

How to configure fire source detection for thermal camera

Preparation

1. login the device via web browser
2. Enter **Configuration>System>Maintenance>VCA Resource Type**
Select **Fire Detection** (or **Temperature Measurement +Fire Detection**) as VCA Resource Configuration.

Note:

Steps:

1. Enter **Local**, then enable **Locate Highest Temperature** and **Frame Fire Point**.

The screenshot shows the Hikvision web interface with the 'Configuration' tab selected. The left sidebar has 'Local' selected. The main content area is divided into several sections:

- Live View Parameters:**
 - Protocol: TCP, UDP, MULTICAST, HTTP
 - Play Performance: Shortest Delay, Balanced, Fluent
 - Rules: Enable, Disable
 - Auto Start Live View: Yes, No
 - Image Format: JPEG, BMP
 - Fire Point: Locate Highest Te..., Frame Fire Point
- Record File Settings:**
 - Record File Size: 256M, 512M, 1G
 - Save record files to: C:\Users\tianzhicun [Browse] [Open]
 - Save downloaded files to: C:\Users\tianzhicun\Web\Downlo [Browse] [Open]
- Picture and Clip Settings:**
 - Save snapshots in live vi...: C:\Users\tianzhicun [Browse] [Open]
 - Save snapshots when pla...: C:\Users\tianzhicun\Web\Playbac [Browse] [Open]
 - Save clips to: C:\Users\tianzhicun\Web\Playbac [Browse] [Open]

A red 'Save' button is located at the bottom of the configuration area.

After ticking the two options, the fire source will be located like the following image.



2. Enter **Event>Smart Event**, bullet camera and PTZ camera have different interfaces of the fire detection.
(1).For bullet camera, there is only a switch to enable the function and a option to adjust the sensitivity.

The screenshot shows the Hikvision web interface. At the top, there are tabs for 'Live View', 'Playback', 'Picture', and 'Configuration'. The 'Configuration' tab is active. On the left, there is a navigation menu with categories like 'Local', 'System', 'Network', 'Video/Audio', 'Image', 'Event', 'Basic Event', 'Smart Event', 'Storage', and 'Temperature Measurement'. The 'Smart Event' category is selected. In the main area, there are three sub-tabs: 'Audio Exception Detection', 'Scene Change Detection', and 'Dynamic Fire Source Detection'. The 'Dynamic Fire Source Detection' sub-tab is active. Below it, there are three main tabs: 'Basic Parameter', 'Arming Schedule', and 'Linkage Method'. The 'Basic Parameter' tab is selected. The 'Dynamic Fire Source Detection' section contains a checked checkbox for 'Enable Dynamic Fire Source Detection', a 'Sensitivity' slider set to 50, and a 'Version' field showing 'V2.7.1build20180211'. A red 'Save' button is located at the bottom of the configuration area.

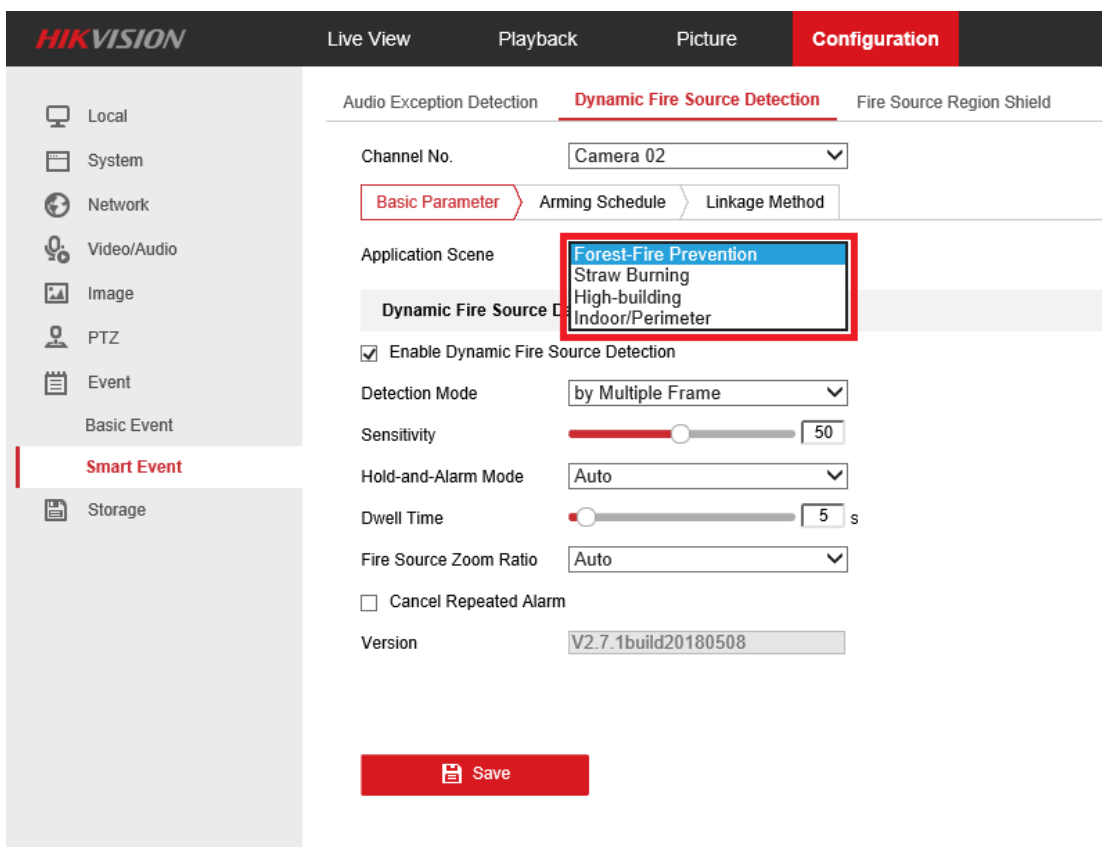
- (2).For PTZ cameras, as we can see in the image below, it has more parameters concerned about the effect.

The screenshot shows the HIKVISION Configuration page for a camera. The top navigation bar includes 'Live View', 'Playback', 'Picture', and 'Configuration'. The left sidebar lists various system settings: Local, System, Network, Video/Audio, Image, PTZ, Event, Basic Event, Smart Event (highlighted), and Storage. The main content area is titled 'Dynamic Fire Source Detection' and includes the following settings:

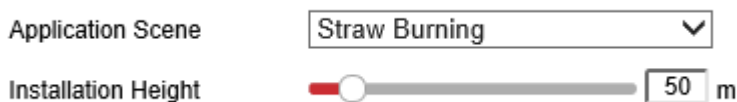
- Channel No.: Camera 02
- Basic Parameter (selected), Arming Schedule, Linkage Method
- Application Scene: Forest-Fire Prevention
- Dynamic Fire Source Detection**
 - Enable Dynamic Fire Source Detection
 - Detection Mode: by Multiple Frame
 - Sensitivity: 50
 - Hold-and-Alarm Mode: Auto
 - Dwell Time: 5 s
 - Fire Source Zoom Ratio: Auto
 - Cancel Repeated Alarm
 - Version: V2.7.1build20180508

A red 'Save' button is located at the bottom of the configuration area.

- **Enable Dynamic Fire Source Detection:**
The Switch of this function, it can decide if the function could take effect.
- **Application Scene:**
There are four modes to select: Forest-Fire Prevention, Straw Burning, High-building and Indoor/perimeter. The cameras will adapt different algorithms to detect the fire source after choosing different mode.



Except the Forest-Fire Prevention, the three rest mode need to be filled in the Installation Height.



- **Normal Mode:**

by Single Frame: After the camera finding a suspect, it will alarm directly.

by Multiple Frame: After finding a suspect, it will have a further judge to confirm if it is a fire source.

Although the Multiple Frame mode needs more time to alarm(about 1s later than Single Frame), but it can reduce false alarm effectively. So it is recommended to use the by Multiple Frame mode.

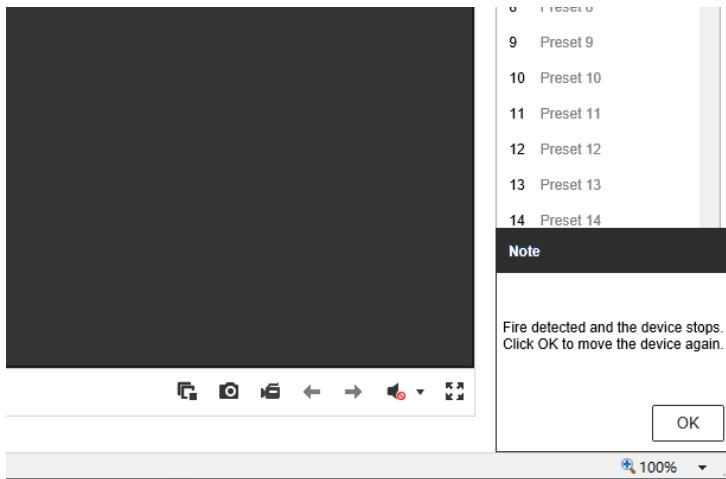
- **Sensitivity:**

It can control the threshold that the camera judging if it is fire source. It is recommended to set it as 50. And it is about 40~70 for most scenes.

- **Hold-and-Alarm Mode:**

Auto: You can set the time(0~120s) the camera dwells each time it find a fire point.

Manual: After finding a fire point, the camera will stop and a frame will be popped up in the Live View interface, only after clicking OK, the camera could continue to move and detect.



- **Fire Source Zoom Ratio:**

Auto: The optical channel will zoom in until the field of view is same as thermal channel.

Manual: Set the ratio as you want, each time after find the fire point, the optical channel will zoom in till the ratio you set.

- **Cancel Repeat Alarm:**

The device will alarm only one for the same fire point after ticking it..

3.Fire Source Region Shield

For some special scenes, although there are some areas in the image but we don't mean to detect it.

(1).First enable Fire Source Region Shield

(2).Then draw area on the position that you don't want to detect and click Add.

*(3).Click Display Shield Area to let it be **translucent**, or the area will be absolutely **transparent**.*

Configuration

Audio Exception Detection Scene Change Detection Dynamic Fire Source Detection **Fire Source Region Shield**

Enable Fire Source Region Shield

Draw Area Clear All

Display Shield Area

Fire Source Region Shi... Add Delete

No.	Fire Source Region Name	Type	Enable	Active Zoom Ratio
1	Fire Mask 1	gray	Yes	1

Save

4. Patrol Mode

There are two kinds of patrol modes we usually select when detecting fire source.

1. Preset Patrol

After the fire source detection configuration, we can set a preset patrol to let the camera detect more scenes.

(1). In Live View, move the PTZ to the areas might appear fire source.

(2). Click the set Button to save the presets.

1 Preset 1

2 Preset 2

3 Preset 3

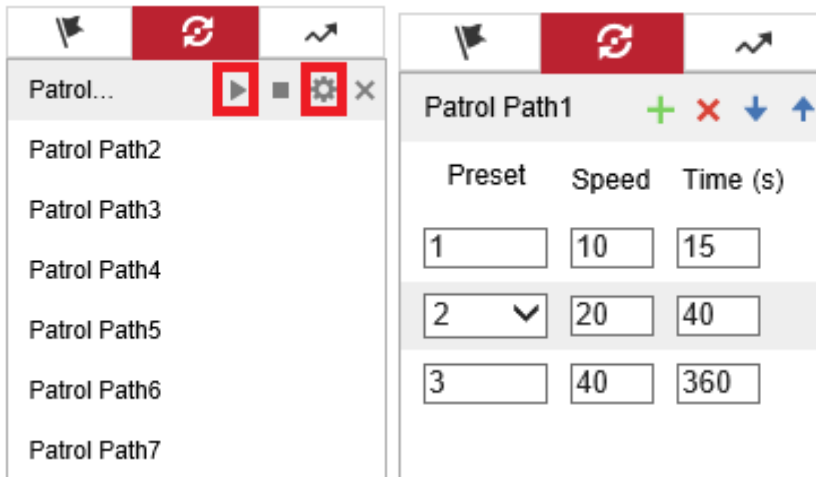
4 Preset 4

5 Preset 5

6 Preset 6

7 Preset 7

(3). Click Set to set patrol path, the dwell time and move speed can be adjusted on the basis of the real scenario.

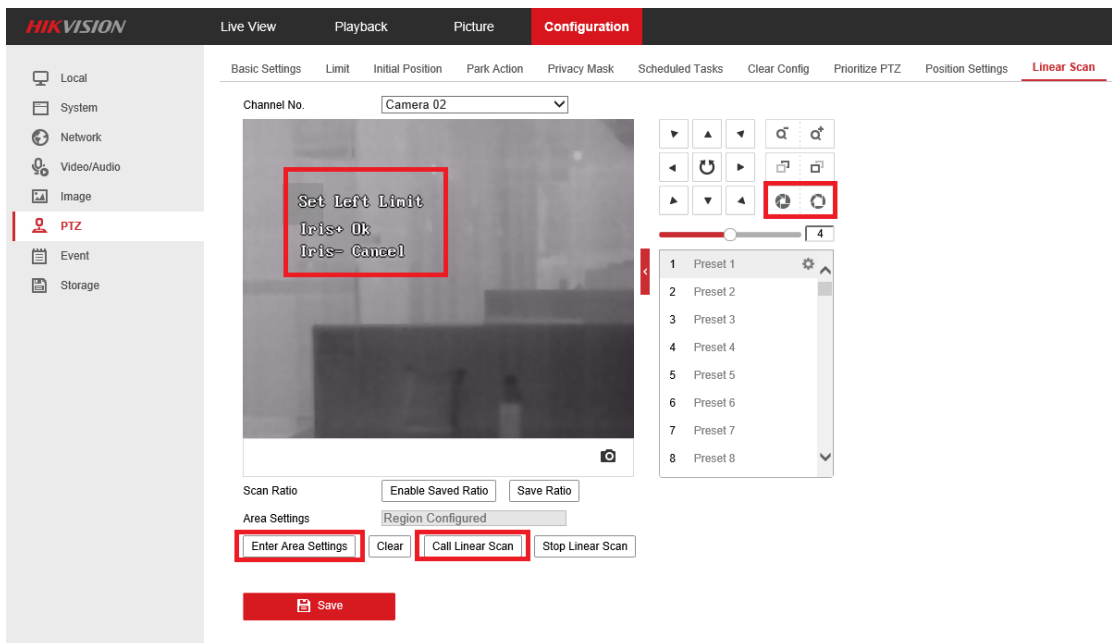


(4). Click the Start button to execute the patrol path. When the camera moves to one preset and stops, it will start to detect fire source automatically.

2. Linear Scan

In this mode, we don't need to set any preset, but four limit positions need to be set.

(1). First enter Configuration > PTZ > Linear Scan, click Enter Area Settings, it will appear a hint that tells you to set the Left Limit.



(2). Move PTZ to the left of the detection area you want, then click Iris+ to confirm.

(3). Then set the Right/Up/Down Limit in the same way. It means the right/top/bottom of the detection area.

(4). Click Call Linear Scan to start, the speed can be adjusted by changing the Auto Scan Speed in Basic Settings.

- Local
- System
- Network
- Video/Audio
- Image
- PTZ**
- Event
- Storage

Basic Settings Limit Initial Position Park Action Privacy Mask

Basic Parameter

Enable Proportional Pan

Enable Preset Freezing

Preset Speed 4

Manual Control Speed Compatible

Keyboard Control Speed Medium

Auto Scan Speed 28

Zooming Speed 3

First Choice for Security Professionals

***HIKVISION* Technical Support**