Hello everyone. We have upgraded our Thermal Camera firmware to V5.5.26 build200608 which is the latest one so far. The followings are some highlighted upgrade points since V5.5.26 build200507:

1. Add **custom alarm audio output** function for devices with /PA, temperature abnormal alarm and mask detection alarm can be set separately.

ни	VISION	Live View	Playback	Picture	Configuration		👤 admin 🌘	👔 Help	E+ Logout
Ţ	Local	Motion Detection	Video Tampering	Alarm Input	Alarm Output Exception	Flashing Alarm Light Output Audible Alarm C	utput		^
	System	Alarm Type	Mask De	ture Measureme tection	nt				
Ð	Network	Sound Type	Custom	Audio	~				
.Q.	Video/Audio	Custom Audio	yahe		Test Download	d Add			
14	Image	Alarm Times	1						
圁	Event	Sound Volume		0	100				
	Basic Event	Arming Scheo	dule						
1	Smart Event	× Delete	iii Delete All						
	Storage	0	2 4 6	8 10	12 14 16	18 20 22 24			
٩	Temperature Screening	Mon							
		Tue	2 4 6	8 10	0 12 14 16	18 20 22 24			
		0 Wed	2 4 6	8 10	0 12 14 16	18 20 22 24			
		0	2 4 6	8 10	12 14 16	18 20 22 24			
		Thu	2 4 6	8 10	) 12 14 16	18 20 22 24			
		Fri		0 10	12 14 10	10 20 22 24			~
		0			©2020 Hikvision Digital Tech	nology Co., Ltd. All Rights Reserved.			

**Please note**: The uploaded audio file shall meet the following requirements:

General format	.wav
Size	Less than 512 KB
Encoding format	PCM
Sampling rate	8 KHz
Bit Depth	16 bits
Channel	Mono (1 channel)
Bit rate	No specific requirement

Upload Custom Audio	
* Custom Audio	Browse
Upload a .wav mono so sampling rate as 8 KHz	ound audio file with the size smaller than 512 KB and z.
* Audio Name	
	OK Cancel



2. Add options to the **Temperature Screening Configuration** page to set whether to display the face frame, face temperature and temperature measurement position respectively.

HI	VISION	Live View	Playback	Picture	Configuration			土 admin	🚯 Help	E+ Logout	
Ţ	Local	Basic Settings	Temperature Scre	ening Configuration	Linkage Method						^
0	System Network	🗹 Enable Fa		a 01							
9: I	Video/Audio Image	Overlay Inf									l
	Event Storage	Display Te	mperature ne 🗹 Face Temper	ature 🗹 Display F	ace Temperature Position						l
8	Temperature Screening				Operation Guide	Configuration	Targeting	~			
	Basic Settings Face Capture	) Min 66-09-2020 Тш 1РО Мах	e 21:36:54			Face Detection Parameter Min. Pupil Distance Max. Pupil Distance Generation Speed Sensitivity	110 707	<ul> <li>Ø</li> <li>5</li> <li>5</li> </ul>			
		1			©2020 Hikvision Digital	Alarm When Temperatur. Pre-Alarm Temperature Technology Co., Ltd. All Right	36.2	2° 2°			~

The same configuration can also be applied to the thermography channel and can be set independently.

HIKVISION	Live View Playback	Picture	Configuration			👤 admin	🚯 Help	🗗 Logou
Local	Basic Settings Temperature Sc	reening Configuration	Linkage Method					
System	Channel No.	iera 02	$\checkmark$					
Network	Overlay Information							
Video/Audio	Display Temperature			1				
Image	Face Frame 🗹 Face Temp	erature 🛛 Display Fa	ce Temperature Position					
Event Event	Free states and states and			Black Body Parameters				
Storage	06-11-2020 Thu 21:35:	57		Enable Black Body C	orrection			
Temperature Screening				Distance	2	m		
Basic Settings				Temperature	40	°C		
Face Capture				Emissivity	0.97			
		•		Body Temperature Com	pensation			
	ALC: 10000			Enable				
	100			Compensation Type	Auto	~		
	11			Compensation Value	2.5	°C		
				Manual Calibration	0	°C		
	and the second se		amera 02	Environmental Temperat Technology Co., Ltd. All Righ	Δυτο			

The above configuration is effective for **LiveView** and **face capture**. For example, if the customer does not need to display any information in the visible light channel, but only needs to display the face detection frame and the actual temperature measurement position in the thermography channel, the following configuration can be set:



HI	<b>WISION</b>	Live View Playback Picture Configuration	👤 admin	🗿 Help	E+ Logout	
	Local	Basic Settings Temperature Screening Configuration Linkage Method				^
	System	Channel No. Camera 01				
Ð	Network	☑ Enable Face Detection				
Q.	Video/Audio	☑ Upload Captured Face Image				
1	Image	Overlay Information				
	Event	☑ Display Temperature				
8	Storage	Face Frame     Face Temperature     Display Face Temperature Position				
\$	Temperature Screening	Operation Guide Configuration Target	ting 🗸			
	Basic Settings	Face Detection Parameters				
	Face Capture	1 dis Percenti i Institute Min. Pupil Distance 30	0			
		Max. Pupil Distance 401	0			
		Generation Speed	5			
		Sensitivity	5			
		Alarm When Temperatur 33	°C			
		Pre-Alarm Temperature 32	D.			~
н	VISION	Live View Playback Picture Configuration	🛓 admin	🚺 Help	E+ Logout	
_	Local	Basic Settings Temperature Screening Configuration Linkage Method				^
	System	Channel No.				
O	Network	Overlay Information				
Q.	Video/Audio	☑ Display Temperature				
1	Image	☑ Face Frame  ☐ Face Temperature ☑ Display Face Temperature Position				
	Event	Black Body Parameters				
8	Storage	06-12-2020 Fri 13:08:38				
8	Temperature Screening	Distance 2	m			
	Basic Settings	Temperature 40	°C			
	Face Capture	Emissivity 0.97				
		Body Temperature Compensation	1			
		∑ Enable				
		Compensation Type Auto	~			
		Compensation Value 2.2	°C			
		Manual Calibration 0	0°			~
		Capera A2 ©2020 Hikvision Digital Technology Co., Ltd. All Rights Reserved	· · · · · · · · · · · · · · · · · · ·			

The actual effect after configuration is as follows:

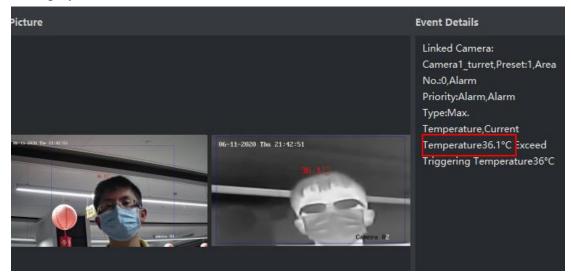


3. Add an option of whether to display the temperature value in the event details:



HI	<b>KVISION</b>	Live View	Playback	Picture	Configuration				👤 admin	👔 Help	E+ Logout	
Ţ	Local	Basic Settings	Temperature Scree	ening Configuration	Linkage Method							^
	System	Enable Tem	I Enable Temperature Measurement									
Ð	Network	Display Ten	nperature Info. on Stre	eam								
Q.	Video/Audio	Add Origina	Add Original Data on Capture									
i.a	Image	Add Origina	Add Original Data on Stream									
Ē	Event	Display Ten	nperature in Alarm Infe	0								
	Storage	Data Refresh Ir			✓ s							
<u>ل</u>	Temperature Screening	Unit		e Celsius(°C)	~							
	Basic Settings	Temperature R			~							
1	Face Capture	Version	V2.0.8t	build20200429								
		Target Ther	rmographic Paramet	ers								
		Emissivity	0.98									
		Distance Mode	Self-Ad	daption	$\checkmark$							
		Distance	2		m 🥑							
		Ē	Save									~
					©2020 Hikvision Digi	ital Technology Co., L	td. All Rights Reserve	ed.				

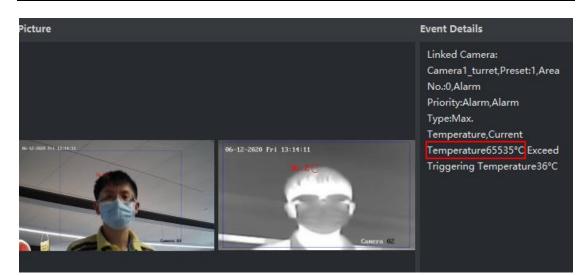
If **Display Temperature in Alarm Info** is checked, the temperature information will be displayed in the event details, as shown below:



Otherwise, the temperature information will not be displayed in the event details, as shown below:

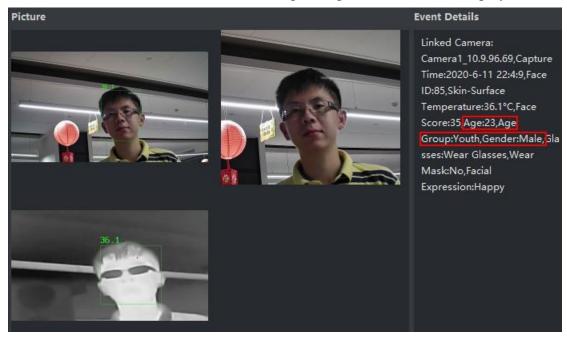
**Please note**: The temperature shown below is 65535 °C, which is the 4200 bug of current version. A new version (expected June 20) will be issued later to fix this problem. After that, the temperature value will not be displayed.

## **HIKVISION**



4. Optimization of face capture information display:

In addition to mask detection information, age and gender will also be displayed.



If the customer does not need to display the above feature information, do not check **Upload Feature**:

**Please note**: Mask detection information also belongs to facial features. If **Upload Feature** is not checked, mask detection information will not be uploaded.



HIKVISION	Live View Playbac	k Picture	Configuration			👤 admin	👔 Help	E+ Logout	
🖵 Local	Overlay & Capture Shield	Region Advanced Config	guration						^
System	Face Capture Version	V1.1.0build20200214							
Network	Capture Parameters								
Video/Audio	Upload Feature								
🔝 Image	Best Shot								
Event	Capture Times	0	= 1						
Storage	Capture Threshold		20						
Temperature Screening	V Quick Shot								
Basic Settings	Quick Shot Threshold	0	= 70						
Face Capture	Max. Capture Interval	0	5 s						
	Capture Times	○ Unlimited ● L	imited 1						
	Facial Posture Filter								
	Rotational Angle-Left		70						
	Rotational Angle-Right		70						
	Deflection Angle-Upper		50						
	Deflection Angle-Lower		50						~
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- 5. Solve the problem of missing detection when a large number of faces (more than 20 faces) appear at the same time in the previous version.
- 6. Solve the problem of ghosting in face capture when WDR is turned on in previous version as shown below:



7. Solve the problem of ineffectiveness of **Facial Posture Filter** in the previous version of Quick Shot mode (Even in Quick Shot mode, if the face does not meet the threshold value set by **Facial Posture Filter** at any time, the capture will not be performed; In previous versions, only Best Shot mode does this).



HIKVISION	Live View Playbac	k Picture	Configuration			👤 admin	🚯 Help	E+ Logout
🖵 Local	Overlay & Capture Shield	Region Advanced Confi	guration					^
System	Face Capture Version	V1.1.0build20200214						
Network	Capture Parameters							
Uideo/Audio	Upload Feature							
🔝 Image	Best Shot							
Event	Capture Times	0	1					
Storage	Capture Threshold		20					
Temperature Screening	V Quick Shot							
Basic Settings	Quick Shot Threshold	0	70					
Face Capture	Max. Capture Interval	0	5 s					
	Capture Times	○ Unlimited ● I	imited 1					
	Facial Posture Filter							
	Rotational Angle-Left		70					
	Rotational Angle-Right		70					
	Deflection Angle-Upper		50					
	Deflection Angle-Lower		50					~
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The upgraded contents in the last version V5.5.26\_200507 are as follows.

- 1. We updated **English** audio files of **Temperature Measurement** and **No Wearing Mask** alarm for devices with /PA. The pronunciation is more standard and accurate.
- 2. We now offer an option of **Italian** for **Temperature Measurement** alarm sound.

HIKVISION	Live View	Playback	Picture	Configuration
🖵 Local	Motion Detection	Video Tampering	Alarm Input	Alarm Output Excep
System	Alarm Type	Tempera	ature Measuremer	nt 🗸
Network	Alarm Sound Typ	e Italian: A	Attenzione! Anoma	lia 1 🗸
Video/Audio	Alarm Times	1		
Image	Sound Volume		0	100
Event	Arming Schedu	le		
Basic Event	🗙 Delete	in Delete All		
Smart Event	0	2 4 6	3 8 10	12 14

Note:

You can choose different alarm sound other than English for **Temperature Measurement**. But English is the only choice for **No Wearing Mask** alarm sound.

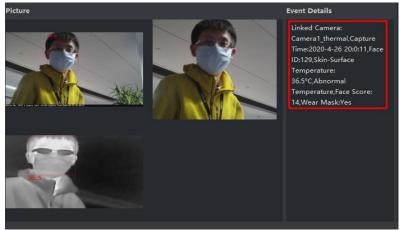
### The upgraded contents in the last version V5.5.26\_200427 are as follows.

1. We updated some descriptive words of the Web interface. For example, we will use *Temperature Screening* instead of *Body Thermography*.

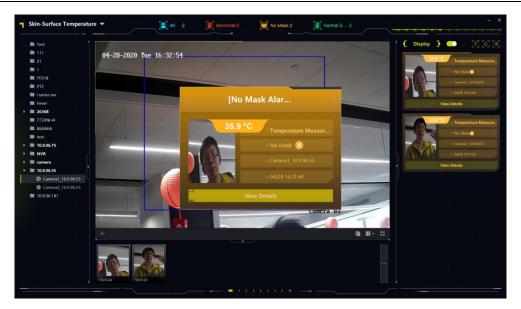


HIKVIS	SION	Live View	Playback	Picture	Configuration	
🖵 Local	I	Upgrade & Main	tenance Log	System Service	VCA Resource Type	Security Audit Log
🗂 Syste	əm	VCA Reso	urce Configuratio	'n		
Syste	m Settings	○ Temperatu	re Measurement			
Maint	tenance	<ul> <li>Temperatu</li> </ul>	re Screening			
Secu	rity					
User	Management	B	Save			
🚱 Netw	vork					
<b>₽</b> . Video	o/Audio					
🔝 Imag	е					
Even	t					
💾 Stora	age					
🕹 Temp	perature Screening					

- 2. Optimization of temperature measurement algorithm, specifically reflected in:
  - ① Sharp temperature variations caused by side faces or low temperature is fixed
  - ② The issues that measured temperature is lower than expected, caused by background compensation algorithm embedded in the last version, is now fixed
- Support Mask detection, Pay attention that as for device with "/PA" module, audio warning is supported; for device with "/P" module, alarm out linkage is supported. In addition, all the alarm linkages are disabled by default.







HI	KVISION	Live View	Playback	Picture	Configuration	
	Local System Network	Overlay & Capture Ve Face Capture Ve Capture Para Upload Fe Set Shot Capture Time Capture Time Quick Shot Ti Max. Capture Capture Time Capture Time Facial Pos Rotational An Deflection An Uffection An If Face Postu	Shield Region  irrsion  irrsion  irrsion  irrsion  s  irr  irr  irr  irr  irr  irr  irr	Advanced Config uild202000214		
6	Temperature Screen	ing	No Weari	ng Mask Linka	age	]
	Basic Settings		🗌 Trig	ger Alarm Out	tput	
	Face Capture		□ A->1 ☑ A->2 Devic	ce Model	with "/P"	J

4. The Logic of face capture is optimized, and add **Best Shot** Mode additionally. The Program logic are set as following:

### **Quick Shot:**



When one of the following conditions is met, face picture will be captured and uploaded immediately:

(1) when people enter into the detection area, meanwhile, the captured image quality meets the threshold, and the snapshot which meets the conditions will be uploaded immediately;

(2) when people enter into the detection area, if the duration exceeds the maximum capture time, during which the face image does not reach the capture threshold, the image with the highest quality will be uploaded;

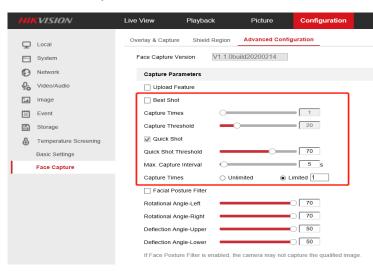
③ The time from entering to leaving the detection frame is shorter than the maximum capture time. If the face image does not reach the capture threshold during this period, the image with the highest quality will be uploaded;

④ When the temperature trigger the alarm, face picture will be captured and uploaded immediately.

### **Best Shot:**

When one of the following conditions is met, face picture will be captured and uploaded immediately:

- If the image quality reaches the Capture Threshold, when the object leaves the detection region, face picture with highest face quality score (it should reach the Capture Threshold, otherwise no picture would be uploaded) will be uploaded immediately;
- 2 When the temperature trigger the alarm, face picture will be captured and uploaded immediately.



### Notes:

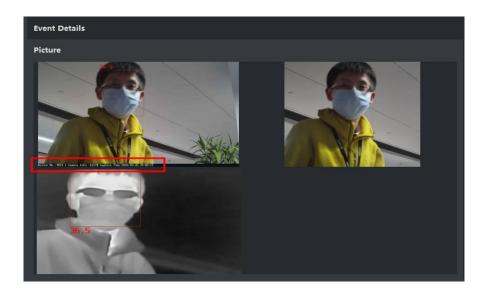
(1) As for some situations like someone comes into the detection area with normal temp. for some reasons, while, as long as his temp. is abnormal before he leaves the detection area. Alarm will also be triggered. Hence, in this situation two pictures



will be uploaded, one for normal, another for abnormal, to reduce the missing alarms.

- ② Best Shot and Quick Shot can be enabled at the same time, they will work independently. While as recommended capture times is 1 for 1 person, it will lead to a problem that two pictures will be uploaded to the back-end. Hence, we highly recommend to use one mode at one time.
- ③ As the default parameters of this part have been changed, do remember to restore the device after upgrading to this version.
- 5. In order to increase the success rate of comparison in the back-end devices, the quality of the snapshot picture is increased.
- 6. **Device No. Capture Time** and **Camera Info.** could be overlaid on the picture according to customer's needs.

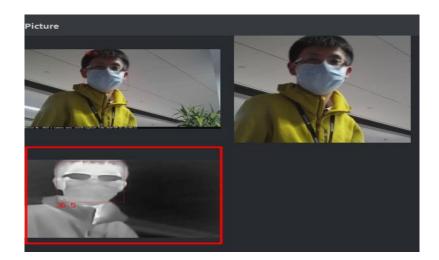
HIM	VISION	Live View F	Yayback	Picture	Configuration			
_		Display on Pictu	ire	_				
<b>P</b>	Local	Display Targe	t Info. on Alarm Pictur	e				
	System	Snapshot Settin	gs					
Ð	Network	Target Picture S	iettings					
Q.	Video/Audio	<ul> <li>Custom</li> </ul>	🔿 Head Shot 🔿	Half-Body Shot	Full-Body Shot			Width
14	Image	Target Pict	ure Size					Hea
	Event		Width: F	acial Width × [3				Bod
	Storage		Head Height: F	acial Height × [	2			
3	Temperature Screening		Body Height: F	acial Height × [	1			
	Basic Settings	Fixed V	alue Pictu	re Height 10	) pixel			
L	Face Capture	Background Pic	ture Set					
		Picture Qua	ality Low		~			Diagram
		Picture Res	olution 108	0P(1920*1080)	~			
		Backgro	und Upload					
		Camera						
		Device No.	TEST 1					
		Camera Info.	1217B					
		Text Overlay						
		Device No.	Capture Time	Camera Inf	0.			
			Туре			s	orting	
			Device N	o.		1	÷ +	
			Camera In	fo.		1	÷ +	
			Capture Ti	me		1	+	
		🗄 Save	•					



# HIKVISION



7. Thermal alarm images are added in the uploading pictures.





### The upgraded contents in the last version V5.5.26\_200415 are as follows.

### Note:

There are no differences on the UI of 200415 compared with the former version 200330.

- 1. The forehead-first rule of temperature measurement algorithm is improved to increase the accuracy and stability of the measurement. The temperature jump phenomenon are reduced thanks to these improvements.
- 2. Improved the temperature measurement accuracy when the device is used in environment background with high temperature (like 30°C in a tent) by embedding background temperature compensation algorithm.
- 3. Some UI display problems of minority languages and linguistic bugs are fixed.

# **HIKVISION**

### The upgraded contents in the last version V5.5.26\_200330 are as follows.

- 1. Change to forehead thermometer to show the highest temperature on the forehead area acquiescently. Reduce false alarms caused by corners of the eyes, corners of the mouth and hot objects in the background.
- 2. PA device alarm voice supports the selection of other languages (Japanese, Korean, Arabic, Turkish, Russian, French, Spanish, Italian)

	KVISION	Live View		Piay	back		Picture		Config	juration						1
P	Local	Motion De	tection	Vid	eo Tamp	ering	Alarm In	iput /	Narm Out	put E	xcepton	Flas	hing Alar	m Light C	Dutput Audible Atarm Output	
	System	Alarm T	ype		Te	mperatur	e Measu	rement	*							
Ð	Network	Alatm S	ound T	ype	Ja	panese: I	Body ten	nperatur	eav							
2.	Video/Audio	Alarm Ti	imes		Te	nporatur intonese.	Body te	ermal, pl	oase che	ck de nide	tiew o					
4	Image	Sound \	/olume		Ru	ssian: P	ay attent	tion, high	tempera	ture						
1	Event	Armin	g Sche	dule	Ja	panese. I rean: Bo	Body ten	nperature	e abnorm	al						
-	Basic Event	×	aterec	1	Date Tu	kish: Ple	ase wai	l	ing nun (1) all							
	Smart Event		0			anish: Te		re alarm	please	check						
5	Storage	Mon		2		0	8	10	12	18.	16	18	20	22	24	
	Body Thermography	Tue	0	2	4	6	0	10	12	14	16	18	20	22	28	
		Wed	a	2	4	6	8	10	12	14	16	16	20	22	24	
			0		114	5	0	10	12	24	18	10	20	22	24	
		Thu		1111	1111											
		Fri	0	2	4	6	8	10	12	26	15	18	20	22	24	
		A A A A A A A A A A A A A A A A A A A					8	10	12	14	15	36	20	22	24	
		Gat	-	1111	11111		111227						AN LOUGH			
		Sun	0	14	¢	¢	9	10	12	13	18	10	20			

3. Add distance measurement mode: Self-adaption and Fixed Distance. The Self-adaption mode would calculate the temperature compensation according to the pupil distance when a face is detected, and calculate the temperature compensation value according to the fixed distance when the side face exceeds 1 second. Caution: At present, Self-Adaption mode could cause abnormal temperature measurement when a side face appears. Please ensure that the measured people is always faced to the camera, Otherwise, please use Fixed Distance mode



		Distance	8	m								
		Distance Mode	Self-Adaption	$\sim$								
		Emissivity	0.98									
		Target Thermography Parameters										
	Version V2.0.8build20200327											
	Face Capture	Temperature Range 30.0~45.0 V										
Body Thermography	Basic Settings	Unit	Degree Celsius(°C)	~								
	Data Refresh Interval	3	✓ s									
5	Storage	Add Original Data on Stream										
Image Event	<ul> <li>☑ Display Temperature Info. on Stream</li> <li>☑ Add Original Data on Capture</li> </ul>											
										). O	Network Video/Audio	<ul> <li>Enable Temperature Measurement</li> <li>Enable Color-Temperature</li> </ul>
Э												
Ξ	System	Channel No.	Camera 01	~								

4. Face capture function (Upload Captured Face Image) in overseas devices is not enabled as default.