

WizMind | 2021 Ver. 1







Empowering verticals with leading AI technology





WizMind

Dahua Technology, with its award-winning deep-learning algorithms, proudly releases WizMind, a portfolio of solutions composed of project-oriented products including IPC, NVR, PTZ, XVR, thermal and software platform, delivering precise, reliable and comprehensive AI solutions to verticals including government, retail, energy, finance and transportation.

- 
Smart City
- 
Retail
- 
Energy
- 
Building
- 
Finance
- 
Transportation

Human Applications

WizMind provides effective AI search to locate targets and generate human-based data for business analysis.



Thermal Applications

WizMind offers ultra-long range surveillance even in harsh environments. It is equipped with intelligent functions such as boat detection and early fire detection.



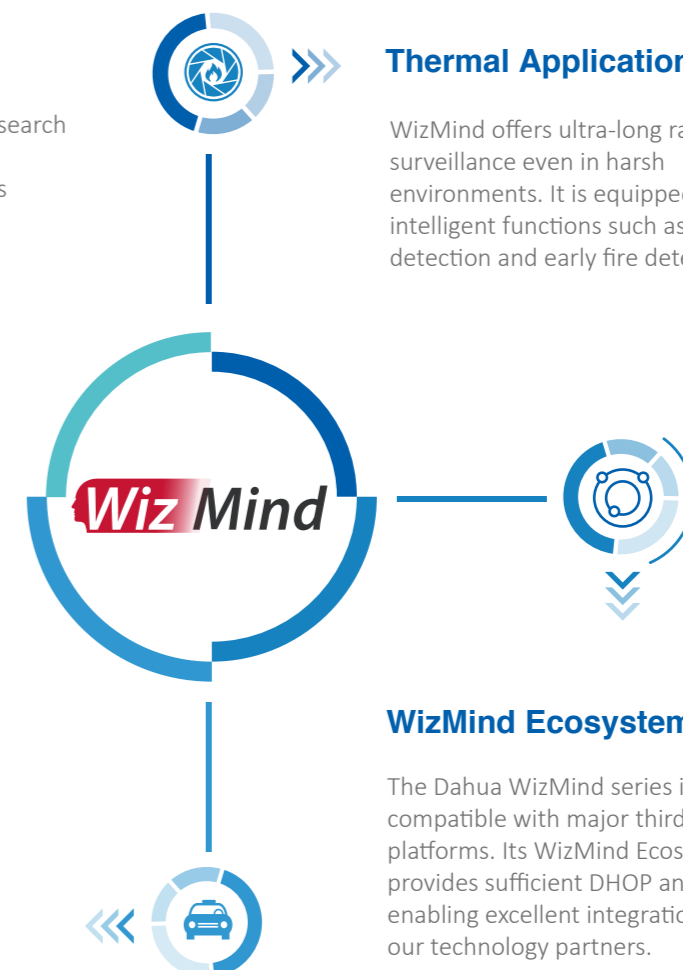
Vehicle Applications

WizMind supports more attributes of vehicles for easy management and control, quick search and efficient business analysis.



WizMind Ecosystem

The Dahua WizMind series is compatible with major third party platforms. Its WizMind Ecosystem provides sufficient DHOP and API, enabling excellent integration with our technology partners.



01 Human Applications UI

- Face Recognition 2.0 NEW
- Privacy Protection 2.0 NEW
- Human Video Metadat 2.0 NEW
- Wide Area Security 2.0 NEW
- People Counting
- Heat Map
- Stereo Analysis
- Smart Tracking



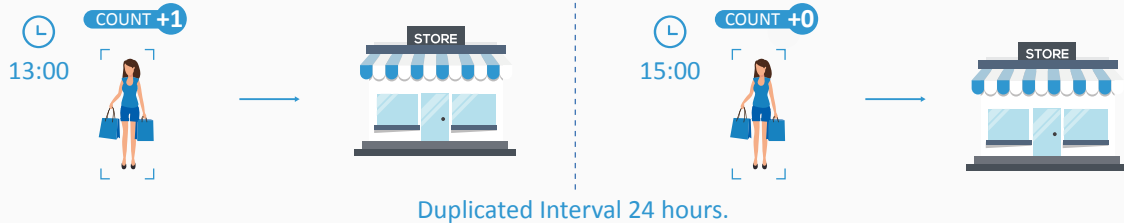
Face Recognition 2.0

Dahua face recognition extracts the features of a captured face image and compares it with those in the face image database to recognize the person's identity. In order to better expand basic on FR capabilities, we released new functions: Passerby Library, Accurate Customer Traffic and Frequency Alarm.

Features

Prevent Duplication

In a certain time range, people that appear frequently are counted only once based on passerby database.



Exclude Staff

The Face Recognition 2.0 can effectively filter out these people who don't need to be counted, such as staff and security.



Customer Traffic Statistics

According to the data after deduplication and exclude staff, a report based on day/week/year are generated. The report can be combined with customer attributes (age, gender, etc.).

Application



Shopping Mall

For brick-and-mortar retailers, collecting offline data has been a challenging task. It is very important to obtain real customer traffic data and understand customer demographics. These data can help improve operation's efficiency and assist managers in making wise operational strategies.

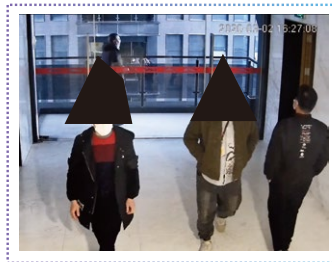



Privacy Protection 2.0

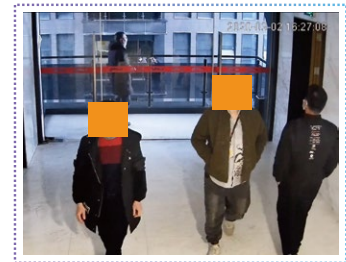
Privacy Protection is designed to protect the privacy and data of human face and body. It is based on deep learning algorithm and complies with GDPR. With the fundamentals of the first version, the Privacy Protection 2.0 offers additional occlusion options (irregular polygons, mosaics, and colored blocks) and allows exporting of non-pixelated images based on specified targets, ensuring the privacy safety of places and people.



 Face mosaic by camera



 Irregular polygons occlusion by camera



 Rich color occlusion by camera

Features



Real-time Privacy Occlusion

Provides real-time privacy occlusion for human face and body regardless of the targets' movements. Users can also choose to export videos with mosaic or the original version.



Non-pixelated Human Targets

Specified human targets from external sources or from local databases can be selected to be non-pixelated, providing privacy and security protection in evidence collection.



Irregular Polygons and Mosaic Occlusion

Supports irregular polygons, mosaic and colored blocks occlusion methods (by camera), making it ideal for a wide-range of scenarios and meeting customers' requirements.

Applications



Nursing Home

In nursing homes, sensitive areas such as bedrooms are not suitable for direct monitoring. With the privacy protection solution, these sensitive areas can be masked by camera, which not only protects the safety of the elderly, but also reduce labor costs.



Courtroom

Through the privacy protection system, the witnesses who testify in the witness room are automatically masked with real-time mosaic to protect their privacy and security. It encourages witnesses to testify in court and saves administrator's time from the heavy manual work of of masking people's images to protect their privacy.



Human Video Metadata 2.0

Human Video Metadata technology with deep learning algorithm can detect, track, and capture images of people. It selects the best images and extracts attributes of targets to locate them immediately. We have added targets direction analysis and data statistics technology in version 2.0, which can be used for business analysis. Added PPE Detection which can improve the work safety of employees.



Face

- Gender
- Age
- Glasses
- Mask
- Expression
- Beard



Human Body

- Gender
- Age
- Top Color
- Top Type
- Bottom Type
- Hat
- Bottom Color
- Bag
- Umbrella



Non-motor Vehicle

- Top Color
- Top Type
- Vehicle Type
- Vehicle Color
- Cycling Number
- Helmet



PPE Detection

- Face Mask
- Glasses
- Hard Hat
- Reflective Vest
- Top Color
- Bottom color

Features



Human Video Metadata

It offers up to 20+ human attributes that can pinpoint the appearance of a person.



Quick Target Search

Admin can search targets using metadata on back-end device or platform and can accurately and quickly locate targets from massive data after events.



PPE Detection

Detects compliance/non-compliance on wearing personal protective equipment. It can be used to improve the work safety of employees.



Statistics

Customers can generate people and non-vehicle statistics, as well as direction data reports for business analysis.

Applications



Main Roads

Human video metadata can be used to analyze the attributes, direction and data statistics of human, motor vehicles and non-motor vehicles on the road. The local government can utilize this data to efficiently plan better streets. It does not save face image data to protect the privacy of pedestrians and other road users.



Plants

PPE Detection can be used to continuously supervise employees' wearing of protective equipment 24 hours a day, improve the safety of employees and reduce labor costs in hiring additional safety personnel.



Wide Area Security 2.0

The Dahua Wide Area Security solution can realize 360° uninterrupted monitoring with high speed PTZ camera, utilizing both panoramic and detail images. It also supports crowd density and vehicle density alarms. The Wide Area Security 2.0 includes a report analysis function based on crowd and vehicle alarms. In addition, it also supports time lapse video and AR Panorama.

Features



Crowd Density

Detects the number of people in the monitored area, and sends alarms if it exceeds the threshold. It can also automatically generate crowd reports for BI analysis.



Vehicle Density

Detects the number of vehicles in the monitored area, and sends alarms if it exceeds the threshold. It can also automatically generate vehicle reports for BI analysis.



Time-lapse

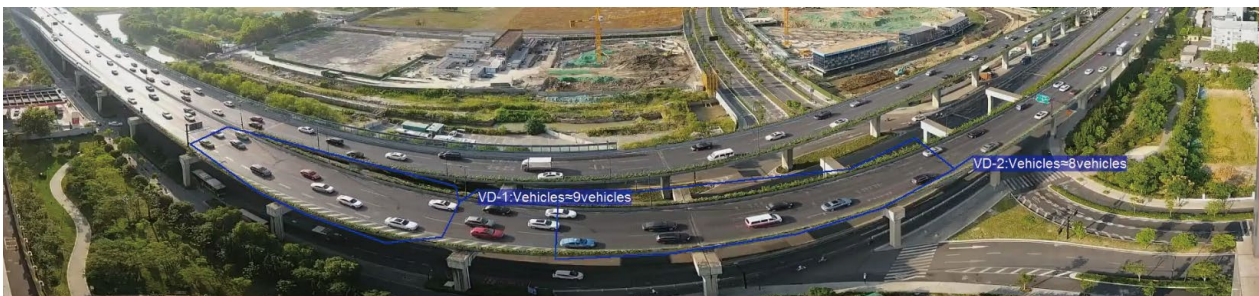
Captures the progress of the project using a time-lapse video, thus enhancing the visibility of construction sites, scenic spots, and cities from beginning to end.



AR Panorama

Displays the video of corresponding camera via AR tag, which makes monitoring more visual, convenient and efficient.

Application



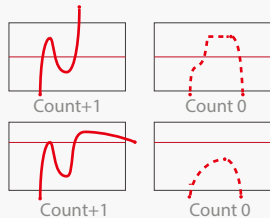
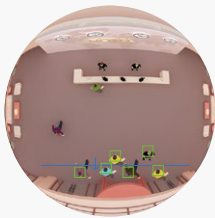
The system automatically counts the number of vehicles in the area. When a sudden traffic jam occurs, the traffic management departments are alerted in time, allowing them to quickly implement an effective response plan that can alleviate traffic congestion and help prevent traffic accidents. The system also supports exporting vehicle reports for BI analysis to help traffic management departments to formulate corresponding traffic policies.



People Counting

Dahua People Counting can track and process moving human body targets to realize accurate statistics of people entering, leaving and currently within the monitored area. This intelligent function offers customers with valuable data for business report analysis, providing statistics with up to 98% counting accuracy.

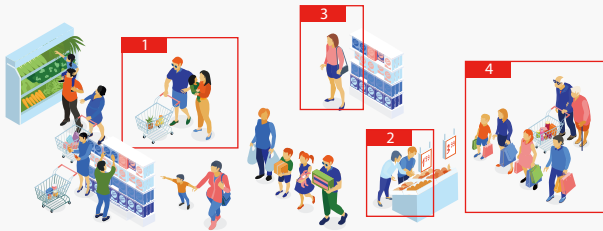
People Counting for Line Crossing



Report export

Dahua People Counting can obtain in-depth information, filter hovering and provide report with high accuracy.

People Counting in Area



Area 1: 3

Area 2: 2

Area 3: 1

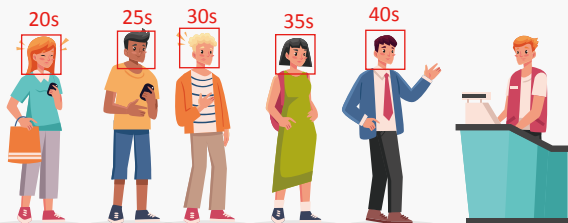
Area 4: 6



Threshold per area: 5

It supports independent detection of up to 4 areas, and detects the changes in the number of people in every area in real time.

Queue Management



Threshold per area: 5



Waiting time threshold: 30s



Dahua Queue Management supports two types of alarms: number of people and waiting time.

Application



Entrance



Checkout Counter

The statistics of daily people count is very important for business analysis. It is one of the most important data for operations managers. This data enables retailers to arrange staff schedule and plan customer-to-staff ratio during peak hours using traffic data. In addition, retailers can also measure the performance of marketing campaigns according to the changes in customer traffic.

With the queue management function, when the number of people or the waiting time reaches the preset threshold, it will alert the manager to open additional checkout counters to serve customers without delay. This enables retailers to deliver better in-store experience and reduce labor costs.



Fall Down

Stereo Analysis

With deep learning algorithm and 3-dimensional technology, the Dahua Stereo Analysis technology offers various functions that can recognize people's behaviors, including fall detection, violence detection, strand detection, and people approach. These features generate alarm signals and trigger linkage alarm.

Features



Application



It provides 24-hour intelligent monitoring that greatly improves monitoring efficiency. When an abnormal behavior occurs, a real-time alarm will be sent to the security personnel, allowing them to act and respond in time.



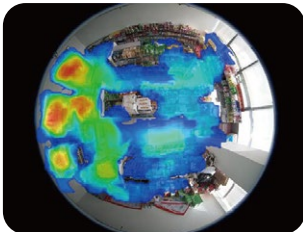
Heat Map

With deep learning technology, Dahua's new heat map function demonstrates two types of heat map charts based on the number of people and average strand time. Being widely used in retail shops, this feature enables business owners to easily analyze customers' preferences.

Traditional Heat Map



Heat map based on motion detection output



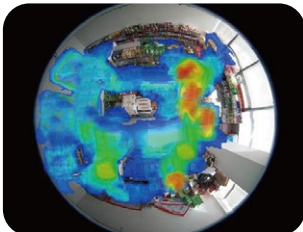
Disadvantages

- 1. Unrecognizable objects
- 2. Low accuracy

AI Heat Map



Heat map based on people counting output



Advantages

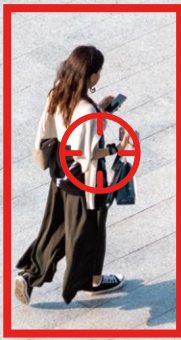
- 1. Focus on people
- 2. High accuracy based on two dimensions: number of people and average strand time.

Application



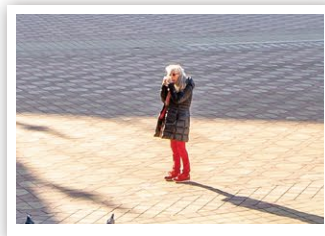
Supermarket

Traditional retailers rely on the experience of operations managers to make adjustments. It is difficult to intuitively check the adjusted results. The heat map function helps retailers to optimize the layout of supermarkets. It also enables them to discover which products draw more attention based on the time the customers stay in an area.



Smart Tracking

Aside from detecting humans entering a restricted area, smart tracking also automatically track objects all the time. According to different scenarios, Dahua provides different tracking solution with accuracy rate of up to 90%.



◀ Auto Tracking

Features



Auto Tracking

Track any human who enters restricted areas, capture their details and find out the direction of their movements



Bullet-PTZ Tracking

Panoramic and detail views can be utilized simultaneously. The detail camera focuses on humans who are in the monitored area.



Radar PTZ Tracking

Fully achieve 24/7 monitoring through a radar that detects intruders, while PTZ tracks and captures details. RCS technology solves false alarm issues of traditional video surveillance.

Application



Border

Smart tracking technology can monitor 24/7 without missing any details. At the same time, the system can also automatically warn off intruders which can help reduce the number of maintenance personnel in the border, saving manpower and investment of customers.

02 Vehicle Applications U2

- Vehicle Video Metadata 2.0 **NEW**
- Illegal Parking Detection 2.0 **NEW**
- Parking Space Management **NEW**
- ANPR



Vehicle Video Metadata 2.0

Vehicle Metadata includes vehicle attributes information extracted from a target that can be used for data retrieval. With the detection rate of up to 99%, this system can be used to locate targets quickly and efficiently. We have added targets direction analysis and data statistics technology in version 2.0, which can be used for business analysis.



Plate No. : CZ1A234

Plate Color: Blue

Car Color: Red

Car Type: Sedan

Calling : No

Seatbelt : Yes

Features



Vehicle Video Metadata

Vehicle Metadata includes Plate No., Plate Color, Car Color, Car Type, Calling, Seatbelt, etc., providing users with more details of every passing vehicle. It can be used in safe city solution, and can also provide valuable information to the police.



Quick Target Search

It can help users to accurately and quickly locate the target from massive amount of data after an event. For vehicles, targets can be quickly searched using plate number, color, type etc., thus saving a lot of time.



Statistics

Customers can use vehicle counts and direction information for report statistics and business analysis.

Application



City Road

There are lots of traffic accidents on city roads everyday. In case of a hit and run, some drivers manage to escape the scene by covering their vehicle's number plate. In addition, using traditional method, the policemen have to watch a lot of CCTV recordings to find some clues that can solve the case, consuming time and even manpower. The video structuring technology increases the efficiency of case investigation by providing additional details of the target vehicle. It can also obtain more vehicle attribute for further surveillance.



Illegal Parking Detection 2.0

When a vehicle enters the monitored area, the Dahua Parking Detection technology based on CNN deep learning will capture its images and save metadata. It helps security personnel to ensure smooth traffic, and reduce accidents and property losses caused by illegal parking.



Illegal Parking Composite Graph

Violation time: 2021-03-26 15:51:10

Violation location: XXXXX Road

Plate No.: HUA1199

Parking Duration: 00:00:23

*Illegal parking duration can be set according to demand

Features



Wide Detection Range

Supports displaying of panoramic and detail views simultaneously, with both channels equipped with illegal parking detection to cover a wide detection range.



Complete Chain of Evidence

Supports capturing of vehicle images, with license plate number and other violation information overlaid on the image as evidence.



Effective Capturing of Occluded Vehicle

The panoramic camera can monitor every vehicle and forecast their trajectories, while the detail camera tracks and captures the occluded vehicle once its license plate appears.

Application



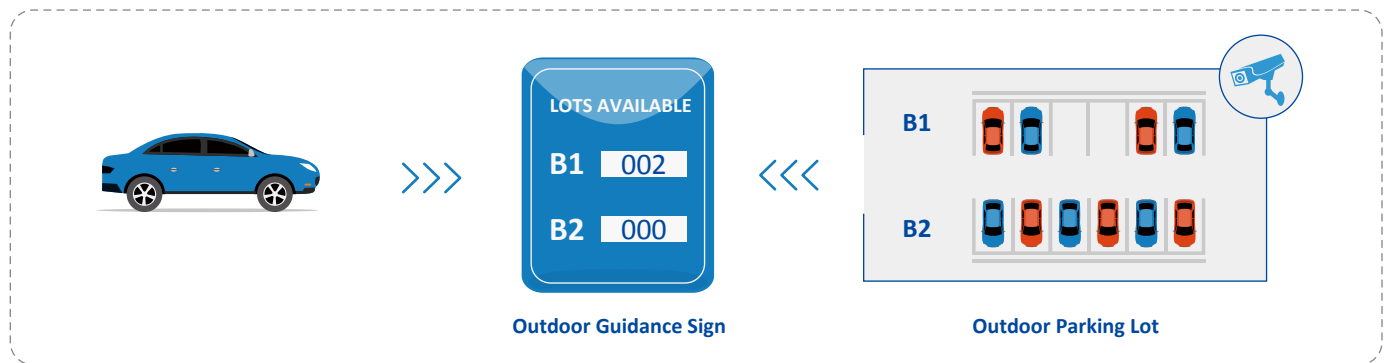
Road

Vehicles parked on and off the road increase the risk of traffic congestion and accidents. Through the deployed camera, 24/7 detection of violation behavior can be achieved, significantly improving monitoring efficiency. At the same time, when an illegal parking has been detected, the alarm linkage can be used to remind the driver to leave on time, thus ensuring traffic safety on the road.



Parking Space Management

With deep learning algorithms, Dahua Parking Space Management technology can detect the number of vehicles in an outdoor parking lot and the current number of remaining parking spaces. It can also extract and display parking status information to improve parking efficiency.



Features



Enhanced Experience & Relieve Traffic Congestion

It can accurately detect and display parking status and number of available parking spaces to guide drivers, avoiding traffic congestion and improving customer parking experience.



Improved Efficiency

It can detect the status of parking spaces in real time. Once a vehicle leaves and the parking space is released, the next car can be guided to park on it, effectively improving the utilization of parking spaces in the area.



24/7 Monitoring

The Parking Space Management based on video technology provides 24/7 monitoring. It can quickly track abnormal events and capture evidence.

Application



Outdoor Parking Lot

With increasing number of vehicles and fewer parking spaces, parking difficulty has become an issue. The intelligent parking space management system can guide the driver to quickly find a parking space, saving valuable time, avoiding traffic congestion, and improving the efficiency of parking space utilization.



ANPR

With deep learning algorithm, the Dahua ANPR (Automatic Number Plate Recognition) technology can recognize the number plate information of vehicles from 58 countries. This system can also be used to provide higher security in restricted area.



Features



Blocklist Alarm

Sends early warning if a blocklisted car has been detected, protecting safety in the monitored area.



VIP Recognition

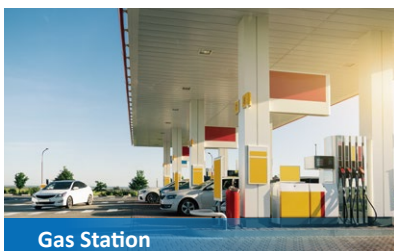
Can be used in company or residential area entrance to effectively provide VIP customers and individuals with excellent service in advance.



Quick Search

The target can be searched using Plate No., time and location, making it easy to locate and catch suspicious car in time.

Application



Gas Station

The ANPR can identify vehicle information and compare the license plate number of vehicles entering the gas station. It can recognize blocklisted vehicles and VIP vehicles in time. This intelligent system can improve the operation and management efficiency of the gas station and reduce the queuing time of vehicles. It can also reduce staff tasks and save operating costs, providing an efficient self-service refueling to customers.



Thermal Application

- Boat Detection NEW
- Long Range Surveillance
- Temperature Measurement
- Fire Detection



Boat Detection

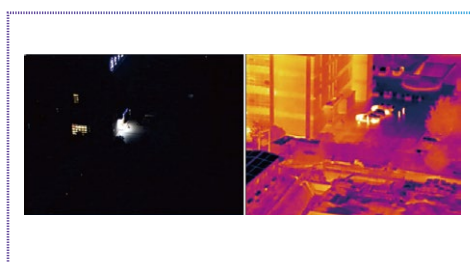
Visibility on the sea and rivers is often poor at night, making it difficult for authorities to get a clear image of the boat. Thermal imaging cameras have inherent advantages in such scenarios. Combined with Dahua's advanced AI capabilities, they can automatically detect and identify boats.



- Multiple Data



- Quick Alarm Prompt



- All Weather

Features



Multiple Data

Dahua thermal camera can simultaneously detect multiple boat data, including height, length, speed, distance, etc.



Quick Alarm Prompt

Once a boat enters the prohibited area, the system will automatically detect it and inform the management department of the alarm information.



All Weather

Under a variety of complex environmental conditions, thermal imaging camera can still effectively detect boats.

Application



Within 3KM from the river bank and the coast, the water level will change with the seasons. There is no supplemental light at night, and the ambient light is natural and dark. Waterway authorities, that need to detect illegal sand mining vessels, must pay extra attention to vessels that are staying in certain water areas. Fisheries authorities are required to strictly control boats entering and leaving ports and water regions during closed season. In addition, illegal activities usually occur at night, which are limited by the dim and complex environment of the water surface.

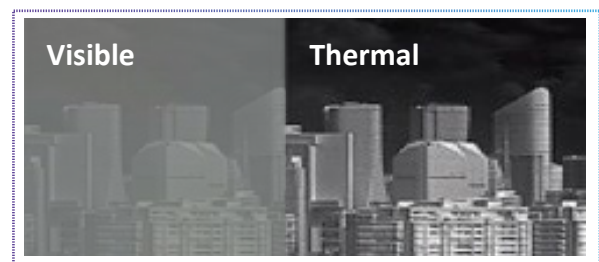


Long Range Surveillance

With deep learning and thermal imaging technology, this camera can realize long distance monitoring that can easily recognize human or vehicle even from far distance. In addition, it is also not affected by environmental factors, enabling it to provide a high contrast thermal image of the scene.



- Ultra long range detection up to 20km



- Tested in foggy weather

Features



Long Distance Detection

The leading thermal imaging technology of Dahua is equipped with ultra long distance detection capability that can spot vehicles (20 km) and human targets (8 km) with fine details.



False Alarm Filter

It only receives infrared radiation, and is not affected by environmental factors. It is equipped with built-in deep learning algorithm, and only focuses on alarms triggered by human or vehicle, providing users with more accurate alarms.

Application



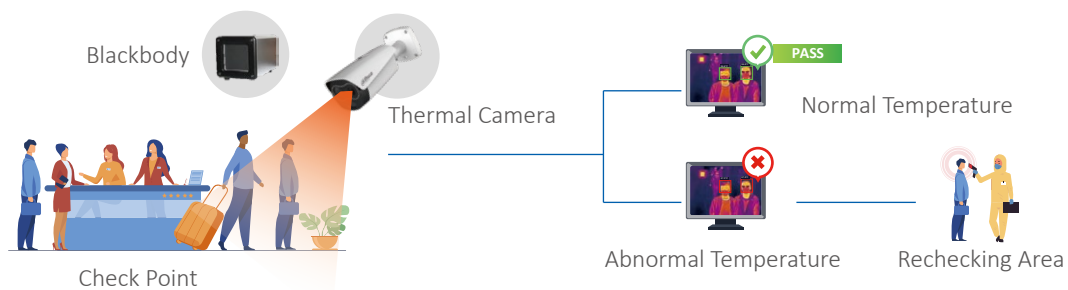
Border

National borders are often in remote areas with complex environments and poor lighting. Traditional video surveillance cannot cover the monitored area in a large scale, nor adapt to all weather conditions. Thermal imaging technology can identify people or vehicles from a far distance and determine in time whether they are intruding the border perimeter.



Temperature Measurement

There is a corresponding relationship between radiation energy and temperature. The different gray values can represent different temperatures, which can be utilized for an effective temperature monitoring.



Features



Industrial Temperature Monitoring

The industrial temperature monitoring distance is as far as 50 meters, which is ideal for 24/7 real-time monitoring of multiple devices.



Human Body Temperature Monitoring

This non-contact body temperature monitoring offers quick screening, wide coverage and multi-person detection. The accuracy can reach $\pm 0.3\text{ }^{\circ}\text{C}$ with blackbody.

Applications



With the current outbreak condition, airports, railway stations and subway stations are becoming important areas of epidemic prevention, which means human body temperature monitoring in these sites is essential in preventing the spread of the virus. The heavy passenger flow in transport hubs and the traditional temperature measurement methods can cause congestion and have hidden safety hazards. Thus, a more secure and effective way of temperature monitoring needs to be implemented.

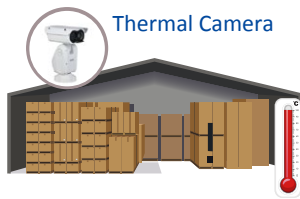


There are lots of high-voltage equipment in a substation, which require maintenance work. In most circumstances, electrical equipment failure indicates rising temperature. When this happen, it is required to immediately cut off power to avoid further damages. Substations are usually located in suburban areas so it requires a lot of time and cost for travelling. Without automatic inspection, the staff have to use handheld equipment which is very time-consuming. Thermal imaging technology can help managers to remotely monitor the operation status of equipment and locate the defective equipment in time.



Fire Detection

Thermal cameras can detect mild differences in temperature change. This feature allows thermal camera to detect objects with a temperature difference compared to the average temperature of the scene. As fires usually have much higher temperature than the surrounding environment, Dahua thermal cameras are able to detect the presence of fire in the scene.



Thermal Camera



Smoke Detector



General Camera

Thermal camera can prevent fire before it occurs

Features



Advanced Fire Detection

Dual-channel monitoring allows thermal cameras to detect early the source of the fire, and visibly track it in the system. It accurately detects the source of the fire through temperature changes and avoids false positives generated by the environment.



Real-time Alarm

Millisecond rapid response; timely sends push notification of accurate fire alarm information to the platform; informs the administrator to take corresponding actions; effectively solves the fire patrol difficulties in a large area.

Application



Forest

Forest is a large area covered with trees and underbrush. It is prone to fires during hot weather and thunderstorms. Early detection of forest fire is also difficult to achieve in time. By detecting temperature changes in the forest environment, the thermal imaging cameras can spot fires in time to prevent them from growing out of control and to keep minimal damage as much as possible through timely intervention.



WizMind Ecosystem

The Dahua WizMind series is compatible with major third party platforms. In addition, the WizMind Ecosystem provides sufficient DHOP and API, allowing smooth and efficient integration with technology partners.

Good Compatibility

Compatible with main video management system, like Milestone, Genetec, Axon, Avigilon, ISS, Qognify, Luxriot, etc.

Supports advanced features with Milestone, Qognify, Network Optix, Luxriot and others, such as face recognition, people counting, perimeter protection, and heatmap.

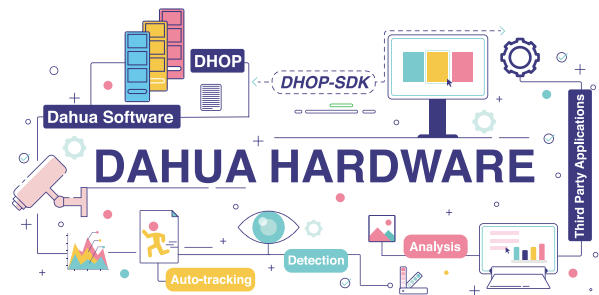
Milestone verified. Dahua heat map, metadata, people counting, face recognition, and plugin are all tested and verified by the Milestone team.



DHOP

The Dahua Hardware Open Platform (DHOP) is an open application platform that allows third party applications to be downloaded and installed on Dahua Wizmind devices.

More than 16 DHOP applications are available here: <https://depp.dahuasecurity.com/OpenPlatform/Application-Marketplace>



Sufficient API

The sufficient API provided by Dahua allows any technology partners to communicate with Wizmind products.

A strong customer support, together with a complete SDK demo and API document are available in our website.

Protects Network Security and Prevents Privacy Disclosure





WizMind IPC-Panoramic Series

PSDW8 Series



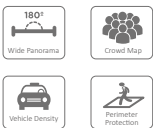
- Supports 360°/270°/180° panoramic view
- Supports 32MP/24MP/16MP @30fps
- Smart H.265+/H.264+ triple-stream encoding
- Supports Crowd Density, Vehicle Density
- Smart tracking, Tripwire, Intrusion
- Starlight technology, IR distance up to 500m, OIS (Optical Image Stabilization)

PFW83242 Series PFW8840 Series



- Supports 180-degree panoramic view
- Four 1/1.8" 8MP progressive scan CMOS
- Smart H.265+/H.264+ triple-stream encoding
- Max 30fps@8640x3840/4096x1800
- Supports Crowd Density, Vehicle Density

PDBW8840 Series



- Supports 180-degree panoramic view
- Four 1/2.8" 2MP progressive scan CMOS
- Smart H.265+/H.264+ triple-stream encoding
- Max 30fps@4096x1800
- Supports Crowd Density, Vehicle Density

IPC-PDBW82041-B360



- Supports 360-degree panoramic view
- Four 1/2.7" 5MP progressive scan CMOS
- Starlight technology
- Smart H.265+/H.264+ triple-stream encoding
- Perimeter Protection, Face Detection
- FlexStream: four channels streams can be viewed in one channel simultaneously
- IP67, IK10, POE

WizMind IPC Dual Lens Series

HDW8341X-BV-3D



- 3MP Dual Lens
- Smart H.264+/H.265+, 3D noise reduction, AWB, HLC, BLC, Defog
- Built-in mic, speaker, & siren for active deterrence
- 0.005Lux, IP6, IK10
- 12V DC power output, max. current 165mA

HDW8341X-3D-S2



- 3MP Dual Lens
- Smart H.264+/H.265+, 3D noise reduction, AWB, HLC, BLC, Defog
- Built-in mic, speaker, & siren for active deterrence
- 0.005Lux, IP6, IK10
- 12V DC power output, max. current 165mA



WizMind IPC: 8 Series

Dual-Micro PTZ Series



- Dual Lens: 4MP@25/30fps+4MP@25/30fps (HFW8442-Z4-D47-L1)
- Dual Lens: 8MP@25/30fps+4MP@25/30fps (HFW8442-Z4-D87-L1)
- Dual-Micro PTZ: Channel 1: Horizontal $\pm 13^\circ$, Vertical $\pm 5^\circ$ Channel 2: Vertical $\pm 15^\circ$
- 1/1.8" CMOS image sensor
- Focal Length: Channel 1: 8~56mm, Channel 2: 8~32mm
- 0.001 Lux@F1.2 (Color, 30 IRE)
- Supports AI functions to open simultaneously
- Hyper DOF technology



WizMind IPC: 7 Series

71242 Series



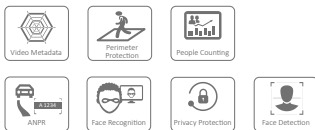
- 12MP (4000x3000) @25fps/30fps
- Smart H.264+/H.265+, 3D noise reduction, AWB, HLC, BLC, EIS, Defog
- IP67, IK10, ePoE, Heater
- Five streams for three-channel HD video
- 12V DC power output, max. current 165mA

7842 Series



- 8MP (3840x2160) @25fps/30fps
- Smart H.264+/H.265+, 3D noise reduction, AWB, HLC, BLC, EIS, Defog
- IP67, IK10, ePoE, Heater
- Five streams for three-channel HD video
- 12V DC power output, max. current 165mA

7442 Series



- 4MP (2688x1520) @50 fps/60 fps
- Smart H.264+/H.265+, 3D noise reduction, AWB, HLC, BLC, EIS, Defog
- 140 dB, 0.001Lux
- IP67, IK10, ePoE, Heater
- Five streams for three-channel HD video
- 12V DC power output, max. current 165mA
- -FR: Face Recognition, 5 group face libraries with 200,000 face images in total

7442-ZVH Series 7842-ZVH Series



- 4MP (2688x1520) @50 fps/60 fps (7442-ZVH Series)
- 8MP (3840x2160) @25fps/30fps (7842-ZVH Series)
- Smart H.264+/H.265+, 3D noise reduction, AWB, HLC, BLC, EIS, Defog
- IP67, IK10, ePoE, Heater
- Five streams for three-channel HD video
- 12V DC power output, max. current 165mA



HFS7842-Z-5G-LED



- 8MP (3840 × 2160) @25/30 fps
- Supports 5G module (N41, N78, and N79 frequency range), and NSA and SA network
- Supports GPS/BDS
- 120 dB, 0.003Lux, 8 mm–56 mm Lens
- Built-in efficient warm light, max. illumination distance: 80 m
- IP67
- Five streams for three-channel HD video

HFS7443-Z-LI-D2



- 4MP (2688×1520) @25 fps/30 fps
- Two 4MP, 1/1.8" CMOS image sensors
- 140 dB, 0.0002Lux, 12 mm–72 mm Lens
- Built-in illuminator of dual light fusion, max. illumination distance: 150 m
- Supports multi-spectrum fusion technology
- IP67
- 12V DC power output, max. current 165mA

WizMind IPC: 5 Series

5 Series Junction Box



- 2/4/8MP smart codec, Starlight+
- WDR, ICR, 3D DNR, AWB, AGC, BLC, EIS, Defog
- Smart IR, IP67, IK10, ePoE
- Alarm in/out: 2/3
- Junction box
- Anti-corrosion coating (optional)

5 Series Vari-focal



- 2/4/5/8MP smart codec, Starlight+
- WDR, ICR, 3D DNR, AWB, AGC, BLC, EIS, Defog
- Smart IR, IP67, IK10, ePoE
- -MF: 50/60fps@1080P

5 Series Fixed-focal



- 2/4/5/8MP, Smart codec, Starlight+
- WDR, ICR, 3D DNR, AWB, AGC, BLC, Defog
- Smart IR, IP67, IK10, ePoE
- -MF: 50/60fps@1080P

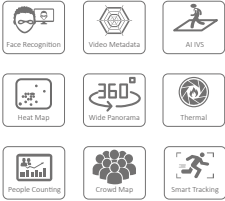
5 Series Full-color



- 4/8MP, Smart codec, full-color
- WDR, ICR, 3D DNR, AWB, AGC, BLC, Defog
- F1.0+LED
- Smart IR, IP67, IK10
- ePoE

WizMind IVSS & NVR

IVSS7000-M Series



- Up to 256-channel IP video access, 8/12/16/24HDD
- Max 512Mbps incoming bandwidth
- Supports max resolution up to 16MP
- Up to 192-channel video stream face recognition
- Up to 192-channel video metadata
- Up to 192-channel AI VS
- Up to 50 sample face databases and 5 passerby face databases, with 500,000 face images in total

NVR5000-I/L Series



- 16/32/64 Channel IP video access, 2/4/8 HDD
- Max 320Mbps incoming bandwidth (when AI function is disabled)
- Supports max resolution up to 24MP
- Up to 4-channel video stream face recognition
- Up to 4-channel video metadata
- Up to 12-channel perimeter protection
- Up to 20 face databases, with 200,000 face images in total

WizMind PTZ

SDT5X Series



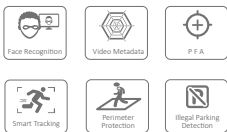
- Dual-PTZ system
- Time division multiplex
- Powerful optical zoom
- Illegal parking detection
- Auto calibration
- Hi-PoE
- IP67

PTZ8 Series



- Powerful 40/48/60x optical zoom
- Starlight technology
- IR distance up to 400m
- Laser distance up to 1000m
- Optical defog
- Optical fiber
- IP67

SD8A/10A Series



- Powerful 40/48x optical zoom
- Illegal parking detection
- IR distance up to 500m
- Optical image stabilization
- Optical defog
- Smart wiper
- IP67

SD6 Series



- Powerful optical zoom
- Starlight technology
- Laser distance up to 550m
- Hi-PoE/ PoE+
- Perimeter protection
- IP67



WizMind Thermal

TPC-PT8X21A Series



- 640x512/400x300 VOx uncooled thermal sensor technology
- Athermalized lens (thermal), focus-free
- 1/2.8" 2Megapixel progressive scan CMOS
- Powerful 50X optical zoom
- Supports optical defog, optical image stabilization
- Supports tripwire, intrusion
- Supports cold/hot spot trace

TPC-SD8X21 Series



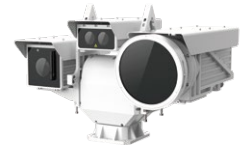
- 640x512/400x300 VOx uncooled thermal sensor technology
- Athermalized lens (thermal), focus-free
- 1/2.8" 2Megapixel progressive scan CMOS
- Powerful 45X optical zoom
- Supports tripwire, intrusion
- Supports cold/hot spot trace

TPC-BF3221-T Series



- 256x192 VOx uncooled thermal sensor technology
- Athermalized lens (thermal), focus-free
- 1/2.8" 2Megapixel progressive scan CMOS
- Supports face detection
- Supports temperature measurement
- Accuracy: $\pm 0.3^{\circ}\text{C}$, with blackbody
- Smart linkage with strobe light & audio

TPC-PT9621C Series



- 640x512 VOx cooled MCT FPA
- Up to 900mm thermal lens
- 1/1.9" 2Megapixel progressive scan CMOS
- Up to 60X optical zoom
- Supports tripwire, Intrusion
- Supports human/vehicle classification
- Supports laser range finder

TPC-PT8X21C Series



- 400x300/640x512 VOx uncooled FPA
- Athermalized lens (thermal), focus-free
- 1/1.9" 2Megapixel progressive scan CMOS
- Up to 60X optical zoom
- Supports tripwire, Intrusion
- Supports fire detection & alarm
- Supports human/vehicle classification
- Supports auto tracking

TPC-PT8XX1D Series



- 400x300/640x512 VOx uncooled FPA
- Athermalized lens (thermal), focus-free
- 1/1.9" 4Megapixel progressive scan CMOS
- Powerful 50X optical zoom
- Supports optical defog, optical image stabilization
- Supports tripwire, Intrusion
- Supports fire detection & alarm
- Supports cold/hot spot trace
- Supports human/vehicle classification
- Supports auto tracking

TPC-SDA8XX1 Series



- 400x300/640x512 VOx uncooled FPA
- Athermalized lens (thermal), focus-free
- 1/1.8" 4Megapixel progressive scan CMOS
- Powerful 45X optical zoom
- Supports thermal & visible linkage
- Supports fire detection & alarm
- Supports sound and light alarm
- Supports human/vehicle classification
- Supports auto tracking

TPC-PT8XX1MA Series



- 400x300/640x512 VOx uncooled FPA
- Athermalized lens (thermal), focus-free
- 1/1.8" 4Megapixel progressive scan CMOS
- Powerful 40X optical zoom
- Supports temperature measurement
- Supports fire detection & alarm
- Supports human/vehicle classification
- Supports auto tracking

WizMind Software

DSS Pro



- Face Recognition: face database alarm, face type alarm, records searching, face tracking, visual reports
- Flow Analysis: people counting in area, people counting line crossing, heatmap
- Object Detection: object detection (human, motorized vehicles, and non-motor vehicles), records searching, visual reports
- AI Alarm: strand detection alarm, people approach alarm, fall detection alarm, number of people detection alarm, violence detection alarm, etc.
- ANPR: real time vehicle recognition, records searching, vehicle tracking
- Entrance: overview of entrance and exit information, parking lot optimization, configuration of barrier control rules
- Thermal: real-time temperature display, temperature alarm, fire alarm
- Smart Tracking: smart tracking using fisheye, bullet and radar cameras
- Alarm Linkage: pop up, snapshot, record, PTZ, alarm output, door, e-mail, etc.

DMSS



- Thermal: real-time temperature display, elevated body temperature alarm, fire detection alarm
- Face Recognition: FR Alarm, FD Alarm

ENABLING A SAFER SOCIETY AND SMARTER LIVING

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* Design and specifications are subject to change without notice.

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