

# Bypass

## SUNAPI

v2.6.2

2023-04-07



## Copyright

© 2023 Hanwha Vision Co., Ltd. All rights reserved.

## Restriction

Do not copy, distribute, or reproduce any part of this document without written approval from Hanwha Vision Co., Ltd.

## Disclaimer

Hanwha Vision Co., Ltd. has made every effort to ensure the completeness and accuracy of this document, but makes no guarantee as to the information contained herein. All responsibility for proper and safe use of the information in this document lies with users. Hanwha Vision Co., Ltd. may revise or update this document without prior notice.

## Contact Information

Hanwha Vision Co., Ltd.

Hanwha Vision 6, Pangyo-ro 319beon-gil, Bundang-gu, Seongnam-si, Gyeonggi-do, 13488, KOREA  
[www.hanwhavision.com](http://www.hanwhavision.com)

Hanwha Vision America

500 Frank W. Burr Blvd. Suite 43 Teaneck, NJ 07666  
[hanwhavisionamerica.com](http://hanwhavisionamerica.com)

Hanwha Vision Europe

Heriot House, Heriot Road, Chertsey, Surrey, KT16 9DT, United Kingdom  
[hanwhavision.eu](http://hanwhavision.eu)

Hanwha Vision Middle East FZE

Jafza View 18, Office 2001-2003, Po Box 263572, Jebel Ali Free Zone, Dubai, United Arab Emirates  
[www.hanwhavision.com/ar](http://www.hanwhavision.com/ar)

# Table of Contents

- 1. Overview ..... 3
  - 1.1. Description ..... 3
- 2. bypass ..... 4
  - 2.1. Description ..... 4
  - 2.2. Syntax ..... 4
  - 2.3. Parameters ..... 4
  - 2.4. Examples ..... 4
    - 2.4.1. Getting Camera Attributes ..... 4
    - 2.4.2. Getting camera events in text format ..... 5
    - 2.4.3. Getting camera events in JSON format ..... 6
    - 2.4.4. Configuration backup ..... 7
    - 2.4.5. Configuration restore ..... 7
    - 2.4.6. Firmware update ..... 7

# Chapter 1. Overview

## 1.1. Description

**bypass.cgi** is used to send SUNAPI commands to the connected cameras (Registered using SUNAPI protocol only) via NVR, and to get the response for the corresponding command.

**NOTE** | This chapter applies to NVR only.

# Chapter 2. bypass

## 2.1. Description

The **bypass** submenu in NVR bypasses the commands sent by SUNAPI client applications directly to the camera, and gets the response from the camera.

### NOTE

This submenu supports all SUNAPI commands except for multi-part response commands such as intermediate events for firmware update, monitor and monitordiff actions in eventstatus.cgi.

For the Firmware update command, only the final response will be sent to the requested client.

For other commands, the response sent by the camera will be given as the response for a bypass command.

### Access level

Action	Camera
control	User

## 2.2. Syntax

```
http://<Device IP>/stw-  
cgi/bypass.cgi?msubmenu=bypass&action==<value> [&<parameter>=<value>]
```

## 2.3. Parameters

Action	Parameters	Request/ Response	Type/ Value	Description
control	Channel	REQ	<int>	Channel number
	HeadersToSend	REQ	<csv>	Extra headers to be sent to camera such as cookies, response format etc.
	BypassURI	REQ	<string>	SUNAPI command to be sent to camera

## 2.4. Examples

### 2.4.1. Getting Camera Attributes

#### REQUEST

```
http://<Device IP>/stw-  
cgi/bypass.cgi?msubmenu=bypass&action=control&Channel=0&BypassURI=/stw-
```

```
cgi/attributes.cgi/eventsources/videoanalysis/view/DetectionType
```

#### TEXT RESPONSE

```
<parameter response="false" request="true" name="DetectionType">
  <dataType>
    <enum>
      <entry value="Off"/>
      <entry value="MotionDetection"/>
      <entry value="IntelligentVideo"/>
      <entry value="MDAndIV"/>
    </enum>
  </dataType>
</parameter>
```

### 2.4.2. Getting camera events in text format

#### REQUEST

```
http://<Device IP>/stw-
cgi/bypass.cgi?submenu=bypass&action=control&Channel=0&BypassURI=/stw-
cgi/eventstatus.cgi?submenu=eventstatus&action=check
```

#### TEXT RESPONSE

```
HTTP/1.0 200 OK
Content-type: text/plain
<Body>
```

```
Channel.0.MotionDetection=True
Channel.0.MotionDetection.RegionID.1=True
Channel.0.MotionDetection.RegionID.2=False
Channel.0.MotionDetection.RegionID.3=False
Channel.0.MotionDetection.RegionID.4=False
Channel.0.Tampering=False
Channel.0.DefocusDetection=False
Channel.0.AudioDetection=False
Channel.0.VideoAnalytics.Passing=False
Channel.0.VideoAnalytics Entering=False
Channel.0.VideoAnalytics.Exiting=False
Channel.0.VideoAnalytics.Appearing=False
```

```
Channel.0.VideoAnalytics.Disappearing=False  
AlarmInput.1=False  
AlarmOutput.1=False
```

### 2.4.3. Getting camera events in JSON format

#### REQUEST

```
http://<Device IP>/stw-  
cgi/bypass.cgi?submenu=bypass&action=control&Channel=0&  
HeadersToSend=Accept:application/json&BypassURI=/stw-  
cgi/eventstatus.cgi?submenu=eventstatus&action=check
```

#### JSON RESPONSE

```
HTTP/1.0 200 OK  
Content-type: application/json  
<Body>
```

```
{  
  "ChannelEvent": [  
    {  
      "Channel": 0,  
      "MotionDetection": true,  
      "MotionDetectionRegions": {  
        "1": true,  
        "2": false,  
        "3": false,  
        "4": false  
      },  
      "Tampering": false,  
      "DefocusDetection": false,  
      "AudioDetection": false,  
      "VideoAnalytics": {  
        "Passing": false,  
        "Entering": false,  
        "Exiting": false,  
        "Appearing": false,  
        "Disappearing": false  
      }  
    }  
  ]  
}
```

```

    ],
    "AlarmInput": {
        "1": false
    },
    "AlarmOutput": {
        "1": false
    }
}

```

#### NOTE

HeadersToSend is not mandatory; this parameter is used to send any special headers to the camera. "Accept:application/json" header can also be sent to NVR to get the response from the camera in JSON format.

### 2.4.4. Configuration backup

#### REQUEST

```

curl --digest -u <userid>:<password> "http://<Device IP>/stw-
cgi/bypass.cgi?submenu=bypass&action=control&Channel=0&BypassURI=/stw-
cgi/system.cgi?submenu=configbackup&action=control" > config.bin

```

### 2.4.5. Configuration restore

#### Encode to base64

```

openssl base64 -in config.bin -out encoded.bin

```

#### REQUEST

```

curl --digest -u <userid>:<password> "http://<Device IP>/stw-
cgi/bypass.cgi?submenu=bypass&action=control&Channel=0&BypassURI=/stw-
cgi/system.cgi?submenu=configrestore&action=control&ExcludeSettings=Network
,Camera" -H "Expect:" --data-urlencode @encoded.bin

```

### 2.4.6. Firmware update

#### REQUEST

```

curl --digest -u <userid>:<password> "http://<Device IP>/stw-
cgi/bypass.cgi?submenu=bypass&action=control&Channel=0&BypassURI=/stw-
cgi/system.cgi?submenu=firmwareupdate&action=control&Type=Normal" -H
"Expect:" -F uploadFile=@srn-4000-pkg_v2.00_150114103354.img

```