

# HAMA IP Camera CGI commands V1.1

## 1. JPEG image commands

### 1.1 Get one JPEG image

Method: Get

URL: HTTP://camera\_ip/jpg/image.jpg

Return: One JPEG image will be transferred to client.

### 1.2 Get one JPEG image without any authentication

Method: Get

URL: HTTP://camera\_ip/loginfree.jpg

Return: One JPEG image will be transferred to client.

Note: User maybe change the loginfree filename.

### 1.3 Get one JPEG video stream

Method: Get

URL: HTTP://camera\_ip/mjpg/video.mjpg

Return: One multipart JPEG video stream will be transferred to client.

Format:

```
HTTP/1.0 200 OK\r\n
```

```
Content-Type: multipart/x-mixed-replace;  
            boundary=myboundary\r\n
```

```
\r\n
```

```
--myboundary\r\n
```

```
Content-Type: image/jpeg\r\n
```

```
Content-Length: 15656\r\n
```

```
\r\n
```

```
<JPEG image data>\r\n
```

```
--myboundary\r\n
```

```
Content-Type: image/jpeg\r\n
```

```
Content-Length: 14978\r\n
```

```
\r\n
```

```
<JPEG image data>\r\n
```

```
--myboundary\r\n
```

```
Content-Type: image/jpeg\r\n
```

```
Content-Length: 15136\r\n
```

```
\r\n
```

```
<JPEG image data>\r\n
```

```
--myboundary\r\n
```

```
. . . . .
```

## 2. System commands

### 2.1 Get system information and configuration

#### 2.1.1 Get image properties supported by camera

Method: Get

URL: `http://camera_ip/camera-cgi/admin/param.cgi?action=list  
&group=Properties.Image`

Return: Image resolution, flipmode and format supported by camera

Example:

```
root.Properties.Image.FlipMode=1
```

```
root.Properties.Image.Resolution=1280x1024,1024x768,640x480,320x240
```

```
root.Properties.Image.Format=mjpeg,mpeg4
```

Description: Camera support flipmode, supports 4 kinds of resolution and supports MJPEG and MPEG4 format.

#### 2.1.2 Get MJPEG image properties supported by camera

Method: Get

URL: `http://camera_ip/camera-cgi/admin/param.cgi?action=list  
&group=Properties.Image.I0`

Return: Image resolution, flipmode and format supported by camera

Example:

```
root.Properties.Image.I0.FlipMode=1
```

```
root.Properties.Image.I0.Resolution=1280x1024,640x480,320x240
```

```
root.Properties.Image.I0.Format=mjpeg
```

Description: Camera support flipmode, supports 3 kinds of resolution and supports MJPEG format.

#### 2.1.3 Get MPEG4 image properties supported by camera

Method: Get

URL: `http://camera_ip/camera-cgi/admin/param.cgi?action=list  
&group=Properties.Image.I1`

Return: Image resolution, flipmode and format supported by camera

Example:

```
root.Properties.Image.I1.FlipMode=1
```

```
root.Properties.Image.I1.Resolution=1024x768,640x480,320x240
```

```
root.Properties.Image.I1.Format=mpeg4
```

Description: Camera support flipmode, supports 3 kinds of resolution and supports MPEG4 format.

#### 2.1.4 Get current camera configuration of resolution and JPEG quality

Method: Get

URL: `http://camera_ip/camera-cgi/admin/param.cgi?action=list  
&group=Image.I0.Appearance`

Return: Current configuration of JPEG resolution and JPEG quality

Example:

```
root.Image.I0.Appearance.Resolution=640x480
```

```
root.Image.I0.Appearance.Compression=0
```

Compression: value range is 0~4

0:low 4:high

### **2.1.6 Get current camera configuration of resolution and MPEG4 quality**

Method: Get

```
URL: http://camera_ip/camera-cgi/admin/param.cgi?action=list
      &group= Image.I1.Appearance
```

Return: Current configuration of JPEG resolution and JPEG quality

Example:

```
root.Image.I1.Appearance.Resolution=1024x768
```

```
root.Image.I1.Appearance.stats=compression
```

```
root.Image.I1.Appearance.compression=7
```

stats: compression for VBR , bitrate for CBR

Compression: value range is 11~9 ( Lowest:11 、 Low:9 、 Normal:7 、 High:5 、 Highest:3 )

### **2.1.7 Get current FPS value of MJPEG camera**

Method: Get

```
URL: http://camera_ip/camera-cgi/admin/param.cgi?action=list
      &group= Image.I0.Stream
```

Return: Current FPS value of camera (frame rate per second)

Example:

```
Image.I0.Stream.FPS=15
```

MJPEG only.

### **2.1.7 Get current FPS value of MPEG4 camera**

Method: Get

```
URL: http://camera_ip/camera-cgi/admin/param.cgi?action=list
      &group= Image.I1.Stream
```

Return: Current FPS value of camera (frame rate per second)

Example:

```
Image.I1.Stream.FPS=15
```

MPEG4 only.

### **2.1.8 Get default video format**

Method: Get

```
URL: http://camera_ip/camera-cgi/admin/param.cgi?action=list
      &group=Layout
```

Return: Camera default video format ( mjpeg or mpeg4 video mode )

Example:

Layout.DefaultVideoFormat=mpeg4

### **2.1.9 Get information about the brand**

Method: Get

URL: `http://camera_ip/camera-cgi/admin/param.cgi?action=list  
&group=Brand`

Return: Information about the brand and type of camera

Example:

```
root.Brand.Brand=Hama GmbH & Co. KG  
root.Brand.ProdFullName=Hama Wireless IP Camera  
root.Brand.ProdShortName=IP - Cam M360  
root.Brand.ProdNbr=00053104  
root.Brand.ProdType=Wireless Lan IP Camera  
root.Brand.WebURL=http://www.hama.de/
```

### **2.1.10 Get hardware MAC address of camera**

Method: Get

URL: `http://camera_ip/camera-cgi/admin/param.cgi?action=list  
&group=Network.Interface.I0.Active.MACAddress`

Return: Hardware MAC address of camera

Example:

```
Network.Interface.I0.Active.MACAddress=00:11:09:15:10:AB
```

### **2.1.11 Get Firmware Version, Model ID and Vendor ID**

Method: Get

URL: `http://camera_ip/camera-cgi/admin/param.cgi?action=list  
&group=Properties.Firmware`

Return: Firmware version, Model ID and Vendor ID of camera

Example:

```
Properties.Firmware.Version=v1.32  
Properties.Firmware.ModelID=12  
Properties.Firmware.VendorID=1
```

### **2.1.12 Get web port number**

Method: Get

URL: `http://camera_ip/camera-cgi/admin/param.cgi?action=list  
&group=System.HTTPPort`

Return: web port number

Example:

```
System.HTTPPort=80
```

### **2.1.13 Get private video port number**

Method: Get

URL: `http://camera_ip/camera-cgi/admin/param.cgi?action=list  
&group=System.PrivateVideoPort`

Return: web port number

Example:

`System.PrivateVideoPort=4321`

#### **2.1.14 Get MaxUsers and CurrentUsers Number**

Method: Get

URL: `http://camera_ip/camera-cgi/admin/param.cgi?action=list  
&group=Properties.VideoServer`

Return: **MaxUsers and CurrentUsers Number**

Example:

`Properties.VideoServer.MaxUsers=16`

`Properties.VideoServer.CurrentUsers=2`

## **2.2 Set system configuration**

### **2.2.1: Set resolution of MJPEG camera**

Method: Get

URL: `http://camera_ip/camera-cgi/admin/param.cgi?action=update  
&Image.I0.Appearance.Resolution=Width X Height`

Parameters: 1280x1024, 640x480, 320x240

Example: Set resolution to 320X240

`http://192.168.2.114/camera-cgi/admin/param.cgi?action=update  
&Image.I0.Appearance.Resolution=320x240`

**MJPEG only.**

### **2.2.2: Set resolution of MPEG4 camera**

Method: Get

URL: `http://camera_ip/camera-cgi/admin/param.cgi?action=update  
&Image.I1.Appearance.Resolution=Width X Height`

Parameters: 1024x768、640x480, 320x240

Example: Set resolution to 320X240

`http://192.168.2.114/camera-cgi/admin/param.cgi?action=update  
&Image.I1.Appearance.Resolution=320x240`

**MPEG4 only.**

### **2.2.3: Set JPEG compression level**

Method: Get

URL: `http://camera_ip/camera-cgi/admin/param.cgi?action=update  
&Image.I0.Appearance.Compression=Compression Level`

Parameters: value range is 0~4

0:low 4:high

Example: Set compression level to high

[http://192.168.2.114/camera-cgi/admin/param.cgi?action=update  
&Image.I0.Appearance.Compression=4](http://192.168.2.114/camera-cgi/admin/param.cgi?action=update&Image.I0.Appearance.Compression=4)

#### **2.2.4 Set MPEG4 video quality**

Method: Get

URL: [http://camera\\_ip/camera-cgi/admin/param.cgi?action=update  
&Image.I1.Appearance.stats=State](http://camera_ip/camera-cgi/admin/param.cgi?action=update&Image.I1.Appearance.stats=State)

Parameters: [State: 1-VBR 0-CBR](#)

Example: Set MPEG4 video quality to CBR

[http://192.168.2.114/camera-cgi/admin/param.cgi?action=update  
&Image.I1.Appearance.stats=0](http://192.168.2.114/camera-cgi/admin/param.cgi?action=update&Image.I1.Appearance.stats=0)

#### **2.2.5 Set MPEG4 CBR Bitrate**

Method: Get

URL: [http://camera\\_ip/camera-cgi/admin/param.cgi?action=update  
&Image.I1.Appearance.bitrate=Bitrate](http://camera_ip/camera-cgi/admin/param.cgi?action=update&Image.I1.Appearance.bitrate=Bitrate)

Parameters: [Bitrate: 2000000\(2M bps\) 、1500000\(1.5M bps\) 、1000000\(1M bps\) 、800000\(800K bps\) 、500000\(500K bps\) 、400000\(400K bps\) 、300000\(300K bps\) 、250000\(250K bps\) 、200000\(200K bps\)](#)

Example: Set MPEG4 CBR Bitrate to 800K bps

[http://192.168.2.114/camera-cgi/admin/param.cgi?action=update&Image.  
I1.Appearance.bitrate=800000](http://192.168.2.114/camera-cgi/admin/param.cgi?action=update&Image.I1.Appearance.bitrate=800000)

#### **2.2.6 Set MPEG4 VBR Compression**

Method: Get

URL: [http://camera\\_ip/camera-cgi/admin/param.cgi?action=update  
&Image.I1.Appearance.Compression=Compression Level](http://camera_ip/camera-cgi/admin/param.cgi?action=update&Image.I1.Appearance.Compression=Compression Level)

Parameters: [Compression Level: 13\(Lowest\) 、11\(Low\) 、9\(Normal\) 、7\(High\) 、5\(Highest\)](#)

Example: Set MPEG4 VBR Compression to Normal

[http://192.168.2.114/camera-cgi/admin/param.cgi?action=update  
&Image.I1.Appearance.Compression=9](http://192.168.2.114/camera-cgi/admin/param.cgi?action=update&Image.I1.Appearance.Compression=9)

#### **2.2.7 Set MJPEG camera FPS**

Method: Get

URL: [http://camera\\_ip/camera-cgi/admin/param.cgi?action=update  
&Image.I0.Stream.FPS=FPS](http://camera_ip/camera-cgi/admin/param.cgi?action=update&Image.I0.Stream.FPS=FPS)

Parameters: [1, 3, 5, 10, 15, 30](#)

Example: Set FPS to 15

[http://192.168.2.114/camera-cgi/admin/param.cgi?action=update  
&Image.I0.Stream.FPS=15](http://192.168.2.114/camera-cgi/admin/param.cgi?action=update&Image.I0.Stream.FPS=15)

MJPEG only.

#### **2.2.8 Set MPEG4 camera FPS**

Method: Get

URL: [http://camera\\_ip/camera-cgi/admin/param.cgi?action=update  
&Image.I1.Stream.FPS=FPS](http://camera_ip/camera-cgi/admin/param.cgi?action=update&Image.I1.Stream.FPS=FPS)

Parameters: 3, 5, 10, 15

Example: Set FPS to 15

[http://192.168.2.114/camera-cgi/admin/param.cgi?action=update  
&Image.I1.Stream.FPS=15](http://192.168.2.114/camera-cgi/admin/param.cgi?action=update&Image.I1.Stream.FPS=15)

MPEG4 only.

#### **2.2.9 Set Default Video Format to MJPEG or MPEG4**

Method: Get

URL: [http://camera\\_ip/form/enet?enet\\_source=cp.asp  
&enet\\_avs\\_default\\_dual\\_mode=Mode](http://camera_ip/form/enet?enet_source=cp.asp&enet_avs_default_dual_mode=Mode)

Parameters: 0: MJPEG

1: MPEG4

Example: [http://192.168.2.114/form/enet?enet\\_source=cp.asp  
&enet\\_avs\\_default\\_dual\\_mode=1](http://192.168.2.114/form/enet?enet_source=cp.asp&enet_avs_default_dual_mode=1)

#### **2.2.10 Set Video Flip Mode**

Method: Get

URL: [http://camera\\_ip/form/enet?enet\\_source=cp.asp&  
enet\\_avs\\_flip\\_mode=n](http://camera_ip/form/enet?enet_source=cp.asp&enet_avs_flip_mode=n)

Parameters: n= 0: Normal

1: Vertical mirror

2: Horizontal mirror

3: Rotate 180

Example: Set Flip mode to Rotate 180

[http://192.168.2.114/form/enet?enet\\_source=cp.asp&  
enet\\_avs\\_flip\\_mode=3](http://192.168.2.114/form/enet?enet_source=cp.asp&enet_avs_flip_mode=3)

### **3. Audio commands**

#### **3.1 Request an audio stream.**

Method: Get

URL: [http://camera\\_ip/camera-cgi/audio/receive.cgi](http://camera_ip/camera-cgi/audio/receive.cgi)

Return: Get a Multipart Audio data stream from IPCam.

Format:

HTTP/1.0 200 OK\r\n

```
Content-Type: audio/basic\r\n
\r\n
<33 bytes GSM0610 Audio data>
<33 bytes GSM0610 Audio data>
<33 bytes GSM0610 Audio data>
.
.
.
```

Example:

<http://192.168.2.114/camera-cgi/audio/receive.cgi>

### 3.2 Get Audio Status.

Method: Get

URL: HTTP://camera\_ip/camera-cgi/admin/param.cgi?action=list&  
group=Properties.Audio

Return: Audio and TwoWayAudio Status( yes or disabled )

Example:

[Properties.Audio=yes](#)

[Properties.Audio.TwoWayAudio=yes](#)

[Properties.Audio.AudioCodec=GSM 06.10](#)

[Properties.Audio.TwoWayAudioCodec=GSM 06.10](#)

### 3.3 Set Audio Volume

Method: Get

URL: [http://camera\\_ip/form/enet?enet\\_source=cp.asp](http://camera_ip/form/enet?enet_source=cp.asp)  
&enet\_audio\_enable=[No, Yes]  
&enet\_audio\_mic\_vol=[0-100]  
&enet\_audio\_output\_vol=[0-100]

Parameters:

enet\_audio\_enable: No: Didable audio function

Yes: Ebable audio function

enet\_audio\_mic\_vol: 0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100

enet\_audio\_output\_vol: 0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100

## 4. PTZ commands

### 4.1 Move the image in the specified direction

Method: Get

URL: [http://camera\\_ip/camera-cgi/com/ptz.cgi?move=direction](http://camera_ip/camera-cgi/com/ptz.cgi?move=direction)

Parameters:

direction: left, right, up, down, upleft, upright, downleft, downright, center

Example:

<http://192.168.2.114/camera-cgi/com/ptz.cgi?move=left>

### 4.2 Move the image to preset point

Method: Get

URL: [http://camera\\_ip/camera-cgi/com/ptz.cgi?gotoserverpresetIndex=idx](http://camera_ip/camera-cgi/com/ptz.cgi?gotoserverpresetIndex=idx)

Parameters:

idx: Preset point index

Example:

<http://192.168.2.114/camera-cgi/com/ptz.cgi?gotoserverpresetIndex=1>

### 4.3 Add a preset point with current image coordinate and zoom configuration

Method: Get

URL: [http://camera\\_ip/camera-cgi/com/ptzconfig.cgi?](http://camera_ip/camera-cgi/com/ptzconfig.cgi?setserverpresetname=name&presetNo=idx)

setserverpresetname=name&presetNo=idx

Parameters:

name: Preset point name

idx: add preset point to idx of array

Example:

[http://192.168.2.114/camera-cgi/com/ptzconfig.cgi?](http://192.168.2.114/camera-cgi/com/ptzconfig.cgi?setserverpresetname=myroom&presetNo=2)

setserverpresetname=myroom&presetNo=2

### 4.4 Remove a preset point

Method: Get

URL: [http://camera\\_ip/camera-cgi/com/ptzconfig.cgi?](http://camera_ip/camera-cgi/com/ptzconfig.cgi?removeserverpresetname=name&presetNo=idx)

removeserverpresetname=name&presetNo=idx

Parameters:

name: Preset point name

idx: remove preset point from idx of array

Example:

[http://192.168.2.114/camera-cgi/com/ptzconfig.cgi?](http://192.168.2.114/camera-cgi/com/ptzconfig.cgi?removeserverpresetname=myroom&presetNo=3)

removeserverpresetname=myroom&presetNo=3

### 4.5 Get PTZ status

Method: Get

URL: [http://camera\\_ip/camera-cgi/admin/param.cgi?action=list  
&group=Properties.PTZ.PTZ](http://camera_ip/camera-cgi/admin/param.cgi?action=list&group=Properties.PTZ.PTZ)

Return: the status of PTZ

Example:

[Properties.PTZ.PTZ=yes](#)

#### **4.6 Set PT Speed**

Method: Get

URL: [http://camera\\_ip/form/enet?enet\\_source=cp.asp&  
enet\\_avs\\_pt\\_speed=n](http://camera_ip/form/enet?enet_source=cp.asp&enet_avs_pt_speed=n)

Parameters: n= 1(fast) ,3 ,5 ,7, 9(slow)

Example:

[http://camera\\_ip/form/enet?enet\\_source=cp.asp&  
enet\\_avs\\_pt\\_speed=3](http://camera_ip/form/enet?enet_source=cp.asp&enet_avs_pt_speed=3)