

AI VIDEO SURVEILLANCE SOLUTION

DaoAI World SkyVision

The dashboard features a navigation bar with 'Real-time Alerts', 'History', 'Camera Input', 'Workflow', and 'Settings'. The main content area includes:

- Daily Alert Statistics:** Total Alerts: 710, Resolved Alerts: 2, Daily Resolved Ratio: 0.3%.
- Daily Event Statistics:** A pie chart and a list of event categories such as 'Gloves not used', 'Missing required actions', and 'Personnel leaving their posts'.
- Weekly Event Statistics:** A horizontal bar chart showing event frequency over a week.
- Real-time Alerts Table:**

TIME	EVENT	SHAPSHOT
2025-12-09 13:00:58	Missing required action: actionD	[Snapshot]
2025-11-05 13:50:47	Personnel leaving their posts	[Snapshot]
2023-11-09 13:58:50	Gloves not used	[Snapshot]
2020-11-10 13:58:17	Personnel leaving their posts	[Snapshot]
2022-12-68 13:46:58	blissing required action: actionD	[Snapshot]
2023-11-08 13:46:45	Personnel leaving their posts	[Snapshot]
- liveView:** A central video feed showing a construction site with workers and machinery.



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Born in Canada, Built for the World



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.



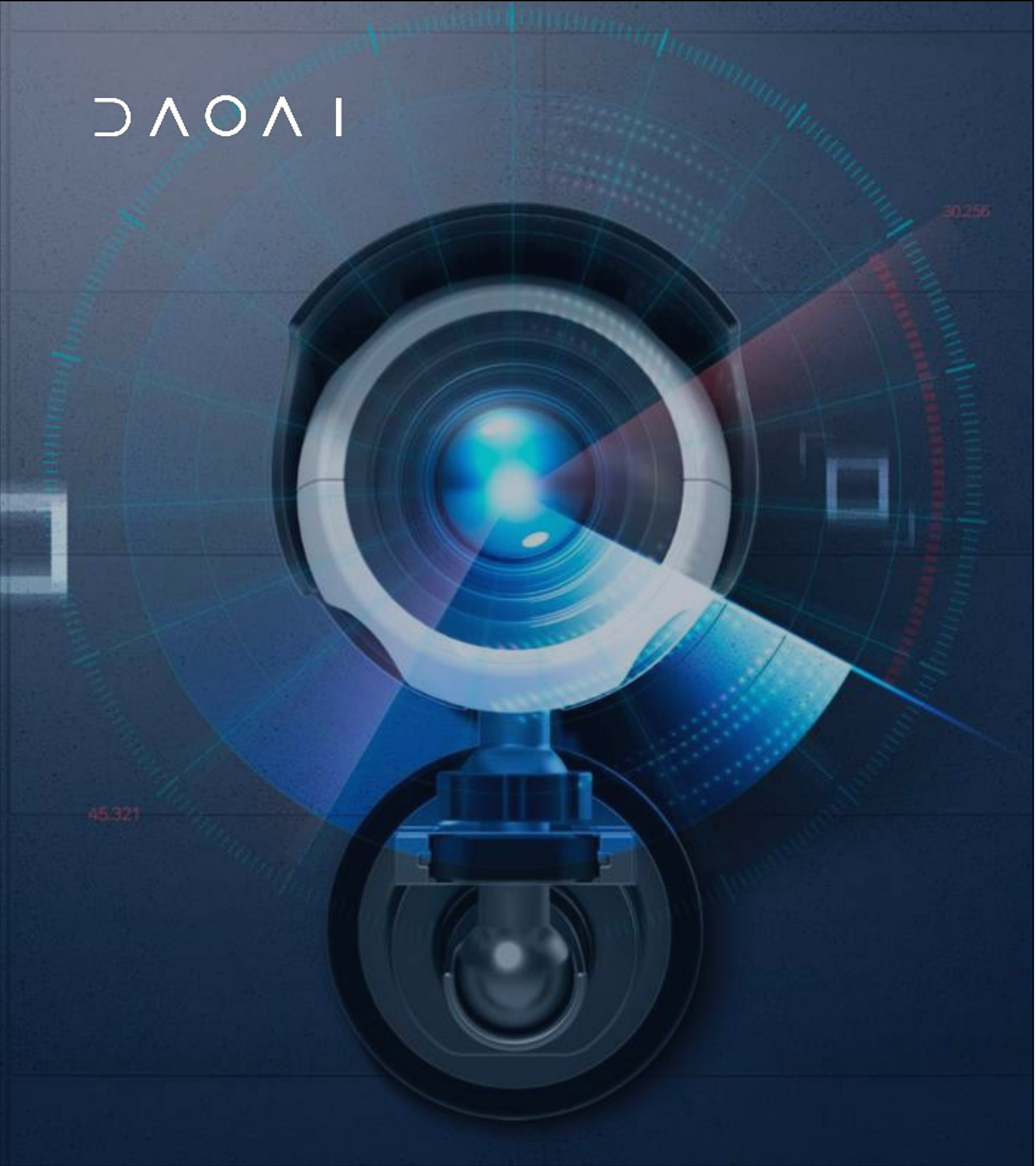
Dependence on Vendors

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.



DAVAI

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.
- ✓ Start detection.

DaoAI Pre-Trained Models

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

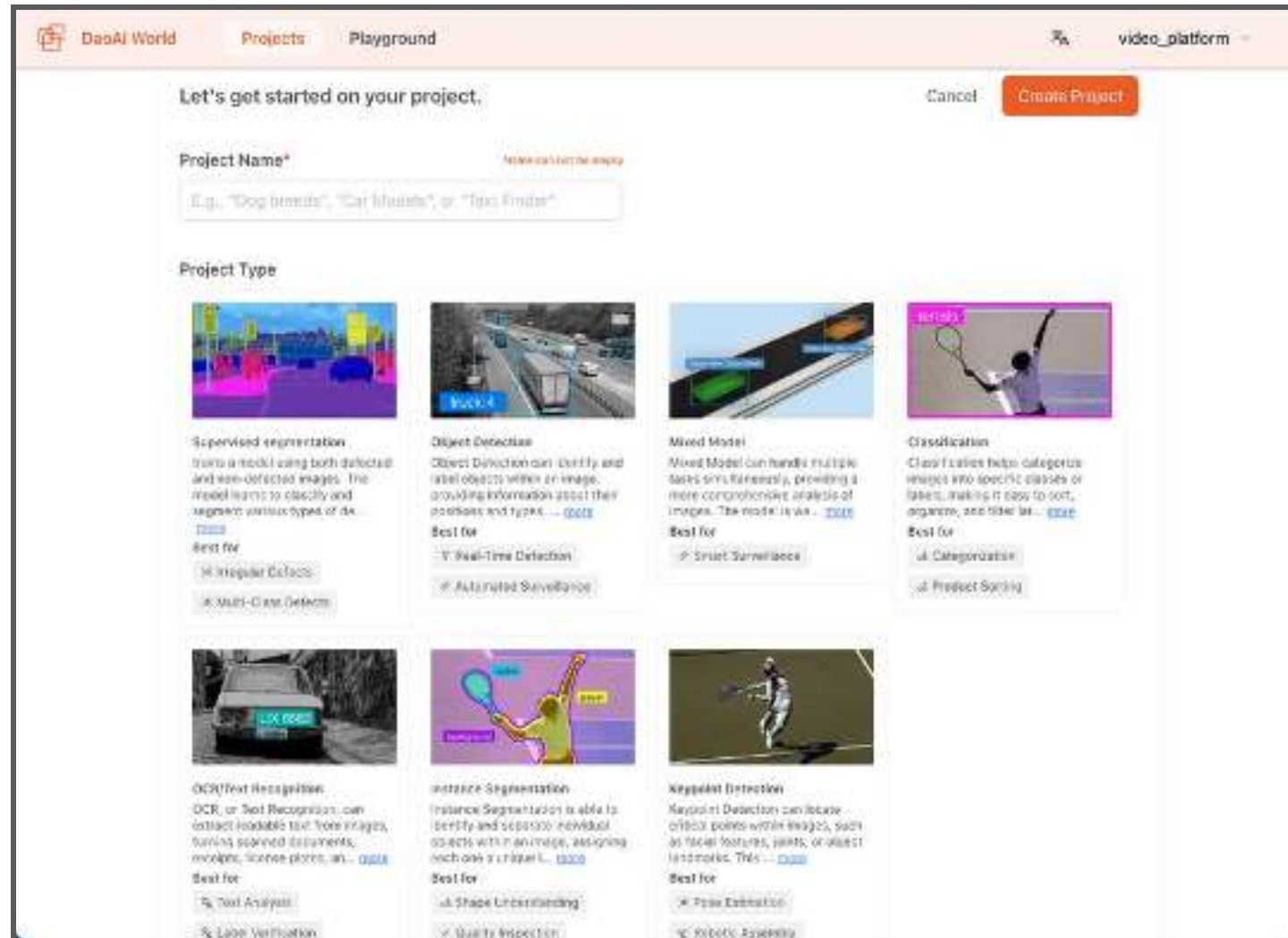
**No Training
Required**

**No Labeling
Needed**

Rapid Segmentation



7 Self-Training Models



> 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.

The screenshot displays the DaoAI World interface for a project named 'chair'. The main area shows the 'View Trained Model' section for 'chair-v3', which was generated on November 4, 2025. A 'Generate New Version' button is visible at the top. The 'VERSIONS' table lists three versions: 'chair-v3' (v3, Accurate, November 4, 2025), 'chair-v2' (v2, Accurate, November 4, 2025), and 'chair-v1' (v1, Accurate, October 21, 2025). The 'chair-v3' version is highlighted with a red box and a circled '1'. To the right, the 'Model Type' is 'Accurate', and the 'Selected Labels' are 'proper' and 'improper'. The performance metrics are: mAP 100.00%, Recall 100.00%, and Precision 98.65%. The 'Data' section indicates the model was used 2 times and trained on an augmented dataset. Below this, there is a 'Training Graphs' section. The '127 Total Images' section shows a grid of image thumbnails and a 'View All Images' link. The 'Dataset Split' section shows: Training Set (71%, 90 Images), Validation Set (20%, 25 Images), and Testing Set (9%, 12 Images).

Version	Label	Accuracy	Date
chair-v3	v3	Accurate	November 4, 2025
chair-v2	v2	Accurate	November 4, 2025
chair-v1	v1	Accurate	October 21, 2025

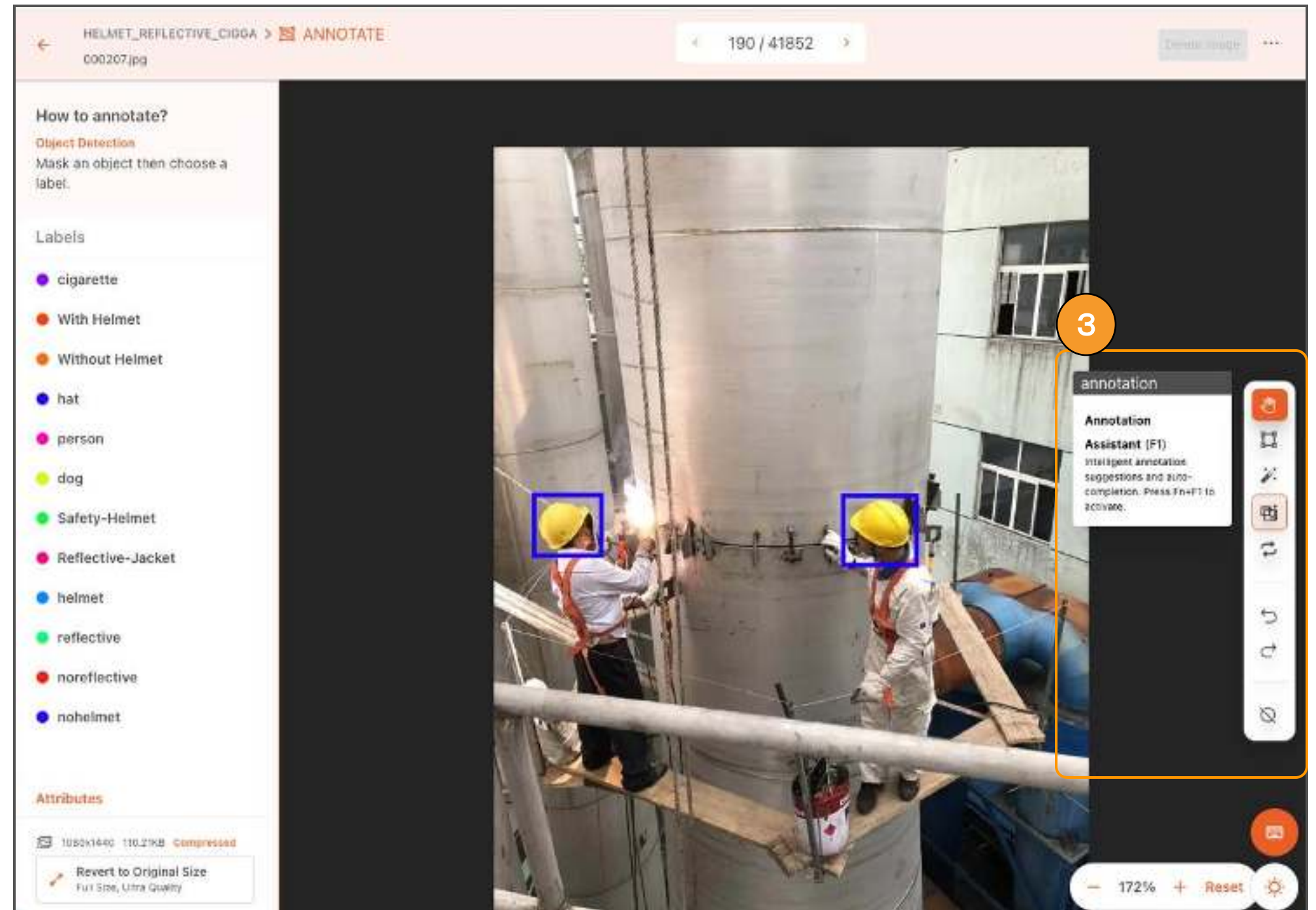
Metric	Value
mAP	100.00%
Recall	100.00%
Precision	98.65%

Set	Percentage	Count
Training Set	71%	90 Images
Validation Set	20%	25 Images
Testing Set	9%	12 Images

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.

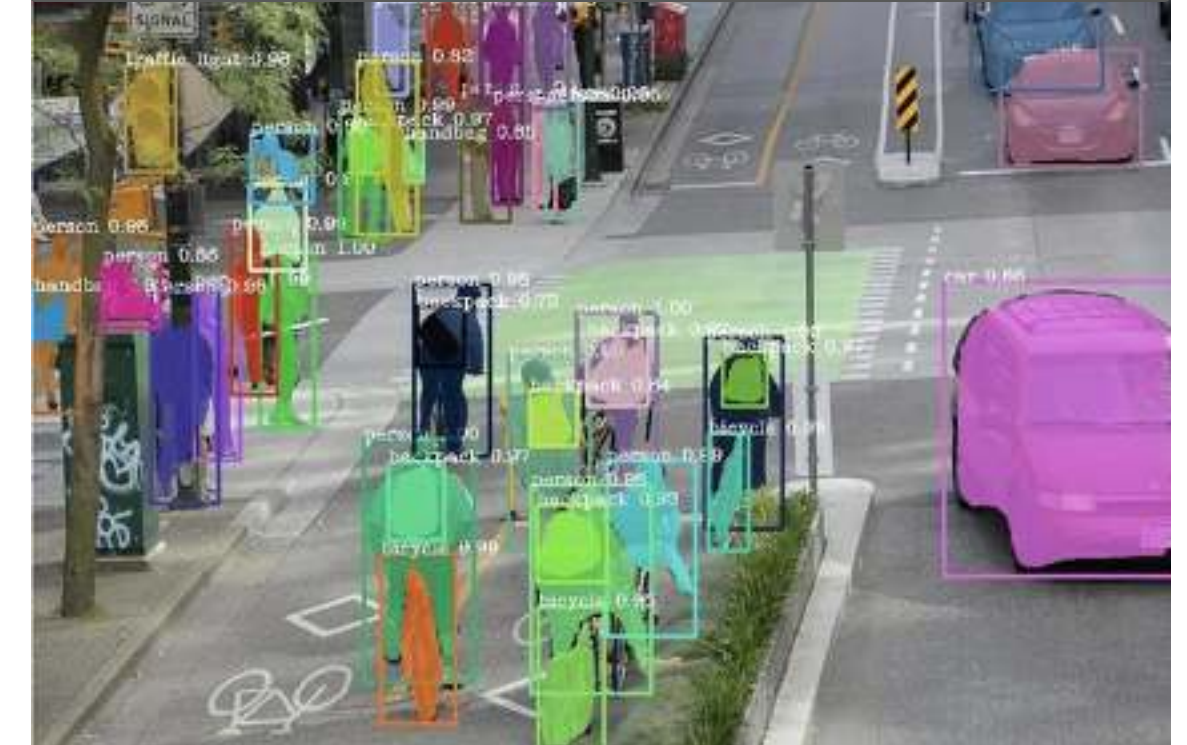
Example: Detect workers, vehicles of different colors, etc.



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.



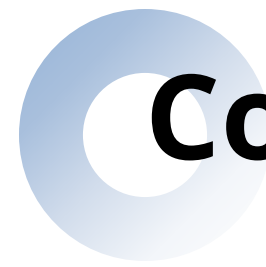
⬆️ Higher Accuracy Over Time

⬇️ Lower False Alarms Over Time

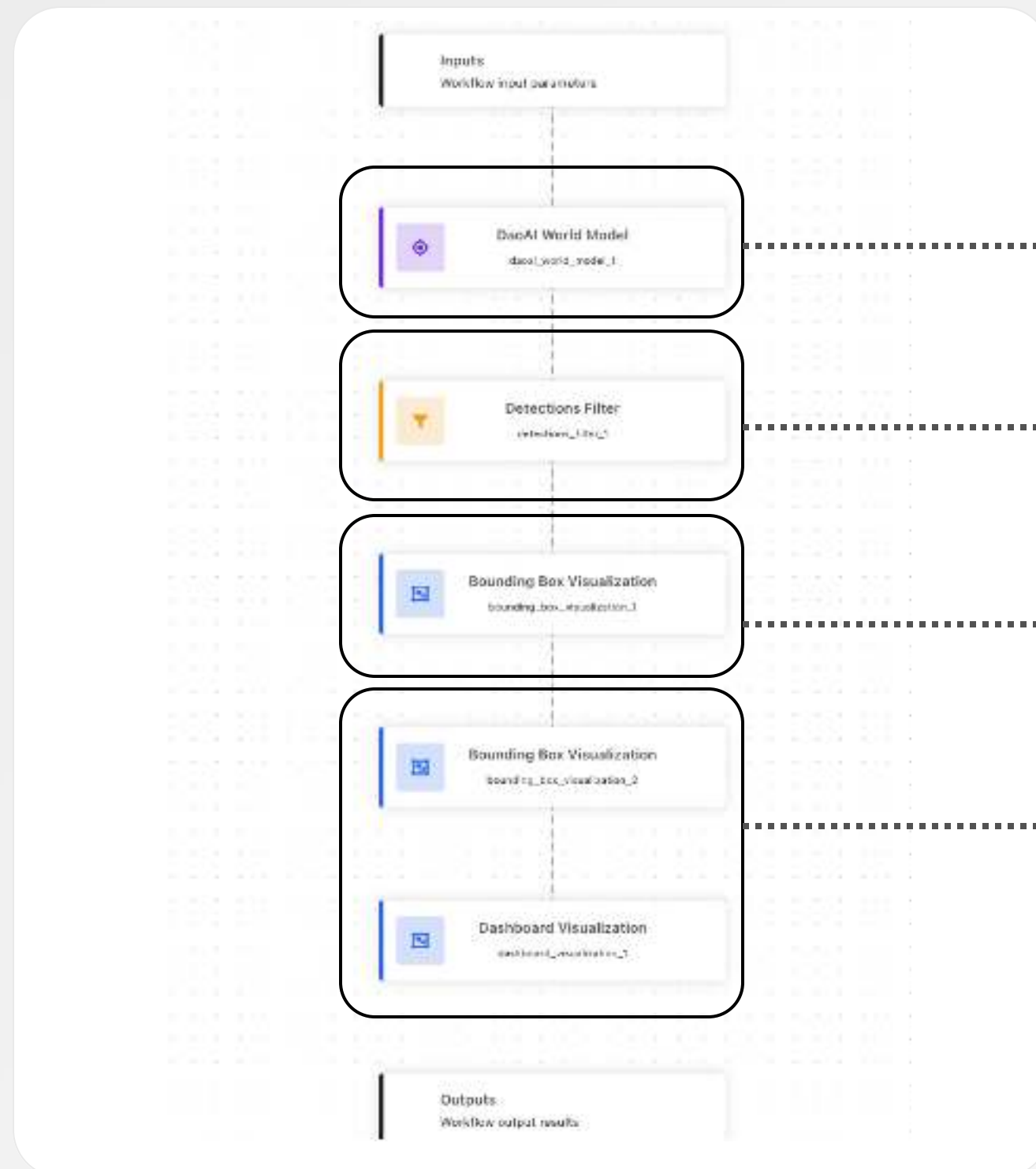


02

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.



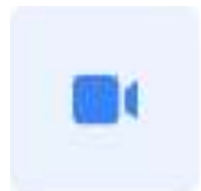
Data Storage

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.

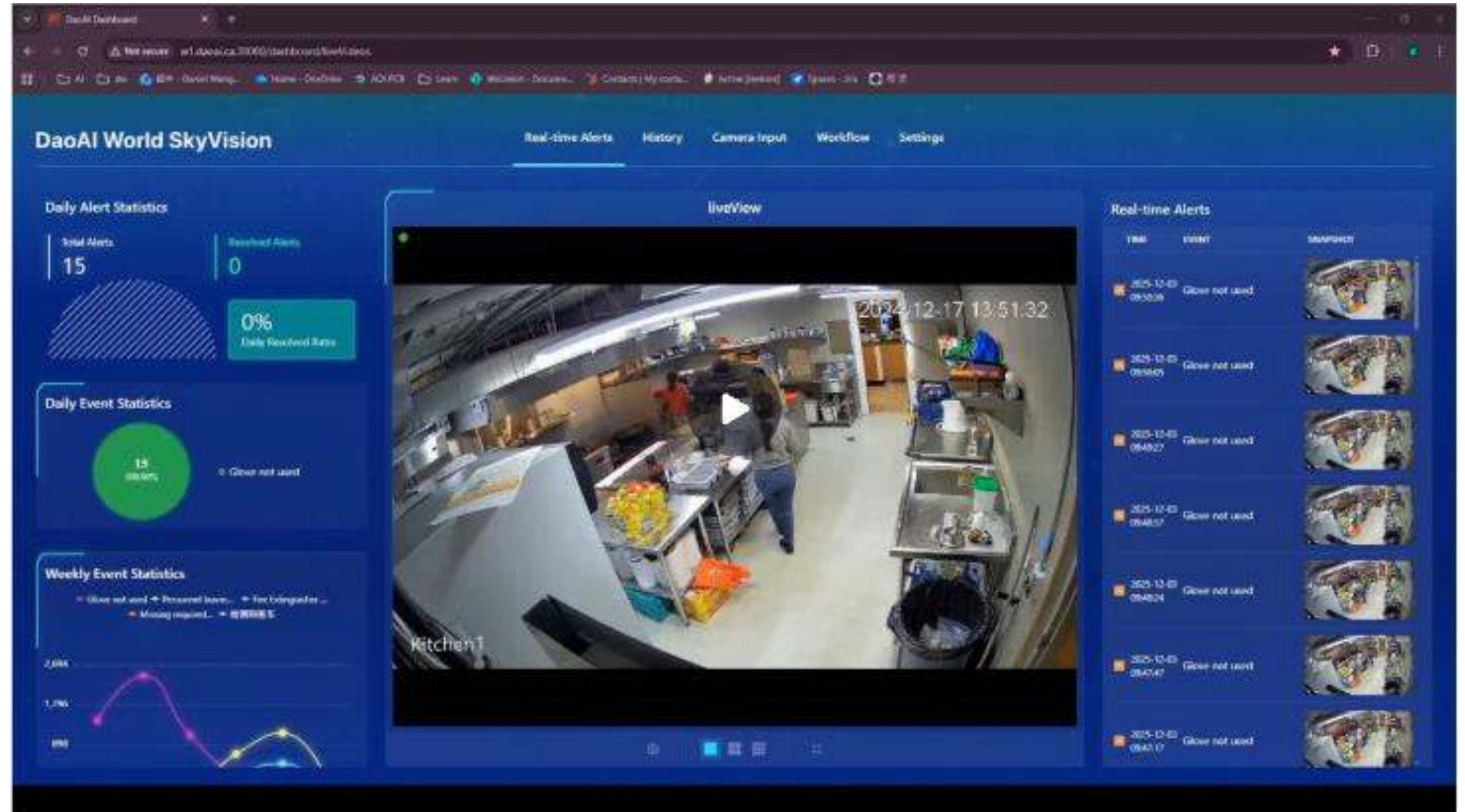
Workflow Demo

Example: Detecting Whether Kitchen Staff Are Wearing Gloves



[Click to play or go to](#)

daoal.com/skyvision-demo.html



The screenshot displays the DaoAI World SkyVision dashboard. The main interface is dark blue with white text. At the top, there's a navigation bar with tabs for 'Real-time Alerts', 'History', 'Camera Input', 'Workflow', and 'Settings'. The central part of the dashboard is divided into several sections:

- Daily Alert Statistics:** Shows 'Total Alerts' as 15 and 'Resolved Alerts' as 0. A green box indicates a '0% Daily Resolved Rate'.
- Daily Event Statistics:** Shows a green circle with '15' and '0%'. A tooltip indicates 'Glove not used'.
- Weekly Event Statistics:** Features a line graph with a purple peak and a blue trough. The y-axis ranges from 0 to 2,000.
- Real-time Alerts:** A list of alerts on the right side, each with a timestamp (e.g., 2024-12-03 09:50:06) and the message 'Glove not used'. Each alert is accompanied by a small thumbnail image of the kitchen scene.

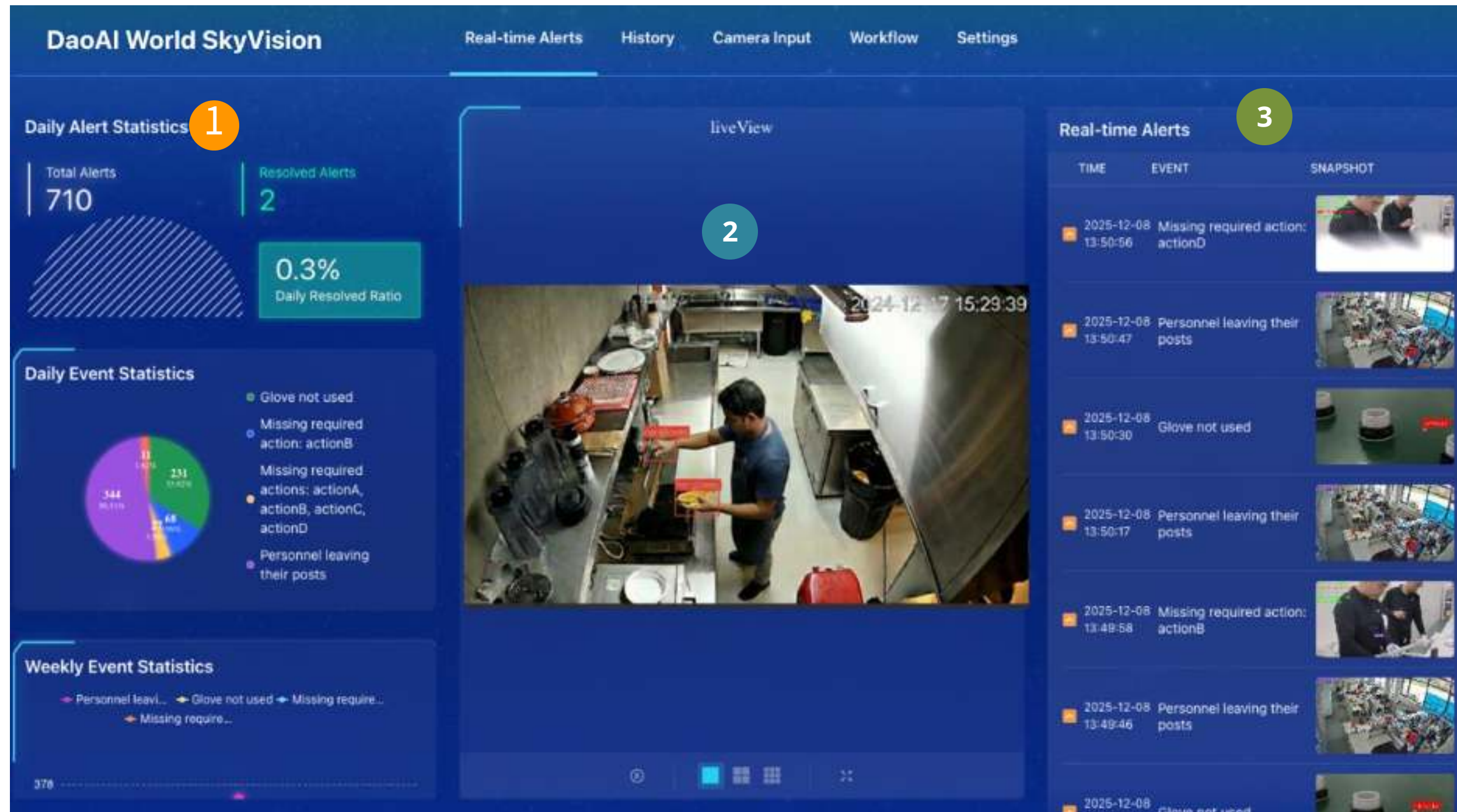
The central 'liveView' window shows a kitchen scene with a timestamp '2024-12-17 13:51:32' and the label 'Kitchen 1'. The kitchen is brightly lit, and several staff members are visible working at counters.

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



DaoAI World SkyVision

Real-time Alerts History Camera Input Workflow Settings

< BACK

2024-12-17 15:23:39

Awaiting operator confirmation.

Check/Confirm Alert

Record Details

Change Records

Report

RECORD DETAILS

Event ID: 56964

Time: 11:47:10 11/24/2025

Camera ID: 1267

Camera Name: Glove

Alert Type: Glove Not Used

Video URL: [Http://206.12.6.197:19000/Public/Events/Cameras/1267/Videos/FmicmQMq1y-YTWpoToTtNA.Mp4](http://206.12.6.197:19000/Public/Events/Cameras/1267/Videos/FmicmQMq1y-YTWpoToTtNA.Mp4)

Status: TO BE CHECKED

Feedback: No Feedback

Download Original Image: [Download](#)

Event Details :

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

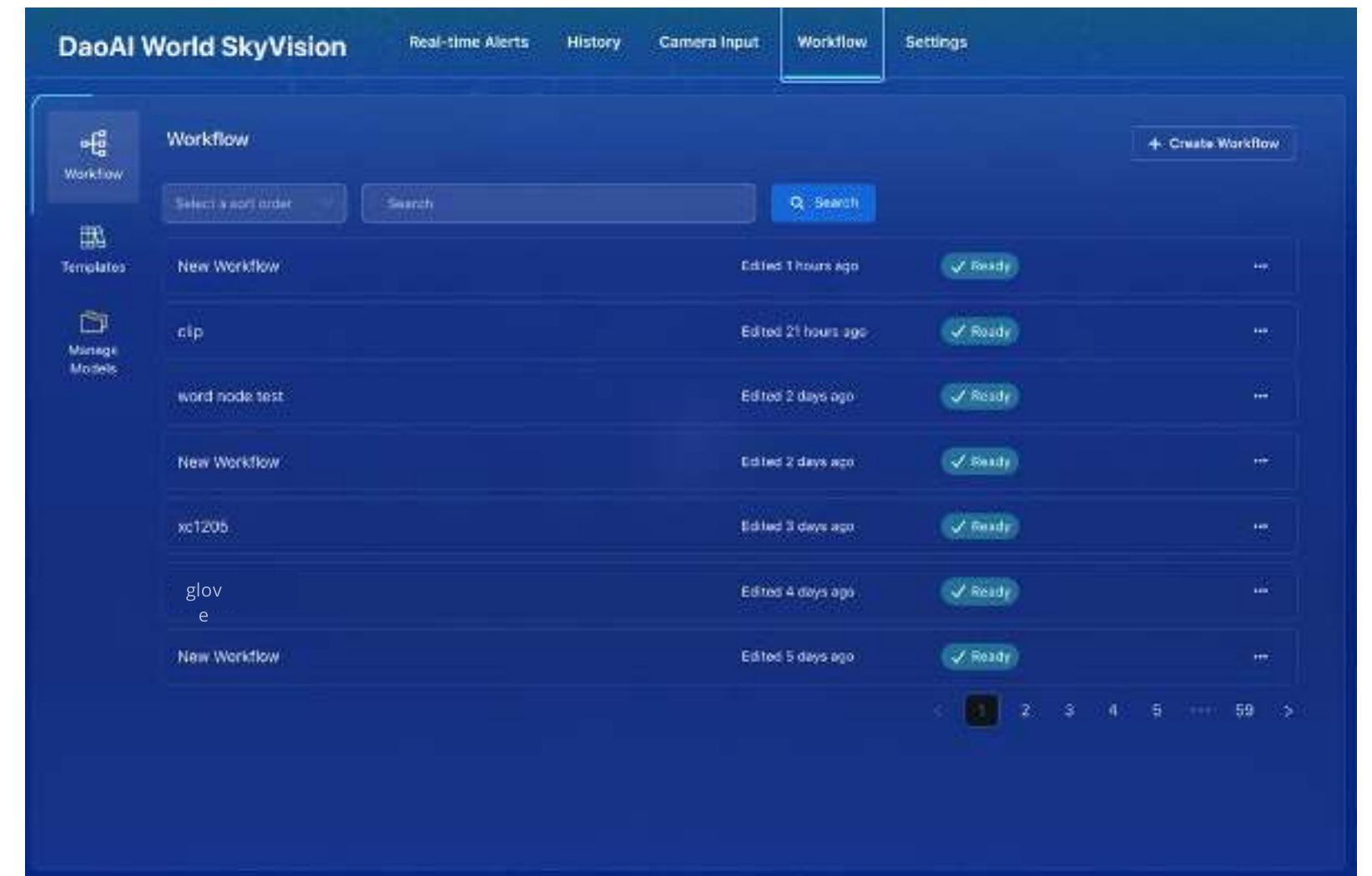
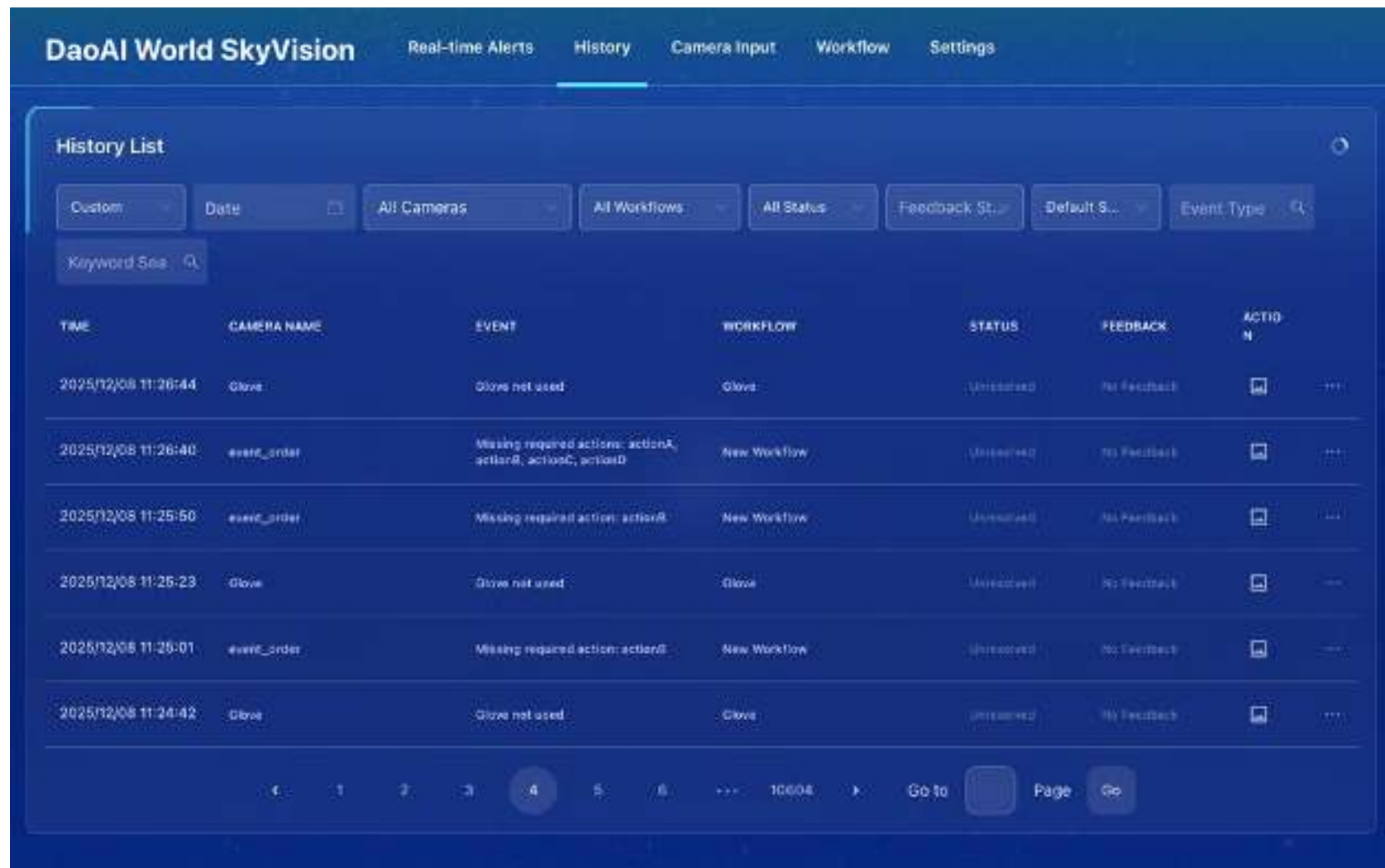
Event Export & Workflow Management

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.

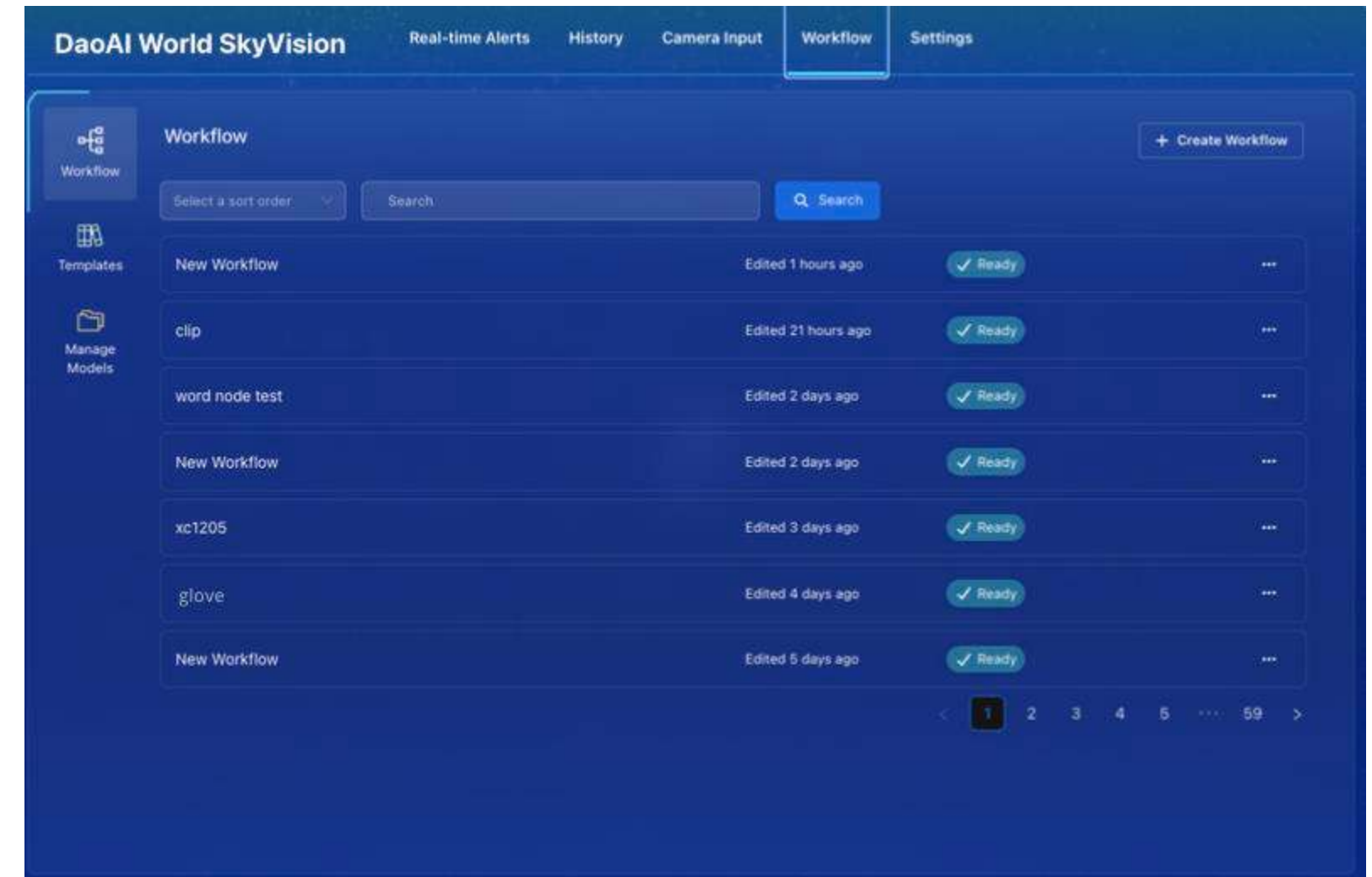
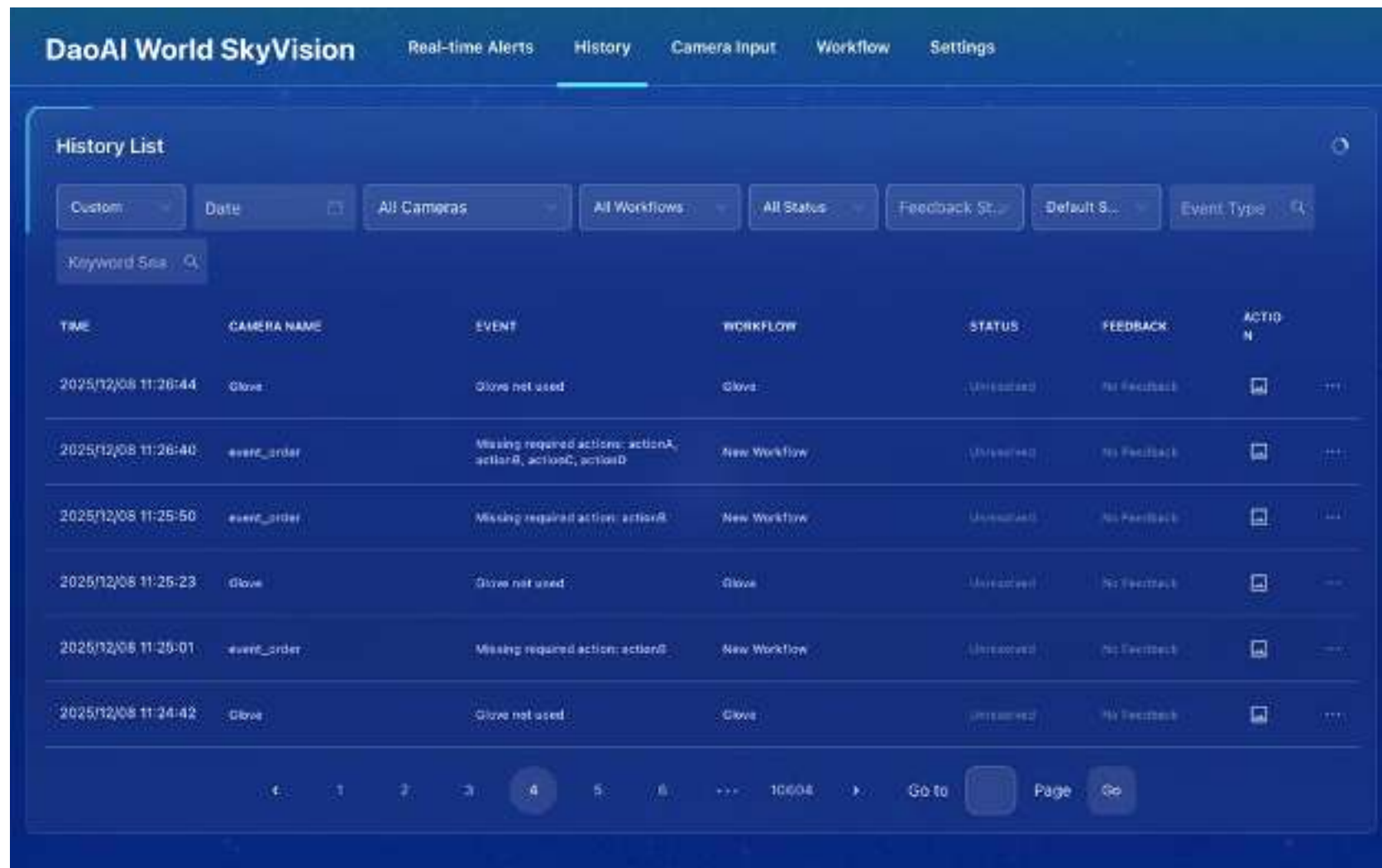
Event Export & Workflow Management

One-Click Event Data Export

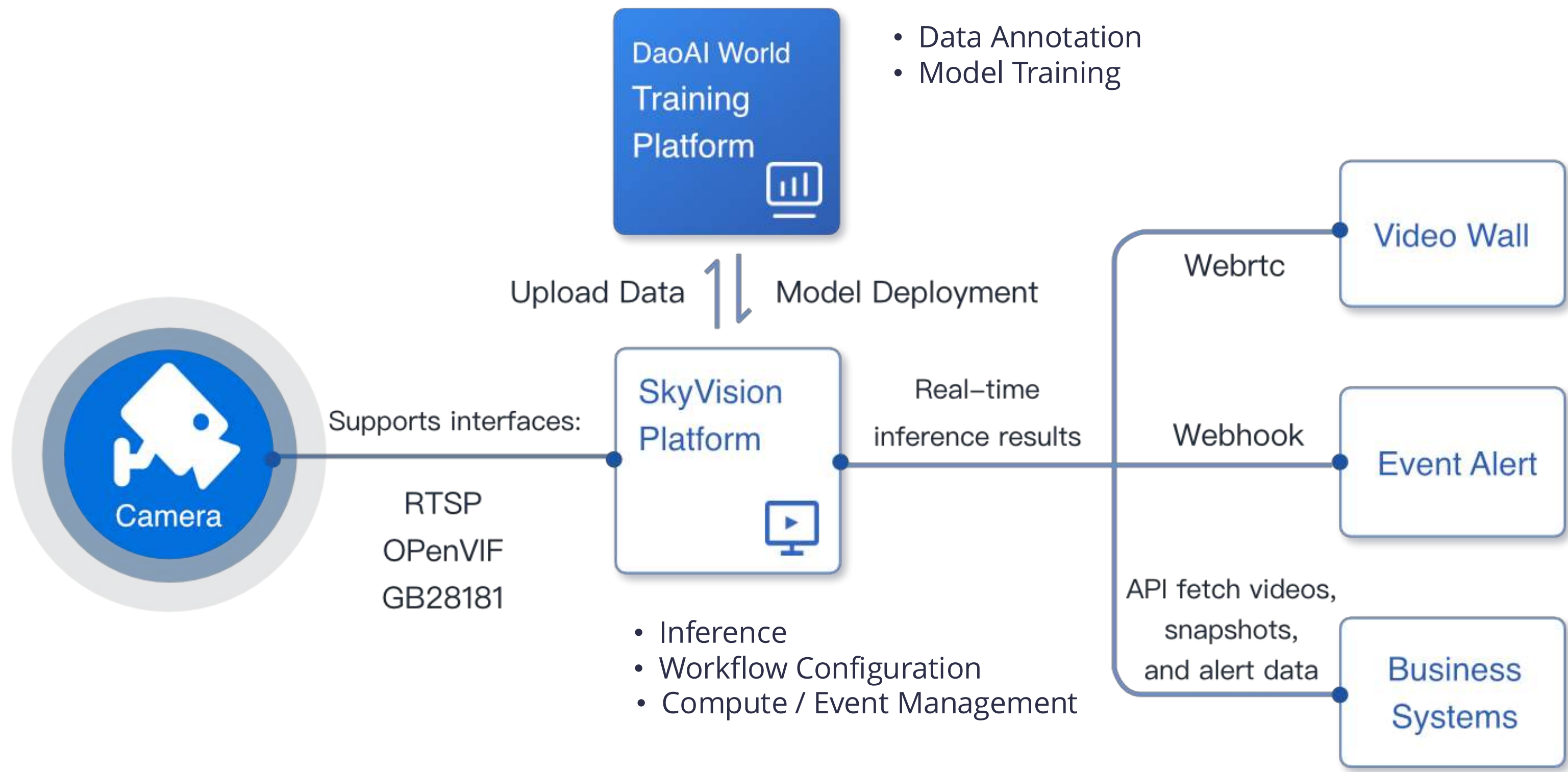
Filter events by type, camera, or workflow, then export all related data with one click—ideal for audits, training, and external reporting.

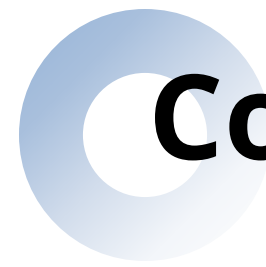
Centralized Workflow Management

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



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.

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

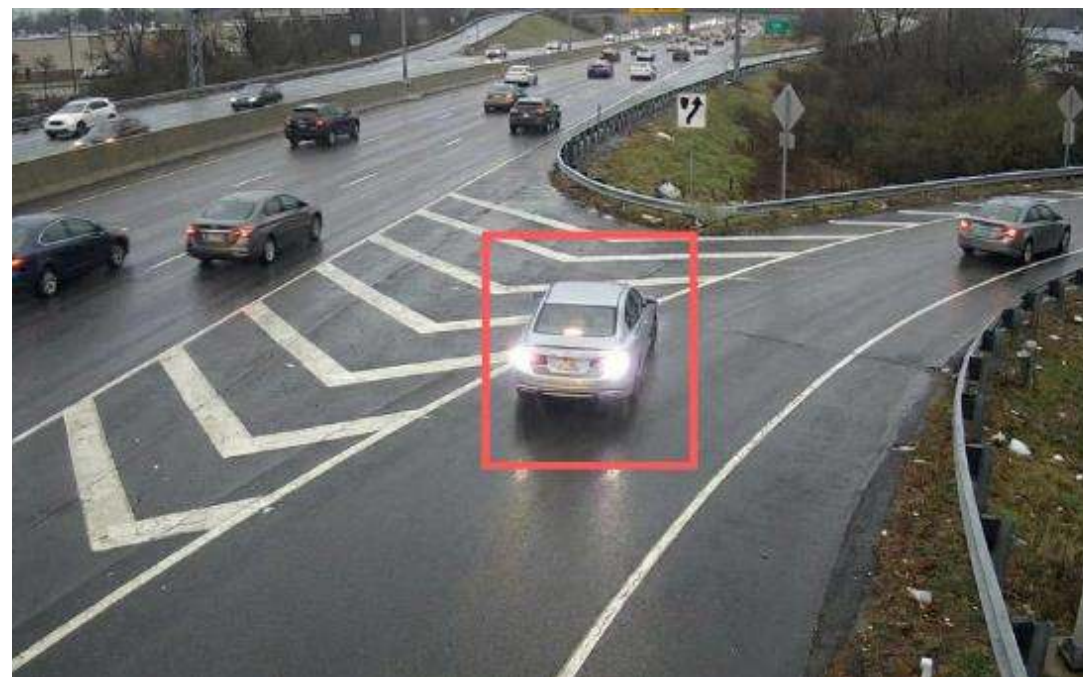
Fallen object detection



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

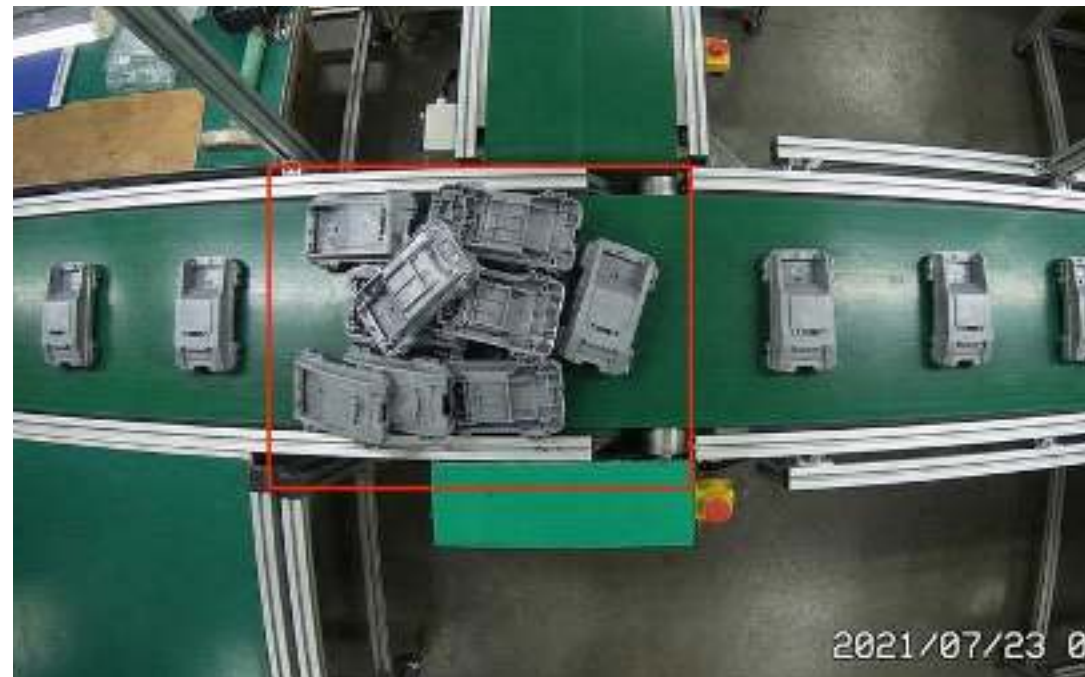
SOP compliance monitoring



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



DAOAI

DaoAI World SkyVision

Real-time Alerts History Camera Input Workflow Settings

Daily Alert Statistics

Total Alerts
710

Resolved Alerts
2

0.3%
Daily Resolved Ratio

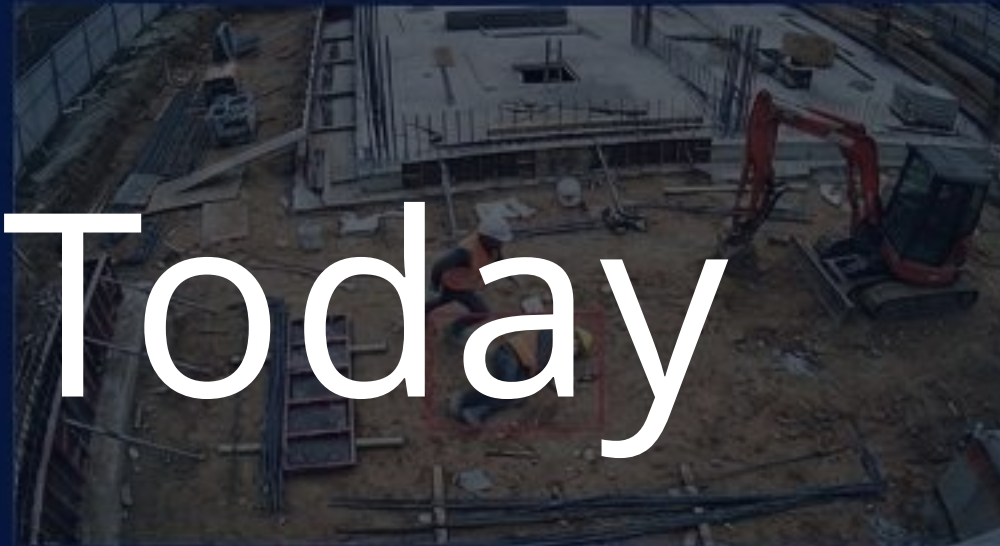
Daily Event Statistics

- Glove not used
- Missing required action: actionB
- Missing required action: actionA
- Missing required action: actionD
- Personnel leaving their posts

Weekly Event Statistics

Personnel leav... Glove not used Missing require... Missing require...

liveView



Real-time Alerts

TIME	EVENT	SHAPSHOT
2025-12-09 13:00:58	Missing required action: actionD	
2025-11-08 13:50:47	Personnel leaving their posts	
2025-11-08 13:55:30	Glove not used	
2025-11-06 13:54:17	Personnel leaving their posts	
2022-12-68 13:46:58	blissing required action: actionD	
2022-12-08 13:46:45	Personnel leaving their posts	

Contact Us Today

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