HIKVISION

How-to guide of integrating Redscan Module in Hikvision I-Series NVR

Contents

Overview

With a fully-integrated security system that combines OPTEX's sensors with Hikvision's full range of IP cameras and Network Video Recorders on site, users in local or remote monitoring stations will be alerted in the event of an unwanted intrusion. Events can be monitored in real-time, the images recorded, and an appropriate response determined. Equipped with OPTEX's latest analytics programming, false alarms are sure to be minimized.

This how-to guide explains step-by-step how to integrate the PIE-1 with the I-Series NVR, how to receive alarms generated by the Optex sensor.

Prerequisites

Hikvision I-SERIES NVR

Firmware

DZ_K51_EN_STD_V3.4.93_170502

Optex supported software versions

Redscan RLS-3060L/SH v7.13+

Redscan RLS-2020I/S v1.43+

PIE-1 v1.2.0+

Main functionalities:

• Receive Optex IP comm. protocol

• Report alarm-area data

• Diagnose Tamper/Trouble Sensor events

• Heartbeat monitoring (Device online/offline monitoring)

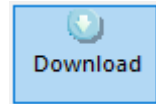• Alarm + Camera linkage action

• PTZ linkage
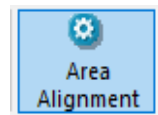
• Event logging

Configuring Redscan Event Module

1. Open and login to Redscan manager (Default User: REDSCAN Password: OPTEX)
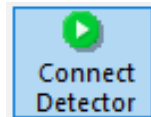
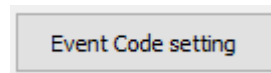2. Click "Connect to detector" (Default address is 192.168.0.126

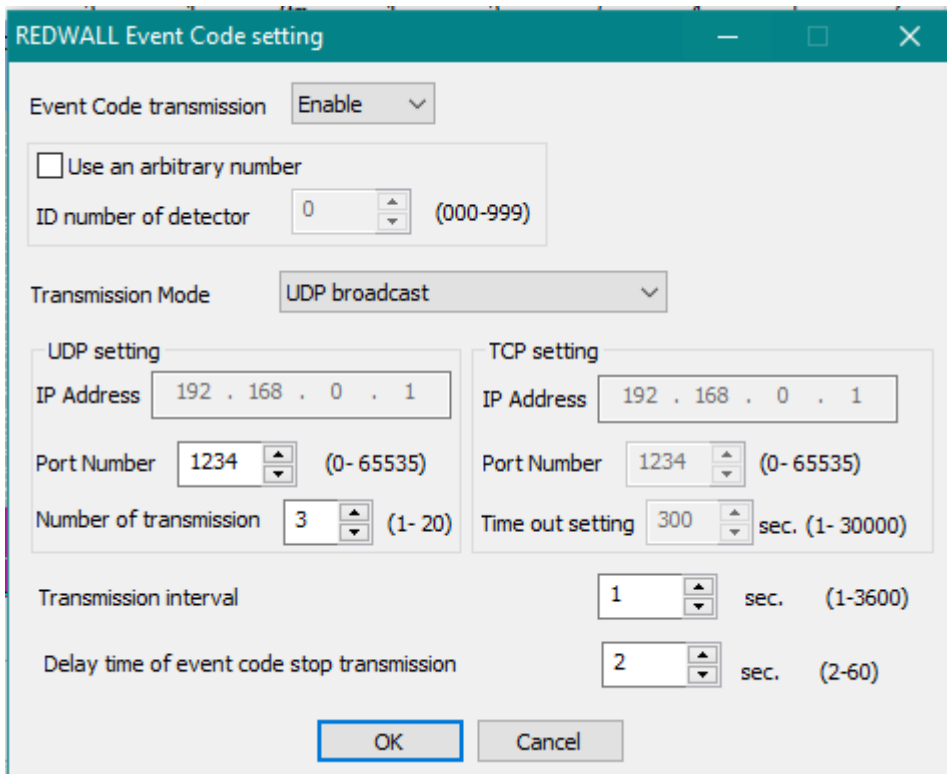3. Click "Download" a process bar will appear and close once finished

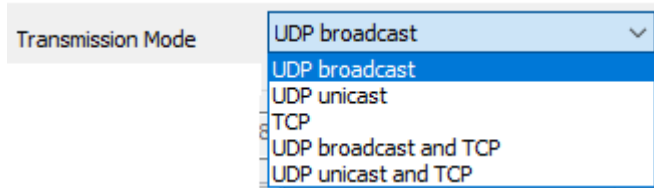4. Click "Area Alignment" the detection area alignment window will appear

5. In the Detection area alignment window click "Event code Settings"

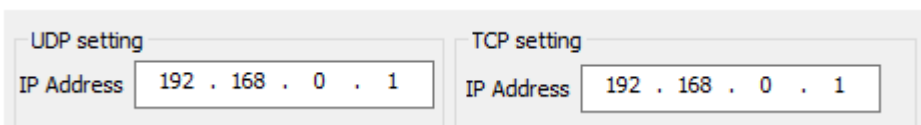6. The "Event code settings" window will appear

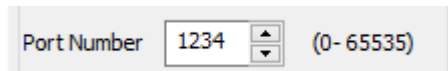7. Under Event code configuration select your desired "Transmission Mode"

| Transmission Mode | UDP broadcast ⌄ |
| UDP broadcast |
| UDP unicast |
| TCP |
| UDP broadcast and TCP |
| UDP unicast and TCP |

Note all Transmission modes are compatible, be aware when using UDP Broadcast event codes are sent to all devices on the network.

8. Enter destination IP address (this is the NVR IP address)

UDP setting

IP Address   192 . 168 . 0 . 1

TCP setting

IP Address   192 . 168 . 0 . 1

Port Number   1234 ⬍   (0- 65535)

9. Enter port Number (this is Port the Event code is sent to)

8. Enter transmission settings

| Number of transmission | 3 ⬍ (1- 20) | Time out setting | 300 ⬍ sec. (1- 30000) |

Transmission interval   1 ⬍   sec.   (1-3600)

Delay time of event code stop transmission   2 ⬍   sec.   (2-60)
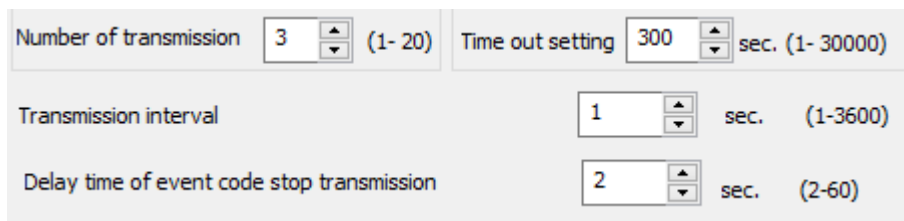
9. Click "OK"-> "Confirm"-> "Apply"->"OK" to exit area alignment menu

Upload and Save

10. Click "Upload and save"

# Optex Redwall Event code (REC) definitions

PIE-1 Model name	REC	Meaning	Cause	REC	Meaning	Cause
SIP-100	MO	Master Alarm	Any zone is in alarm condition	FR	Far Zone Alarm	Far Zone of sensor Active
	CL	Master Alarm Clear	Alarm condition restores and clears	NR	Near Zone Alarm	Near Zone of sensor Active
	TA	Tamper Output	Tamper switch is operated or device is rotated	CR	Creep Zone Alarm	Creep Zone of sensor Active
	ta	Tamper Ouput Clear	Tamper switch is closed and cleared	FN	Far or Near Zone Alarm	Far or Near Zone of sensor Active
SIP-5030	TR	Trouble Output	Sensor in Mask condition or detector malfunction	XY	Creep and Near Zone Alarm (Combination Code)	Creep and Near Zone of sensor Active
	tr	Trouble Output Clear	Mask condition restores and clears	YZ	Near and Far Zone Alarm (Combination Code)	Near and Far Zone of sensor Active
SIP-404/5	DM	Device monitoring "heartbeat"	When received Device is online	XZ	Creep and Far Zone Alarm (Combination Code)	Creep and Far Zone of sensor Active
SIP-4010/5					Creep and (Far or Near) Zone Alarm (Combination Code)	Creep and Far or Near Zone of sensor Active
SIP-3020/5				CC	Combination Code	Multiple Zones Active
SIP-404						
SIP-4010						
SIP-3020						
Tamper/Trouble (Generic connections)	TA	Tamper Output	Tamper output active	DM	Device monitoring "heartbeat"	When received Device is online
	ta	Tamper Ouput Clear	Tamper output restored			
	TR	Trouble Output	Trouble output active			
	tr	Trouble Output Clear	Trouble output Restored			
RBM-60QN	MO	Master Alarm	Beam in alarm	A1	Alarm A1	Zone A1 Active
RBM-100QN	CL	Master Alarm Clear	Beam clear	A2	Alarm A2	Zone A2 Active
RBM-200QN	TA	Tamper Output	Beam Tamper switch open	XY	A1 and A2 Alarm	Both Zone A1 and A2 Active
	ta	Tamper Ouput Clear	Beam tamper restored	CC	Combination Code	Multiple Zones Active
	DM	Device monitoring "heartbeat"	When received Device is online			
RFB Single-ch	MO	Master Alarm	Any zone is in alarm condition	A1	Alarm A1	Zone A1 Active
	CL	Master Alarm Clear	Alarm condition restored	A2	Alarm A2	Zone A2 Active
RFB Dual-ch	TA	Tamper Output	Tamper Switch Active	XY	A1 and A2 Alarm	Both Zone A1 and A2 Active
	ta	Tamper Ouput Clear	Tamper switch Restored	CC	Combination Code	Multiple Zones Active
FD Single-ch	FA	Fault	self diagnostic fault			
	fa	Fault Clear	fault resolved			
FD Dual-ch	DM	Device monitoring "heartbeat"	When received Device is online			

Hikvision NVR Setup

1. Under menu navigate to **Configuration-> Alarm-> Optex** Select which device number you wish to configure and enter "Device IP" address
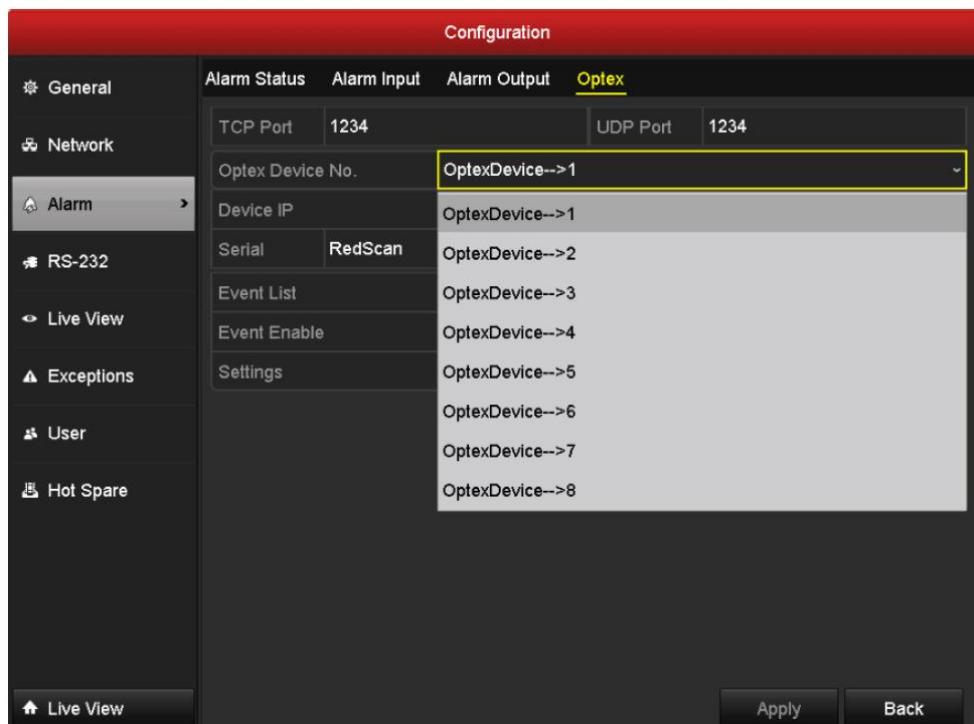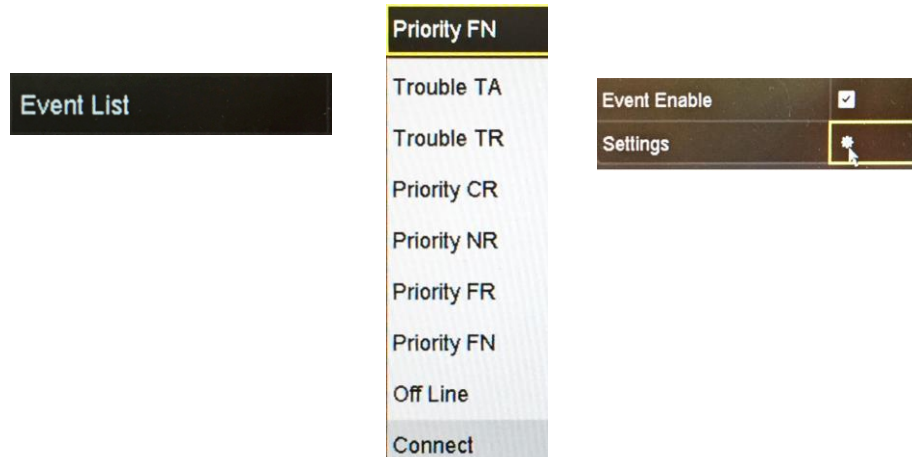

2. Select which Optex product, Series and model are being used.
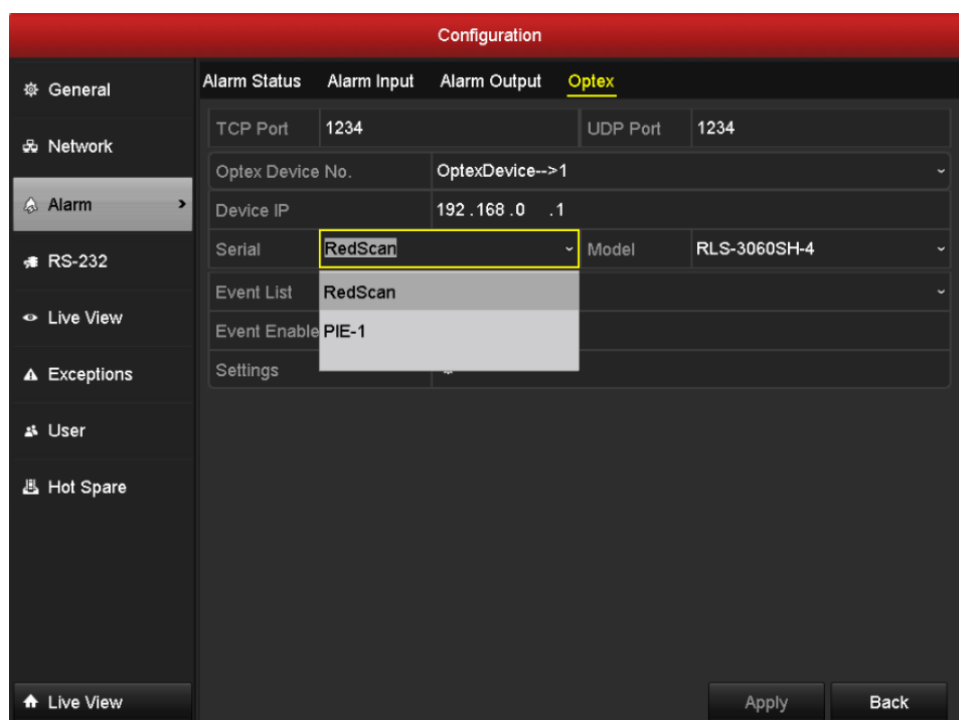
PIE-1 Series has Models Redwall, Redbeam, Fiber and tamper (refer to PIE-1 Web Page to identify)

Redscan series has Zones 4 or Zones 8 (refer to Optex Redscan manager software to identify)

3.   Under event list select event then tick event enable and select settings.
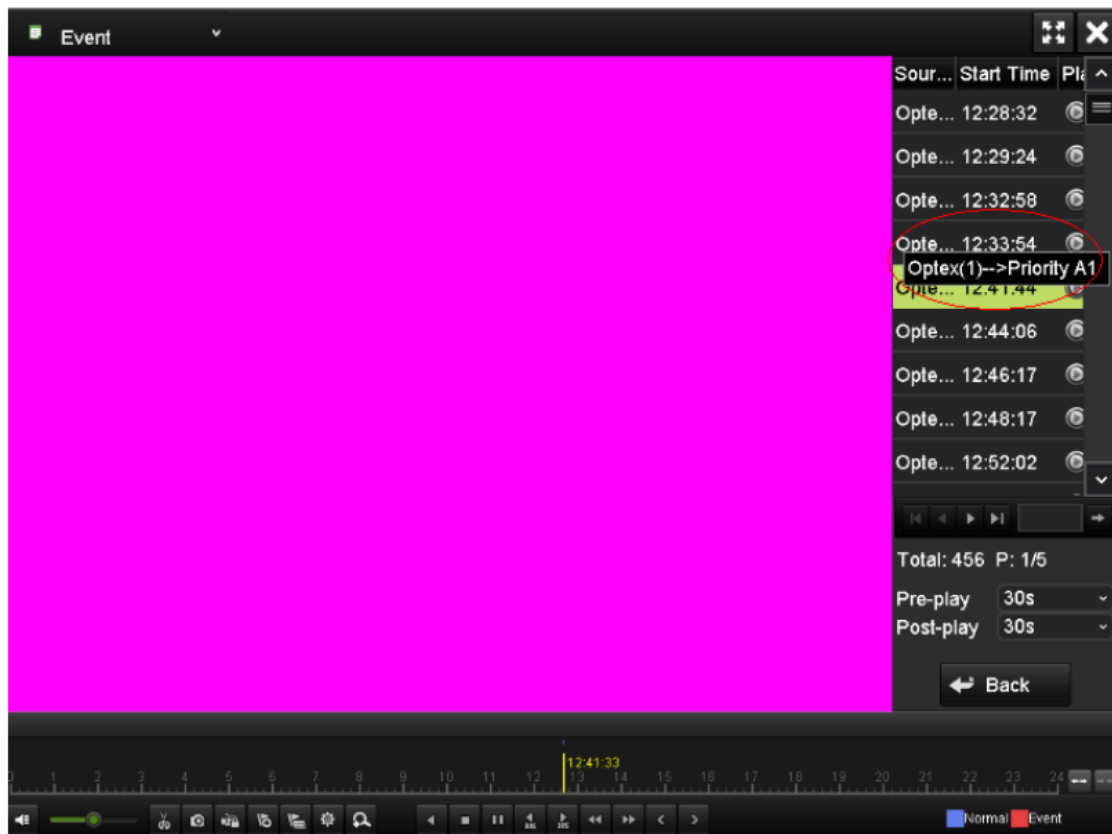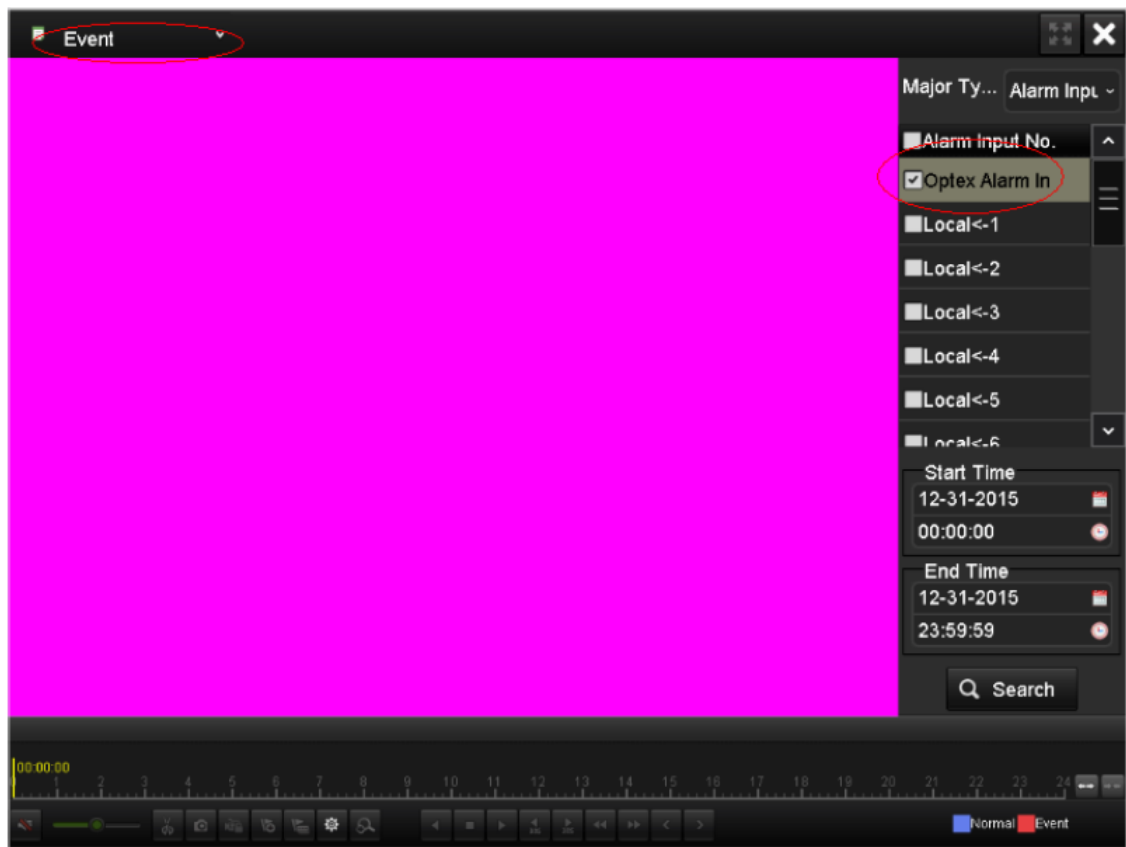

4.   Under Setting configure Trigger Channel, Arming Schedule, Linkage action and PTZ Linking.
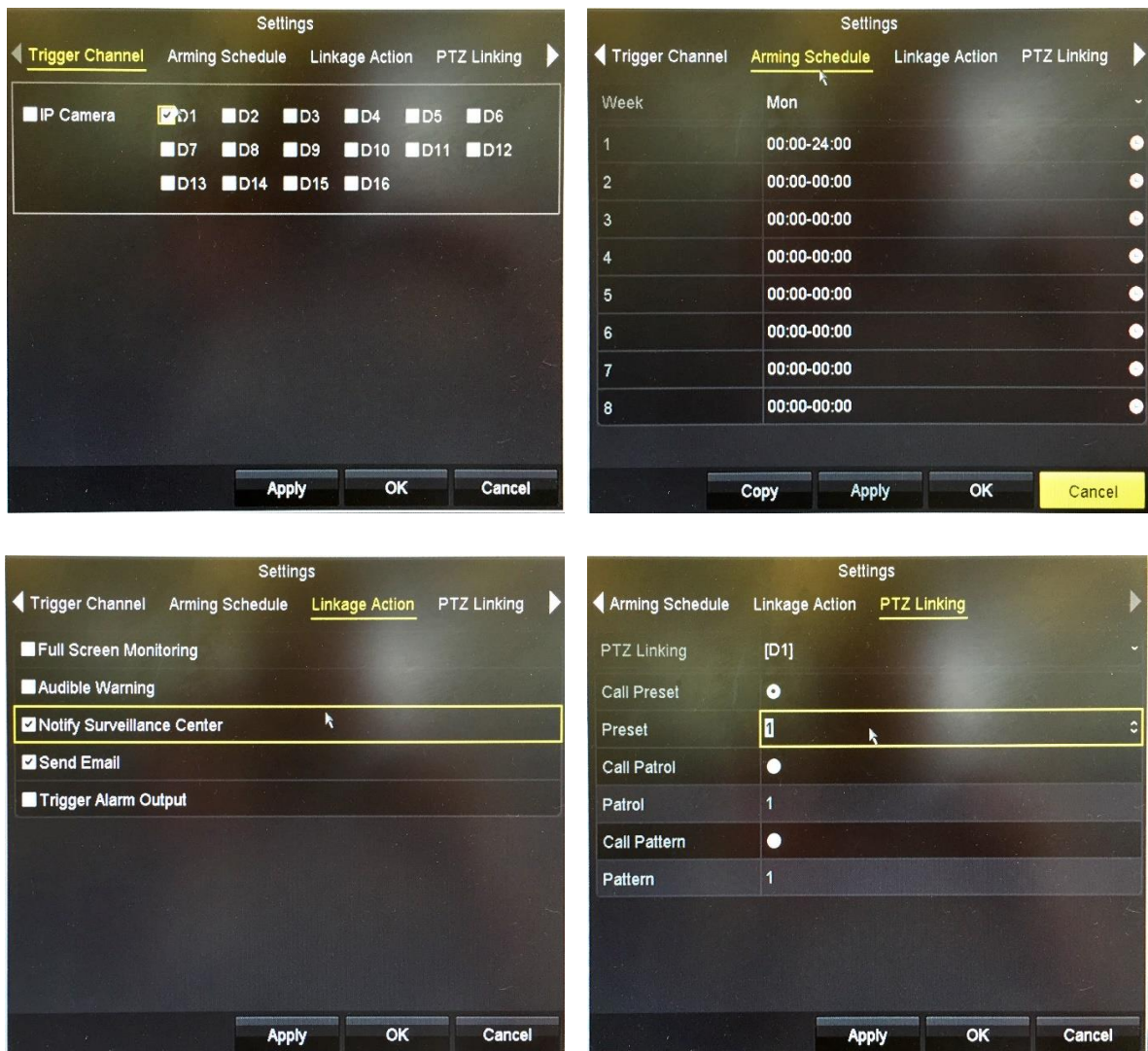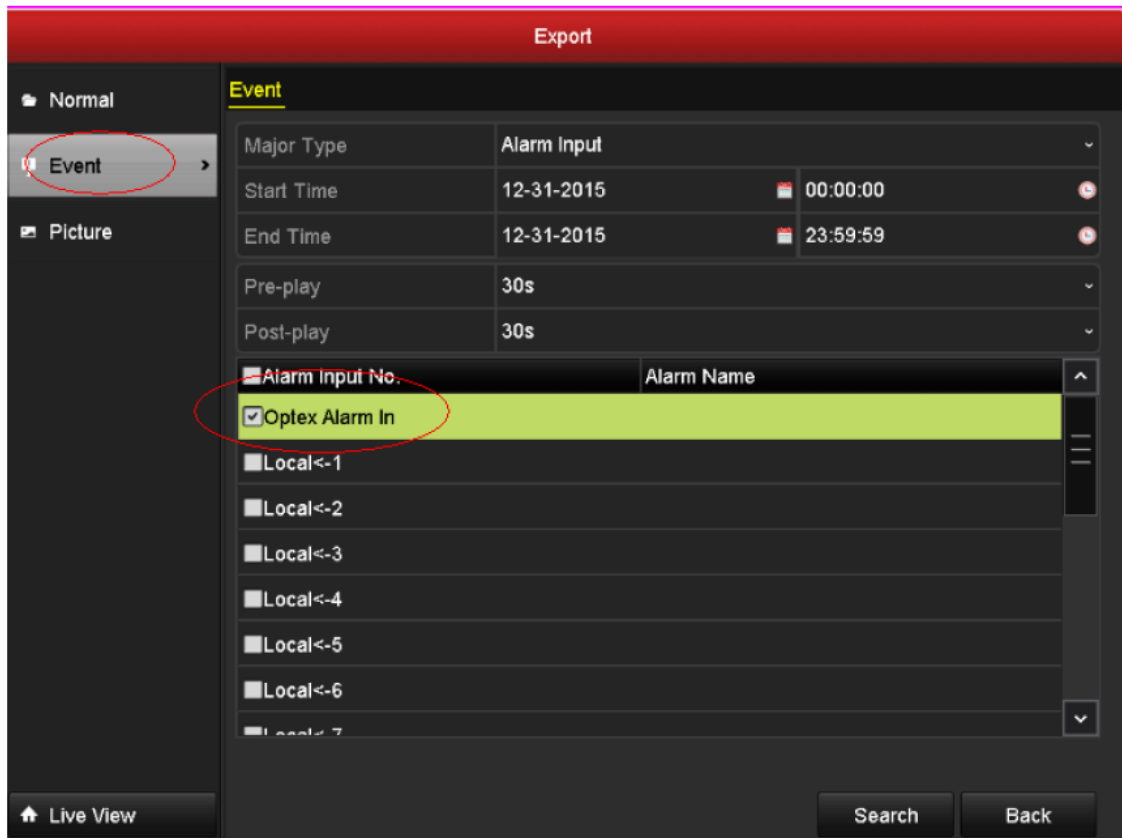

5.   Click **Apply-> OK**

6. Recording search

Users can filter recorded events for **Optex Alarm in**

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7. Export events by selecting filter for **Optex Alarm in**

8. Event log

All Optex events can be found under **Maintenance-> Log information** major type **Alarm in**

Compatibility

Firmware: I-Series

NVR_K51_BL_EN_STD_V3.4.62_160820

DS-7608NI-I2
DS-7616NI-I2/16P
DS-7716NI-I4/16P
DS-9964NI-I8
DS-7616NI-I2
DS-7716NI-I4
DS-7732NI-I4/16P
DS-9632NI-I16
DS-7608NI-I2/8P
DS-7732NI-I4
DS-9632NI-I8
DS-9964NI-I16

Firmware:

NVR_NETRA_BL_EN_STD_V3.4.0_160422

-ST -RT -XT -SP series NVR product list
76xx Series DS-7608NI-SP, DS-7608NI-ST, DS-7616NI-SP, DS-7616NI-ST, DS-7632NI-ST, DS-7632NI-SP, DS-7608HI-ST, DS-7616HI-ST
77xx Series DS-7708NI-SP, DS-7708NI-ST, DS-7716NI-SP, DS-7716NI-ST, DS-7732NI-SP, DS-7732NI-ST, DS-7764NI-ST
85xx Series DS-8508NI-ST, DS-8516NI-ST, DS-8532NI-ST **86xx Series** DS-8608NI-ST, DS-8616NI-ST, DS-8632NI-ST, DS-8664NI-ST **95xx Series** DS-9508NI-RT, DS-9508NI-ST, DS-9516NI-RT, DS-9516NI-ST, DS-9532NI-RT, DS-9532NI-ST
96xx Series DS-9608NI-RT, DS-9608NI-ST, DS-9616NI-RT, DS-9616NI-ST, DS-9616NI-XT, DS-9632NI-RT, DS-9632NI-ST, DS-9632NI-XT, DS-9664NI-RT, DS-9664NI-ST, DS-9664NI-XT
80xx Series DS-8004HFI-ST, DS-8008HFI-ST, DS-8016HFI-ST, DS-8004HWI-ST, DS-8008HWI-ST, DS-8016HWI-ST
90xx Series DS-9004HFI-ST, DS-9008HFI-ST, DS-9016HFI-ST, DS-9004HFI-RT, DS-9008HFI-RT, DS-9016HFI-RT, DS-9016HFI-XT, DS-9004HWI-ST, DS-9008HWI-ST, DS-9016HWI-ST