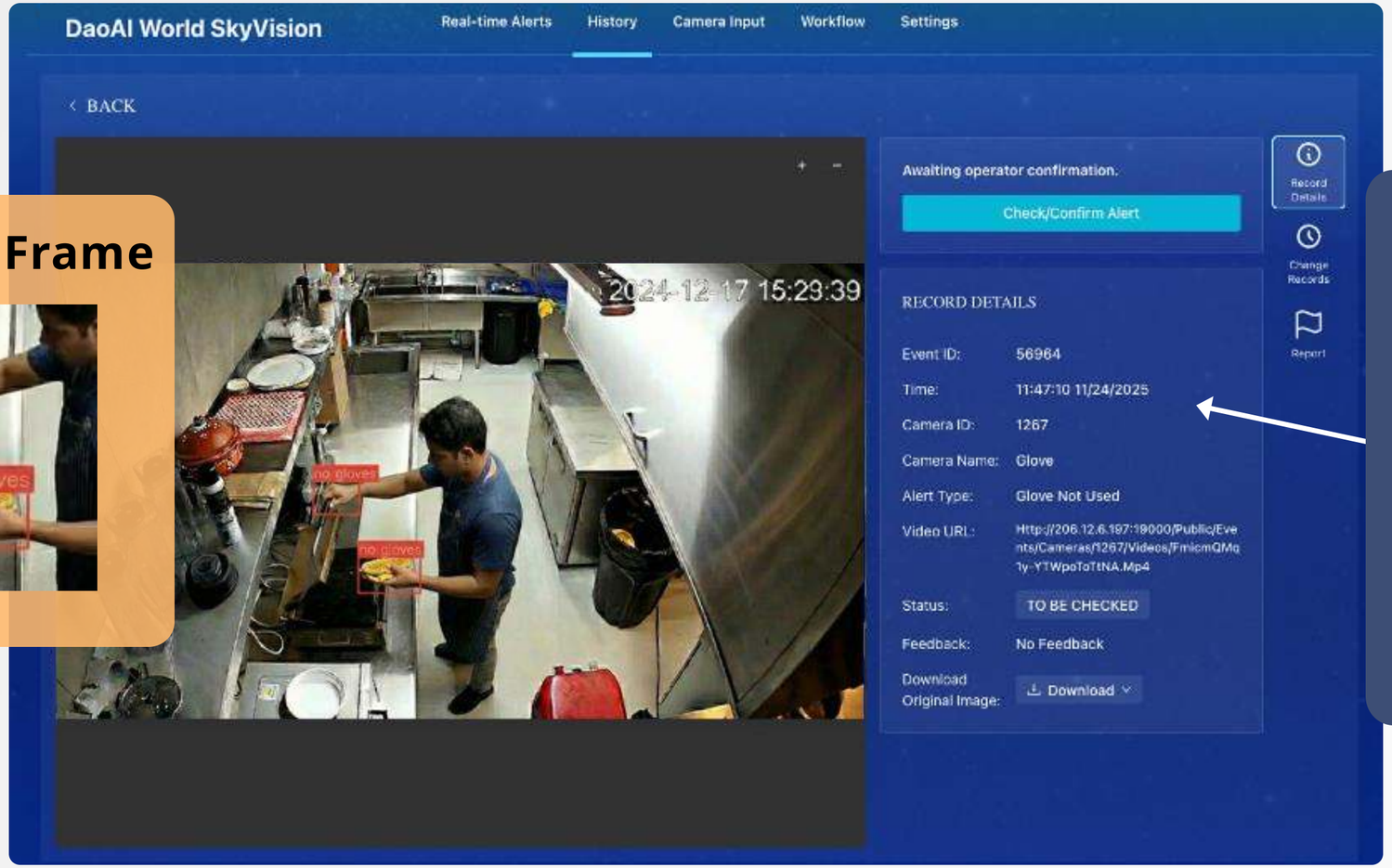
3 Real-time Alerts

A chronological list of all alerts, including snapshots and timestamps, enabling quick incident review and timely response.

Alert Traceability: Full Video and Image Records

When the AI detects an abnormal event—such as missing gloves, improper handling, blocked exits, fire hazards, or unsafe operations—the system automatically captures the relevant video clip and highlights the violation region. Managers don’t need to scrub through long recordings; a single snapshot is enough to understand exactly what happened and where.

Violation Frame



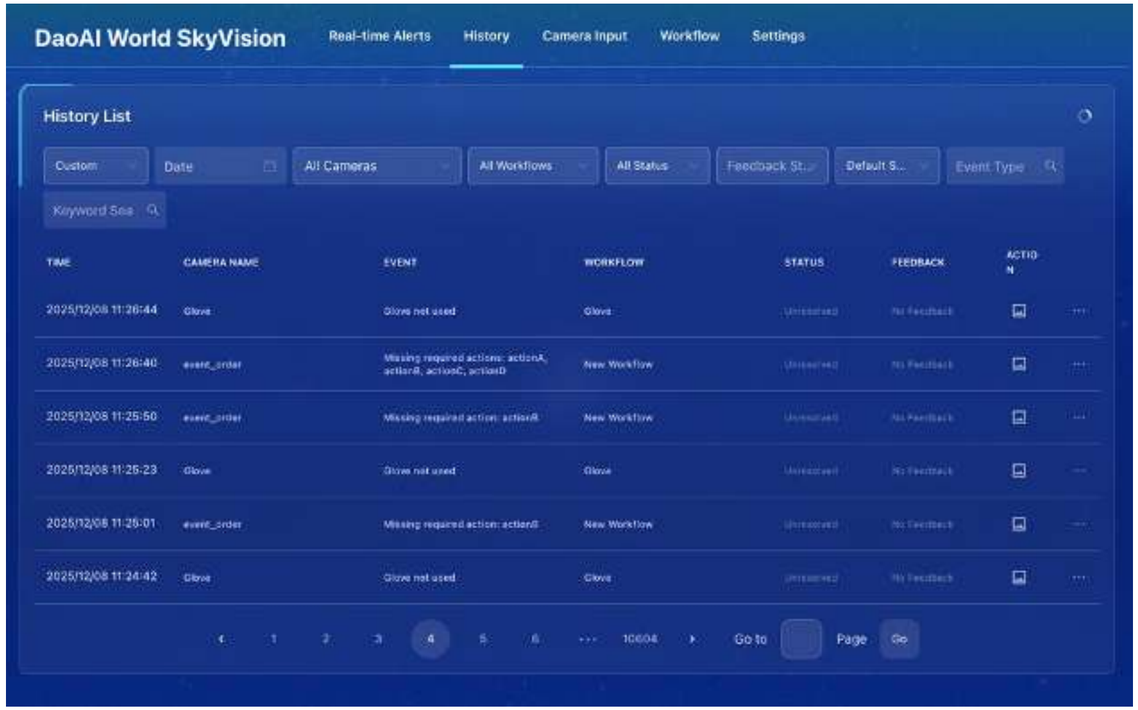
Event Details :

- Timestamp
- Camera ID
- Scene / Area Name
- Event Type
- Original Video & Snapshot Download
- Event Status (Pending / Resolved)

Event Export & Workflow Management

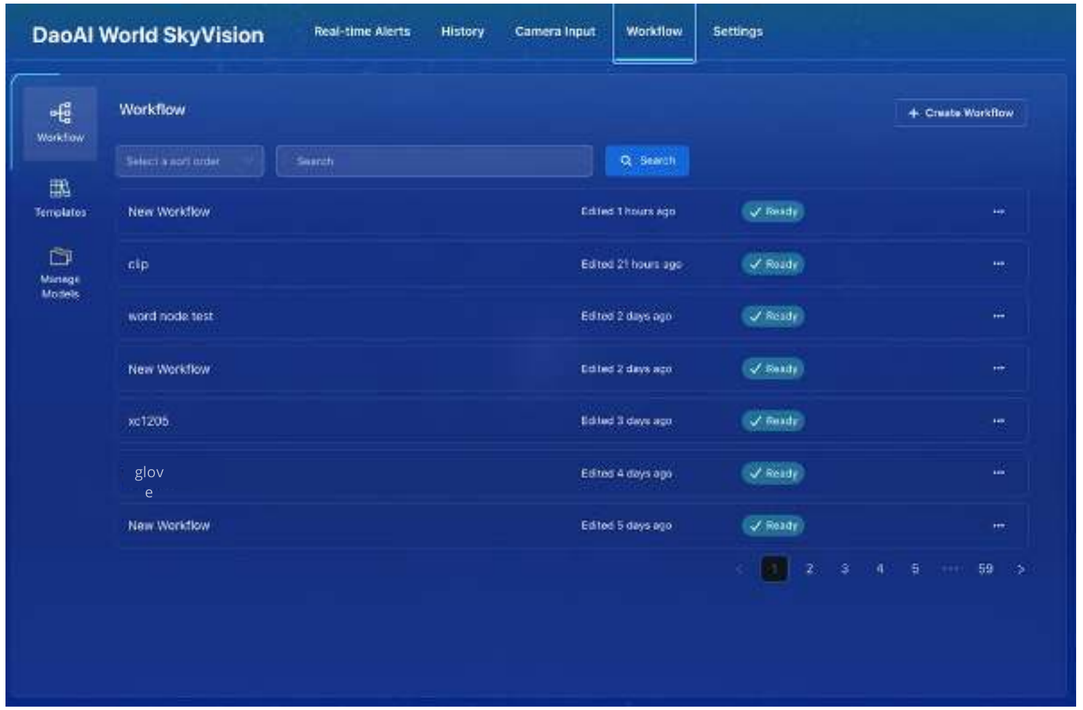
One-Click Event Data Export

Filter events by type, camera, or workflow, then export all related data with one click—ideal for audits, training, and external reporting.

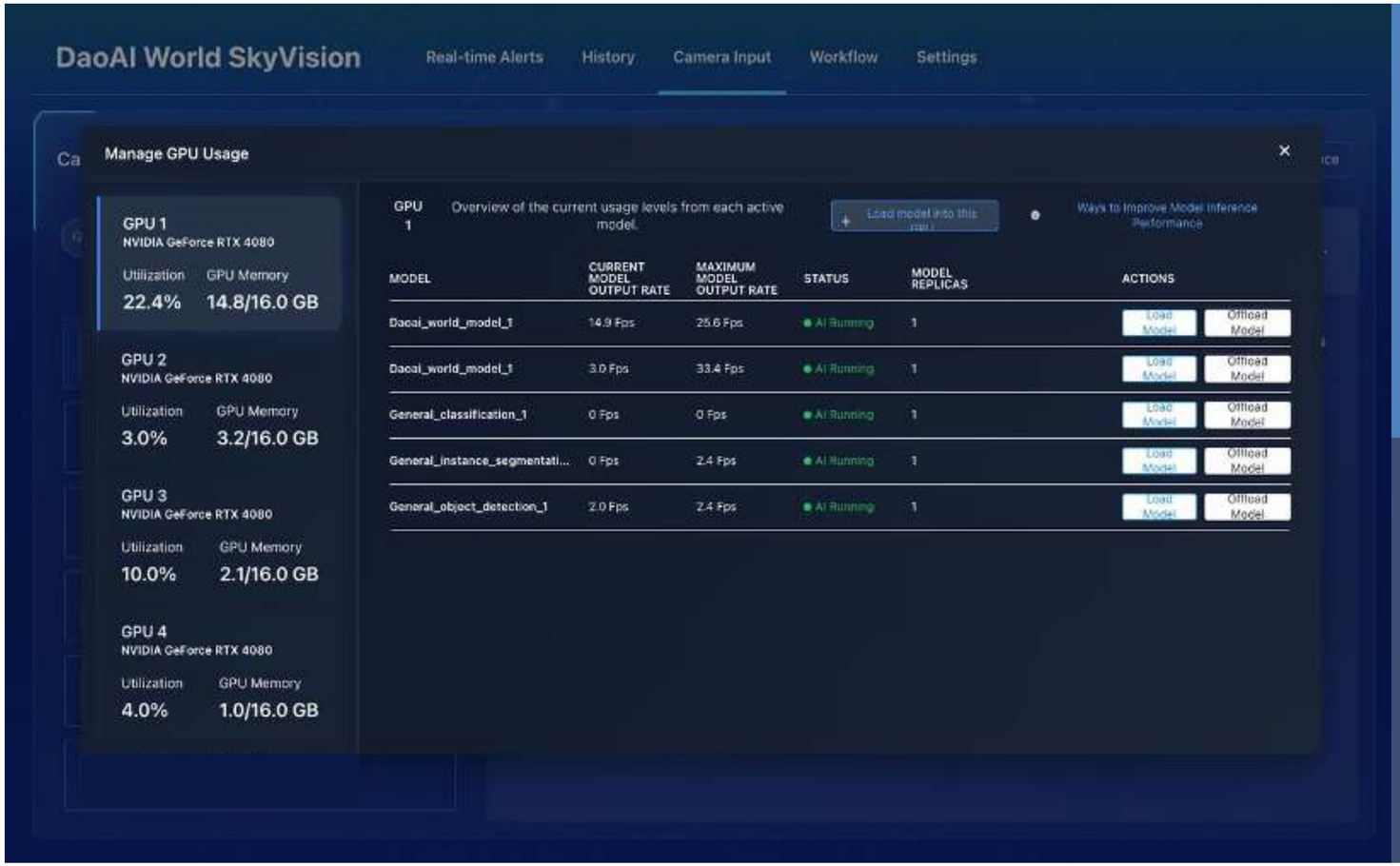


Centralized Workflow Management

All AI workflows can be viewed, activated, paused, and edited from a single interface, keeping rules across different scenarios organized and consistent.



Unified GPU & Model Orchestration



GPU Resource Monitoring

The system provides real-time visibility into GPU utilization, memory usage, and model workloads, enabling managers to quickly assess capacity and determine whether to scale servers or redistribute models.

Higher Throughput

Models can be deployed across additional GPUs to boost inference performance. Increasing model replicas also enhances overall processing throughput.

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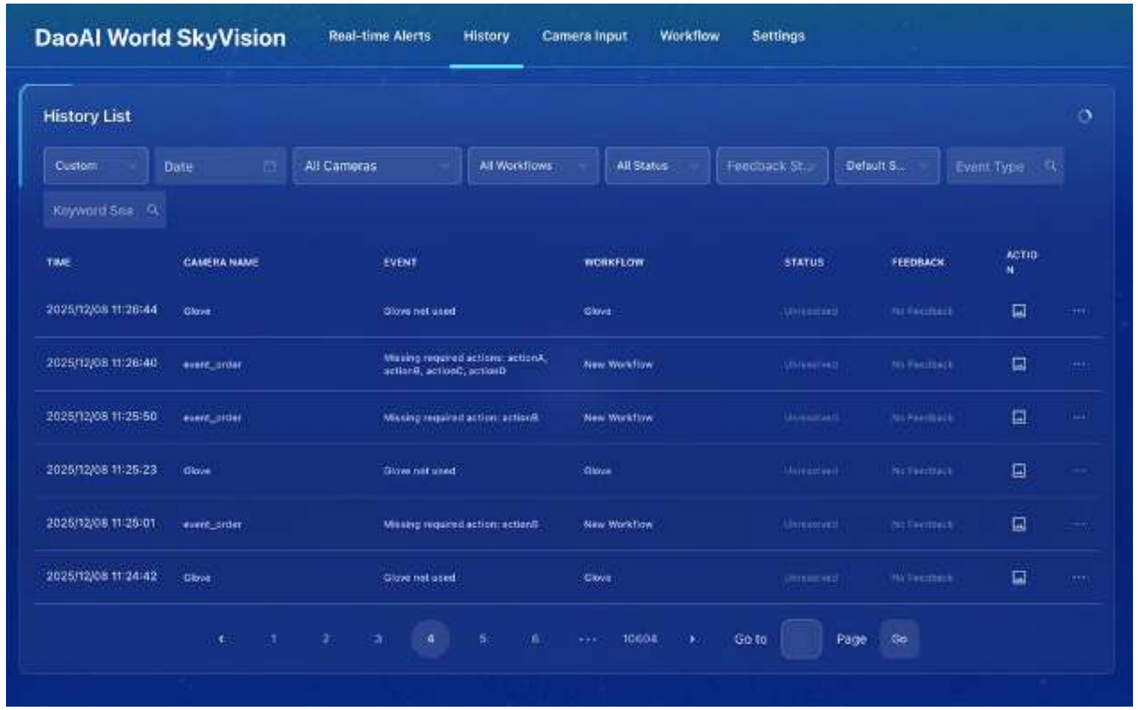

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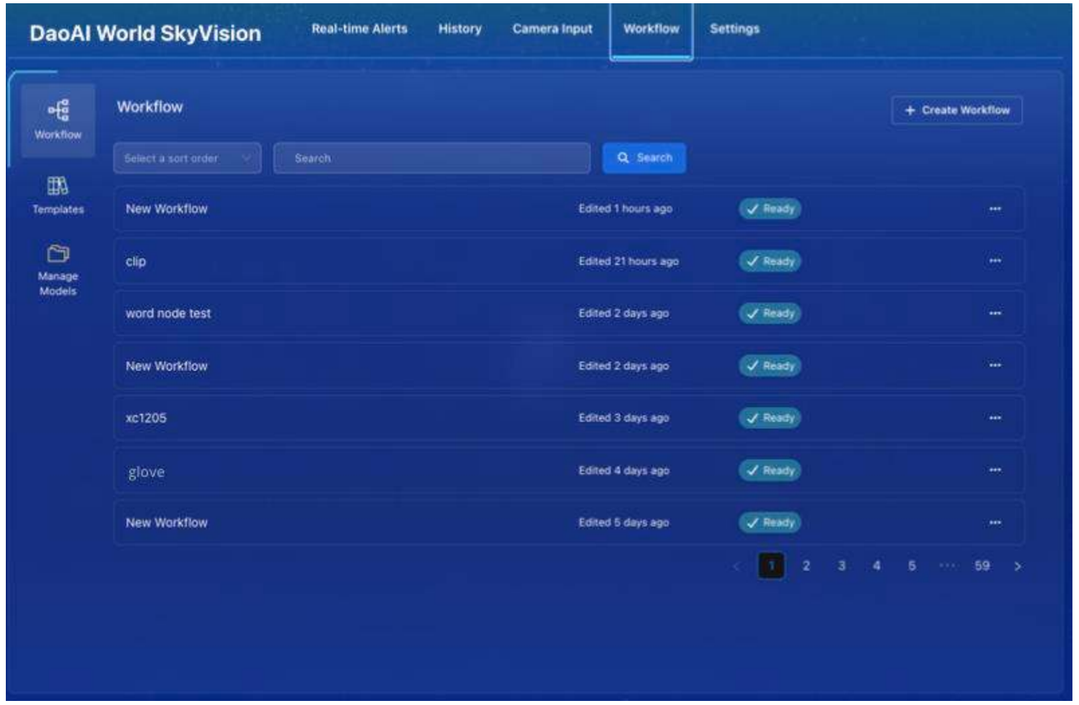
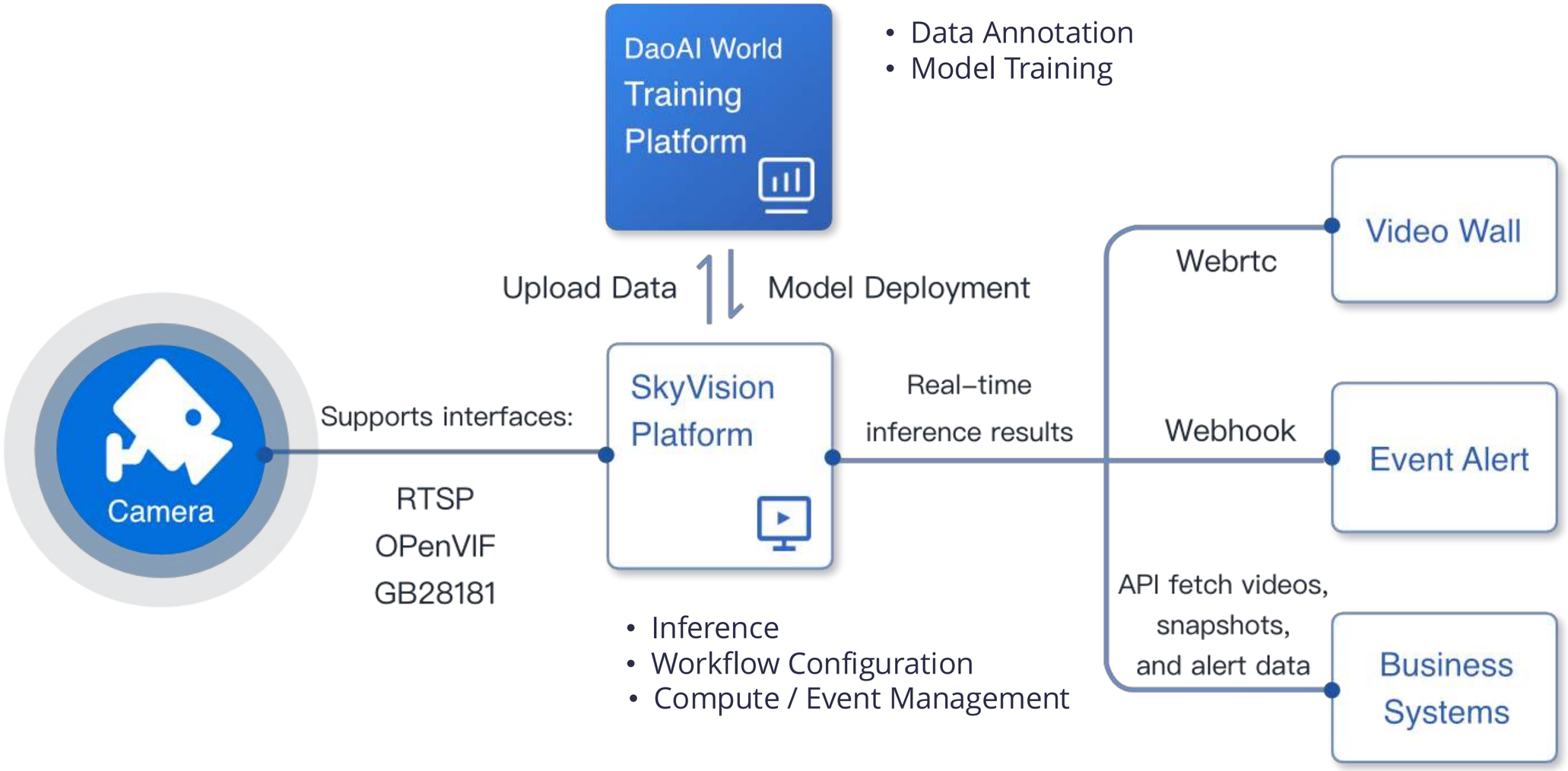


System Architecture



Comparison of Common AI Surveillance Solutions

Category / Solution	AI Box	Training Platform + Algorithm Store	DaoAI World SkyVision Surveillance Platform
Training Capability	Does not support self-training	Supports training with own datasets	Full self-training with user data
Inference Capability	Local compute inference	Local or cloud inference	Local compute inference
Model Updates	Cannot update models	Updates depend on vendor	Models can be updated anytime by users
Detection Algorithms	Fixed and non-extensible	Each algorithm must be purchased separately (e.g., PPE detection / reflection detection). New tasks require buying additional algorithms.	Highly flexible. New detection tasks can be added via workflows.

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Application Scenarios

- Highway Toll Stations
- Highways
- Construction Site Surveillance
- Worker Behavior Monitoring
- Production SOP Compliance & Product Counting

Highway Toll Stations

Real-time surveillance of abnormal human behavior, vehicles, and equipment to build a safer and more efficient intelligent toll station.

Additional Applications :

- Vehicle pass-through statistics
- Dwell time analysis
- License plate recognition
- Vehicle type classification

Staff dozing detection

Unauthorized personnel entering lanes

Barrier gate status monitoring

Vehicle violations

Highway

AI-powered detection of violations and unexpected hazards to ensure safety across highway operations.

Additional Applications :

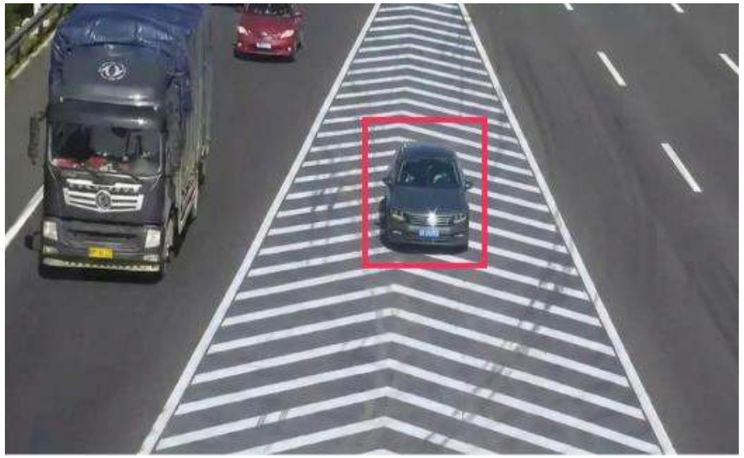
- Vehicle speed detection
- Traffic flow analysis
- Parking/dwell time statistics
- Pedestrian intrusion detection
- Wrong-way vehicle detection

Fallen object detection

Motorcycles entering highways

Wrong-way driving

Illegal parking



Construction Site

AI-powered detection of safety violations and unexpected hazards, providing comprehensive protection for on-site operations.

Additional Applications :

- Reflective vest detection
- Hazardous action recognition
- Safety belt detection
- Equipment status recognition

Missing safety helmet

Worker falling

Unauthorized entry

Equipment catching fire

Worker Behavior

Using AI-driven analytics to build a transparent, safe, and standardized working environment.

Additional Applications :

- Object spillage detection
- Hazardous action recognition
- Spill/leak detection
- Dish counting / output counting
- Equipment status detection

Not wearing gloves

Improper knife handling

Non-compliant chef hat usage

Smoking on duty

Production Line & SOP Compliance Monitoring

AI verifies SOP compliance and automates counting to ensure production quality and data accuracy.

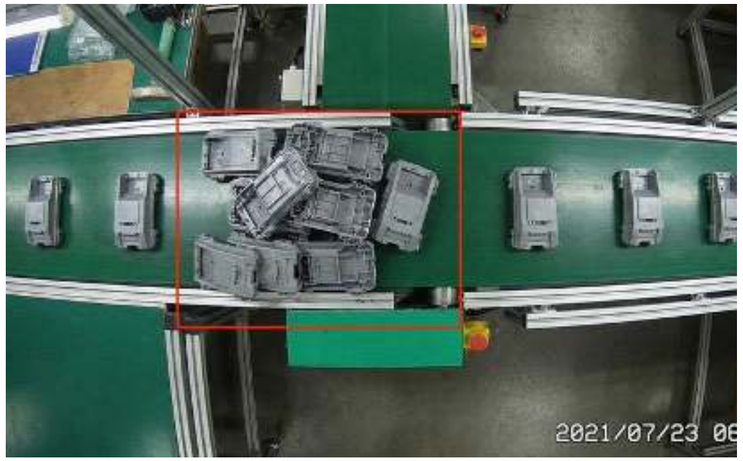
Additional Applications :

- Worker absence monitoring
- Task duration measurement
- Hazard zone intrusion detection
- PPE compliance detection

SOP compliance monitoring

Packaging verification

Production line stacking detection



Product counting

Fire & Risk Monitoring

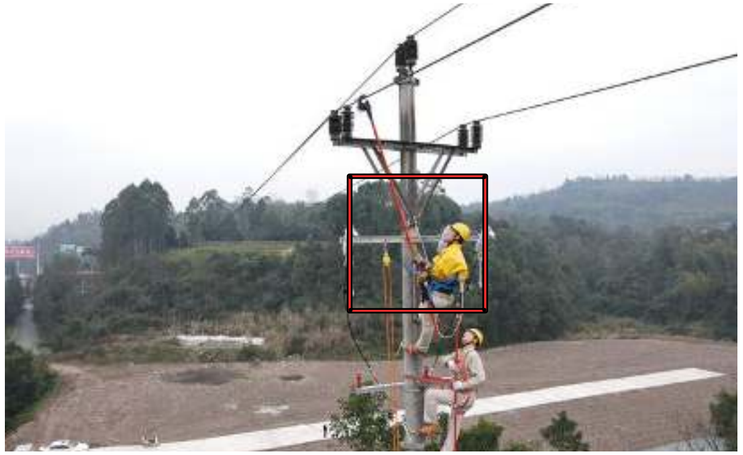
Safeguard forests and environmental safety by detecting sparks, smoke, and operational risks in real time, providing faster and more accurate early warnings.

Additional Applications :

- Operator working-time statistics
- Hazard zone intrusion detection
- Wildlife intrusion monitoring

Equipment spark detection

Worker equipment compliance



Flame recognition

Smoke detection

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