

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' highlighted. The 'Live View Parameters' section is expanded, and the 'Fire Point' options 'Locate Highest Temperature' and 'Frame Fire Point' are checked and highlighted with a red box. Below this, the 'Record File Settings' and 'Picture and Clip Settings' sections are visible, along with a 'Save' button at the bottom.

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. Under this sub-tab, there are three main tabs: 'Basic Parameter', 'Arming Schedule', and 'Linkage Method'. The 'Basic Parameter' tab is selected. The 'Dynamic Fire Source Detection' section includes 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.

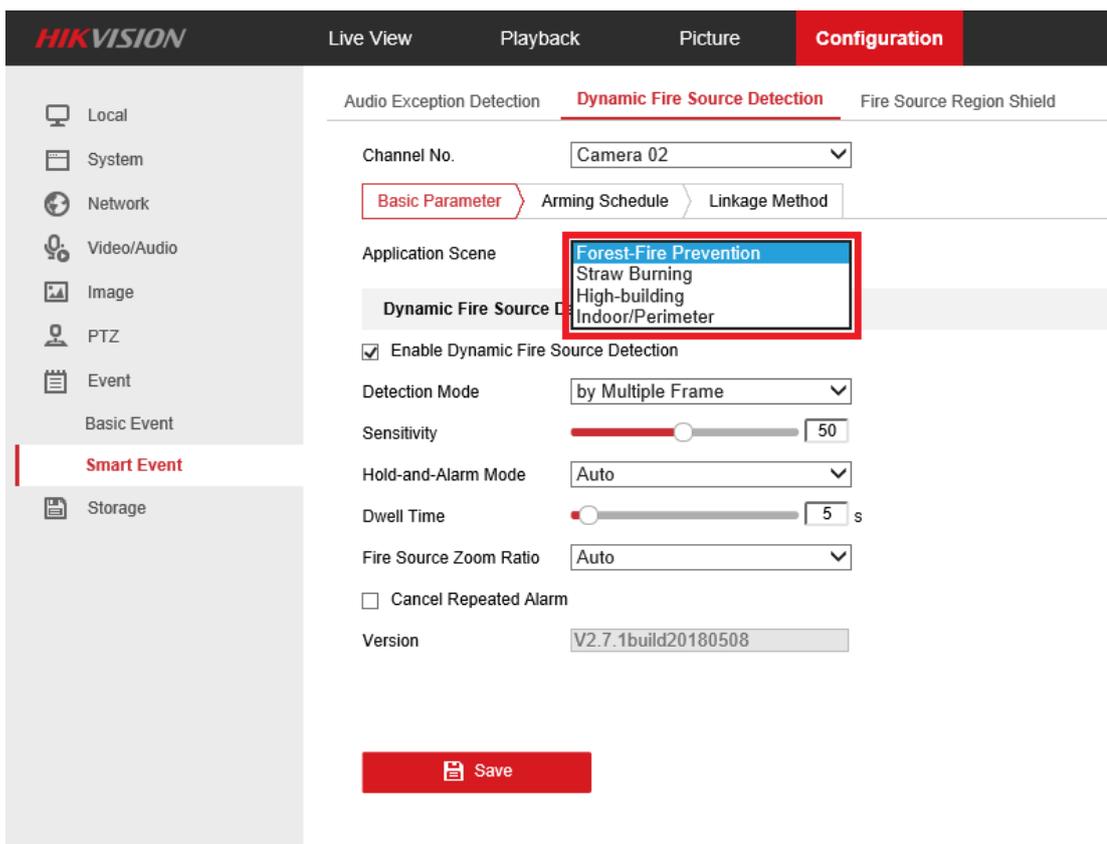
- (2).For PTZ cameras, as we can see in the image below, it has more parameters concerned about the effect.

The screenshot displays the HIKVISION configuration interface. The top navigation bar includes 'Live View', 'Playback', 'Picture', and 'Configuration'. The left sidebar lists various system settings, with 'Smart Event' highlighted. The main configuration area is for 'Dynamic Fire Source Detection' and includes the following settings:

- Channel No.: Camera 02
- Application Scene: Forest-Fire Prevention
- 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 positioned 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.

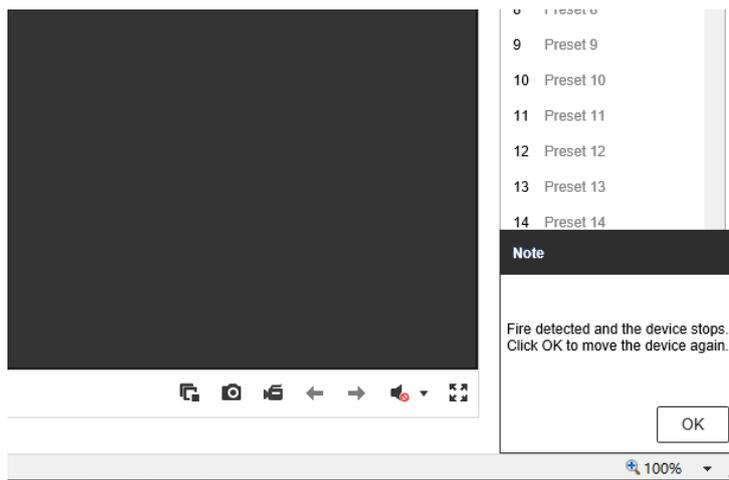
- **Sensitivity:**

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

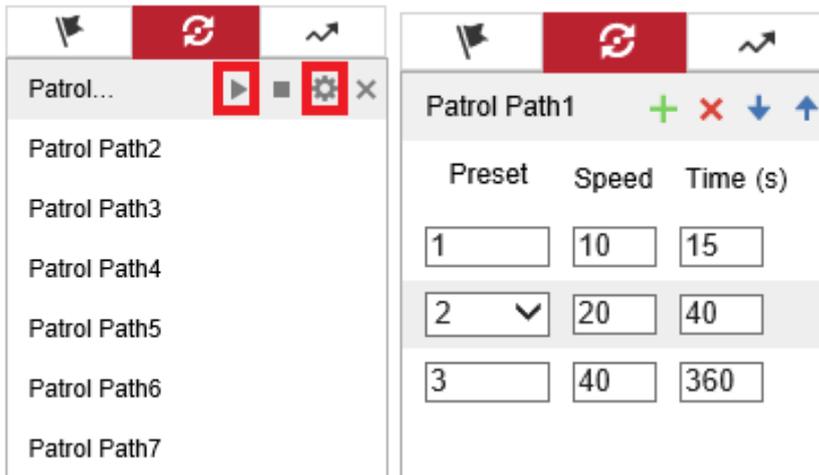
4 Preset 4

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.

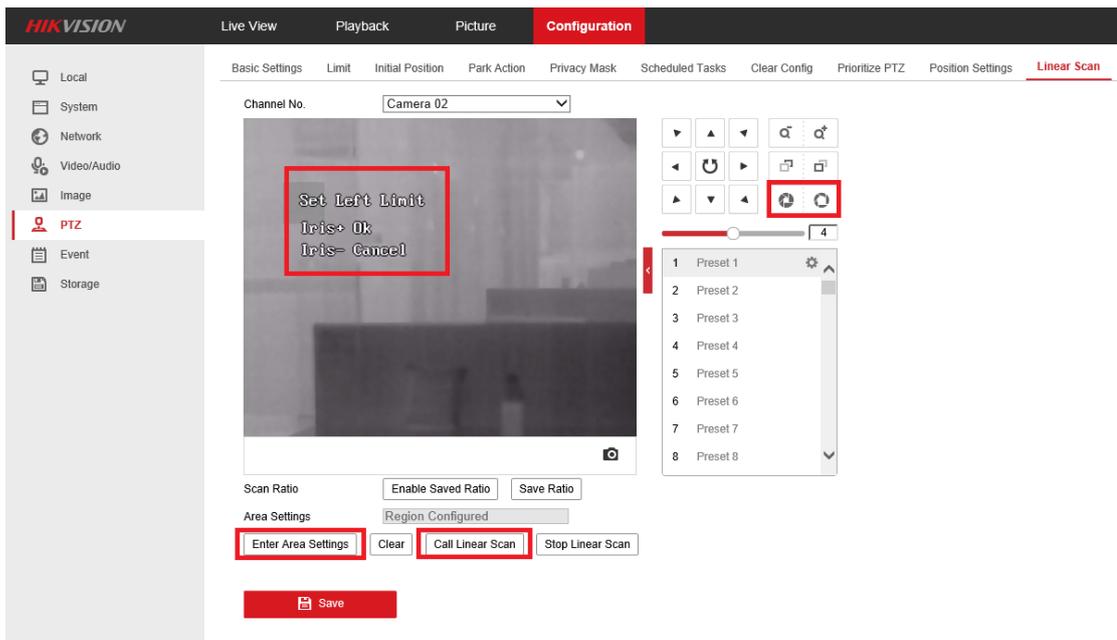


(4).Click the Click the Strat button to excute the patrol path. When the camera move to one preset and stop, it will start to detect fire source automatically.

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 tell 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

Manual Control Speed

Keyboard Control Speed

Auto Scan Speed

Zooming Speed

First Choice for Security Professionals

***HIKVISION* Technical Support**