SAMSUNG IP CAMERA SDK

HTTP API Development Guide

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<Version History>

Version	Description	Release Date
1.0	First Release of HTTP/CGI command API for IP camera	25. Nov. 2008
1.1	Add commands - Configurable parameters for RTP/RTSP - SMTP server port parameter Fix some command mistakes.	6. Dec. 2008
1.2	Fix the command about camera setting - SNC-M300 can change the detail value from 0 to 4 - Add the restriction when the SW version 2.01	15.Dec.2008
1.21	- Add the restriction when write/read the video quality setting	18.Dec.2008
1.22	- Add new command “view2” for video quality setting. It works from firmware version 2.02. - Previous command “view” also works. - Add RTP/RTSP port parameter setting limitations.	16.Jan.2009
1.23	- Add ADSL connection ID and PW for PPPoE network Add comment about limitations on PPPoE mode. - Add detail description for PTZ control	6.Feb.2009
1.24	-Add SNC-B2331/SNC-B5368/SNC-B2335/SNC-B5399 -Add HTTPS, Intelligent video analysis, IP Filtering -Fix some command mistakes.	26.May.2009
1.25	-Add SNC-C6225/SNC-C7225/SNC-C7478	1.June.2009
1.26	Add command - Searching Intelligent video analysis event log by filtering condition - SNMP	2.July.2009
1.27	Add parameter - In Video&Audio parameters about H.264/MPEG4 - In Intelligent video analysis, “Entire area”, “Object size” event rule parameters	21.August.2009

1. SAMSUNG IP CAMERA SDK

Samsung Electronics IP Camera SDK has variable Application Programming Interface (API).
This SDK enables you to obtain images, audio stream, control IP camera functions (PTZ, Alarm I/O, etc.), set/get internal parameter values and much more. The purpose of the SDK is to make it easier for developers to build applications that support Samsung Electronics IP Cameras.

SAMSUNG IP CAMERA SDK consists of:

- HTTP API
- Standard RTP/RTSP API
- VNP (Samsung Video Security Network Protocol) API
- ActiveX Control API (For Windows Application Development)
- XNS API (For Windows Application Development)

As above, there are different ways whereby an application can interface with Samsung IP Cameras:

- Using low level protocol directly (HTTP API, RTP/RTSP API, VNP API)
- Using Windows development tools (XNS API, ActiveX API)

1.1 HTTP API

This API specifies the HTTP-based application programming interface (API) to integrate Samsung IP Cameras with 3rd Party Applications.
The HTTP API provides the functionality for requesting single and multi-part JPEG images and for getting and setting internal parameter values.
MPEG-4 and audio stream can not be obtained by HTTP API.

1.2 Standard RTP/RTSP API

This API describes the standard RTSP-based application programming interface (API) to integrate Samsung IP Cameras with 3rd Party Applications.
Using this API, application can receive MJPEG, MPEG-4 video and one-way audio stream from IP Camera.
More information can be found in the “RTP/RTSP API” document.

1.3 VNP (Samsung Video Security Network Protocol) API

This API describes the Samsung own VNP protocol-based application programming interface (API) to

integrate Samsung IP Cameras with 3rd Party Applications.
Using this API, application can receive MJPEG, MPEG-4 video from IP Camera.
Also, VNP API can support bi-directional audio communication.
More information can be found in the “VNP API” document.

1.4 ActiveX Control API

The ActiveX Control API enables easy integration of viewing MPEG-4 and MJPEG streams directly in Microsoft Internet Explorer, Visual Basic, Delphi and other Windows applications.
Also, ActiveX API can support bi-directional audio communication.
ActiveX Control is worked by Samsung VNP protocol for network communication.
More information can be found in the “ActiveX Control API” document.

1.5 XNS API

The XNS API which is based on Win32 MFC style enables Windows Based Application development for viewing MPEG-4 and MJPEG streams from Samsung IP Cameras.
Also, XNS API can support bi-directional audio communication.
XNS API is worked by Samsung VNP protocol for network communication.
More information can be found in the “XNS API” document.

1.6 Supported IP Camera List

Model Name	Feature	Firmware
SNC-B2315	D1 Real-time Dual codec IP Camera	v2.01 and above
SNC-B5395	D1 Real-time Dual codec IP Anti-Vandal Dome Camera	v2.01 and above
SNC-M300	3 Mega Pixel IP Camera	v2.01 and above
SNC-C6225	10x Zoom PTZ Mini Speed Dome IP Camera (Anti-Vandal)	v1.00 and above
SNC-C7225	10x Zoom PTZ Mini Speed Dome IP Camera (Outdoor)	v1.00 and above
SNC-C7478	36x Zoom PTZ Speed Dome IP Camera (Wall-Mount Type)	v1.00 and above
SNC-C7478C	36x Zoom PTZ Speed Dome IP Camera (Ceiling-Mount Type)	v1.00 and above
SNC-B2331	H.264 4CIF Real-time Triple codec IP Camera	v1.00 and above
SNC-B5368	H.264 4CIF Real-time Triple codec IP mini Dome Camera	v1.00 and above
SNC-B2335	H.264 4CIF Real-time Triple codec IP Camera with video analysis function	Not ready yet
SNC-B5399	H.264 4CIF Real-time Triple codec IP Anti-Vandal Dome Camera with video analysis function	Not ready yet

* SNC-B2331/SNC-B5368 will be launched on September of 2009.

* SNC-B2335/SNC-B5399 will be launched on October of 2009.

2. HTTP API

* Access Authentication for HTTP/CGI command

From Firmware v2.0, Samsung IP cameras support standard http digest access authentication method.

Application developer must implement standard digest authentication (RFC 2069) before using Samsung HTTP/CGI commands.

All HTTP/CGI commands are worked via the authenticated HTTP session.

(Samsung IP camera's default login ID and PW – **root** and **4321**)

2.1 JPEG Image / MJPEG Video via HTTP

2.1.1 Obtaining single JPEG Image

[Description]

This API provides the way to obtain single JPEG image from IP Camera.

[Syntax]

http://<Device IP>/video?**submenu=jpg**

[Example]

REQUEST

http://192.168.1.200/video?**submenu=jpg**

RESPONSE

HTTP/1.0 200 OK\r\n
Content-type: image/jpeg\r\n
Content-length: ***<image size>***\r\n
\r\n
<JPEG image data> \r\n

2.1.2 Obtaining multipart JPEG Image stream

[Description]

This API provides the way to obtain multipart JPEG image stream from IP Camera.

[Syntax]

http://<Device IP>/video?**submenu=mjpg**

[Example]

REQUEST

http://192.168.1.200/video?**submenu=mjpg**

RESPONSE

HTTP/1.0 200 OK\r\n
Content-Type: multipart/x-mixed-replace:boundary=SamsungVSS\r\n
\r\n
--SamsungVSS
Content-type: image/jpeg\r\n
Content-length: ***<image size>***\r\n
\r\n
<JPEG image data> \r\n
--SamsungVSS
Content-type: image/jpeg\r\n
Content-length: ***<image size>***\r\n
\r\n
<JPEG image data> \r\n
--SamsungVSS
Content-type: image/jpeg\r\n
Content-length: ***<image size>***\r\n
\r\n
<JPEG image data> \r\n

2.2 MPEG-4 I-Frame control via HTTP

[Description]

MPEG-4 video stream shall be obtained by other API such as RTP/RTSP, VNP, and ActiveX.

However, this HTTP API provides the way to produce MPEG-4 I-Frame when application is needed.

After this command, encoder of IP camera will produce I-Frame as next frame.

[Syntax]

http://<Device IP>/video?**submenu=mpeg4&action=apply&forcel=1**

[Example]

REQUEST

http://192.168.1.200/video?**submenu=**mpeg4&action=apply&forcel=1

RESPONSE

HTTP/1.0 200 OK\r\n
Content-type: text/plain\r\n
\r\n
OK\r\n

2.3 IP Camera Information

[Description]

This API provides the way to get the information of the device from IP Camera.

[Note]

The models which support 'view2' parameter are

: SNC-B2331, SNC-B5368, SNC-B2335, SNC-B5399

[Syntax]

http://<Device IP>/cgi-bin/about.cgi?**msubmenu=about&action=**<parameter>

[Response Parameters]

Parameter	Value	Description
action	view view2	view : getting current parameters view2 : getting current parameters
descript	STRING	Full information about the camera (Read only)
model	SNC-B2315 SNC-B5395 SNC-M300 SNC-C7478 SNC-C6225 SNC-C7225 SNC-B2331 SNC-B5368 SNC-B2335 SNC-B5399	The model name of the camera (Read only)
broadcasting	NTSC, PAL	The broadcasting mode of the camera (Read only)
version	STRING	Current firmware version of the camera (Read only)
build	STRING	The date when this firmware is built (Read only)
serial	STRING	The production serial number of the camera. (Read only) It is made by 14 words (alphabet and number).

[Example]

1. Getting current parameters (action : view)

REQUEST

http://192.168.1.200/cgi-bin/about.cgi?**msubmenu=about&action=view**

RESPONSE

Content-type: text/plain\r\n
\r\n
descript:SNC-M300N-V1.01-2008.07.02\r\n
model:SNC-M300\r\n
broadcasting:NTSC\r\n
version:1.01\r\n
build:2008.07.02\r\n
serial:02GS6VSQ500021 \r\n

2. Getting current parameters (action : view2)

REQUEST

http://192.168.1.200/cgi-bin/about.cgi?**msubmenu=about&action=view2**

RESPONSE

Content-type: text/plain\r\n
\r\n
descript:SNC-B2331N_v1.01_090724\r\n
model:SNC-B2331\r\n
broadcasting:NTSC\r\n
version:1.01\r\n
build:2009.07.24\r\n
serial: ZAUB6V1S600023X \r\n

2.4 Network Configuration of IP Camera

2.4.1 Video Streaming Mode Configuration

[Description]

This API provides the way to specify the video streaming mode of IP Camera.

This Streaming mode (TCP, UDP-Unicast, UDP-Multicast) can be applied only for Samsung VNP protocol.

For the RTP/RTSP protocol, RTP streaming is worked on UDP/IP and is independent of this streaming mode.

[Note]

The models which don't supports 'bandwidth' parameter are

: SNC-B2331, SNC-B5368, SNC-B2335, SNC-B5399

[Syntax]

http://<Device IP>/cgi-bin/network.cgi?**msubmenu=stream**&<parameter>=<value>...

[Parameters]

Parameter	Value	Description
action	view apply	view : getting current parameters apply : setting new parameters
strm_protocol	0, 1, 2	specifies the video streaming mode (Note.1) 0 : TCP 1 : UDP - Unicast 2 : UDP – Multicast
bandwidth	0,1,2,3,4,5,6	specifies the bandwidth control for streaming (Note.2) 0 (Unlimited) 1 (5Mbps) 2 (3Mbps) 3 (1Mbps) 4 (600Kbps) 5 (300Kbps) 6 (150Kbps)
rtp_protocol	1,2	1(UDP/unicast), 2(UDP/multicast) (Note.3)
rtp_timeout	0 ~ 65535	(Note.3)

(Note.1)

This streaming mode is only for Samsung Own VNP Communication Protocol.

(Note.2)

If you set the bandwidth control value not to 'Unlimited', IP Camera controls its framerate and quality of video

streaming automatically. So you must not change framerate and quality manually at that time.

(Note.3)

This streaming mode is only for Standard RTP/RTSP Communication Protocol.

RTP timeout parameter is not worked in the Samsung IP camera. Just this parameter can be ignored.

[Example]

1. Getting current parameters

REQUEST

http://192.168.1.200/cgi-bin/network.cgi?**msubmenu=stream&action=view**

RESPONSE

Content-type: text/plain\r\n
\r\n
strm_protocol:0\r\n
bandwidth:3\r\n
rtp_protocol:1\r\n
rtp_timeout:60\r\n

2. Changing streaming settings (It is possible to change the values individually)

REQUEST

http://192.168.1.200/cgi-bin/network.cgi?**msubmenu=stream&action=apply**&strm_protocol=2
&bandwidth=2

RESPONSE

Content-type: text/plain\r\n
\r\n
OK\r\n

3. Changing RTP settings (It is possible to change the values individually)

REQUEST

http://192.168.1.200/cgi-bin/network.cgi?**msubmenu=stream&action=apply**&rtp_protocol=2
&rtp_timeout=120

RESPONSE

Content-type: text/plain\r\n
\r\n
OK\r\n

2.4.2 IP Address Configuration

[Description]

This API provides the way to get current IP address configurations of IP camera and to change them.

[Note]

The models which supports 'ipv6_enable' parameter are
: SNC-B2331, SNC-B5368, SNC-B2335, SNC-B5399, SNC-C7478, SNC-C6225, SNC-C7225

[Syntax]

http://<Device IP>/cgi-bin/basic.cgi?**msubmenu=ip**&<parameter>=<value>...

[Parameters]

Parameter	Value	Description
action	view apply	view : getting current IP parameters apply : setting new IP parameters (Note.1)
ip_type	0, 1, 2	Indication of IP type 0 : Static IP 1 : Dynamic IP (DHCP mode) 2 : PPPoE IP (SNC-M300 can not support this) (Note.5)
mac	STRING	Device's MAC address (Read Only)
ip	IP address	specifies an IP address of device (Note.2)
sm	IP address	specifies a Subnet Mask of device (Note.2)
gw	IP address	specifies a Gateway (Note.2)

dns	IP address	specifies an IP address of a DNS server (Note.2)
httpport	80 (Default) 10000 ~ 60000	specifies a http port
deviceport	60001 (Default) 10000 ~ 60000	specifies VNP Device connection port (Note.3)
tcpport	60002 (Default) 10000 ~ 60000	specifies VNP TCP streaming port (Note.3)
udpport	60003 (Default) 10000 ~ 60000	specifies VNP UDP streaming port (Note.3)
uploadport	60004 (Default) 10000 ~ 60000	specifies a firmware upgrade port (Note.3) * This port is only for Samsung VNP protocol.
mcast_addr	IP address	specifies a VNP multicast IP address (Note.2)
mcastport	60001 (Default) 10000 ~ 60000	specifies a VNP multicast port. (Note.3)
ttl	0 ~255	specifies VNP multicast TTL (Note.3)
rtsp_port	554 (Default) 10000 ~ 65535	Only even number (Note.4)
rtp_mcast_addr	IP address	specifies a RTP multicast IP address (Note.4)
rtp_mcast_port	10000 ~ 65529	Only even number (Note.4)
rtp_mcast_ttl	0 ~ 255	specifies RTP multicast TTL (Note.4)
rtp_port_min	10000 ~ 65531	Only even number (Note.4)
rtp_port_max	10004 ~ 65535	This max. port has to be over 4 than “rtp_port_min” value. (Note.4)
adslid	STRING	ID for PPPoE network (Note.5)
adslpasswd	STRING	Password for PPPoE network (Note.5)
ipv6_enable	0,1	0 : Disable (Note.6) 1 : Enable
ipv6_addr	IPv6 address	IPv6 address (Note.6) (Read Only)

(Note.1)

When applying new IP parameters, IP Camera will restart to change device’s network setting.

(Note.2)

Input IP address value directly.

IP address is divided by ‘.’ and consists of 4 numbers between 0 ~ 255. (Example) 192.168.1.200

(Note.3)

* These ports are only for Samsung Own VNP Communication Protocol.

Input a port value directly. The range of possible input value of port is 10000 ~ 60000.

(Note.4)

* These ports are only for Standard RTP/RTSP Communication Protocol.

Input a port value directly.

Default RTSP port is 554, but if port is needed to be changed, only even number can be input.

* Every port value must be inputted without duplicating.

(Note.5)

* When ip_type is set as PPPoE IP mode, some parameters such as mcastaddr, mcastport, ttl, rtp_mcast_addr, rtp_mcast_port and rtp_mcast_ttl are not supported.

* When ip_type is set as PPPoE IP mode, adslid and adslpasswd must be set together.

Otherwise, ADSL connection will not work properly.

(Note.6)

* When ipv6_enable is set as 1, IP camera will reboot and then get IPv6 address from IPv6 router.

In this case, IP camera should be installed in the IPv6 network.

[Example]

1. Getting current IP parameters

REQUEST

http://192.168.1.200/cgi-bin/basic.cgi?**msubmenu=ip&action=view**

RESPONSE

Content-type: text/plain\r\n

\r\n

ip_type:0\r\n

MAC:00:16:6c:00:20:d6\r\n

ip:192.168.1.200\r\n

sm:255.255.255.0\r\n

gw:192.168.1.1\r\n

dns:168.126.63.1\r\n
httpport:80\r\n
deviceport:60001\r\n
uploadport:60004\r\n
udpport:60003\r\n
tcpport:60002\r\n
mcast_addr:239.0.0.1\r\n
mcastport:60005\r\n
ttl:63\r\n
rtsp_port:554\r\n
rtp_mcast_addr:225.128.1.128\r\n
rtp_mcast_port:62000\r\n
rtp_mcast_ttl:63\r\n
rtp_port_min:61000\r\n
rtp_port_max:61999\r\n
ipv6_enable:1\r\n
ipv6_addr:fe80:0000:0000:0000:020d:d1ff:f230:0027\r\n

2. Changing IP settings (It is possible to change the values individually)

REQUEST

http://192.168.1.200/cgi-bin/basic.cgi?**msubmenu=ip&action=apply**&ip=192.168.1.2
&sm=255.255.255.0&gw=192.168.1.1&dns=203.241.132.60

RESPONSE

Content-type: text/plain\r\n
\r\n
OK\r\n

3. Changing RTP/RTSP settings (It is possible to change the values individually)

REQUEST

http://192.168.1.200/cgi-bin/basic.cgi?**msubmenu=ip&action=apply**&rtsp_port=554
&rtp_mcast_addr=225.128.1.128&rtp_mcast_port=62000&rtp_mcast_ttl=63&rtp_port_min=61000
&rtp_port_max=61999

RESPONSE

Content-type: text/plain\r\n
\r\n
OK\r\n

2.5 Video & Audio

[Description]

Sets video attributes, such as resolution, frame rate, and image quality and changes the input gain of audio.

[Note]

Prefix “m4_” means the MPEG-4 codec and “mp_” means the MJPEG codec.

Prefix “h4_” means the H.264 codec.

The models which support H.264 codec parameters are

: SNC-B2331, SNC-B5368, SNC-B2335, SNC-B5399.

The models which support ‘m4_deinterlace’ parameter are

: SNC-B2331, SNC-B2335, SNC-B5399

The models which don’t support ‘audio_input_gain’ parameter are

: SNC-B2331, SNC-B5368

The models which support ‘audio_output_gain’ parameter are

: SNC-B2335, SNC-B5399

[Syntax]

http://<Device IP>/cgi-bin/basic.cgi?**msubmenu=video**&<parameter>=<value>...

[Parameters]

Parameter	Value	Description
action	view2 apply	view2 :get current settings apply : save VIDEO and AUDIO parameters
brightness contrast	1 ~ 100	Adjustment the image
m4_resolution mp_resolution h4_resolution	0 ~ 2	Sets the image resolution. SNC-B2315, SNC-B5395, SNC-C7478 SNC-C6225, SNC-C7225 : 0 : 720 x 480 (NTSC), 720 x 576 (PAL) 1 : 640 x 480 (NTSC), 640 x 480 (PAL)

		2 : 352 x 240 (NTSC), 352 x 288 (PAL) SNC-M300 : 0 : 2048 x 1536 (QXGA) 1 : 1600 x 1200 (UXGA) 2 : 1280 x 1024 (SXGA) SNC-M300 is fixed the value of m4_resolution to 1. m4_resolution is supporting only 640x480. SNC-B2331/SNC-B5368/SNC-B2335/SNC-B5399 0 : 704 x 480 (NTSC), 704 x 576 (PAL) 1 : 640 x 480 (NTSC), 640 x 480 (PAL) 2 : 352 x 240 (NTSC), 352 x 288 (PAL)
mpeg4_bitrate mjpeg_bitrate h264_bitrate	0 ~ 9	Sets the image quality 0 : Lowest 1, 2, 3, 4, 5 : Normal 6, 7, 8, 9 : Highest
m4_frate mp_frate h4_frate	0 ~ 4	Sets the frame rate SNC-B2315, SNC-B5395, SNC-C7478, SNC-C6225, SNC-C7225, SNC-B2331, SNC-B5368, SNC-B2335, SNC-B5399 : NTSC : 0 : frame rate 30 1 : frame rate 15 2 : frame rate 8 3 : frame rate 3 4 : frame rate 1 PAL : 0 : frame rate 25 1 : frame rate 13 2 : frame rate 6 3 : frame rate 3

		4 : frame rate 1 SNC-M300 : (Note 1) 0 : frame rate AUTO 1 : frame rate 12(QXGA), 19(UXGA), 25(SXGA) 2 : frame rate 6(QXGA), 10(UXGA), 13(SXGA) 3 : frame rate 3(QXGA), 5(UXGA), 6(SXGA)(MJPEG) frame rate 3(All Resolutions at MPEG4) 4 : frame rate 1(QXGA), 1(UXGA), 1(SXGA)
m4_bit_control h4_bit_control	0, 1	0 : CBR (Constant bitrate) 1 : VBR (Variable bitrate)
m4_compression h4_compression	5 ~ 100(step 5)	Sets the compression
m4_priority h4_priority	0, 1	Sets the priority 0 : Frame rate 1 : Image quality
m4_gopsize h4_gopsize	5 ~ 15	Sets the GOP size
h4_deblock	0, 1	0 : OFF 1 : ON
h4_profile	0, 1	Sets the H.264 profile (Note.2) 0 : Baseline 1 : Main
h4_entropy_coding	0, 1	Sets the H.264 entropy coding 0 : CAVLC 1 : CABAC
h4_motion_estimation	0, 1	Sets the H.264 entropy coding 0 : HPel 1 : QPel
m4_deinterlace	0, 1	Sets the de-interlace 0 : Off 1 : On
codec_select	0, 1	Select the codec(MPEG4/H.264) 0 : MPEG4 1 : H.264

audio_input_gain	0 ~ 10	Sets the input gain of audio
audio_output_gain	0 ~ 10	Sets the output gain of audio

(Note.1)

If MJPEG's frame rate is set to 0(AUTO), MPEG4 frame rate must be fixed AUTO.

If MJPEG's frame rate is set to 1(12(QXGA), 19(UXGA), 25(SXGA)), you have to choose the MPEG frame rate to 3 or 4 only.

(Note.2)

If H.264 profile is set to 0(Baseline), H.264 entropy coding must be fixed CAVLC.

[Example]

1. Getting current parameter values (when SNC-B2315, SNC-B5395, SNC-M300)

REQUEST

http://192.168.1.200/cgi-bin/basic.cgi?**msubmenu=video&action=view2**

RESPONSE

Content-type: text/plain\r\n
\r\n
m4_resolution:1\r\n
m4_frate:2\r\n
mpeg4_bitrate:9\r\n // Quality 10
mp_resolution:2\r\n
mp_frate:1\r\n
mjpeg_bitrate:1\r\n // Quality 2
audio_input_gain:9\r\n

2. Getting current parameter values (when SNC-B2331, SNC-B5368)

REQUEST

http://192.168.1.200/cgi-bin/basic.cgi?msubmenu=video&action=view2

RESPONSE

Content-type: text/plain\r\n
\r\n
brightness:65\r\n
contrast:35\r\n
mp_resolution:2\r\n
mjpeg_bitrate:1\r\n
mp_frate:1\r\n
h4_bit_control:0\r\n
h4_resolution:0\r\n
h264_bitrate:5\r\n
h4_frate:0\r\n
h4_compression:40\r\n
h4_priority:1\r\n
h4_gopsize:15\r\n
h4_deblock:1\r\n
h4_profile:0\r\n
h4_entropy_coding:0\r\n
h4_motion_estimation:0\r\n
m4_bit_control:0\r\n
m4_resolution:1\r\n
mpeg4_bitrate:9\r\n
m4_frate:2\r\n
m4_compression:40\r\n
m4_priority:1\r\n
m4_deinterlace:1\r\n (only SNC-B5368)
m4_gopsize:15\r\n
codec_select:1\r\n

3. Getting current parameter values (when SNC-B2335, SNC-B5399)

REQUEST

http://192.168.1.200/cgi-bin/basic.cgi?msubmenu=video&action=view2

RESPONSE

Content-type: text/plain\r\n
\r\n
brightness:65\r\n
contrast:35\r\n
mp_resolution:2\r\n
mjpeg_bitrate:1\r\n
mp_frate:1\r\n
h4_bit_control:0\r\n
h4_resolution:0\r\n
h264_bitrate:5\r\n
h4_frate:0\r\n
h4_compression:40\r\n
h4_priority:1\r\n
h4_gopsize:15\r\n
h4_deblock:1\r\n
h4_profile:0\r\n
h4_entropy_coding:0\r\n
h4_motion_estimation:0\r\n
m4_bit_control:0\r\n
m4_resolution:1\r\n
mpeg4_bitrate:9\r\n
m4_frate:2\r\n
m4_compression:40\r\n
m4_priority:1\r\n
m4_deinterlace:1\r\n
m4_gopsize:15\r\n
codec_select:1\r\n
audio_input_gain:9\r\n
audio_output_gain:9\r\n

4. Getting current parameter values (when SNC-C7478, SNC-C6225, SNC-C7225)

REQUEST

http://192.168.1.200/cgi-bin/basic.cgi?msubmenu=video&action=view2

RESPONSE

Content-type: text/plain\r\n
\r\n
brightness:50\r\n
contrast:50\r\n
m4_resolution:1\r\n
m4_frate:2\r\n
mpeg4_bitrate:9\r\n
mp_resolution:2\r\n
mp_frate:1\r\n
mjpeg_bitrate:1\r\n
m4_gopsize:7\r\n
m4_compression:40\r\n
m4_deinterlace:1\r\n
m4_priority:0\r\n
audio_input_gain:9\r\n
audio_output_gain:9\r\n

5. Setting the video format, resolution, frame rate, and bit rate of each codec
(It is possible to change the values individually)

REQUEST

http://192.168.1.200/cgi-bin/basic.cgi?**msubmenu=video&action=apply&m4_resolution=2&m4_frate=4**&
mpeg4_bitrate=9&mjpeg_bitrate=0&audio_input_gain=4

* MPEG4 quality will be set as 10 (the highest quality) and MJPEG quality will be set as 1 (the lowest quality).

RESPONSE

Content-type: text/plain\r\n
\r\n
OK\r\n

6. Setting the video format, resolution, frame rate, and bit rate of each codec
(It is possible to change the values individually)

REQUEST

http://192.168.1.200/cgi-bin/basic.cgi?**msubmenu=video&action=apply&h4_resolution=2&h4_frate=4&h264_bitrate=9&h4_gop=10&h4_deblock=1&h4_priority=1&h4_bit_control=0&codec_select=0**

RESPONSE

Content-type: text/plain\r\n

\r\n

OK\r\n

2.6 USER

[Description]

Inserts, modifies, and deletes a user ID and a password that let users access to IP CAMERA and sets user authority.

[Syntax]

http://<Device IP>/cgi-bin/basic.cgi?**msubmenu=user**&<parameter>=<value>...

[Parameters]

Parameter	Value	Description
action	view new modify delete apply	Inserts, modifies, and deletes a user ID, a Password, and a Level. view : get current settings and user list. new : insert a new user modify : modify an user delete : delete user(s) apply : Sets authentication enable/disable (Note.1)
command	ok	Sub parameters of new, modify, and delete ok : Saves a setting (Note.1)
auth	enable, disable	Sub parameters of apply enable : Must Log in when access to the camera. disable : Possibly access without Log in
index	0~10	Sub parameters of modify, and delete Index numbers of registered users ※ Possibly inputs up to 10 users. (without admin account) ※ index 0 can modify only Password / can not delete
name	String	User ID (Max 9 characters)
pass	String	User Password (Max 9 characters)

cpass	Same string with pass	Confirm User Password (Max 9 characters)
level	admin, operator, user	User Authority ※ Can not add and delete an admin authority.

(Note.1)

When changing and saving user parameters, IP Camera will restart to change device's user authentication setting.

[Example]

1. Getting current user settings

REQUEST

http://192.168.1.200/cgi-bin/basic.cgi?**msubmenu=user&action=view**

RESPONSE

HTTP/1.0 200 OK\r\n
Content-type: text/plain\r\n
\r\n
auth:enable\r\n
usercount:3\r\n // total registered user
0:root:4321:admin\r\n // index : id : password : level
1:andy:1111:operator\r\n
2:samsung:1234:user\r\n

2. Setting the authentication enable/disable

http://192.168.1.200/cgi-bin/basic.cgi?**msubmenu=user&action=apply**&auth=disable

3. Inserting a new user (Don't change parameter order)

http://192.168.1.200/cgi-bin/basic.cgi?**msubmenu=user&action=new&command=ok**&name=user2&pass=4321&cpass=4321&level=operator

4. Changing a registered user (Don't change parameter order)

< Modification of admin account >

http://192.168.1.200/cgi-bin/basic.cgi?**msubmenu=user&action=modify&command=ok&index=0&pass=1111&cpass=1111**

< Modification of operator or general account >

http://192.168.1.200/cgi-bin/basic.cgi?**msubmenu=user&action=modify&command=ok**&index=1&name=user2&pass=1111&cpass=1111&level=operator

5. Deleting registered users (Don't change parameter order)

http://192.168.1.200/cgi-bin/basic.cgi?**msubmenu=user&action=delete&command=ok**&index=3

RESPONSE

HTTP/1.0 200 OK\r\n
Content-type: text/plain\r\n
\r\n
OK\r\n

2.7 DIS

[Description]

Digital Image Stabilizer function can be set as Enable/Disable by this command.

[Note]

This function is supported only by IP Speed Domes

: SNC-C7478, SNC-C6225, SNC-C7225

[Syntax]

http://<Device IP>/cgi-bin/basic.cgi?**msubmenu=dis**&<parameter>=<value>...

[Parameters]

Parameter	Value	Description
action	view apply	view : get current system time settings apply : sets new settings to camera
dis_enable	0, 1	0 : DIS Disable 1 : DIS Enable
dis_strength	0, 1, 2	0 : Weak 1 : Medium 2 : Strong

[Example]

1. Getting current DIS setting

REQUEST

http://192.168.1.200/cgi-bin/basic.cgi?**msubmenu=dis**&action=view

RESPONSE

HTTP/1.0 200 OK\r\n
Content-type: text/plain\r\n
\r\n
dis_enable:0 \r\n
dis_strength:0\r\n

2. Changing DIS settings

REQUEST

http://192.168.1.200/cgi-bin/basic.cgi?**msubmenu=dis&action=apply**&dis_enable=1&dis_strength=1

RESPONSE

HTTP/1.0 200 OK\r\n
Content-type: text/plain\r\n
\r\n
OK\r\n

2.8 Date & Time

[Description]

Setting system date and time

[Syntax]

http://<Device IP>/cgi-bin/system.cgi?**msubmenu=date**&<parameter>=<value>...

[Parameters]

Parameter	Value	Description
action	view apply	view : get current system time settings apply : sets new settings to camera
ntpurl	IP Address	Sets a NTP server IP address
sync_type	0, 2	Sets the method to synchronize time of IP Camera. 0 : Synchronize time by NTP 2 : Synchronize time by manual (Note.1)
year	2000 ~ 2037	Sets the year of system time (Note.1)
mon	1 ~ 12	Sets month of system time (Note.1)
day	1 ~ 31	Sets day of month of system time (Note.1)
hour	0 ~ 23	Sets hour of system time (Note.1)
min	1 ~ 12	Sets minute of system time (Note.1)
sec	1 ~ 31	Sets second of system time (Note.1)

(Note.1)

If you set the system date and time by manual, you have to input full GMT time including year, month, day, hour, min and sec.

[Example]

1. Getting current system time settings

REQUEST

http://192.168.1.200/cgi-bin/system.cgi?**msubmenu=date**&action=view

RESPONSE

HTTP/1.0 200 OK\r\n
Content-type: text/plain\r\n
\r\n
Current System Time:2008-02-19 05:06:09 UTC \r\n
ntpurl:203.248.240.103\r\n
sync_type:0\r\n

2. Changing system time and date settings (Synchronize with NTP)

http://192.168.1.200/cgi-bin/system.cgi?**msubmenu=date&action=apply**&sync_type=0
&ntpurl=203.248.240.103

3. Changing system time and date settings by manual.
   This example shows system time is set as "1st Jan 2008 0:10:31 UTC".

http://192.168.1.200/cgi-bin/system.cgi?**msubmenu=date&action=apply**&sync_type=2&year=2008
&mon=1&day=1&hour=0&min=10&sec=31

RESPONSE

HTTP/1.0 200 OK\r\n
Content-type: text/plain\r\n
\r\n
OK\r\n

2.9 System Log Data

[Description]

Getting log information of current system.

Log consists of date/time, description and user's IP.

[Syntax]

http://<Device IP>/cgi-bin/system.cgi?**msubmenu=log&action=view**

[Example]

REQUEST

http://192.168.1.200/cgi-bin/system.cgi?**msubmenu=log&action=view**

RESPONSE

HTTP/1.0 200 OK\r\n
Content-type: text/plain\r\n
\r\n
[2008-08-16 08:11:40 UTC] System started\r\n
[2008-08-16 09:58:08 UTC] User login(IP:168.219.40.31)\r\n
[2008-08-16 10:08:19 UTC] System time changed (IP:168.219.40.31)\r\n
[2008-08-16 11:06:33 UTC] Video param. changed(IP:168.219.40.31)\r\n

2.10 System Reset

[Description]

Restarts IP Camera or Return parameters to factory value

[Syntax]

http://<Device IP>/cgi-bin/system.cgi?**msubmenu= reset**&<parameter>=<value>...

[Parameters]

Parameter	Value	Description
action	reset	Sets restart mode. Restore IP Camera's setting to factory default, and then restarts or just restart.
status	ok on off	When restoring IP Camera's settings to factory default, determines whether the network related setting is included or not. ok : just restart on : Restores every setting to factory default. off: Restores every setting except network related settings to factory's default value.

[Example]

1. Restarting the IP Camera without any change

http://192.168.1.200/cgi-bin/system.cgi?**msubmenu=reset&action=reset**&status=ok

2. Restoring the IP camera's all parameters to factory default value

http://192.168.1.200/cgi-bin/system.cgi?**msubmenu=reset&action=reset**&status=on

3. Restoring the IP Camera's all parameters to factory default except network related settings

http://192.168.1.200/cgi-bin/system.cgi?**msubmenu=reset&action=reset**&status=off

RESPONSE

HTTP/1.0 200 OK\r\n
Content-type: text/plain\r\n
\r\n
OK\r\n

2.11 Camera Naming

[Description]

Setting camera name.

[Note]

This function is supported only by IP Speed Domes

: SNC-C7478, SNC-C6225, SNC-C7225

[Syntax]

http://<Device IP>/cgi-bin/layout.cgi?**msubmenu=overlaytext**&<parameter>=<value>...

[Parameters]

Parameter	Value	Description
action	view apply	view : get current camera name apply : sets new camera name
text	STRING	Camera Name (Max 40 characters)

[Example]

1. Getting current camera name setting

REQUEST

http://192.168.1.200/cgi-bin/**layout.cgi?msubmenu=overlaytext&action=view**

RESPONSE

HTTP/1.0 200 OK\r\n
Content-type: text/plain\r\n
\r\n
text:MyCamera \r\n

2. Changing camera name

http://192.168.1.200/cgi-bin/**layout.cgi?msubmenu=overlaytext&action=apply**&text=camera2

RESPONSE

HTTP/1.0 200 OK\r\n
Content-type: text/plain\r\n
\r\n
OK\r\n

2.12 Camera Adjustment

[Description]

Set the configuration of camera parameter of system.

[Note]

This function is supported only by SNC-B2315, SNC-M300.

Other models can support Camera Adjustment by using the OSD menu.

[Syntax]

http://<Device IP>/cgi-bin/system.cgi?**msubmenu=camera**&<parameter>=<value>...

[Parameters]

SNC-B2315

Parameter	Value	Description
action	view change apply	view : gets current setting values change : saves new settings to temporary memory and does not sets new settings to camera apply : sets new settings to camera
shutter	0 ~ 20	Sets shutter speed of camera * Do not set 1~7 on WDR or ELC in IRIS mode 0 : sets the speed automatically 1 : sets the speed to 1/100 2 : sets the speed to 1/250 3 : sets the speed to 1/500 4 : sets the speed to 1/1000 5 : sets the speed to 1/2000 6 : sets the speed to 1/4000 7 : sets the speed to 1/10000 8 : Auto x 2 9 : Auto x 4 10 : Auto x 6 11 : Auto x 8 12 : Auto x 12 13 : Auto x 16

		14 : Auto x 24 15 : Auto x 32 16 : Auto x 48 17 : Auto x 64 18 : Auto x 96 19 : Auto x 128 20 : Auto x 256
iris	0, 1, 2	Sets iris of camera 0 : WDR 1 : ALC 2 : ELC
blc	0 ~ 5	Sets BLC of camera * Do not set BLC on WDR in IRIS mode 0 : Off 1 : Bottom 2 : Top 3 : Left 4 : Right 5 : Center
agc	0, 1, 2	Sets AGC of camera 0 : Off 1 : Low 2 : High
wb	0 ~ 5	Sets the white balance of camera * Do not set wb on BW in the Day & Night mode 0 : ATW1 1 : ATW2 2 : AWC 3 : 3200K 4 : 5600K 5 : N/A
bralc	0 ~ 8	Sets the brightness level for ALC
brelc	0 ~ 8	Sets the brightness level for ELC
brwdr1	0 ~ 8	Sets the brightness level for WDR
brwdr2	0 ~ 8	Sets the shutter speed- WDR only

daynight	0, 1, 2, 3	Sets the Day & Night mode of camera 0 : Color 1 : Black & White 2 : Auto 3 : Ext.
ylevel	0 ~ 8	Sets the analog sync level of camera
detail	0 ~ 3	Sets edge detail of camera
clevel	0 ~ 8	Sets the analog burst level of camera
hflip	0, 1	Flip the image to horizontal direction 0 : does not flip the image 1 : reverse the image to horizontal direction
vflip	0, 1	Flip the image to vertical direction 0 : does not flip the image 1 : reverse the image to vertical direction

SNC-M300

Parameter	Value	Description
action	view change apply	view : gets current setting values change : saves new settings to temporary memory and does not sets new settings to camera apply : sets new settings to camera
wb	0 ~ 5	Sets the white balance of camera * Do not set wb when imagetype is set to Black & White. 0 : Auto 1 : Daylight 2 : Tungsten 3 : Office Fluorescent 4 : Fluorescent 5 : Horizon
detail	0 ~ 9	Sets edge detail of camera
imagetype	0, 1	Sets the image type of camera 0 : Color 1 : Black & White
exposuremode	0, 1	Sets exposure mode of camera

		0 : Auto 1 : Manual
manualexposure	0 ~ 4	Sets the exposure value of camera This is available when the exposure mode is 'Manual'.
adaptivelight	0, 1, 2	Sets adaptive light mode of camera 0 : Off 1 : Normal 2 : Backlit
acfrequency	0, 1	Sets power frequency 0 : 50Hz 1 : 60Hz
saturation	0 ~ 9	Sets the saturation value of camera
hflip	0, 1	Flip the image to horizontal direction 0 : does not flip the image 1 : reverse the image to horizontal direction
vflip	0, 1	Flip the image to vertical direction 0 : does not flip the image 1 : reverse the image to vertical direction

[Example]

1. Getting current settings

REQUEST

http://192.168.1.200/cgi-bin/system.cgi?**msubmenu=camera**&action=view

RESPONSE (SNC-B2315)

HTTP/1.0 200 OK\r\n
Content-type: text/plain\r\n
\r\n
shutter:3\r\n
iris:0\r\n
blc:0\r\n
agc:1\r\n
wb:1\r\n
daynight:0\r\n

bralc:4\r\n
brelc:4\r\n
brwdr1:4\r\n
brwdr2:4\r\n
ylevel:0\r\n
clevel:0\r\n
detail:1\r\n
hflip:0\r\n
vflip:0\r\n

RESPONSE (SNC-M300)

HTTP/1.0 200 OK\r\n
Content-type: text/plain\r\n
\r\n
hflip:0\r\n
vflip:0\r\n
imagetype:0\r\n
wb:0\r\n
exposuremode:0\r\n
manualexposure:4\r\n
adaptivelight:0\r\n
acfrequency:1\r\n
saturation:4\r\n
detail:4\r\n

2. Setting camera values **(It is possible to change the values individually)**

REQUEST

http://192.168.1.200/cgi-bin/system.cgi?**msubmenu=camera&action=apply&vflip=1&hflip=1**

RESPONSE

HTTP/1.0 200 OK\r\n
Content-type: text/plain\r\n
\r\n
OK\r\n

2.13 HTTPS

[Description]

HTTPS function is the version where HTTP securities are strengthened

[Note]

The models which support this function are

: SNC-C7478, SNC-C6225, SNC-C7225, SNC-B2331, SNC-B5368, SNC-B2335, SNC-B5399

[Syntax]

http://<Device IP>/cgi-bin/system.cgi?**msubmenu=https&<parameter>=<value>...**

[Parameters]

Parameter	Value	Description
action	view apply	view : gets current setting values apply : sets new settings to https
connection_policy	0, 1, 2	0 : HTTP 1 : HTTPS(Secure connection mode using a unique certificate) 2 : HTTPS(Secure connection mode using the public certificate) (Note.1)
installed_certificate	0, 1	(Note.2)
installed_certificate_name	STRING	(Note.2)

(Note.1)

Can not change the value of 'connection_policy' parameter at 2.

(Note.2)

Don't correct value.

If the value of installed_certificate is 1, print the value of installed_certificate_name

[Example]

1. Restarting the IP Camera without any change

REQUEST

http://192.168.1.200/cgi-bin/system.cgi?**msubmenu=https&**action=view

RESPONSE

HTTP/1.0 200 OK\r\n
Content-type: text/plain\r\n
\r\n
connection_policy:0\r\n
installed_certificate:0\r\n

2.14 IP Filtering

[Description]

Inserts, modifies, and deletes a filtering IP/mask that let user access to IP CAMERA

[Note]

The models which support this function are

: SNC-B2335, SNC-B5399

[Syntax]

http://<Device IP>/cgi-bin/basic.cgi?**msubmenu=ipfilter**&<parameter>=<value>...

[Parameters]

Parameter	Value	Description
action	view new modify delete apply	view : get current settings and filtering list. new : insert a new IP/mask modify : modify an IP/mask delete : delete an IP/mask apply : Sets policy permission/refusal
base_policy	0, 1	Sub parameters of apply Set filtering policy 0 : Permission 1 : Refusal
index	0~10	Sub parameters of modify, and delete Index numbers of registered IP/mask ※ Possibly inputs up to 10 IP/mask
ip	String	Permission/Refusal IP
mask	8 ~ 32	Mask

[Example]

1. Getting current filtering settings

REQUEST

http://192.168.1.200/cgi-bin/basic.cgi?**msubmenu=ipfilter&action=view**

RESPONSE

Content-type: text/plain\r\n
\r\n
base_policy:0\r\n
0:192.168.152.35/32\r\n
1:192.168.120.88/24\r\n
2:192.168.142.100/16\r\n

2. Setting the base policy permission/refusal

http://192.168.1.200/cgi-bin/basic.cgi?**msubmenu=ipfilter&action=apply**&base_policy=0

3. Inserting a new filtering IP/mask

http://192.168.1.200/cgi-bin/basic.cgi?**msubmenu=ipfilter &action=new&**base_policy=0&ip=192.168.1.100&mask=32

4. Changing a registered IP/mask

http://192.168.1.200/cgi-bin/basic.cgi?**msubmenu=ipfilter&action=modify**&base_policy=0&index=1&ip=192.168.1.150&mask=31

5. Deleting registered IP/mask

http://192.168.1.200/cgi-bin/basic.cgi?**msubmenu=ipfilter&action=delete&**base_policy=0&index=2

RESPONSE

Content-type: text/plain\r\n
\r\n
OK\r\n

2.15 Event Control

2.15.1 Alarm Input Detection via HTTP

[Description]

Getting current alarm input status (active or inactive)

The status can be checked in every 1 sec.

[Note]

SNC-C7478 has eight alarm input device ports.

[Syntax]

http://<Device IP>/cgi-bin/io?**submenu=input**&<parameter>=<value>...

[Example]

1. Check the alarm input status

REQUEST

http://192.168.1.200/cgi-bin/io?**submenu=input&action=check**

RESPONSE

Content-type: text/plain\r\n
\r\n
IO00*:<char>* \r\n
IO01*:<char>* \r\n

<char> : 'H' when the alarm input is active and 'L' when it is inactive

2. Monitoring the alarm input status continuously

REQUEST

http://192.168.1.200/cgi-bin/io?**submenu=input&action=monitor**

RESPONSE

```
--SamsungVSS\r\n
Content-type: text/plain\r\n
\r\n
IO00:<char> \r\n
IO01:<char> \r\n
\r\n
--SamsungVSS\r\n
Content-type: text/plain\r\n
\r\n
IO00:<char> \r\n
IO01:<char> \r\n
\r\n
--SamsungVSS\r\n
Content-type: text/plain\r\n
\r\n
IO00:<char> \r\n
IO01:<char> \r\n
\r\n
```

<char> : 'H' when the alarm input is active and 'L' when it is inactive

2.15.2 Relay Output Control via HTTP

[Description]

Control the relay out status to active or inactive manually.

SNC-B2315, SNC-B5395, SNC-M300 and SNC-B2331/SNC-B5368/SNC-2335/SNC-5399 have two relay output device ports.

SNC-C7478 has four relay output device ports.

SNC-C6225 and SNC-C7225 have one relay output device ports.

[Note]

The model which supports 'H', 'L' value (in 'action' parameter)

: SNC-C7478, SNC-C6225, SNC-C7225

[Syntax]

http://<Device IP>/cgi-bin/io?**submenu=output**&<parameter>=<value>...

[Parameters]

Parameter	Value	Description
action	<id>:<a>[<duration>]	<id> : alarm out number : 1 or 2 (SNC-C7478, up to 4) (SNC-C6225, SNC-C7225 up to 1) <a> : action : / = active, \ = inactive (or <a> : action : H = active, L = inactive) <duration> : duration in seconds. User can choose one of them 3, 5, 10, 20, 30 or empty. (Note.1)

(Note.1)

If <duration> is empty, the camera handles it continuous.

[Example]

1. Setting alarm output 1 to active during 30 seconds.

REQUEST

http://192.168.1.200/cgi-bin/io?**submenu=output&action=1:/30**

RESPONSE

Content-type: text/plain\r\n
\r\n
OK\r\n

2. Setting alarm output 1 to active continuously.

REQUEST

http://192.168.1.200/cgi-bin/io?**submenu=output&action=1:/**

RESPONSE

Content-type: text/plain\r\n
\r\n
OK\r\n

2.15.3 Motion Detection via HTTP

[Description]

Getting current motion status (active or inactive)

The status can be checked in every 1 sec.

[Syntax]

http://<Device IP>/cgi-bin/motion?**submenu=motion**&<parameter>=<value>...

[Example]

1. Check the motion status

REQUEST

http://192.168.1.200/cgi-bin/motion?**submenu=motion&action=check**

RESPONSE

Content-type: text/plain\r\n
\r\n
motion*:<char>* \r\n

<char> : 'H' when the motion is active and 'L' when it is inactive

2. Monitoring the motion status continuously

REQUEST

http://192.168.1.200/cgi-bin/motion?**submenu=motion&action=monitor**

RESPONSE

--SamsungVSS
Content-type: text/plain\r\n
\r\n
motion:<*char*> \r\n
\r\n
--SamsungVSS
Content-type: text/plain\r\n
\r\n
motion:<*char*> \r\n
\r\n
--SamsungVSS
Content-type: text/plain\r\n
\r\n
motion:<*char*> \r\n

<char> : 'H' when the motion is active and 'L' when it is inactive

2.15.4 FTP / SMTP Transferring

[Description]

Sets FTP, SMTP related settings for image transmission when IP Camera produces alarm event.

[Note]

The model which don't supports 'SMTP_ssl_enable' parameter and 'SMTP_ssl_port' parameter
: SNC-B2315, SNC-B5395, SNC-M300

[Syntax]

http://<Device IP>/cgi-bin/event.cgi?**msubmenu=transfer**&<parameter>=<value>...

[Parameters]

Parameter	Value	Description
action	view ftptest smtptest	view : gets current settings ftptest : Test FTP transfer and save new settings smtptest : Test SMTP transfer and save new settings
FTPTestOK	0, 1	indicate FTP transfer Test result

		0 : FTP transfer Test is failure or needed 1 : FTP transfer Test is completed
FTP_mode	0, 1	Sets Passive Mode transmission 0 : Passive Mode 1 : Active Mode
FTP_Addr	IP Address	Sets a FTP server address
FTP_Path	STRING	Sets a directory path of a FTP server to send an image (Max 60 characters) ex) /alarm/image
FTP_port	1 ~ 65535	Sets a port number of a FTP server to connect. Default value : 21
FTP_id	STRING	Sets a connection ID of a FTP server. (Max 30 characters)
FTP_pass	STRING	Sets a connection Password of a FTP server. (Max 30 characters)
SMTPTestOK	0, 1	indicate SMTP transfer Test result 0 : SMTP transfer Test is failure or needed 1 : SMTP transfer Test is completed
SMTP_Addr	STRING	Sets a domain address of a SMTP server. (Max 60 characters) ex)smtp.samsung.com
SMTP_id	STRING	Sets a connection ID of a SMTP server (Max 30 characters)
SMTP_pass	STRING	Sets a connection Password of a SMTP server (Max 30 characters)
SMTP_sender	STRING	Sets a mail address of E-mail sender (Max 60 characters)
SMTP_Dest	STRING	Sets a mail address to send an e-mail including an alarm image (Max 60 characters)
SMTP_Title	STRING	Sets a title of an e-mail to send (Max 60 characters)
SMTP_Msg	STRING	Sets body text of an e-mail to send (Max 120 characters)
SMTP_port	1 ~ 65535	

SMTP_ssl_enable	0, 1	0 : Disable 1 : Enable
SMTP_ssl_port	1 ~ 65535	Default value : 465

[Example]

1. Getting current settings

REQUEST

http://192.168.1.200/cgi-bin/event.cgi?**msubmenu=transfer**&action=view

RESPONSE

Content-type: text/plain\r\n
\r\n
FTPTestOK:1\r\n
FTP_Addr:10.240.56.72\r\n
FTP_mode:1\r\n
FTP_port:21\r\n
FTP_Path:/alarm\r\n
FTP_id:user\r\n
FTP_pass:password\r\n
SMTPTestOK:0\r\n
SMTP_Addr:smtp.yahoo.com\r\n
SMTP_ssl_enable:0
SMTP_port:25\r\n
SMTP_ssl_port:465
SMTP_id:user\r\n
SMTP_pass:password\r\n
SMTP_sender:sender@yahoo.com\r\n
SMTP_Dest:receiver@yahoo.com\r\n
SMTP_Title:alarm mail\r\n
SMTP_Msg:alarm message\r\n

2. Setting FTP server values and test

REQUEST

http://192.168.1.200/cgi-bin/event.cgi?**msubmenu=transfer&action=ftptest**&FTP_mode=0
&FTP_Addr=10.240.56.72&FTP_Path=/test&FTP_port=21&FTP_id=userid&FTP_pass=userpass

RESPONSE

Content-type: text/plain\r\n
\r\n
FTP test ok\r\n

<Fail Return>

Content-type: text/plain\r\n
\r\n
 # Error: FTP connection fail\r\n

 # Error: FTP log in fail\r\n

 # Error: FTP upload path error\r\n

 # Error: FTP send fail\r\n

 # Error: FTP unknown error\r\n

3. Setting SMTP values and test

REQUEST

http://192.168.1.200/cgi-bin/event.cgi?**msubmenu=transfer&action=smtptest**
&SMTP_Addr=smtp.yahoo.com&SMTP_port=25&SMTP_id=userid&SMTP_pass=userpass
&SMTP_sender=sender@yahoo.com&SMTP_Dest=receiver@yahoo.com
&SMTP_Title=alarm massage&SMTP_Msg= alarm event is occurred

RESPONSE

Content-type: text/plain\r\n
\r\n
SMTP test ok\r\n

<Fail Return>

Content-type: text/plain\r\n
\r\n
 # Error: SMTP connection fail\r\n

 # Error: SMTP log in fail\r\n

 # Error: SMTP message send fail\r\n

 # Error: SMTP image send fail\r\n

 # Error: SMTP unknown error\r\n

2.15.5 SD Memory Recording Setup

[Description]

Getting the current SD memory storage information like total size and free size

Setting SD memory recording option such as sending capacity warning by e-mail or overwrite

[Note]

The model which don't support : SNC-B2331, SNC-B5368

[Syntax]

http://<Device IP>/cgi-bin/event.cgi?**msubmenu=record**&<parameter>=<value>...

[Parameters]

Parameter	Value	Description
action	view change apply	view : gets current setting values change : saves new settings to temporary memory and does not sets new settings to camera apply : sets new settings to camera
del_option	0, 1, 2, 3	Sets auto delete option for SD memory data 0 : None 1 : 1 week 2 : 1 month. 3 : 1 year.
warning	0, 1	Sets Capacity warning by e-mail option (Note 1) 0 : Off 1 : On
overwrite	0, 1	Sets overwrite option(Note 1) 0 : Off 1 : On

(Note.1)

You can't set the Warning option and overwrite option to 'On' at the same time.

[Example]

1. Getting current settings

REQUEST

http://192.168.1.200/cgi-bin/event.cgi?**msubmenu=record**&action=view

RESPONSE

Content-type: text/plain\r\n
\r\n
Storage information: Used 1925MB(98%) / Total 1946MB\r\n
warning:1\r\n
del_option:0\r\n
overwrite:0\r\n

2. Setting record option

REQUEST

http://192.168.1.200/cgi-bin/event.cgi?**msubmenu=record&action=apply**&del_option=1&overwrite=1
&warning=0

RESPONSE

Content-type: text/plain\r\n
\r\n
Ok\r\n

2.15.6 Alarm Image Configuration

[Description]

Setting image transmission related parameters when camera produces alarm event.

[Note]

The model which don't support 'record' parameter : SNC-B2331, SNC-B5368

[Syntax]

http://<Device IP>/cgi-bin/event.cgi?**msubmenu=image**&<parameter>=<value>...

[Parameters]

Parameter	Value	Description
action	view change apply	view : gets current setting values change : saves new settings to temporary memory and does not sets new settings to camera apply : sets new settings to camera
TransMode	0, 1	Sets image transmission mode when alarm produces 0 : FTP transfer 1 : SMTP transfer
record	0, 1	Sets record images in SD Card or not 0 : SD Record off 1 : SD Record on
filename	STRING	Inputs a file name of an image to send. (Max 15 characters)
Trans_Num	1, 2, 3, 5	Sets the numbers of alarm image transmission per a second. (Note. 1)
Pre_Dur	1,3,5,10,15,30	Sets pre-alarm duration (second) (Note.2)
Post_Dur	1,3,5,10,15,30	Sets post-alarm duration (second) (Note.2)

(Note.1)

SNC-M300 is just available to select 1 and 2

(Note.2)

SNC-M300 is just available to select 1 and 3.

SNC-B2315, SNC-B5395 and SNC-C7478 are just available to select 5, 10, 15, and 30.

SNC-M300

* If 'Trans_Num' is 1, you can set only Pre_Dur(1, 3), Post_Dur(1, 3).
* If 'Trans_Num' is 2, you can set only Pre_Dur(1), Post_Dur(1).

SNC-B2315, SNC-B5395, SNC-B2335, SNC-B5399, SNC-C7478, SNC-C6225, SNC-C7225

* If 'Trans_Num' is 1, you can set only Pre_Dur(5,10,15,30), Post_Dur(5,10,15,30).
* If 'Trans_Num' is 2, you can set only Pre_Dur(5,10,15), Post_Dur(5,10,15).
* If 'Trans_Num' is 3, you can set only Pre_Dur(5,10), Post_Dur(5,10).
* If 'Trans_Num' is 5, you can set only Pre_Dur(5), Post_Dur(5).

[Example]

1. Getting current settings

REQUEST

http://192.168.1.200/cgi-bin/event.cgi?**msubmenu=image**&action=view

RESPONSE

Content-type: text/plain\r\n
\r\n
TransMode:1\r\n
record:1\r\n
filename:AlarmImage\r\n
Trans_Num:1\r\n
Pre_Dur:30\r\n
Post_Dur:30\r\n

2. Setting alarm image values **(It is possible to change the values individually)**

REQUEST

http://192.168.1.200/cgi-bin/event.cgi?**msubmenu=image&action=change**&TransMode=0&record=1&filename=alarmimage

http://192.168.1.200/cgi-bin/event.cgi?**msubmenu=image&action=change**&TransMode=1&Trans_Num=1&Pre_Dur=30&Post_Dur=30

http://192.168.1.200/cgi-bin/event.cgi?**msubmenu=image&action=apply**

RESPONSE

Content-type: text/plain\r\n \r\n **OK**\r\n

2.15.7 Alarm Input Port Configuration

[Description]

Setting Alarm Inputs actions.

[Note]

SNC-C7478 has eight alarm inputs.

The only model which support “3 and 4” value (in ‘output_dev’ parameter) : SNC-C7478

The only model which support “32767” value (in ‘output_dev’ parameter)

: SNC-B2331, SNC-B5368, SNC-B2335, SNC-B5399

The model which support “camera_action” and “action_index” parameter

: SNC-C7478, SNC-C6225, SNC-C7225

[Syntax]

http://<Device IP>/cgi-bin/event.cgi?**msubmenu=input<no>**&<parameter>=<value>...

<no> : 1, 2 (SNC-B2315, SNC-B5395, SNC-M300, SNC-B2331, SNC-B5368, SNC-B2335, SNC-B5399, SNC-C6225, SNC-C7225)

<no> : 1, 2, 3, 4, 5, 6, 7, 8 (SNC-C7478 only)

[Parameters]

Parameter	Value	Description
action	view change apply	view : gets current setting values change : saves new settings to temporary memory and does not sets new settings to camera apply : sets new settings to camera
device	0, 1, 2	Sets input device type. 0 : Off 1 : NO(Normal Open)

		2 : NC(Normal Close)
active	always schedule	Sets activation mode to do specified action when alarm is occurred When alarm occurred, always : The specified action will be done always. schedule : The specified action will be done, if the time is within scheduled period.
SUN, MON, TUE, WED THU, FRI, SAT	0, 1	Sets the day for alarm activation 0 : disable 1 : enable
shour	0 ~ 23	Sets starting hour for alarm activation
smin	0 ~ 59	Sets starting minute for alarm activation
ehour	0 ~ 23	Sets ending hour for alarm activation
emin	0 ~ 59	Sets ending minute for alarm activation
output_dev	0, 1, 2, 3, 4, 32767	Set output devices to act when alarm happens. 0 : None 1 : Output 1 2 : Output 2 3 : Output 3 4 : Output 4 32767 : All
output_dur	0 ~ 5	Sets output device's activation durations. 0 : 3 seconds 1 : 5 seconds 2 : 10 seconds 3 : 20 seconds 4 : 30 seconds 5 : Continue
trans_mode	0, 1	Sets whether to transmit images when alarm happens. 0 : never transmit 1 : transmit
camera_action	0 ~ 5	Camera Action mode when alarm occurred. (Note.1) 0 : None 1 : Preset

<table>
<tr><td></td><td></td><td>2 : Auto Pan
3 : Pattern
4 : Scan
5 : Home Position</td></tr>
<tr><td>action_index</td><td>1~ 128</td><td>Camera Action range(index) (Note.1)

<table><tr><td>camera_action</td><td>action_index</td></tr><tr><td>None or Home Position</td><td>-</td></tr><tr><td>Preset</td><td>1 ~ 128, (except 95)</td></tr><tr><td>Auto Pan</td><td>1 ~ 8</td></tr><tr><td>Pattern</td><td>1 ~ 4</td></tr><tr><td>Scan</td><td>1 ~ 8</td></tr></table></td></tr>
</table>

(Note.1)

* camera_action and action_index should be set together.
  However, if camera_action is 0 or 5, it is possible to set camera_action without action_index parameter.
* If camera_action is set as 1, camera_index 95 can not be used because this number is reserved for other usage.

[Example]

1. Getting current settings

REQUEST

http://192.168.1.200/cgi-bin/event.cgi?**msubmenu=input1&action=view**

RESPONSE

Content-type: text/plain\r\n
\r\n
device:1\r\n
active:always\r\n
SUN:0\r\n
MON:1\r\n
TUE:1\r\n
WED:0\r\n
THU:1\r\n

FRI:0\r\n
SAT:1\r\n
shour:18\r\n
smin:0\r\n
ehour:10\r\n
emin:59\r\n
output_dev:1\r\n
output_dur:1\r\n
trans_mode:1\r\n
camera_action:3\r\n
action_index:1\r\n

2. Setting alarm input values

REQUEST

http://192.168.1.200/cgi-bin/event.cgi?**msubmenu=input1&action=apply&device=1&active=schedule&SUN=1&output_dev=1&output_dur=1&trans_mode=0**

RESPONSE

Content-type: text/plain\r\n
\r\n
OK\r\n

2.15.8 Motion Detection Configuration

[Description]

Setting motion detection parameters

[Note]

The model which don't support this function : SNC-B2335, SNC-B5399

The only model which support "3 and 4" value (in 'output_dev' parameter) : SNC-C7478

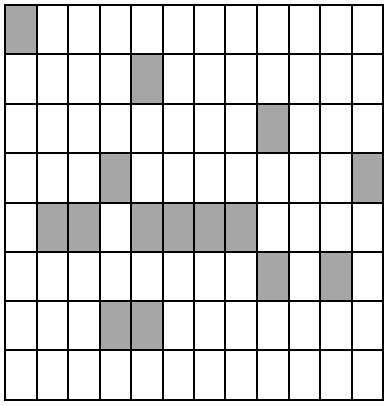
The only model which support "32767" value (in 'output_dev' parameter) : SNC-B2331, SNC-B5368

[Syntax]

http://<Device IP>/cgi-bin/event.cgi?**msubmenu=motion**&<parameter>=<value>...

[Parameters]

Parameter	Value	Description
action	view change apply	view : gets current setting values change : saves new settings to temporary memory and does not sets new settings to camera apply : sets new settings to camera
device	0, 1	Sets motion detection enable/disable 0 : disable 1 : enable
active	always schedule	Sets activation mode to do specified action when motion event is occurred When motion occurred, always : The specified action will be done always. schedule : The specified action will be done, if the time is within scheduled period.
SUN, MON, TUE, WED THU, FRI, SAT	0, 1	Sets the day for motion detection activation 0 : disable 1 : enable
shour	0 ~ 23	Sets starting hour for motion detection activation
smin	0 ~ 59	Sets starting minute for motion detection activation
ehour	0 ~ 23	Sets ending hour for motion detection activation
emin	0 ~ 59	Sets ending minute for motion detection activation
output_dev	0, 1, 2, 3, 4, 32767	Set output devices to act when motion happens. 0 : None 1 : Output 1 2 : Output 2 3 : Output 3 4 : Output 4 32767 : All
output_dur	0 ~ 5	Sets output device's activation durations. 0 : 3 seconds

		1 : 5 seconds 2 : 10 seconds 3 : 20 seconds 4 : 30 seconds 5 : Continue
trans_mode	0, 1	Sets whether to transmit images when motion happens. 0 : never transmit 1 : transmit
sens	0, 1, 2	Sets sensitivity level of motion detection 0 : High 1 : Medium 2 : Low
ma1 ~ ma8	0000 ~ FFF0	Sets motion detection blocks of a row in area to ON or OFF. The motion area is divided by 12x8 blocks. ma1 is the first row of area and ma8 is the 8th row of area. <example>  ma1 = 8000 ma2 = 0800 ma3 = 0080 ma4 = 1010 ma5 = 6F00 ma6 = 00A0 ma7 = 1800 ma8 = 0000

[Example]

1. Getting current motion detection parameters

REQUEST

http://192.168.1.200/cgi-bin/event.cgi?**msubmenu=motion&action=view**

RESPONSE

Content-type: text/plain\r\n
\r\n
device:1\r\n
sens:2\r\n
active:always\r\n
SUN:0\r\n
MON:1\r\n
TUE:1\r\n
WED:0\r\n
THU:1\r\n
FRI:0\r\n
SAT:1\r\n
shour:11\r\n
smin:0\r\n
ehour:19\r\n
emin:59\r\n
output_dev:1\r\n
output_dur:1\r\n
trans_mode:1\r\n
ma1:0x8000\r\n
ma2:0x0800\r\n
ma3:0x0080\r\n
ma4:0x1010\r\n
ma5:0x6F00\r\n
ma6:0x00A0\r\n
ma7:0x1800\r\n
ma8:0x0000\r\n

2. Setting the motion detection parameters

REQUEST

http://192.168.1.200/cgi-bin/event.cgi?**msubmenu=motion&action=apply&device=1&active=schedule&sens=2&ma1=8000&ma2=0800**

RESPONSE

Content-type: text/plain\r\n \r\n **OK**\r\n

2.15.9 Schedule Transferring Configuration

[Description]

Setting parameters for scheduled image transmission

[Syntax]

http://<Device IP>/cgi-bin/event.cgi?**msubmenu=schedule**&<parameter>=<value>...

[Parameters]

Parameter	Value	Description
action	view change apply	view : gets current setting values change : saves new settings to temporary memory and does not sets new settings to camera apply : sets new settings to camera
device	0, 1	Sets schedule transmission function enable/disable 0 : disable 1 : enable
sched_interval	5, 15, 30, 45, 60	Sets schedule transmission time interval
sched_unit	0, 1	Sets a unit for schedule transmission time interval 0 : Second unit 1 : Minute unit
active	always schedule	Sets activation mode for schedule transferring. always : Schedule Transferring will act always. schedule : Schedule Transferring will act, if the time is within scheduled period.
SUN, MON, TUE, WED THU, FRI, SAT	0, 1	Sets the day for Schedule Transferring activation 0 : disable 1 : enable

shour	0 ~ 23	Sets starting hour for Schedule Transferring activation
smin	0 ~ 59	Sets starting minute for Schedule Transferring activation
ehour	0 ~ 23	Sets ending hour for Schedule Transferring activation
emin	0 ~ 59	Sets ending minute for Schedule Transferring activation

[Example]

1. Getting current settings

REQUEST

http://192.168.1.200/cgi-bin/event.cgi?**msubmenu=schedule&action=view**

RESPONSE

Content-type: text/plain\r\n
\r\n
device:1\r\n
sched_interval:15\r\n
sched_unit:0\r\n
active:schedule\r\n
SUN:0\r\n
MON:1\r\n
TUE:0\r\n
WED:1\r\n
THU:0\r\n
FRI:1\r\n
SAT:0\r\n
shour:10\r\n
smin:0\r\n
ehour:16\r\n
emin:59\r\n

2. Setting schedule transferring values **(It is possible to change the values individually)**

REQUEST

http://192.168.1.200/cgi-bin/event.cgi?**msubmenu=schedule**&action=apply&device=1&sched_interval=5&sched_unit=1&active=schedule&SUN=1&MON=0&TUE=1&WED=0&THU=1&FRI=0&SAT=1&shour=0&smin=0&ehour=23&emin=59

RESPONSE

Content-type: text/plain\r\n
\r\n
OK\r\n

2.15.10 Intelligent Video Analysis Configuration

[Description]

Setting video analysis detection parameters

[Note]

The models which support this function are
: SNC-B2335, SNC-5399

[Syntax]

http://<Device IP>/cgi-bin/event.cgi?**msubmenu=analysis**&<parameter>=<value>...

[Parameters]

Parameter	Value	Description
action	view apply	view : gets current setting values apply : sets new settings to camera
detection	0, 1	Sets video analysis detection enable/disable 0 : disable 1 : enable
overlay	0, 1	Sets video analysis rule enable/disable 0 : disable 1 : enable
sens	1, 2, 3, 4, 5	Sets sensitivity level of video analysis detection 1 : Low

		3 : Medium 5 : High
active	always schedule	Sets activation mode to do specified action when video analysis event is occurred When video analysis occurred, always : The specified action will be done always. schedule : The specified action will be done, if the time is within scheduled period.
SUN, MON, TUE, WED THU, FRI, SAT	0, 1	Sets the day for video analysis detection activation 0 : disable 1 : enable
shour	0 ~ 23	Sets starting hour for video analysis detection activation
smin	0 ~ 59	Sets starting minute for video analysis detection activation
ehour	0 ~ 23	Sets ending hour for video analysis detection activation
emin	0 ~ 59	Sets ending minute for video analysis detection activation
output_dev	0, 1, 2, 32767	Set output devices to act when video analysis event happens. 0 : None 1 : Output 1 2 : Output 2 32767 : All
output_dur	0 ~ 5	Sets output device's activation durations. 0 : 3 seconds 1 : 5 seconds 2 : 10 seconds 3 : 20 seconds 4 : 30 seconds 5 : Continue
trans_mode	0, 1	Sets whether to transmit images when video analysis event happens. 0 : never transmit 1 : transmit

entire_appearing entire_disappearing entire_scene_change	0, 1	Set entire area rule 0: Disable 1: Enable
object_min_width object_min_height	6, 10, 23, 36, 50	Set blob minimum width, height (5step)
object_max_width	60, 80, 120, 200, 320	Set blob maximum width (5step)
object_max_height	60, 80, 110, 160, 240	Set blob maximum height (5step)

[Example]

1. Getting current video analysis detection parameters

REQUEST

http://192.168.1.200/cgi-bin/event.cgi?**msubmenu=analysis&action=view**

RESPONSE

Content-type: text/plain\r\n
\r\n
detection:1\r\n
overlay:1\r\n
sens:5\r\n
active:always\r\n
SUN:0\r\n
MON:1\r\n
TUE:1\r\n
WED:0\r\n
THU:1\r\n
FRI:0\r\n
SAT:1\r\n
shour:11\r\n
smin:0\r\n
ehour:19\r\n
emin:59\r\n
output_dev:1\r\n
output_dur:1\r\n
trans_mode:1\r\n

entire[appearing]:1\r\n
entire[disappearing]:1\r\n
entire[scene_change]:1\r\n
object[min_width]:6\r\n
object[min_height]:6\r\n
object[max_width]:320\r\n
object[max_height]:240\r\n

2. Setting the video analysis detection parameters

REQUEST

http://192.168.1.200/cgi-bin/event.cgi?msubmenu=analysis&action=apply&detection=1&overlay=2&sens=5&active=schedule&entire_appearing=1&object_min_width=50&object_min_heignt=50

RESPONSE

Content-type: text/plain\r\n
\r\n
OK\r\n

2.16 PTZ Control

[Description]

This API provides the way to control the Pan, Tilt, Zoom behavior of IP Speed Dome Camera.

This command works on SNC-C7478, SNC-C6225, SNC-C7225 IP Speed Dome Camera and SNC-B2331/SNC-B5368/SNC-B2335/SNC-B5399.

[Note]

The model which don't support this function : SNC-B2315, SNC-B5395, SNC-M300

The only model which support "left, right, up, down"(in 'move' parameter' and 'menu' parameter

: SNC-B2331, SNC-B5368, SNC-B2335, SNC-B5399

[Syntax]

http://<Device IP>/ptz.cgi?<parameter>=<value>...

[Parameters]

Parameter	Value	Description
move	left, right, up, down, leftup, leftdown, rightup, rightdown, stop,	stop: for stop of left, right, up, down, leftup, leftdown, rightup, rightdown movement. speed parameter is necessary.
	absmove	absmove: move to absolute position. pan, tilt, zoom parameter is necessary. pan=0~36000, tilt=0~18000, zoom=1~432
	powerptz	powerptz : x, y, zoom parameter is necessary. x, y : this value define the target position from the center position. The left-upper position is (0,0) and right-bottom position is (640,480). zoom : zoom ratio. If this value is negative, camera operates zoom out. If this value is positive, camera operates zoom in. If this value is 0, camera doesn't operate zoom

		operation.
speed	1 ~ 100	Sets pan/tilt speed
movepan	0~36000	Move pan as much as specified value
movetilt	0~18000	Move tilt as much as specified value
movezoom	1~zoom limit	Move zoom as much as specified value * SNC-C7478 : zoom limit = 432 * SNC-C6225, SNC-C7225 : zoom limit = 100
zoom	in, out, stop	Control zoom in/out (When zoom control need to be stop, use “stop” value)
focus	far, near, stop	Control focus near/far (When focus control need to be stop, use “stop” value)
iris	open, close, stop	Control iris open/close (When iris control need to be stop, use “stop” value)
savepresetno	1~255	Save current position as the specified preset number.
movepresetno	1~255	Move to the specified preset number.
deletepresetno	1~255	Delete the specified preset number.
runpatternno	1~4	Run the specified pattern number.
runautopanno	1~8	Run the specified auto pan number.
runscanno	1~8	Run the specified scan number.
menu	on, enter, cancel	Control the OSD menu
query	ptz, pan, tilt, zoom	Get current position

[Example]

1. Move

< Move pan left (with speed) >

REQUEST

http://192.168.1.200/ptz.cgi?**move=left&speed=50**

< Stop >

REQUEST

http://192.168.1.200/ptz.cgi?**move=stop**

2. Move to absolute position (pan 312.00, tilt 20.00, zoom 2x)

* In case of absmove, pan, tilt and zoom values must be specified together.

REQUEST

http://192.168.1.200/ptz.cgi?**move=absmove&pan=31200&tilt=2000&zoom=2**

3. Power PTZ

REQUEST

http://192.168.1.200/ptz.cgi?**move=powerptz&x=320&y=0&zoom=0**

4. Move Pan, Tilt and Zoom position individually

< Move Pan to 240.00 position >

REQUEST

http://192.168.1.200/ptz.cgi?**movepan=24000**

< Move Tilt to 45.00 position >

REQUEST

http://192.168.1.200/ptz.cgi?**movetilt=4500**

< Move Zoom to 4x >

REQUEST

http://192.168.1.200/ptz.cgi?**movezoom=4**

5. Zoom / Focus control

* In this case Zoom/Focus will act continuously until receiving stop command.

< Zoom in or out >

REQUEST

http://192.168.1.200/ptz.cgi?**zoom=in**

<Zoom stop>

REQUEST

http://192.168.1.200/ptz.cgi?**zoom=stop**

< Focus near or far >

REQUEST

http://192.168.1.200/ptz.cgi?**focus=near**

< Focus stop >

REQUEST

http://192.168.1.200/ptz.cgi?**focus=stop**

6. Iris control

* Iris will act one step per one request. After open/close request, stop request must be followed.
  If camera doesn't receive stop request, next Iris request will not act.

< Iris Open or Close >

REQUEST

http://192.168.1.200/ptz.cgi?**iris=close**
http://192.168.1.200/ptz.cgi?**iris=stop**

7. Preset

< Save current position as Preset no.4 >

REQUEST

http://192.168.1.200/ptz.cgi?**savepresetno=4**

< Move to Preset no.20 >

REQUEST

http://192.168.1.200/ptz.cgi?**movepresetno=20**

8. Camera OSD Menu Control

< OSD Menu On / Off>

REQUEST

http://192.168.1.200/ptz.cgi?**menu=on**

< Move Cursor to Up direction on the OSD ON condition >

REQUEST

http://192.168.1.200/ptz.cgi?**move=up&speed=50**
http://192.168.1.200/ptz.cgi?**move=stop**

< Move Cursor to Down direction on the OSD ON condition >

REQUEST

http://192.168.1.200/ptz.cgi?**move=down&speed=50**
http://192.168.1.200/ptz.cgi?**move=stop**

< Enter into sub menu on the OSD Menu >

REQUEST

http://192.168.1.200/ptz.cgi?**menu=enter**

< Exit from sub menu on the OSD Menu >

REQUEST

http://192.168.1.200/ptz.cgi?**menu=cancel**

9. Query current PTZ position

REQUEST

http://192.168.1.200/ptz.cgi?**query=ptz**

RESPONSE

Content-type:text/plain\r\n

\r\n

pan:29000\r\n

tilt:4000\r\n

zoom:2\r\n

2.17 SD Memory Data Search

2.17.1 Date Search for Recorded Data

[Description]

This API returns the dates when event images were recorded into SD memory.

[Note]

The model which don't support this function : SNC-B2331, SNC-B5368

[Syntax]

http://<Device IP>/cgi-bin/search.cgi?**msubmenu=date**& **action=list**

[Example]

REQUEST

http://192.168.1.200/cgi-bin/search.cgi?**msubmenu=date&action=list**

RESPONSE

Content-type: text/plain\r\n
\r\n
20081112\r\n
20081114\r\n

Date Format : YYYYMMDD

2.17.2 Search Method for Scheduled recording images

[Description]

This API provides the way to get the images which were recorded by scheduling option.

[Note]

The model which don't support this function : SNC-B2331, SNC-B5368

[Syntax]

http://<Device IP>/cgi-bin/search.cgi?**msubmenu=schedule&<parameter>=<value>..**

[Parameters]

Parameter	Value	Description
date	YYYYMMDD	Date
action	list	Getting the list of Schedule Event
	file	Getting JPEG Images in the specified Schedule Event
schedule_index	Number	Schedule Event Index

[Example]

1. The first, getting the list of Schedule Event on 14th Nov, 2008

REQUEST

http://192.168.1.200/cgi-bin/search.cgi?msubmenu=schedule**&date=20081114&action=list**

RESPONSE

Content-type: text/plain\r\n
\r\n
type:schedule\r\n
date:20081114\r\n
#398(5)@6:00:03\r\n
#417(1)@6:03:30\r\n

Type means the Event Type(Schedule, Alarm, Motion).

Date means the requested date.

#398 is Event Index, (5) means the number of JPEG image of this Event.

@6:00:03 means the time when event was occurred.

2. The second, getting the file list of images in the event #398 when it was occurred on 14th Nov.

REQUEST

http://192.168.1.200/cgi-bin/search.cgi?msubmenu=schedule&**date=20081114&schedule_index=398&action=file**

RESPONSE

Content-type: text/plain\r\n
\r\n
type:schedule\r\n
date:20081114\r\n
index:398\r\n
http://192.168.1.200/cgi-bin/images/data/20081114/0000000398/AlarmImage_20081114060003GMT_schedule_0000.jpg\r\n
http://192.168.1.200/cgi-bin/images/data/20081114/0000000398/AlarmImage_20081114060008GMT_schedule_0001.jpg\r\n
http://192.168.1.200/cgi-bin/images/data/20081114/0000000398/AlarmImage_20081114060013GMT_schedule_0002.jpg\r\n
http://192.168.1.200/cgi-bin/images/data/20081114/0000000398/AlarmImage_20081114060018GMT_schedule_0003.jpg\r\n
http://192.168.1.200/cgi-bin/images/data/20081114/0000000398/AlarmImage_20081114060023GMT_schedule_0004.jpg\r\n

3. Finally, getting the recorded image from SD memory

REQUEST

http://192.168.1.200/cgi-bin/images/data/20081114/0000000398/AlarmImage_20081114060003GMT_schedule_0000.jpg

RESPONSE

Content-type: image/jpeg\r\n
Content-length: ***<image size>***\r\n
\r\n
<JPEG image data> \r\n

2.17.3 Search Method for Alarm input recording images

[Description]

This API provides the way to get the images which were recorded by alarm input event.

[Note]

The model which don't support this function : SNC-B2331, SNC-B5368

[Syntax]

http://<Device IP>/cgi-bin/search.cgi?**msubmenu=alarm&<parameter>=<value>..**

[Parameters]

Parameter	Value	Description
date	YYYYMMDD	Date
action	list	Getting the list of Alarm Input Event
	file	Getting JPEG Images in the specified Alarm Event
alarm_index	Number	Alarm Input Event Index

[Example]

1. The first, getting the list of Alarm Input Event on 14th Nov, 2008

REQUEST

http://192.168.1.200/cgi-bin/search.cgi?msubmenu=alarm**&date=20081114&action=list**

RESPONSE

Content-type: text/plain\r\n
\r\n
type:alarm\r\n
date:20081114\r\n
#399(50)@6:00:23\r\n
#400(50)@6:00:33\r\n
#401(50)@6:00:43\r\n

Type means the Event Type(Schedule, Alarm, Motion).

Date means the requested date.

#399 is Event Index, (50) means the number of JPEG image of this Event.

@6:00:23 means the time when event was occurred.

2. The second, getting the file list of images in the event #399 when it was occurred on 14th Nov.

REQUEST

http://192.168.1.200/cgi-bin/search.cgi?msubmenu=alarm&**date=20081114&alarm_index=399**
&action=file

RESPONSE

Content-type: text/plain\r\n
\r\n
type:alarm\r\n
date:20081114\r\n
index:399\r\n
http:// 192.168.1.200/cgi-bin/images/data/20081114/0000000399/AlarmImage_20081114060303GMT_alarm1_0000.jpg\r\n
http:// 192.168.1.200/cgi-bin/images/data/20081114/0000000399/AlarmImage_20081114060303GMT_alarm1_0001.jpg\r\n
http:// 192.168.1.200/cgi-bin/images/data/20081114/0000000399/AlarmImage_20081114060303GMT_alarm1_0002.jpg\r\n
http:// 192.168.1.200/cgi-bin/images/data/20081114/0000000399/AlarmImage_20081114060303GMT_alarm1_0003.jpg\r\n
.
.
.

3. Finally, getting the recorded image from SD memory

REQUEST

http:// 192.168.1.200/cgi-bin/images/data/20081114/0000000399/AlarmImage_20081114060303GMT_alarm1_0000.jpg

RESPONSE

Content-type: image/jpeg\r\n
Content-length: ***<image size>***\r\n

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

2.17.4 Search Method for Motion Detection recording images

[Description]

This API provides the way to get the images which were recorded by motion detection event.

[Note]

The model which don't support this function : SNC-B2331, SNC-B5368

[Syntax]

http://<Device IP>/cgi-bin/search.cgi?**msubmenu=motion&<parameter>=<value>..**

[Parameters]

Parameter	Value	Description
date	YYYYMMDD	Date
action	list	Getting the list of Motion Detection Event
	file	Getting JPEG Images in the specified Motion Event
motion_index	Number	Motion Detection Event Index

[Example]

1. The first, getting the list of Motion Detection Event on 14th Nov, 2008

REQUEST

http://192.168.1.200/cgi-bin/search.cgi?msubmenu=motion**&date=20081114&action=list**

RESPONSE

Content-type: text/plain\r\n
\r\n
type:motion\r\n
date:20081114\r\n

```
#418(50)@7:08:24\r\n
#419(50)@7:08:49\r\n
```

Type means the Event Type(Schedule, Alarm, Motion).

Date means the requested date.

#418 is Event Index, (50) means the number of JPEG image of this Event.

@7:08:24 means the time when event was occurred.

2. The second, getting the file list of images in the event #418 when it was occurred on 14th Nov.

REQUEST

```
http://192.168.1.200/cgi-bin/search.cgi?msubmenu=motion&date=20081114&motion_index=418
&action=file
```

RESPONSE

```
Content-type: text/plain\r\n
\r\n
type:motion
date:20081114\r\n
index:418\r\n
http://10.240.56.71/cgi-
bin/images/data/20081114/0000000418/AlarmImage_20081114070824GMT_motion_0000.jpg\r\n
http://10.240.56.71/cgi-
bin/images/data/20081114/0000000418/AlarmImage_20081114070824GMT_motion_0001.jpg\r\n
http://10.240.56.71/cgi-
bin/images/data/20081114/0000000418/AlarmImage_20081114070824GMT_motion_0002.jpg\r\n
http://10.240.56.71/cgi-
bin/images/data/20081114/0000000418/AlarmImage_20081114070824GMT_motion_0003.jpg\r\n
```

3. Finally, getting the recorded image from SD memory

REQUEST

```
http://10.240.56.71/cgi-
bin/images/data/20081114/0000000418/AlarmImage_20081114070824GMT_motion_0000.jpg\r\n
```

RESPONSE

Content-type: image/jpeg\r\n
Content-length: ***<image size>***\r\n
\r\n
<JPEG image data> \r\n

2.18 Video Analysis Log Data

[Description]

Getting log information of video analysis event

Log consists of date/time, description.

[Note]

This function is supported by only SNC-B2335, SNC-B5399

[Syntax]

http://<Device IP>/cgi-bin/system.cgi?**msubmenu=valog&<parameter>=<value>..**

[Parameters]

Parameter	Value	Description
action	view filter	view : get the change : change the value
passing entering exiting appearing disappearing scene_change	0, 1	Set filtering condition 0 : disable search 1 : enable search default value is 0
date_from	YYYY-MM-DD	start date to search
date_to	YYYY-MM-DD	end date to search

[Example]

1. Getting the video analysis log data

REQUEST

http://192.168.1.200/cgi-bin/system.cgi?**msubmenu=valog&action=view**

RESPONSE

Content-type: text/plain\r\n
\r\n
[2009-05-16 08:11:40 UTC] Exiting\r\n
[2009-05-16 09:58:08 UTC] Passing\r\n
[2009-05-16 10:08:19 UTC] Scene Change\r\n
[2009-05-16 11:06:33 UTC] Appearing\r\n

2. Setting the searching condition

REQUEST

http://192.168.1.200/cgi-bin/system.cgi?**msubmenu=valog&action=filter&passing=1&exiting=1&date_from=2000-1-1&date_to=2000-1-2**

RESPONSE

HTTP/1.0 200 OK\r\n
Content-type: text/plain\r\n
\r\n
[2000-01-01 08:11:40 UTC] Exiting\r\n
[2000-01-01 09:58:08 UTC] Passing\r\n
[2009-01-01 10:08:19 UTC] Passing\r\n
[2009-01-02 11:06:33 UTC] Exiting\r\n

2.19 SNMP

[Description]

Getting the camera information by SNMP

[Note]

The model which support this function are

: SNC-B2315, SNC-B5368, SNC-B2335, SNC-B5399

[Syntax]

http://<Device IP>/cgi-bin/system.cgi?**msubmenu=snmp&<parameter>=<value>..**

[Parameters]

Parameter	Value	Description
action	view change	view : get the camera information change : change the value
communityname	STRING	community name information
syslocation	STRING	system location information
syscontact	STRING	system contact information

[Example]

1. Getting camera information

REQUEST

http://192.168.1.200/cgi-bin/system.cgi?**msubmenu=snmp&action=view**

RESPONSE

Content-type: text/plain\r\n

\r\n

communityName:public\r\n

sysLocation:Right here, right now. \r\n

sysContact:Me <me@somewhere.org>\r\n

sysDescr:SAMSUNG NET-i H.264 Premium Level IP Camera\r\n

sysObjectID:1.3.6.1.4.1.236.30.2.4\r\n

sysName:SNC-B2335\r\n

2. Setting the SNMP parameters

REQUEST

http://192.168.1.200/cgi-bin/system.cgi?**msubmenu=snmp&action=change&communityName=public&sysLocation=korea&syscontact=vss@samsung.com**

RESPONSE

HTTP/1.0 200 OK\r\n
Content-type: text/plain\r\n
\r\n
OK\r\n