Edge End Supervision Equipment Operating Manual



Version: V1.3

Edition	Revised date	Revised	description
V1. 0	2023-02-09		1. New
V1. 1	2023-06-08		 Adjust the document format uniformly Detailed the product menu Update the corresponding information interface
V1. 2	2023-06-25		 Replace the product pictures Add a description of the basic use of the equipment Delete part of the menu introduction
V1. 3	2023-11-15		 Change the updated picture on the web page Add FAQ FAQ Add precautions for using some equipment

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1. Preface

1.1. The documentation purpose

This manual mainly introduces the edge regulatory equipment use and provide common problem solutions, the purpose is to help users quickly understand and use the product, master the basic methods, the basic camera access and AI alarm strategy setting, understand the management interface each area function, to handle the basic alarm information, familiar with related solutions;

1.2. Applicable personnel

MBEL edge supervision equipment background system administrator and video supervision and early warning project implementation personnel;

1.3. Content scope

Basic use of MBEL edge supervision equipment management system, and FAQ;

1.4. Key vocabulary

Emergency command, video surveillance, structured capture, AI alarm analysis, AI early warning platform, face recognition, machine non-human identification analysis, electronic fence, intrusion alarm, fireworks identification, behavior recognition, wearable recognition, character status recognition, 4G;

1.5. Disclaimer

The products and services described in this document are limited by the specific terms of the contracts and agreements signed with the Company, and the functional scope may be changed. The key technical parameters shall be subject to the contract terms, and the Company shall not make any commitment to this;

Due to the product hardware and software upgrades, this manual will be updated regularly without notice. If necessary, please contact our technical staff. Thank you.

2. Basic function description of the product

2.1. Basic function description

This product is a universal edge AI server product with low power consumption and high performance, integrating video access, AI capture and alarm recognition. Its functions include: maximum 16 channels 1080P video access, video decoding, AI analysis, alarm capture, face recognition, license plate recognition, video coding storage, etc.;

2.2. Has implemented the algorithm

The AI algorithm has been implemented in the following algorithms, and more algorithms can be customized;

id	Name of alarm type	Algorithm id	Algorithm name
4	No helmet on for	2	Personnel
	alarm	3	violations
2	Alarm without a mask	3	Personnel
		5	violations
3	Not wearing work	3	Personnel
	clothes to alarm	5	violations
1	No seat belt for	3	Personnel
	alarm	•	violations
	Not wearing		Personnel
5	reflective clothing	3	violations
	for the alarm		
6	Fire alarm	3	environmental
			anormaly
7	Smoke alarm	3	environmental
	Fine fighting		anormaly
8	facilities increation	3	
			anuironmontal
9	The debris piled up	4	anormaly
10	Vohiclo no stop	5	Poriphoral alort
10		5	
11	Ine venicle left	5	Peripheral alert
12	Personnel wandering	5	Peripheral alert
13	Turn over the wall	5	Peripheral alert
	detection		r
14	invade	5	Peripheral alert
15	overstep the boundary	5	Peripheral alert
16	Fall detection	6	Behavioral alert

17	Smoking detection	6	Behavioral alert
18	phone	6	Behavioral alert
19	Look at the phone	6	Behavioral alert
20	Personnel running	6	Behavioral alert
21	Sleep post detection	6	Behavioral alert
	Personnel leave the	,	Delterriterre 1 - 1 - net
22	post	6	Benavioral alert
23	People gather	6	Behavioral alert
24	Personnel scuffle	6	Behavioral alert
25	human face	2	
26	Figure	2	
27	motorized vehicle	2	Full structure,
28	non-motorized vehicle	2	
29	plate number	2	
	Face recognition		
30	contrast	1	Face binding
	License plate		and recognition
31	recognition	1	
	comparison		
32	Over-man	5	Peripheral alert
33	Little member	5	Peripheral alert
34	Personnel leave	5	Peripheral alert
	Non-motor vehicles		
35	are prohibited from	5	Peripheral alert
	parking		
36	Non-motor vehicle	5	Peripheral alert
	departure		Domoonnol
37	safoty holmot	3	violations
	Number of motor		101010115
38	vehicles	5	Peripheral alert
	Less than the number		D 1 1 1 1
39	of motor vehicles	5	Peripheral alert
	Hazardous chemical		
40	vehicles are	Б	Poriphoral alort
40	prohibited from	5	
	entering		
41	Riding a motorcycle	3	Personnel
	into the gas station	-	violations
	The oil unloading	-	Deministry 1 1
42	process is not	5	Peripheral alert
	standard		

2.3. Product appearance



Figure 1. Product appearance

 MBEL-BH16P: 16 channel edge monitoring equipment (Professional) Note: The professional version has 4 network ports, WiFi, 4G
 communication function, external expansion 485, UART, IO input and output, audio input and output functions;

2.4. Core hardware parameters

- CPU quad-core Cortex A 53, with an NPU maximum of 28.8 TOPs computing power;
- Flash, 8GB/16GB/32GB eMMC ;
- SDRAM, 2xLPDDR4X, 2x4GB:
- HDMI 2.0 Output:
- USB, 1x USB 2.0 extension, 2x USB 3.0 extension;
- Ethernet, 2x1000M :
- 1 onboard TF card;
- 4-UART, 5-I2C and 1-SPI extensions;

3. Commissioning and preparation

3.1. Hardware

- Edge supervision device server host;
- 12V power supply adapter;
- WIN 7 or above computer;
- Network cable;



Figure 2. Overall hardware architecture

Hardware foundation connection diagram, as shown in the figure are the front and back wiring modes respectively;



Figure 3. Front view

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Figure 4 The reverse image

Notice:

1. When the horn connects to the AIBOX box, connect the active horn to SPK + and GND port, and not to SPK+ and SPK- port.

2. When the SD card is inserted into the slot, pay attention to the orientation and turn the notch toward the upper right.

3.2. Software

- Need to install Google browser or WIN 10 comes with EDGE browser;
- Install a 4GCMS software for debugging;
- 4 GCMS software download link: http://www.m51c.com/fwzx/

4. Basic network Settings

Insert the network cable into the gigabit network port 1 (WAN) of the edge supervision device. The default IP of the device is 192.168.1.32. If the IP needs to be modified, it can be modified on the web page or with the 4 GCMS client search tool;

4.1. Using 4GCMS to modify IP

After installing 4 GCMS, scan the device-click the device to be modified -wired network-edit IP information;

4GMS Cloud Sys	tem				No 1o	gon Use	r					
Pictures Full Screen	O	STOP L	oop Capture	<u>o</u> Record	9 Replay	Logout	Map	Q Search	Login	緈 Setting		lomera Control
Autor Caladate My Comerce(0,0) Conterment(12/12) Conterment(12/12) Conterment(12/12) <td< td=""><td></td><td>Search for camera Camera IP (192, 188, 14 (192, 188, 14 (192, 188, 15 (192, 188, 15 (192, 188, 15 (192, 188, 15 (192, 188, 16 (192, 188, 17 (192, 188, 17) (192,</td><td>Camero Name 32 cam 22 cam 33 cam 34 cam 11 cam 35 cam 4 cam 37 111 38 cam</td><td>Camera db160 a0110 db160 db160 db160 db160 db160 cb150 cb150</td><td>102007 a ID 10000380 1000044 1000115 1000116 1000015 10000112 10000114 1000013 1000019</td><td>Network LAN LAN LAN LAN LAN LAN LAN LAN LAN LAN</td><td>MAC Address D8:160100 31:32:3334 D8:160100 D8:1610100 D8:160100 D8:160100 D8:160100 D8:160100 31:32:33:34</td><td>s V solution 2 sisterio 2 s</td><td>240615 24-0605 24-0615 24-0625</td><td>D: Nam: Duration: Duration:</td><td></td><td></td></td<>		Search for camera Camera IP (192, 188, 14 (192, 188, 14 (192, 188, 15 (192, 188, 15 (192, 188, 15 (192, 188, 15 (192, 188, 16 (192, 188, 17 (192, 188, 17) (192,	Camero Name 32 cam 22 cam 33 cam 34 cam 11 cam 35 cam 4 cam 37 111 38 cam	Camera db160 a0110 db160 db160 db160 db160 db160 cb150 cb150	102007 a ID 10000380 1000044 1000115 1000116 1000015 10000112 10000114 1000013 1000019	Network LAN LAN LAN LAN LAN LAN LAN LAN LAN LAN	MAC Address D8:160100 31:32:3334 D8:160100 D8:1610100 D8:160100 D8:160100 D8:160100 D8:160100 31:32:33:34	s V solution 2 sisterio 2 s	240615 24-0605 24-0615 24-0625	D: Nam: Duration: Duration:		
		Add to my list(E) Edit(E)	Wizerd(<u>W</u>)			R	tefresh(S)	Exit(E)	Preset:	TOP when release Mo	Call

Figure 5. Modify the IP process page

amera parameter setting			
LAN	IP Address:	192.168.1.197	
VIFI	Mask:	255.255.255.0	
3G/4G	Gateway:	192.168.1.1	
GB28281	DNS:	114.114.114.114	
Audo/Video		Enable DHCP	
Alert Trigger			
Alarm/Record			
∎otion Zone			
AI Setting			
OSD			
Cloud Storage			
Other			
System			

Figure 6 Camera parameter setting page

Notice:Please note that both the IP and gateway need to be modified to comply with the rules.

4.2. Modify the IP of the edge supervision device

Website link: WLAN network port default address: http://192.168.1.32/#/login, user name: admin ,password: 123456



Figure 7 login page

Setup steps: left sidebar-System management-IP configuration in network Settings;

seens and see						
G Large Screen V		Wired Networl	ĸ			
🐖 Smart Analysis 🗸		WAN	STEP 3:modify I	P	LAN1	
📓 Recog Record 🗠		DHCP			DHCP	
Capture Record		IP Address	192.168.1.64		IP Address	192.168.2.101
🖵 Site Info 🛛 🗸		Net Mask	255.255.255.0		Net Mask	255.255.255.0
① IOT Control ~		Gateway	192.168.1.1		Gateway	192.168.2.1
$^\circ$ Alarm Settings $^\circ$		DNS0	114.114.114		DNS0	114.114.114
		DNS1	114.114.114		DNS1	114.114.114
		MAC	d8:16:01:00:01:13		MAC	d8:16:01:10:01:13
🔡 System 🔷	ST	EP 1 Enable			Enable	
Params			Submit			Submit
Status						
Upgrade						
Networks	STE	LAN3 P 2			LAN2	
Logs		DHCP			DHCP	
		IP Address	192.168.1.102		IP Address	192.168.1.103
		Net Mask	255.255.255.0		Net Mask	255.255.255.0

Figure 8. Network Settings page

4.3. Use multi-network ports

If it is necessary to connect to two or more WLAN network ports in order to access the external network, the remaining three network ports can be set with corresponding network segments as needed to allow the camera to connect to edge monitoring equipment;

If a special route needs to be set, fill in the content of the route in the DNS1 box, for example, to set a route as: route add -net 192.168.10.0/24 gw 192.168.11.1 dev eth0 metric 0, Then fill in the content shown in the figure below;

🕒 Large Screen \vee	Wired Networ	ĸ
🛒 Smart Analysis 🗠	WAN	
Recog Record	DHCP	
Image: Capture Record →	IP Address	192.168.1.64
🖵 Site Info 🗸	Net Mask	255.255.255.0
IOT Control	Gateway	192.168.1.1
	DNS0	114.114.114.114
Alarm Settings	DNS1	192 168 10.0/24
☐ Platform ∨	MAC	d8:16:01:00:01:13
System ^	Enable	Set up corresponding content and submit it
Params		Submit
Status		
Upgrade		
Networks	LAN3	
Logs	DHCP	
	IP Address	192.168.1.102

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Figure 9. Special routing setting location

5. Camera access settings

5.1. Camera channel settings

Setting steps:left sidebar-warning control-channel management item-add camera/edit existing cameras, as shown in the figure:

) Large Screen \vee	+ Add	Note Add ch	sannels in sequence	and delete channels in reverse	s order								
Smart Analysis	No.	ChnNo.	Chn Name	Point	Device Id	Video Format	Connect Type	RTSP	Connect Mode	Connect State	Operation		
Recog Record	- 31	3, clic	k to add nev	w channel		H265	RTSP	rtsp://admin.wov/123456@192.168. 1.65:554/h264/ch1/main/av_stream	TCP	Online	Video Preview	Edit	D
Cookiro Docord V	2	1	bm2			H264	RTSP	rtsp://192.168.1.196:554/stream0	TCP	Online	Video Preview	Edit	D
) Site Info	3	2	an a			H264	RTSP	rtsp://admin.admin123456@192.16 8.1.108:10554/cam/tealmontor?cha nnei=18subtype=0	TCP	Online	Video Preview	Edit	•
) IOT Control	4	3	hk			H264	RTSP	rtsp://admin:work123455@192.168. 1.64:554/h264/ch1/main/av_stream	TCP	Offine	Video Preview	Edit	0
Alarm Settings 1 Channels 2	5	4	hkmvt	大亚地区间的特型二中队		H264	RTSP	rtsp://admin:123456@192.168.0.10 3.554/Streaming/Channets/101?tran sportmode=unicast	TCP	Offine	Video Preview	Edt	
Alarm Rules													
Narm Audios													
Al Models													
Net Device													
Platform ~													

Figure 10 Camera channel setup steps

Notice:The edge monitoring equipment supports the access of cameras below 8 million, and it is recommended to use 1080P, H. 264 RTSP video stream access; All channels must be added in order of 0^{15} . Skipping the order may cause AI recognition problems.

5.2. Special instructions for video camera access

5.2.1. For ordinary camera access edge supervision equipment

For cameras supporting ONV IF search, the RTSP address of the camera can be obtained through ONV IF search; if the known RTSP address can be filled directly, as shown in the figure below, fill in the necessary information according to the page prompts, and then follow the steps;

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= 💋 应急管理	部边缘	端监管议	2备						Account: adi	nin Logout Englist
🕒 Large Screen 🖂	+ A00	Note Add	bannels is sequence as	Edit Chn		×				
Till Smart Analysis ~	No.	ChnNo.	Chn Name	* ChnNo.	4		Connect Mode	Connect State	Operation	
			bm1	Chn Name	bkmr		TCP		Video Preview	Tel Delle
Recog Record ~				Point	大亚考区南防持数二中队		TCP		Video Proviner	-
Capture Record *				* Device Id			139.			Statis Street
🖵 Site Info 🚽			da .	OSD	ord		TCP		Video Preview	Edd David
() IOT Control		-	74	* Connect Type	RTSP RTMP GB28181 MP4 Picture		102		Weber Distance	The second
C Altern Politicar				Video Format	H254 0 H265					
 Manu Senings 	5	4	telater	* Connect Mode	CTCP UDP		TCP	Other	Video Prestaw	Edt. Deuts
Channels				* RTSP	rtsp://admin.123456@192.168.0.103.554/Streaming/Channels/101?transportmode=unicast	 Omel Deled				
Alarm Rules					Sutant Roset	1				
Alarm Audios										
Al Models										
Net Device										
D Platform										
## System										
							Total 5	10/pa	94) = 1 - E	Go to 1

Figure 11 The Edit Channel Settings page

If multiple cameras are connected, the 4 g cmsr software passed by the company can be provided for camera RTSP verification, in which the beginning of c 0 is the routing ID and the beginning of c8 is the movement ID.

5.2.2. Add Hikon camera to the edge supervision equipment

For Hikon cameras, ONVIF search can not find, and some cameras do not open the RTSP function by default, then you want to open the Hikon camera RTSP function, RTSP address format:

Rtsp://admin:woxi123456@192.168.1.64:554/h264/ch1/main/av stream,

manually fill this address in the RTSP address bar in the figure above; Notice: The Hikon camera suggests to set the code to H.264, the Hikon camera was set-coded as H.264 The interface is as shown below, If you are using an H.265, conduct some operations on the video preview interface

← → C ▲ 不安全	192.168.1.64/doc/page	/config.asp		
HIKVISION®	预览	配置		
□ 系统	<mark>视频</mark> ROI 码	充信息叠加		
④ 网络	码流类型	主码流 (定时)	~	
₽ 视音频	视频类型	视频流	~	
国 图像	分辨率	1920*1080P	 1	查看分辨率
一 事件	码率类型	定码率	~	
日 存储	图像质量	较高	~	
	视频帧率	25	∽ fps	
	码率上限	2048	Kbps 🥑	
	视频编码	H.264	<u> </u>	查看/修改视频
	Smart264	关闭	~	编码方式
	编码复杂度	中	× (
	岐间隔	50		
	SVC	关闭	~	
	码流平滑	O	50 [清晰<->平济	₿]
	🖹 保谷	Ŧ		
			©2020 H	ikvision Diaital Technology Co., Ltd. All F

Figure 12. Hikon camera encoding mode page

5.2.3. Take the RTSP directly to the edge supervision equipment

VISION	「「「」」「」」「」」「」」「」」「」」「」」「」」」「」」」「」」」」			⊥ admin (0) Hand L+ (
系统	基本信息 时间配置	RS-232 RS-485 草草编出		
縣统设置	设备名称	太原時范衡站		
系统维护	设备调号	255		
安全管理	设备型号	IDS-8632NX-18 / FA		
通道管理	设备序列号	IDS-8632NX-I8 / FA1620191030CCRRD80502656WCV		
用户管理	主控版本	V4.1.60 build 190611	更新	
WARD	编码版本	V5.0 build 190603		
Ris	FR版本	V4.3.0		
108-15	人脸抓拍算法库板本	V1.1.3		
E.e.	Web版本	V4.0.1 build 190507		
219	Plugin版本	V3.0.7.1		
014	通道个政	9		
-7758	硬鱼个数	4		
车辆检测	报警输入个数	31		
智能分析	报警输出个数	21		
目标机拍				
人脸库	🗎 保存			
	_			

Hikon Video Recorder, taking iDS-8632 NX-18 / FA as an example:

Figure 13 Hikon video recorder system setting information page

IKVISION	預览	回放 图片	20 SA	
三 系统	祝頼 研究信息書	20 年週道		
D 网络	3.8	[D1] 太原师范衡站人题	会识别视:▼	
20 Han	码流典型	(主码流 (定时)	~	
. 20 m	税须类型	视频流	¥	
1) 事件	分解產	1920°1080P	~	
5) 77-0	码审关型	定码率	~	
3 \$1500 8	图像质量	ф.	~	
5. WE96	视频帧面	全較率	✓ fps	
L Retta	码面上镜	2048	Kbps	
17 x 100 m	视频编码	(H.265		14-12LIDCA
	Smart265	关闭	~	一远年日204

Figure 14 Video coding viewing and modification page $% \left[{{\left[{{{\rm{T}}_{\rm{T}}} \right]}} \right]$

rtsp://admin:ty080910@192.168.1.88:554/Streaming/Channels/701?Transport mode=unicast

rtsp://admin:ty080910@192.168.1.88:554/Streaming/Channels/1201?Transpor tmode=unicast

rtsp://admin:ty36zhan@192.168.1.64:554/Streaming/Channels/201?Transport mode=unicast Notes:For the general rules of Hikvision video recorders, there is no problem with H265.

IP Channel O1 Master code stream for DS-9632N-ST:

rtsp://admin:12345@172.6.22.234:554/Streaming/Channels/101?transportmode =unicast

DS-9016 HF-ST:

rtsp://admin:12345@172.6.22.106:554/Streaming/Channels/1701?transportmod e=unicast

5.2.4. The Dahua camera is connected to the edge supervision equipment

The rtsp format of the Dahua camera is as follows:

rtsp://username:password @ip:port/cam/realmonitor ?channel=1&subtype=0
For example,requesting substream 1 of channel 2 of a device, the URL is
as follows:

rtsp://admin:admin@192.168.1.112:554/cam/realmonitor?channel=2&subtype=1

Notice:When Dahua cameras are connected to edge monitoring devices, please generally maintain a camera bitrate not exceeding 2Mbps.

5.2.5. RTMP video access

In many cases, if you need to access the RTMP video streams, then add the RTMP address directly in the channel management.

Edit Chn		×
* ChnNo.	2	¥**
Chn Name	dh	
Point	大亚湾石化园区应急中心	~
* Device Id		
OSD	osd	
* Connect Type	RTSP	
Video Format	• H264 O H265	
* Connect Mode	• TCP O UDP Fill in RTSP address	
* RTSR	rtsp://admin:admin123456@192.168.1.108:10554/cam/realmonitor?channel=1&subtype=	0 Onvif Detect
	Submit Reset	

Figure 15 RTMP address location

6. Control and setting of edge supervision equipment

Setting steps: left sidebar-warning control-control setting, as shown below: edit the alarm rules of the channel;

🕒 Large Screen 🗸	Alarm Rul	les Total	: 5 Reslart Al						
🗵 Smart Analysis 🗸	No.	ChnNo.	Camera Channel	Channel Type	RTSP Source	Connect State	Station Enable	Operation	step 3
Recog Record ~	1	iii 0	bm1	PerimeterAlarm(Enable) / Action Alert(Disabled)	rtsp://admin.woxi123456@192.168.1.65:554/h264/ch1/ main/av_stream	Online		Video Preview	Edit Delete
O Austra Decembra	2	🊔 1	bm2	PerimeterAlarm(Enable) / Action Alert(Disabled)	rtsp://192.168.1.196:554/stream0	Online		Video Preview	Edit Delete
Capture Record Capture Record Site Info	3	2	dh	Safe(Enable) / Action Alert(Enable)	rtsp://admin.admin123456@192.168.1.108:10554/cam/ realmonitor?channel=1&subtype=0	Online		Video Preview	Edit Delete
① IOT Control ~	4	i 3	hk	Safe(Enable) / Action Alert(Disabled)	rtsp://admin.woxi123456@192.168.1.64:554/h264/ch1/ main/av_stream	Offline		Video Preview	Edit Delete
역 Alarm Settings 스	s step 1	# 4	hknvr	StructureAnalysis(Enable) / Action Alert(Disabled)	rtsp://admin:123456@192.168.0.103:554/Streaming/Ch annels/101?transportmode=unicast	Offline		Video Preview	Edit Delete
Channels	and the second second								
Alarm Rules St	lep 2								
Alarm Audios									
Al Models									
Net Device									
☐ Platform									
🔡 System 🗸						Total 5	< 1 1	0/page v	Go to 1



By editing the AI configuration of the channel to realize the requirements for different alarm algorithms. For the configuration of each rule, you can click the "+" on the left for specific configuration, and submit after the configuration is completed;

🕑 Large Screen 🗠	Metrovi move LMA
🐨 Smart Analysis 🗠	Structure Analysis Rule Set Disabled 💽 Enable
Recog Record ~	+ Studies Catoles Disabled T Enable view all configuration types and rule configurations
Capture Record	+ Face Card Recog Disabled D Enable
🖵 Site Info 🛛 👻	+ Perimeter Alam Percen Disabled 🕕 Enable
IOT Control	+ Perimeter Atem Car Disabled Enable
의 Alarm Settings >	- Atroma Wearring Disabled C Enable
Channels	Aam Type: Satespile
Alarm Rules	Voice Enlage Close Open Clear alarm line
Alarm Audios	Target Stores
Al Models	Alarm Schedule 💿 00 00:00 To 💿 00 00:00
Net Device	Time Threshold(s) 0 Minute 5 Second
🛆 Platform 🗸	Scope Minute/Socond
## System ~	Avanti lierkva(s) 0 Hour 0 Minute 0 Second - 23 Haur 59 Minute 59 Second
	Relativy Scope 9-100
	Weir Ok Alem Cose Open OSW 版九文电 描述 新闻的
	click submit

Figure 17 Control setting editing page

Notice:The poor detection effect of the whole detection and alarm system can appropriately reduce the confidence, view the position of the warning box\line in the detection area, and draw the warning box, and the default detection area is in the warning box. If the whole detection and alarm system has inaccurate alarm, it is necessary to pay attention to the retention time (detection interval) and alarm interval (how many time detection and alarm) in the alarm setting.

If the whole detection and alarm system has detection results, but the speaker does not alarm, it should check whether the linkage voice binding option; there are also incorrect audio settings, you can check whether the relevant audio content is set, and check Section 7.

When using the personnel in the behavior test, they need to cooperate with the departure time, that is, how long the person will leave and report to the police.

6.1. Basic alarm rule logic

Currently, the system is divided into three categories of AI functions: (1) Motor vehicle, non-motor vehicle, face, human form, license plate capture and attribute analysis.

(2) Item detection, including smoke, flame, fire-fighting facilities, etc.

(3) Personnel behavior detection, pay attention to the setting of residence time.

Notice:Due to system resource limitations, the total number of channels that can be opened by rules (1) and (3) cannot exceed 15. If the previous channel configuration has exhausted its capacity, the subsequent channels will not be effective;

The configuration page and commonly used rules have been listed. You can compare the opening/closing of the page and corresponding settings as needed. After setting, you need to restart the algorithm module to make the settings take effect.

6.2. Control installation is completed and effective

After the control setting is completed, the AI algorithm module should be reloaded, so restart the algorithm module. The operation steps are shown as follows: Setting steps: left sidebar-System management-status-restart AI.

		0	1010 01	, j	0								_
🕒 Large Screen 🖂	Status						AsyncTime	Restart Al	Last Upgrade	Upgrade FW	Reboot	Reset	1
🐺 Smart Analysis 🗸	System Status							sten	3				
Recog Record V	HW Ver.	V2.0			Total RAM	4.17 GB		step	~				
O. Cartan Barred	FW Ver.	24-0625			Used RAM	1.61 GB							
El Capitre Record	Serial	d81601000113			eMMC Space	16.0 GB							
🖵 Site Info 🛛 🗸	CPU Usage	15.75 %			Storage	6.25 GB							
IOT Control ·	CPUTemp	72 °C			Used Storage	2.37 GB							
으 Alarm Settings ~	Board Temp	50 °C			System Time	2024-07-04 10:01:23							
🛆 Platform 🗸 🗸	Serial SN	d81601000113			Web Version	v3.5.1							
II System ^	Software Version	V2.2.0.A05			Device Model	MBEL-BH16P							
Params	Plateform	Connected											
Status	en 2												
Upgrade													
Networks													
Logs													

7. Introduction to System Function Menu

7.1. Intelligent statistical analysis of the largescreen interface

In order to meet the visual requirements of statistical analysis for small and medium-sized projects, a data statistics large screen display function has been developed; The large screen interface is mainly used by regulatory personnel for daily monitoring, filtering effective alarm information display, and summarizing alarm types;



Figure 19. Intelligent statistical analysis of the large-screen interface

The large screen interface shows the statistics of the data, which is divided into nine parts.

1. Data view

This section shows the number of channels (equipment added channels), alarm number (including the number of all alarm types), capture number (including face, human, shape, motor vehicles, non-motor vehicles, license plate capture number), online number (added channel online number), model number (number of alarm type), number of personnel (personnel files), the number of vehicles (number of vehicle files), etc data. Users can select data within the time range by clicking and display all by default data.

2. The top 10 channels this month

This section displays the top 10 channels with the highest number of alarms for the current month, and displays the proportion and total number of alarm channels in the form of a progress bar. The default display is the top 10 channels of the alarm, and users can choose different types of top 10 channels.

3. Distribution of AI events

This section displays the distribution of AI event types, including perimeter people, perimeter vehicles, personnel violations, abnormal environments, abnormal behaviors, etc. Display the quantity of a certain data item in a circular pattern. Move the mouse over the circular pattern to display the current type of quantity. 4. Guard and capture

This section shows the latest four alert snapshots. The lower left corner of the picture shows the name of the current event, the name of the control, the capture time and other data. After clicking on a picture, the detailed information of the current event will pop up. The left side shows the captured picture and 15 seconds before and after the capture, and the detailed information of the captured event will be displayed on the right side.

5. Storage space

This section shows the percentage of the current system storage. Displayed in a water balloon chart, shown in red for storage greater than 80% and not blue for storage less than 80%.

6. System detection

This section shows the use of CPU resources, 0-20 green, 20-40 brown, 40-60 light green, 60-80 light red and 80-100 red. Below shows the CPU main frequency and the temperature of the system board.

7. Alarm trend analysis

This section shows the analysis and trend chart of the alarm type, showing today's data by default. Users can click Select the data within the time range. The alarm type analysis shows the data in the form of pie chart, and the alarm trend shows the data in the form of line chart. Putting the mouse on the pie chart shows the number of the current type, and the number in time when placing the mouse over the point of the line chart.

8. Event list

This section displays the alarm data of the day, displayed as a list, stop rolling when moving the mouse to an item move, the user can delete through the delete button, delete without a prompt, the data will be directly deleted.

7.2. Main menu

Click on the buoy in the upper left corner to bring up the main menu bar on the side, and click again to hide it. Clicking on a certain item in the menu bar will adjust to the page, and the buoy will not be displayed. The main menu will also be displayed on the left. If you want to enter the large screen page again, you can click on the large screen menu to enter.



7.3. Intelligent analysis

This option includes: real-time video, AI video;

Real-time video: the real-time video streaming of the video camera; AI video: the electronic fence preset by the camera, and the results identified by the corresponding algorithm will be superimposed and displayed;

7.3.1. Real-time video

The upper middle and left corner are respectively:

(1) Preview channel setting area: check the channel to preview;

(2) Split screen area: the number of split screens can be set, including 1,4,9 and 16;

(3) Full-screen icon: display the current preview interface in full screen;

(4) Video analysis mode option area: ① face binding and recognition can be selected; ② full structured analysis; ③ alert capture;

(5) Alarm record display area: you can click to view the specific

information of an alarm, click to view the large picture to enlarge the alarm picture, and at the same time, you can view the 15S video before and after the alarm;



Figure Figure 21 Real-time video page

Notice: The required work for the configuration management page is recommended to be operated under the guidance of the manufacturer's technical personnel!

7.3.2. AI video

The "AI video" interface is the same as the "real-time video", and the AI video channel interface will increase the display of information related to the display algorithm; Edge Monitoring Equipment Manual



Figure 22 AI video picture

7.4. Identifying the records

Automatic identification record is subdivided into: face recognition, vehicle recognition;

	Face Re	coa	Export Data	Save Impor	Bak Del 🗸									
G Large screen	Time:) 2024	1-06-19 16:00:01	To 2024	-07-05 00:00:00	Channels: All	 Name: 	AI V	Search Reset					
🐺 Smart Analysis ~			formation	Basedone	hashid	Challes A	Cher Name	Reliability +	Manage	Cont Roma	Gen	Talahana	Capture Time	Overeties
Recog Record ~		. 1905	anaparos.	Datering	LOCKI	canac o	Contractive	nominity e	Nativ	Coltr. Marrie	der	Televine .	Cupille link •	Coperation
		1	IT.A	-A-	17642	5	(-R)	80.854	1763379537701564416	#30	女	1000000000	2024-07-04 15:59:54	Dotal Delete
Plate Recog				-										
Capture Record	α	2	4		348	0	bm1	34.699	1723676993753800704	(F.R.	×	11616161616	2024-07-04 15:59:52	Detail Delete
🖵 Site Info 🛛 🗠	1			0	laws.									_
O IOT Control ~	124	3		E	17636	5	0780	75.839	1763380360582066176	未知	10	10010101010	2024-07-04 15:59:37	Detail Detelle
Alarm Settings	á	4		010	17626	5	6981	79.472	1735935801299054592	#30	п	10820383038	2024-07-04 15:59:03	Detail
II System	ä	5		3	17620	5	1781	77.350	1722224409848102500	832		10030303030	2024-07-04 15:58:33	Detail
	6	1.6		6	17616	5	1790	56.231	1762734850800050176	892	п	10030303030	2024-07-04 15:57:41	Detail
	Ø	7	T	2	17612	5	1781	78.811	1721827934050525184	970	男	10020202020	2024-07-04 15:57:38	Dotal Deteta
									Total 48533	< 1 Z 3	4	5 6 48	4 10/page -	> Go to 1

Figure 23 Face recognition page

7.4.1. Face recognition

The recognized facial information will be displayed here, and there are functional options such as "Export Data" "Save Image" "Batch Delete" "Time" "Channel" "Name" at the top of the interface. The recognition data results can be further processed, and facial recognition can be retrieved based on time periods, warning channels, personnel files.

Face I	Recog	Export Data	Save Imag	e ~	Bulk Del	~								
Time:	③ 202	4-06-19 16:00:01	To 202	4-07-05 00	0:00:00	Channels:	All	~	Name:	All	Y	Search	Reset	
	No.	Snapshot	Baseling	trackld		ChnNo. ≑		Chn Name		Reliablity \$		Name		Dept Name

Figure 23 Face recognition information bar screen

If you want to export face recognition or vehicle recognition data, you can click the export data button, pop up the export data dialogue Box, where you can select export items and export fields. The export item can choose to export the current page, export the selector, export all the data, export the current page of the current page, the number of each page is 10/page, 20/page, 50/per page, 100/per page, 200/page; the export of the selection represents the user selected data across pages; export all the identified data. Export fields are selected by default. Users can select the fields they want for export. After selecting export items and export fields, click the Export Data Excel button to export the data to the Excel table and download it.

The Save picture button can download the selected data or download all the data in the form of compressed files. And zip, move the mouse into the drop-down icon to the right of the save button to view the saved options,

export the selection and export all, and the number behind the dropdown option is the number to be exported. Batch deletion is similar to the save button. Batch deletion can delete the selected data or all the data. Please operate carefully, click the deletion option in the option to prompt the user to delete, and delete the data after reconfirmation.

Face Rec	og 📕	Export Data	Save Image	e 💉 Bulk Der									
Time: 💿	2024-0	06-19 16:00:01	To 2024	4-07-05 00:00:00	Channels:	All ~ Nam	e: All 🗸	Search Reset					
30	No.	Snapshot	Baseling	Export Data						×	Telphone	Capture Time 🤤	Operation
10	1			Export Wa O Ex	port Page 10	Export Select 0	Export All 48533				18636988888	2024-07-04 15:59:54	Detail Deleto
10	2			Export Fiel 🔽 kd ds 💽 trac	kid	captureImg reliability	 origining usemame 	channelName deptName	channelNo gender		18886888888	2024-07-04 15:59:52	Detail Detete
	3		E	Export DataEXCEL		0110					18886888888	2024-07-04 15:59:37	Detail
io.	4		10	17626	5	1781	79.472	1735936801299054592	#30	2	1888588888	2024-07-04 15:59.03	Detail
10	5			17620	5	iFini	77.390	1722224499848192000	未知	斑	18636988888	2024-07-04 15:58:33	Detail
(12	6			17616	5	(FBI	55.231	1762734850800050176	未知	85	18888888888	2024-07-04 15:57.41	Detail Detete
	7	7	3	17612	5	can	78.811	1721827934050525184	#90	5	1888888888	2024-07-04 15:57:38	Detail

Figure 25 Face picture export page

7.4.2. Vehicle identification

The identified vehicle information will be displayed here, and the specific function option introduction is consistent with 7.4.1;

Plate	Reco	g Export D	ata	Save Imag	ge ~	Bulk Del 🛛 🗸 🗸									
Time:		2024-06-19 16	:27:22	To 202	24-07-05 00:0	00:00	Channels:	All	~	Name:	All	~	Search	Reset	
		No. Snap	oshot	Baselmg	trackld		ChnNo. 💠		Chn Name		Plate Recog		Name		Dept Name

Figure 26 Vehicle identification information

7.5. Capture Record

The capture records are divided into: structured capture, alert capture, video playback

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() Large Screen V	Face-Cap	oture Re	cord ExpertD	lata Save Ima	ge 📔 👻 🛛 Bulk Del	-							
🗐 Smart Analysis 🗠	Time: C	2024-0	6-19 16:34:09 To	2024-07-05 00	00.00 Chann	els: All	V Detect: Face	Search Search	Reset				
	0	No.	Snapshot	Chn Name	CheNo. 🗘	TrackID	Gender	Age	Hat	Respirator	Reliability	Capture Time 🗘	Operation
Recog Record *			-										
Capture Record		1	No. A	识别	5	18096	male	60	safety_helmet	no_respirator	80.3	2024-07-04 16:33:52	Detail Delets
Structure Capture	-												
Alert Capture		2		伊朗	5	18090	male	22	others	no_respirator	74.5	2024-07-04 16:33:38	Detail Delete
Play Back													
🖵 Site Info 👋		3		识别	5	18080	female	27	safety_helmet	no_respirator	79.5	2024-07-04 16:32:42	Detail Delete
① IOT Control 🛛		4	B	(29)	5	18072	male	45	safety_boinet	no_respirator	87.4	2024-07-04 16:32:26	Detail
R Alarm Settings	-												
🛆 Platform 🔍	(B)	5		(99)	5	18058	male	49	others	no_respirator	81.4	2024-07-04 16:31:56	Detail
🚦 System 🗸 🗸		6	No.	(28)	5	18056	male	51	betmet	no_respirator	78.9	2024-07-04 16:31:50	Detail
		7		(98)	5	18054	male	31	safety_hoimet	no_respirator	84.3	2024-07-04 16:31:14	Detail

Figure 27 The snap record page

7.5.1. Structured capture records

Display AI identification information according to the strategy structure capture of control setting; the upper functional area can retrieve the specific channel, date and time period; click to view the details and deletion of each alarm information;

7.5.2. Vigilance capture

Catch and store the perimeter, perimeter vehicles and personnel violations and display AI identification information; the upper functional area can retrieve specific channels, date and time period; click to view the details and deletion of each alarm information; screen the alarm type in the figure;

🕒 Large Screen 👋	Alert Capture	Export Data	Save Image ~ B	hulk Def 👻							
🗔 Smart Analysis 🗠	Time: 💿 202	4-06-19 16:44:51	To 2024-07-05 00:00.00	Channels:	All 🔗 Alarm Ty	pet All 🔨 Search	Fieset				
E Derm Dermit -	🔲 No.	Snapshot C	Chn Name Chn	No. © trackid	Alarm Type	Ale All	larget Type	Time of Alarm ©	Rule	Polygon	Operation
Capture Record	P. 1		潮 5	18221	Al Snap	Ref Mask Work clothes	human	2024-07-04 16:44:47	Human Sale	Full	Detail Details
Structure Capture	□ ž		9H 5	18221	Al Snap	Sale belt Ref Reflective clothing Flame	angin	2024-07-04 16:44:47	Human Safe	Full	Detail
Play Back	3		- 81 5	18221	Al Snap	Reflective clothing 74.8	human	2024-07-04 16:44:37	Human Safe	Full	Detail Detete
 IOT Control Alarm Settings 	0.14	Sec. 19	81 5	18221	Al Shap	Reflective clothing 74.8	origin	2024-07-04 16:44:37	Human Safe	Full	Detail Detete
☐ Platform ~	5	STE 19	781 S	18237	Al Snap	Reflective clothing 3 84.0	human	2024-07-04 16:44:25	Human Safe	Full	Detail Delete
III System 🗡	□ 6		रछ। 5	18237	Al Snap	Reflective clothing 84.0	origin	2024-07-04 16:44:25	Human Safe	Full	Dotat Delete
	D 7		78I S	18239	Al Snap	Reflective clothing 76.1	human	2024-07-04 16:44:18	Human Safe	Full	Detail Detets
		-									*

Figure 28 Warning and capture screening setting

7.5.3. Video playback

You can select the corresponding channel of video, picture playback, the upper functional area can retrieve the specific date and time period

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Figure 29 The video playback page

To the left of the content area is the directory tree saved by the channel, and the upper drop-down list can choose to view the video or graph Film, the default view is the video. If a channel name exists, a directory name appears as a channel name, otherwise it appears as a number. If you want to view the data of a certain channel, you can click on the channel to view it. After clicking the channel, the secondary directory is displayed, which is composed of the current date, users can click to view the data of a certain day according to the time, the third layer directory consists of date and time period, and clicking the directory composed of date and time again can display the video data list. The video data name is composed of year + month + day + hours + minutes + seconds _ video seconds, click the video name, and then click the play button in the video playback area to play. The search criteria will also change when you click on the left directory tree;



Figure 30 The video playback page

If you want to display all the video data in a thumbnail way, you can

click the button to enter the thumbnail side

Type view video. Thumbnail mode shows 12 videos by default, and users can switch to play by clicking the paging button, but it does not play

automatically by default, and the user needs to manually click the play button to play. If you want to return to a single play, you can

Click on the list button to switch off;



Figure 31 Video playback thumbnail page

In list mode, you can choose to drag the time scroll bar below the video area to find the playback. Intermediate white line table Show the current time, the user can drag left and right to obtain the video data playback within the time, and moving the mouse into this control will show the specific time in the current position of the mouse;

Figure 32 shows the specific time below the video playback

09:39 09:40 09:41 09:42 09:43 09:44

Query image data and video data is the same operation. One difference is that the picture list display data is displayed in the form of a table, users can click to view the picture and download the picture;



Figure 33 Video playback snap picture page

7.6. Archival Information

It mainly includes: point location information, park/enterprise files, personnel files, vehicle files, Portrait Library Management;

🕒 Large Screen 🗹	+ Add					
🖽 Smart Analysis 🗠	Position No.	Building Location	Building Name	floor	Longitude Latitude	Operation
		广东幽康州市惠阳区X217(石化大道中)	大亚诸区演励特勘二中队	à.	("ing":114.585926,"lat":22.747854}	🖉 Edit 📋 Delete
Recog Record Y						
Capture Record~						
🖵 Site Info 🗠						
Position Info						
Site Archives						
Face Library						
Plate Library						
Portrait library						
IOT Control						
Alarm Settings ≚						
☐ Platform						
🔡 System 🗸						

Figure Figure 34. Archive information page

7.6.1. Point information

Click + Add to add the specific location of the device. By default, the current location information will be displayed, and once the map obtains the location information, it will automatically fill in the corresponding form input box. If the location is not accurate, the user can delete the point position, enter keywords to search for location information, select a location information from the drop-down list, and select the corresponding point position. The name will also be automatically filled in. Users can also drag the map and click to select point information;



Click *L* Edit to modify the specific point information that has already been added;

7.6.2. Park/Enterprise Archives

Click Add to add the name of the park/enterprise, enter the enterprise name, social credit code, and note information, Click Submit to complete; Click LookDept to view the department details of the current park/enterprise, and add departments by clicking New Dept , Enter the

department name from the list input box, click Add, click Cancel Add.

xx园区 Dept Detail				×
Dept List Total: 1				New Dept
Dept Name	Dept Num		Operation	
研发部	0		Detail Delete	
		Total 1	< 1 10/page ~	> Go to 1

Figure 36 Park / enterprise addition interface

If the number of departments in the department list is 0, Detail in the gray unoperable state, if the number of departments. When it is greater than 0, you can view the personnel information of the current department. At this time, the deletion function cannot be operated. Users can directly use the unbinding function to remove the personnel from the department.

< 研发部 总数:2					
人脸图 姓	招	手机号	部门	性别	操作
	fiet1	18456236598	研发部	男	解除绑定
☑ 李	Ĩ	18456235648	研发部	女	解除绑定

共2条 < 1 10条页 ~ > 前往 1 页

Figure Figure 37 The List of departments shows the page

Click to delete the added park / enterprise to delete, if it is gray, means that the current operation, the number of departments is 0 can be deleted;

7.6.3. Personnel files

The personnel profile page can be searched for names and units by clicking and reset conditions can be used

Name	All	~	Unit	All	~	Q Query	Reset

Add personnel files, which can be selected for single entry or batch entry. Click 'Single Entry' to enter the corresponding information according to the interface prompt. The associated department drop-down selection box is not optional by default. Only after selecting the unit can the department be selected. Click 'Submit Entry' to proceed;

nport					>
Treasury na	None		~		
me: * Name:	Please Ent	er Username			
* Telphone:	Telphone				
* Gender:	Man	🔿 Woman			
* Unit:	Select		~		
* Bind Dept:	Select		~		
* Image					
Drag or click I	to upload	Notice: • Types: JPG, JPEG, PNG • Size ≤ 4MB • Image Max Pixels ≤ 4096*4096 • Image Min Pixels ≥ 100*100			
* Description					
Description	n				
				Submit Library	Logout

Figure 38 Entry page of personnel files

Batch warehousing can add multiple personnel files at once, but data must be in the specified format. Move the mouse over to the dropdown icon for batch storage, select the folder, and a batch storage pop-up box will pop up. From the pop-up box, select the user manual folder for the edge monitoring equipment you want to upload, then select the unit and department, and click "Batch Storage". Format image naming: Name Gender Phone Image Type.

7.6.4. Vehicle files

Vehicle warehousing steps are consistent with personnel warehousing;

7.7. Immediate early warning

Instant early-warning mainly includes: early-warning data, gateway information, Modbus;

7.8. Early warning and control control

Early warning control mainly includes: channel management, control setting, audio linkage and model management; see Section 5 for channel management;See Section 6 for the distribution control setting;

7.8.1. Audio linkage

The audio linkage page can modify the audio, set the steps: the left sidebar-early warning control-audio linkage-upload files-determine, if there is a need to change the audio format, you can install the company's special audio converter to achieve audio conversion;

() Large Screen 🗠	Alarm Audios									
🖂 Smart Analysis 🐣	No.	Alarm Type	Alarm Count	Trigger(second)	Audio Name	Loop		Path	Alarm Enable	Operation
	4	Safecap	3 1 Please Add A	udio then trigger			×	http://192.168.1.35/sd/upload	•	Edt Voice Ingger Alarm
Recog Record Y	2	Mask	6					None		Edit Voice Trigger Alarm
Capture Record >	3	Work clothes	Loop 5	Close 🚺 Open				None		Edit Voice Trigger Alarm
🖵 Site Info 🛛 🗸	4	Safe bell	Alarm Enable	Close Open				None		Edit Voice Trigger Alarm
① IOT Control 🛛 🗸	5	Reflective clothing	Alarm Count	- 3 +	(Scope:1-255)			None		Edit Voice Trigger Alarm
은 Alarm Settings 스	6	Flame	Trigger(second)	- 1000 +	(Scope:5-3600)		_	None		Edit Voice Trigger Alarm
Channels	7	Smog	Path 3	http://192.168.1.35/s	sd/upload		-	None		Edit Volce Trigger Alarm
Alarm Rules	8	Fire fighting facilities	Upload Voice	Choose File C	lick Upload			None		Edit Voice Trigger Alarm
Alarm Audios	9	Mess stacking	³ 2.select file	Only upload aac ne	1			None		Edit Voice Trigger Alarm
AI Models	10	No parking	3		3	A Determine Cancel		http://192.168.1.35/sd/uploa		Edit Voice Trigger Alarm
Net Device										
Platform Y										
🔡 System 🗸										
							Total	41 < 1 2 3	4 5 10/page ~	> Go to 1

Figure 39 Audio linkage page

Notice:When connecting the speaker to the AIBOX box, connect the active speaker to the SPK+and GND ports, and the borderless speaker to the SPK+ and SPK- ports.

7.8.2. Model management

The model management page can view and edit the individual model early warning information;

🕒 Large Screen 🗠	Al Models Total: 41						Ass
💭 Smart Analysis 😤	No.	Азант Туре	AlgType	Detect	IsShow	Description	Operation
E Dever Decord		Safecap	Details		×		Detail Edit
La Recog Record		Mask	Alarm Tuna: Saferan				Detail
Capture Record ~	3	Work clothes	AlgType: Safe				Detail
💭 Site Info 👋	4	Safe belt	Target Type: Human				Detai
O IOT Control ~	5	Reflective clothing	Alarm Count: 3				Detail
O Aliama Gallinge A		Flame	Trigger(second): 1000				Detail
A Mentil Sciency's		Smog	Loop: Audio Start Loop				Octail Edit
Channels	4	Fire lighting facilities	Enable: Start Audio				Detail
Alarm Rules	9	Mess stacking	Audio Name: no safe cap aac				Detail
Alarm Audios	10	No parking					Detail
Al Models							
Net Device							
🛆 Platform 🖂							
RE Charleson							
aa systen							
					Total 41	< 1 2 3 4 5 10/page ->	Go to 1

Figure 40 The Model management page

7.9. Platform access

Platform access includes: GB28181 configuration, GA/T 1400, server setting, Report; the most commonly used function is involving HTTP POST to alarm platform;

7.10. System management

System management includes: GB28181 configuration, GA/T 1400, server settings, and Report;

rge Screen 👻	Submit Result	
nart Analysis 🗠		
	HTTP Mode	
cog Record 🗠	Marine Care	New Area
pture Record ×		Centre Open
	Serial social	SubSidary Server http://cszhgd.aj.ftxsynet.com/s
i into	Main Server http://alarm.m51c.com:1337/a	Retry Interval 0
Control	Retry Interval 0	Retry Count 0
rm Settinos 😪		
	Ketty Count 0	Data type 🔄 Capture 🔄 Hecog 🖬 Alarm 🛄 DTU
m o	Data Type Capture Recog Alarm DTU	Upload Feature Data
31 Setting	Upload Feature Data	Upload image
20	Linited impos	Unioned Recoil Produce
	Cysoed integer	image
er Setting	Upbad Small Capture	
	mage	upiono seg Fun image
m 9	Upload Big Full Image	
	Failure Retry	
	Statent	

Figure 41 Platform access page

7.10.1. System parameters

System parameters include: system configuration, global algorithm setting, access authentication, M51C Connect;

system configuration: System Language English The system language can be modified to be in Chinese and English; Target confidence threshold(0-10 100) The credibility threshold of the target can be modified, generally set to 10^{50} , its confidence is the confidence of all the model detection targets; AI edge computing Server Website Name In the title of the website can be modified in the current page title name, enter the information to be modified, click effective immediately: Other Settings should operate according to the page reminder; Global algorithm setting: According to the page prompts can be modified, generally not recommended to change; 7.10.2. Hardware settings

Displays the current system configuration, the upper right corner function area has: restart AI, last upgrade status, firmware upgrade, device restart, reset and other functions;

Firmware upgrade: click Upgrade FW , then click to upload the upgrade package provided by our technical staff, click Upgrade FW ;

7.10.3. Online upgrade Settings

Online upgrade includes: online upgrade setting, LOGO replacement. Online upgrade: according to the page prompts, generally not recommended to change;

Logo replacement: Click upload, select the logo file that needs to be replaced, enter the file selection interface, and the selected logo document will be displayed in the box selection area. Then click submit to complete the process; When uploading images with the extension png, modify the website logo; When uploading images with the extension ico, modify the website icon;;

Drag, Or Click)		
Drag, Or Click	7		
	Upload		



7.10.4. Network settings

Can set up the AIBOX wired network, wireless network, 4G network and other LAN port network, and fill in the corresponding information according to the interface prompt; see Section 4 for details;

8. FAQ

8.1. Basic setting logic

1) The departure of the personnel means that the personnel in the area leave the alarm once;

2) Personnel leaving the post means that there is no personnel on duty in the area;

3) When the vehicle leaves or the non-motor vehicle leaves, only alarm once;

4) The fire extinguisher cannot be identified, and the training picture needs to be further optimized without not enough;

5) Due to the limited system resources, the sum of the total number of non-human and human movements can not be more than 15. If the front channel has been configured to use up the capacity, the back channel will not work;

6) Action recognition detection will detect the duration of the action. If you want to be sensitive, set the time shorter;

7) Set the alarm but no response, please try to go to the system management, set the volume in the system configuration;

8) If the alarm is inaccurate, please try to go to the system management and modify the confidence, which is global confidence, See the specific threshold range; also check whether the alarm cordon/area position is consistent with the intended detection area;

9) At present, users are advised to use the http mode to upload the information to the cloud;

10) In the channel management, if the camera connection fails, the non-Hikon camera can try to use the VLC software to connect to the network stream, excluding the elements of the camera itself, and the Hikon camera uses its test software for testing.

8.2. The Channel Problem

All channels must be added in order of 0^{15} . Skipping the order may cause AI recognition problems.

8.3. Page personalization setting issue

8.3.1. Title replacement

LOGO replacement see Section 7.9.3;

Title replacement includes column title and copyright information at the bottom can be personalized according to their own needs, system management-system Settings steps:left sidebar-system management-parameter setting-modify the website title/ permission information-refresh the
web page;

Large Screen	Enable Capture Landmark	Close Close	
imart Analysis 🗠	Compress Level(10-100)	60 Walke of 110-1001 stands for (compressed, strongel)	
ecog Record	Target confidence threshold(0-	10	
apture Record ~	100)		
te Info 🔍	Recog. Cached(50000+)	50000	
T Control V	Capture Cached(50000+)	50000 Chear Data	
	Priority display of real-time	Face-human & Recon. Structure Analysis Arrit Capture	
arm Settings ~	records		
latform 🗢	Website Name	All edge computing Server	
ystem	Update Copyright	Copyright@2020-2025 天事电子	
ams	RTSP Server	Close Open	
5		rtip/l/p/10540ptoy/Chritiko	
pade		15p.//152.168.1.32.16554proxy/0	
		Submit	
tworks			
js			
	Global Algorithm		
	Pic. Recog. Retry(0-5000)	5	

Figure 48 Title replacement page

8.3.2. Language Settings

If there is a language modification requirement, you can modify the corresponding content according to the requirements. If you need to add other languages, you can contact our technical personnel;

≡ 🔝 天津索(论特安检系统			Account: admin Logout English >
🕒 Large Screen 🖂	System Param Setting			
🛒 Smart Analysis 🗸	System Status			Method 2
🔟 Recog Record 🖂	System Language	English 🗸	Method 1	
Capture Record	Security	• нттря 🔿 нттр		
	Alarm Video	Origin Video 🔿 Al Video		
🖵 Site Info 🗠	HDMI OUT	Ctose Open		
① IOT Control ~	Alarm audio switch	Close Open		
은, Alarm Settings ~	Alarm Video Time	20		
Platform Y	Speaker volume	90	1-100	
📰 System 🗠	Microphone volume	80	1-100	
Params	Save All Origin	Close Open		
Status	Captured TimeStamp Enable	Close Coen		
Upgrade	Enable Capture Landmark	Close Open		
Networks	Compress Level(10-100)	60		
10220		Value of [10-100] stands for [compressed	, original]	
Logs	Target confidence threshold(0-	10		
	100)			
	Recog. Cached(50000+)	50000		

Figure 49 Language setting location

Notice:After the language switch is completed, it is recommended to go to the server settings and switch time information.

Setting steps: left sidebar - platform access -server setting -time zone information selection/current time manual input - click submit refresh the web page;

Edge Monitoring	Equipment	Manual
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🕒 Large Screen 👋	Remote Server		
ज्ज़ Smart Analysis 🗸	Heart Beat		NTP Server
🜌 Recog Record 🗠	Server	192.168.1.32	NTP Enable
Capture Record ~	Interval(1-65535 Min.)	3600	Domain/IP 192.168.1.92 4.manual upload time required
🖵 Site Info 🗸 🗸			Retry Count 3 when not connected to the
① IOT Control V			Interval(1-65635 Min.) 3600
은 Alarm Settings ~			Custom Time 0 2022-07-18 15:20:30
Baltorm 1.click on platform access			Custom Time (UTC+8:00)
CR24181 Setting			
GA/T 1400	3.make time zone selection. Automatically locate to the correct tim		
Server Setting			
Report 2.	click on server settings		
🚼 System 🗸			
a de la composición d			

Figure 50 Time zone modification step