JVC Camcorder Web API Reference

Version 1.09

JVC KENWOOD Corporation

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History

Version	Outline
1.00	First release
1.01	Added GY-HM660 to the command table
	Added '3.1.15 Set streaming server settings(RTP)' command only GY-HM660.
	Added PcrJitter parameter in '3.1.18 Get streaming server settings' and '3.1.19 Set streaming server settings(UDP)' commands.
1.02	Added '3.1.14 Set streaming server settings(RTP)' command for all cameras.
	Type "TCP" is effective in 'GY-HM650' and 'GY-HM660' in command with a streaming type parameter.
	Added "Variable Gain" parameter to '3.3.1 Get Camera Status' and '3.3.6 Set Web Event' for 'GY-LS300'.
1.03	Type "TCP" is effective in 'GY-HM650' in command with a streaming type parameter.
	Type "UDPN" and "UDPL" are effective in 'GY-HM660' in command with a streaming type parameter.
1.04	Supported KY-PZ100 newly.
	Added '3.1.3 Set streaming framerate' command for 'KY-PZ100'.
	Added '3.1.6 Available streaming framerate settings' command for 'KY-PZ100'.
	Added '3.4. PTZ Camera Support Command' for 'KY-PZ100'.
	Added '3.5. How to acquire JPEG data' for 'KY-PZ100'.
1.05	Added '3.1.3 Set streaming framerate' command for 'GY-HM200', 'GY-LS300', 'GY-HM8x0', and 'GY-HM660'.
	Added '3.1.6 Available streaming framerate settings' command for 'GY-HM200', 'GY-LS300', 'GY-HM8x0', and 'GY-HM660'.
	Added '3.5. How to acquire JPEG data' for 'GY-HM200', 'GY-LS300', 'GY-HM8x0', and 'GY-HM660'.
	Added '3.6. How to use interruptible feedback function' for 'GY-HM660'.
1.06	Error correction. 2.1.1. Another client is able to connect while first client is using API interface.
	3.2.2 SessionRenewal command has become obsolete.
	Added '3.6. How to use interruptible feedback function' for 'GY-HM8x0'.
	Type "UDPN" and "UDPL" are effective in 'GY-HM8x0' in command with a streaming type parameter of '3.1.7 Available streaming bitrate settings' command.
1.07	Error correction. '3.1.10 Get streaming server settings'. Revised wrong parameters. They are effective to all models.
	Error correction. '3.3.6. Set Web Button Event'. Some parameters are not supported on 'KY-PZ100'.
	Added "MasterBlack" parameters to '3.3.1 Get Camera Status' and '3.3.6 Set Web Event' for 'GY-HM8x0', 'GY-HM660', and 'GY-HM200'.
	Added "Detail" parameters to '3.3.1 Get Camera Status' and '3.3.6 Set Web Event' for 'GY-HM8x0', 'GY-HM660', and 'GY-HM200'.
	Added '3.4.3 Zoom switch operation' command for 'GY-HM8x0', 'GY-HM660', and 'GY-HM200'.
	Added '3.3.10 Seesaw switch operation' command for 'GY-HM8x0', 'GY-HM660', and 'GY-HM200'.
	Added Gain event "Up1"/"Down1" parameters to '3.3.6 Set Web Event' for 'GY-HM8x0', 'GY-HM660', and 'GY-HM200'.
	Added target models 'GY-HM8x0', 'GY-HM660', and 'GY-HM200' to MenuStatus of '3.3.1 Get Camera Status'
	Added '3.7. How to control tally system' description for 'GY-HM8x0', 'GY-HM660', 'GY-HM200', and 'KY-PZ100'. Changed "3.3.5. Tally lamp control' description correspond to it.
1.08	Added "Serial" parameter to '3.2.1. Get System Information' for 'GY-HM660','GY-HM8x0','GY-HM200', and 'KY-PZ100'.
	Added '3.2.6 Get NTP Status','3.2.7 Set NTP Server', and '3,2,8 Set NTP settings' Commands for 'GY-HM660','GY-HM8x0','GY-HM200', and 'KY-PZ100'.
	Supported GY-HM25x newly.
	Error correction. Added "Whb" "Status" parameter to '3.3.1. Get camera status'. Changed '3.3.1. Get camera status'. Parameter ("Enable" "Streaming" "On/Off") is not effective in 'GY-HM200' and 'GY-HM25x'.
1.09	Added "Serial" parameter to '3.2.1. Get System Information' for 'GY-HM650'.
	Added '3.5. How to acquire JPEG data' for 'GY-HM650'.
	Supported GY-HC900 newly.

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1.Outline

1.1. Specification

This API specification describes commands to control JVC cameras via network.

Following commands are available.

Setting command	- Configure camera settings
System command	- Perform the information of the camera, the update of the session , the memory of the value
Camera control command	- Control camera
PTZ camera control command	- Control PTZ camera
JPEG data acquisition comman	- Acquate HPEG data.
Interruptible feedback settings	- Configue IFB settings.
Studio tally control command	- Control studio tally display.

* Some API commands may be restricted by camera model and software version.

* Supported API functions are depends on the API version of the camera.
  Version information can be obtained with the command 'Get System Information'.

Supported camera model and firmware version.

	Firmware Version							
API Version	GY-HM650	GY-HM660	GY-HM8x0	GY-HM200	GY-HM25x	GY-LS300	KY-PZ100	GY-HC900
1.00	V0404	-	V0203-0060	V0203-0136	-	V0203-0132	-	-
1.01	-	V0100-0049	-	-	-	-	-	-
1.02	-	-	V0300-0067	V0300-0150	-	V0300-0143	-	-
1.03	-	V0102-0067	-	-	-	-	-	-
1.04	-	-	-	-	-	-	V0100-0076	-
1.05	-	V0105-0086	V0301-0076	V0305-0182	-	V0302-0151	V0101-0093	-
1.06	-	-	V0303-0084	-	-	-	-	-
1.07	-	V0110-0111	V0305-0090	V0309-0213	-	-	V0102-0103	-
1.08	-	V0112-0136	V0307-0098	V0313-0230	V0100-0007	-	V0104-0118	-
1.09	V0412	-	-	-	-	-	-	V0101-0121

* This list shows oldest firmware version which support each API Version.

2. Interface

Support HTTP protocol

API commad request/response uses HTTP protocol.

A request uses a port number 80 with default setting.It may change if the web port setting on the camera menu is modified.

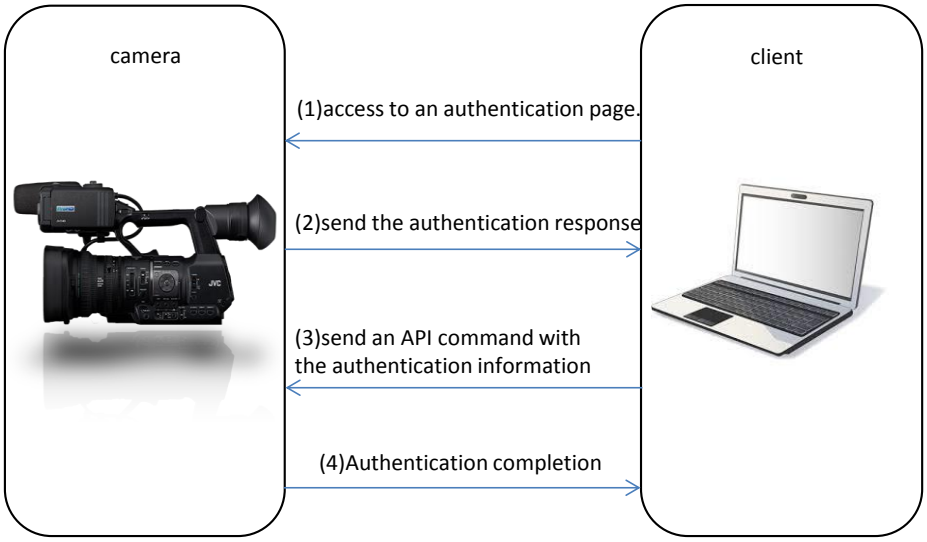
Requests and response data are described with JSON format in HTTP message body.

2.1. Authentication

Digest authentication

Usename/password authorization is needed on first access to the camera.
It returns 'Session ID' to the client after authorization.
The client can access without authorization by using this 'Session ID'.
~~'Session ID' will expire within 30 seconds.~~
~~It has to be extended using 'SessionRenewal' command.~~
~~Authentication process has to be performed to obtain another 'Session ID' after expiration.~~
Please refer to RFC2617 for more information.

Procedure



(1)Access to an authentication page of a server from the client.

Example

```
GET /api.php HTTP/1.1\r\n
Host: 192.168.0.134\r\n
User-Agent: Mozilla/5.0 (Windows NT 5.1; rv:27.0) Gecko/20100101 Firefox/27.0\r\n
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8\r\n
Accept-Language: ja,en-us;q=0.7,en;q=0.3\r\n
Accept-Encoding: gzip, deflate\r\n
Connection: keep-alive\r\n
\r\n
```

(2)The response for authentication is returned to a client.

Example

```
HTTP/1.1 401 Unauthorized\r\n
WWW-Authenticate: Digest realm="GY-HM650",
      nonce="7a63056b0a608017c405707e682b9adb", qop="auth"\r\n
Content-Type: text/html\r\n
Content-Length: 1458\r\n
Date: Tue, 03 Mar 2015 11:35:13 GMT\r\n
Server: Camera\r\n
\r\n
```

(3)The client re-access with the authentication information(user name and password) to the authentication page

Example

```
GET /api.php HTTP/1.1\r\n
Host: 192.168.0.134\r\n
User-Agent: Mozilla/5.0 (Windows NT 5.1; rv:27.0) Gecko/20100101 Firefox/27.0\r\n
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8\r\n
Accept-Language: ja,en-us;q=0.7,en;q=0.3\r\n
Accept-Encoding: gzip, deflate\r\n
Connection: keep-alive\r\n
Authorization: Digest username="prohd", realm="GY-HM650",
    nonce="7a63056b0a608017c405707e682b9adb", uri="/api.php",
    response="0f4d23f739a0e9fa3b78b826b33edaf8", qop=auth, nc=00000001,
    cnonce="ee16206547e4dd0e"\r\n
\r\n
```

(4)Session ID is returned form the camera.

Example

```
HTTP/1.1 302 Found\r\n
Status: 302 Moved Temporarily\r\n
Expires: Thu, 19 Nov 1981 08:52:00 GMT\r\n
Cache-Control: no-store, no-cache, must-revalidate, post-check=0, pre-check=0\r\n
Pragma: no-cache\r\n
Set-Cookie: SessionID=10ffa8dcd1bb1cf5f9c252b7b8a20738\r\n
Content-type: text/html; charset=UTF-8\r\n
Transfer-Encoding: chunked\r\n
Date: Tue, 03 Mar 2015 11:35:23 GMT\r\n
Server: Camerar\n
\r\n
```

return to (2) in authentication failure.

~~* Another client cannot connect while first client is using API interface.~~

2.2. Request form

Hypertext Transfer Protocol

Example

```
POST /cgi-bin/api.cgi HTTP/1.1\r\n
Host: 192.168.0.134\r\n
User-Agent: Mozilla/5.0 (Windows NT 5.1; rv:27.0) Gecko/20100101 Firefox/27.0\r\n
Accept: application/json, text/javascript, */*; q=0.01\r\n
Accept-Language: ja,en-us;q=0.7,en;q=0.3\r\n
Accept-Encoding: gzip, deflate\r\n
Content-Type: application/x-www-form-urlencoded; charset=UTF-8\r\n
X-Requested-With: XMLHttpRequest\r\n
Referer: http://192.168.0.134/api.php\r\n
Content-Length: 86\r\n
Authorization: Digest username="prohd", realm="GY-HM650",
    nonce="7a63056b0a608017c405707e682b9adb", uri="/cgi-bin/api.cgi",
    response="c412878c40aa4d4943af678c2ba070b1", qop=auth, nc=0000001a,
    cnonce="3c706c583d858603"\r\n
Connection: keep-alive\r\n
Pragma: no-cache\r\n
Cache-Control: no-cache\r\n
\r\n
```

HTML Form URL Encoded: application/x-www-form-urlencoded

Camera cannot accept any space character or newline within command string.

Key	Style	Value
Request		
Command	String	(Command name)
SessionID	String	(Session ID in cookie.)
Params		(You can omit this field if there is no parameter.)
***	***	

Example

```
{
  "Request": {
    "Command":"GetSystemInfo",
    "SessionID":"10ffa8dcd1bb1cf5f9c252b7b8a20738"
  }
}
```

2.3. Response form

Hypertext Transfer Protocol

Example

```
HTTP/1.1 200 OK\r\n
Content-type: application/json\r\n
Pragma: no-cache\r\n
Cache-Control: no-cache\r\n
Expires: Thu, 01 Dec 1994 16:00:00 GMT\r\n
Content-Length: 105\r\n
Date: Tue, 03 Mar 2015 11:35:30 GMT\r\n
Server: Camerar\n
\r\n
```

JavaScript Object Notation: application/json

Acutual response from camera does not include any space character or newline.

Key	Style	Value
Response		
Requested	String	(Command name)
Result	String	Result of command processing Success / DisableError(Timeout) / RequestedError(Illegal parameter error) / FormatError(Illegal request error) / CommandError(Illegal command error) / SessionError(Authentication error) / DualExeError(Duplicate command)
Data		(You can omit this field if there is no parameter.)
***	***	

Example

```
{
  "Response" : {
    "Requested" : "GetSystemInfo" ,
    "Result" : "Success" ,
    "Data" : {
      "Model" : "HM650",
      "Destination" : "EU",
      "ApiVersion" : "0.13.3"
    }
  }
}
```

3. Command

3.1. Streaming Setting Command

When you change a part of these parameters, you should get all parameters first, then modify and store them again.
Setting commands should be used only when settings need to be changed, otherwise it causes performance degradation.

3.1.1. Get streaming settings

Get the streaming setting

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	GetStreamingSettings	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SessionID	String	(Session ID in cookie.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Example

```
{
  "Request" : {
    "Command" : "GetStreamingSettings" ,
    "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3"
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	GetStreamingSettings	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Result	String	(Result of command processing.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Data										
Resolution	String	"1920x1080"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		"1440x1080"	No	No	No	No	No	No	No	No
		"1280x720"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		"720x480"	Yes	Yes	Yes	Yes	Yes	Yes	No	No
		"720x576"	Yes	Yes	Yes	Yes	Yes	Yes	No	No
		"640x360"	No	Yes	Yes	Yes	Yes	Yes	Yes	No
		"480x270"	Yes	No	No	No	No	No	No	No
Framerate	String	"60p" / "50p" / "60i" / "50i" / "30p" / "25p"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bitrate	String	"0.2M"	Yes	No	No	No	No	No	No	No
		"0.3M"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
		"0.8M"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
		"1.5M"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		"2.5M"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
		"3.0M"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		"5.0M"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		"8.0M"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

				"10M"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
				"12M"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
				"16M"	No	No	No	No	No	No	Yes	Yes
				"20M"	No	No	No	No	No	No	Yes	Yes
				"24M"	No	No	No	No	No	No	No	Yes

Example

```
{
  "Response" : {
    "Requested" : "GetStreamingSettings" ,
    "Result" : "Success" ,
    "Data" : {
      "Resolution" : "1920x1080" ,
      "Framerate" : "60i"  ,
      "Bitrate" :  "3.0M"
    }
  }
}
```

3.1.2. Set streaming resolution

Set streaming resolution
Camcorder automatically reboots with this command on HM650 , HM660 , and HM8x0.
Current value can be obtained with the 'AvailableStreamingResolutionSettings' command.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	SetStreamingResolution	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SessionID	String	(Session ID in cookie.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Params										
Resolution	String	"1920x1080"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		"1440x1080"	No	No	No	No	No	No	No	No
		"1280x720"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		"720x480"	Yes	Yes	Yes	Yes	Yes	Yes	No	No
		"720x576"	Yes	Yes	Yes	Yes	Yes	Yes	No	No
		"640x360"	No	Yes	Yes	Yes	Yes	Yes	Yes	No
		"480x270"	Yes	No	No	No	No	No	No	No

* Framerate is fixed by resolution.(HM650/~~HM660/HM8x0/HM200/HM25x/LS300~~)

Example

```
{
  "Request" : {
    "Command" : "SetStreamingResolution" ,
    "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3" ,
    "Params" : {
      "Resolution" : "1920x1080"
   }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	SetStreamingResolution	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Result	String	(Result of command processing.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Example

```
{
  "Response" : {
    "Requested" : "SetStreamingResolution" ,
    "Result" : "Success"
  }
}
```

3.1.3. Set streaming framerate

Set streaming framerate.
Current value can be obtained with the 'AvailableStreamingFramerateSettings' command.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	SetStreamingFramerate	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SessionID	String	(Session ID in cookie.)	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Params										
Framerate	String	"60p" / "60i" / "30p" / "50p" / "50i" / "25p"	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Example

```
{
  "Request" : {
    "Command" : "SetStreamingFramerate" ,
    "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3" ,
    "Params" : {
      "Framerate" : "60p"
   }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	SetStreamingFramerate	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Result	String	(Result of command processing.)	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Example

```
{
  "Response" : {
    "Requested" : "SetStreamingFramerate" ,
    "Result" : "Success"
  }
}
```

3.1.4. Set streaming bitrate

Set streaming bitrate
Current value can be obtained with the 'AvailableStreamingBitrateSettings' command.
This command does not reboot the camcorder unlike 'Set streaming resolution' command.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	SetStreamingBitrate	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SessionID	String	(Session ID in cookie.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Params										
Bitrate	String	"0.2M"	Yes	No	No	No	No	No	No	No
		"0.3M"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
		"0.8M"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
		"1.5M"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		"2.5M"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
		"3.0M"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		"5.0M"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		"8.0M"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		"10M"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
		"12M"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		"16M"	No	No	No	No	No	No	Yes	Yes
		"20M"	No	No	No	No	No	No	Yes	Yes
		"24M"	No	No	No	No	No	No	No	Yes

Example

```
{
  "Request" : {
    "Command" : "SetStreamingBitrate" ,
    "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3" ,
    "Params" : {
      "Bitrate" :  "3.0M"
   }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	SetStreamingBitrate	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Result	String	(Result of command processing.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Example

```
{
  "Response" : {
    "Requested" : "SetStreamingBitrate" ,
    "Result" : "Success"
  }
```

```
}
```

3.1.5. Available streaming resolution settings

Get available streaming resolution settings
Settable values are depend on the recording resolution setting of the camcorder.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	AvailableStreamingResolutionSettings	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SessionID	String	(Session ID in cookie.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Example

```
{
 "Request" : {
  "Command" : "AvailableStreamingResolutionSettings" ,
  "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3"
 }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	AvailableStreamingResolutionSettings	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Result	String	(Result of command processing.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Data										
AvailableResolution			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
1920x1080	Integer	0 : unselectable , 1 : selectable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
1440x1080	Integer	0 : unselectable , 1 : selectable	No	No	No	No	No	No	No	No
1280x720	Integer	0 : unselectable , 1 : selectable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
720x480	Integer	0 : unselectable , 1 : selectable	Yes	Yes	Yes	Yes	Yes	Yes	No	No
720x576	Integer	0 : unselectable , 1 : selectable	Yes	Yes	Yes	Yes	Yes	Yes	No	No
640x360	Integer	0 : unselectable , 1 : selectable	No	Yes	Yes	Yes	Yes	Yes	Yes	No
480x270	Integer	0 : unselectable , 1 : selectable	Yes	No	No	No	No	No	No	No

* Resolution "640x360" is effective in 'GY-HM200' , 'GY-HM25x' , 'GY-LS300' , 'GY-HM660', and 'GY-HM8x0'.
* Resolution "480x270" is effective in 'GY-HM650'.

Example

```
{
 "Response" : {
  "Requested" : "AvailableStreamingResolutionSettings" ,
  "Result" : "Success" ,
  "Data" : {
   "AvailableResolution" : {
    "1920x1080" : 1 ,
    "1440x1080" : 0 ,
    "1280x720" : 0 ,
    "720x480" : 0 ,
    "720x576" : 0 ,
```

```
      "640x360" : 0 ,
      "480x270" : 0
    }
   }
  }
}
```

3.1.6. Available streaming framerate settings

Get available streaming framerate settings.
Settable values are depend on the recording resolution setting on the camcorder.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	AvailableStreamingFramerateSettings	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SessionID	String	(Session ID in cookie.)	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Params										
Resolution	String	"1920x1080"	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		"1280x720"	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		"720x480"	No	Yes	Yes	Yes	Yes	Yes	No	No
		"720x576"	No	Yes	Yes	Yes	Yes	Yes	No	No
		"640x360"	No	Yes	Yes	Yes	Yes	Yes	Yes	No

Example

```
{
 "Request" : {
  "Command" : "AvailableStreamingFramerateSettings" ,
  "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3"
  "Params" : {
   "Resolution" : "1920x1080"
 }
 }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	AvailableStreamingFramerateSettings	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Result	String	(Result of command processing.)	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Data										
Resolution	String	"1920x1080"	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		"1280x720"	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		"720x480"	No	Yes	Yes	Yes	Yes	Yes	No	No
		"720x576"	No	Yes	Yes	Yes	Yes	Yes	No	No
		"640x360"	No	Yes	Yes	Yes	Yes	Yes	Yes	No
AvailableFramerate										
60p	Integer	0 : unselectable , 1 : selectable	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
60i	Integer	0 : unselectable , 1 : selectable	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
30p	Integer	0 : unselectable , 1 : selectable	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
50p	Integer	0 : unselectable , 1 : selectable	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
50i	Integer	0 : unselectable , 1 : selectable	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
25p	Integer	0 : unselectable , 1 : selectable	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Example

```
{
```

```
 "Response" : {
   "Requested" : "AvailableStreamingFramerateSettings" ,
   "Result" : "Success" ,
   "Data" : {
     "Resolution" : "1920x1080",
     "AvailableFramerate" : {
       "60p" : 1 ,
       "60i" : 0 ,
       "30p" : 0 ,
       "50p" : 0 ,
       "50i" : 0 ,
       "25p" : 0
     }
   }
 }
}
```

3.1.7. Available streaming bitrate settings

Get available streaming bitrate settings

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	AvailableStreamingBitrateSettings	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SessionID	String	(Session ID in cookie.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Params										
Type	String	"UDP" / "UDPN" (PCR Jitter is Normal) / "UDPL"(PCR Jitter is Low) / "TCP" / "RTSP" / "ZIXIM"(Zixi Medium/Minimum/High Latency) / "ZIXIL"(Zixi Low Latency) / "RTMP"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Resolution	String	"1920x1080" / "1440x1080" / "1280x720" / "720x480" / "720x576" / "640x360" / "480x270"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Framerate	String	"60p" / "60i" / "30p" / "50p" / "50i" / "25p"	No	No	No	No	No	No	Yes	Yes

* High Latency of Type is effective in 'GY-HM660' , 'GY-HM200' , 'GY-HM25x' , 'GY-LS300' , 'GY-HM8x0' , and 'KY-PZ100'.
* Resolution "640x360" is effective in 'GY-HM200' ,'GY-HM25x' , 'GY-LS300' , 'GY-HM660' , 'GY-HM8x0' , and 'KY-PZ100'.
* Resolution "480x270" is effective in 'GY-HM650'.
* Resolution "720x480" and "720x576" are not effective in 'GY-HC99x0'
* Type "TCP" is effective in 'GY-HM650' , and 'GY-HC900'.
* Type "UDPN" and "UDPL" are effective in 'GY-HM660' , and 'GY-HM8x0'.

Example

```
{
 "Request" : {
  "Command" : "AvailableStreamingBitrateSettings" ,
  "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3",
  "Params" : {
   "Type" : "TCP",
   "Resolution" : "1920x1080" ,
   "Framerate" : "60p"
 }
 }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	AvailableStreamingBitrateSettings	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Result	String	(Result of command processing.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Data										
Type	String	"UDP" / "UDPN" (PCR Jitter is Normal) / "UDPL"(PCR Jitter is Low) / "TCP"(only HM650) /	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

			"RTSP" / "ZIXIM"(Zixi Medium/Minimum/High Latency) / "ZIXIL"(Zixi Low Latency) / "RTMP"									
Resolution	String	"1920x1080" / "1440x1080" / "1280x720" / "720x480" / "720x576" / "640x360" / "480x270"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Framerate	String	"60p" / "60i" / "30p" / "50p" / "50i" / "25p"	No	No	No	No	No	No	Yes	Yes
AvailableBitrate										
0.2M	Integer	0 : unselectable , 1 : selectable	Yes	No	No	No	No	No	No	No
0.3M	Integer	0 : unselectable , 1 : selectable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
0.8M	Integer	0 : unselectable , 1 : selectable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
1.5M	Integer	0 : unselectable , 1 : selectable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2.5M	Integer	0 : unselectable , 1 : selectable	No	No	No	No	No	No	No	No
3.0M	Integer	0 : unselectable , 1 : selectable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
5.0M	Integer	0 : unselectable , 1 : selectable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
8.0M	Integer	0 : unselectable , 1 : selectable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
10M	Integer	0 : unselectable , 1 : selectable	No	No	No	No	No	No	No	No
12M	Integer	0 : unselectable , 1 : selectable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
16M	Integer	0 : unselectable , 1 : selectable	No	No	No	No	No	No	Yes	Yes
20M	Integer	0 : unselectable , 1 : selectable	No	No	No	No	No	No	Yes	Yes
24M	Integer	0 : unselectable , 1 : selectable	No	No	No	No	No	No	No	Yes

* High Latency of Type is effective in 'GY-HM660' , 'GY-HM200' ,'GY-HM25x' , 'GY-LS300' , 'GY-HM8x0' , and 'KY-PZ100'.
* Resolution "640x360" is effective in 'GY-HM200' ,'GY-HM25x' , 'GY-LS300' , 'GY-HM660' , 'GY-HM8x0' , and 'KY-PZ100'.
* Resolution "480x270" is effective in 'GY-HM650'.
* Resolution "720x480" and "720x576" are not effective in 'GY-HC99x0'
* Type "TCP" is effective in 'GY-HM650' , and 'GY-HC900'.
* Type "UDPN" and "UDPL" are effective in 'GY-HM660'.

Example


```
{
  "Response" : {
    "Requested" : "AvailableStreamingBitrateSettings" ,
    "Result" : "Success" ,
    "Data" : {
      "Type" : "TCP" ,
      "Resolution" : "1920x1080",
      "Framerate" : "60p",
      "AvailableBitrate" : {
        "0.2M" : 0 ,
        "0.3M" : 0 ,
        "0.8M" : 0 ,
        "1.5M" : 0 ,
        "2.5M" : 0 ,
        "3.0M" : 1 ,
        "5.0M" : 1 ,
        "8.0M" : 1 ,
        "10M" : 0 ,
        "12M" : 1,
        "16M" : 1,
```

```
      "20M" : 1,
      "24M" : 1
    }
   }
  }
}
```

3.1.8. Get current streaming server number

Get current streaming server ID.
There are four settings of streaming server .

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	GetCurrentStreamingServerID	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SessionID	String	(Session ID in cookie.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Example

```
{
  "Request" : {
    "Command" : "GetCurrentStreamingServerID" ,
    "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3"
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	GetCurrentStreamingServerID	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Result	String	(Result of command processing.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Data										
ID	Integer	0:server1, 1: server2, 2: server3, 3: server4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Example

```
{
  "Response" : {
    "Requested" : "GetCurrentStreamingServerID" ,
    "Result" : "Success" ,
    "Data" : {
      "ID" : 3
    }
  }
}
```

3.1.9. Set current streaming server number

Set current streaming server ID.
Choose the server ID to use in streaming.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	SetCurrentStreamingServerID	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SessionID	String	(Session ID in cookie.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Params										
ID	Integer	0:server1, 1: server2, 2: server3, 3: server4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Example

```
{
  "Request" : {
    "Command" : "SetCurrentStreamingServerID ,
    "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3" ,
    "Params" : {
      "ID" : 3
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	SetCurrentStreamingServerID	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Result	String	(Result of command processing.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Example

```
{
  "Response" : {
    "Requested" : "SetCurrentStreamingServerID" ,
    "Result" : "Success"
  }
}
```

3.1.10. Get streaming server settings

Get streaming settings for each server ID.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	GetStreamingServerSettings	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SessionID	String	(Session ID in cookie.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Params										
ID	Integer	0:server1, 1: server2, 2: server3, 3: server4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Example

```
{
  "Request" : {
    "Command" : "GetStreamingServerSettings" ,
    "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3" ,
    "Params" : {
      "ID" : 1
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	GetStreamingServerSettings	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Result	String	(Result of command processing.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Data										
Alias	String	(Another name of server)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Type	String	"UDP" / "TCP"/ "RTSP"/ "ZIXI"/ "RTMP"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Udp		(Selected by Type)								
DstAddress	String	(IP address)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DstPort	Integer	(Port number)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
PcrJitter	Integer	0:NORMAL, 1:LOW	No	Yes	Yes	Yes	Yes	Yes	No	No
Tcp		(Selected by Type)								
DstAddress	String	(IP address)	Yes	No	No	No	No	No	No	No
DstPort	Integer	(Port number)	Yes	No	No	No	No	No	No	No
Rtsp		(Selected by Type)								
DstPort	Integer	(Port number)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
StreamId	String	(Stream ID)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Username	String	(User name)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Password	String	(Password for RTSP/RTP)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Zixi		(Selected by Type)								
DstAddress	String	(IP address)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DstPort	Integer	(Port number)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
StreamId	String	(Stream ID for ZIXI)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Password	String	(Password for ZIXI)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Latency	Integer	0:Low, 1:Medium, 2:Minimum(Zixi OFF), 3:High	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

AdaptiveBitrate	Integer	0:OFF, 1:ON	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Rtmp		(Selected by Type)								
DstUrl	String	(Network URL for Delivery)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
StreamKey	String	(Key for Delivery)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Rtp		(Selected by Type)								
DstAddress	String	(IP address)	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DstPort	Integer	(Port number)	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Smpte2022Fec	Integer	0:OFF, 1:ON	No	Yes	Yes	Yes	Yes	Yes	Yes	No
FecMatrixL	Integer	4 - 20	No	Yes	Yes	Yes	Yes	Yes	Yes	No
FecMatrixR	Integer	4- -20	No	Yes	Yes	Yes	Yes	Yes	Yes	No

* Type "TCP" is effective in 'GY-HM650' , and 'GY-HC900'.

Example

```
{
 "Response" : {
  "Requested" : "GetStreamingServerSettings" ,
  "Result" : "Success" ,
  "Data" : {
   "Alias" : "Server1" ,
   "Type": "TCP",
   "Tcp" : {
    "DstAddress" :  "192.168.0.1" ,
    "DstPort" : 6504
   }
  }
 }
}
```

3.1.11. Set streaming server settings(UDP)

Set streaming settings for each server ID.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	SetStreamingServerSettingsUDP	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SessionID	String	(Session ID in cookie.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Params										
ID	Integer	0:server1, 1: server2, 2: server3, 3: server4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Alias	String	(Another name of server)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DstAddress	String	(IP address)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DstPort	Integer	(Port number)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
PcrJitter	Integer	0:NORMAL, 1:LOW	No	Yes	Yes	Yes	Yes	Yes	No	No

Example

```
{
 "Request" : {
  "Command" : "SetStreamingServerSettingsUDP" ,
  "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3" ,
  "Params" : {
   "ID" : 1 ,
   "Alias" : "Server1" ,
   "DstAddress": "192.168.0.1" ,
   "DstPort": 6504,
   "PcrJitter": 1
 }
 }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	SetStreamingServerSettingsUDP	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Result	String	(Result of command processing.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Example

```
{
 "Response" : {
  "Requested" : "SetStreamingServerSettingsUDP" ,
  "Result" : "Success"
 }
}
```

3.1.12. Set streaming server settings(TCP)

Set streaming settings for each server ID.
Type "TCP" is effective in 'GY-HM650' , and 'GY-HC900'.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	SetStreamingServerSettingsTCP	Yes	No	No	No	No	No	No	Yes
SessionID	String	(Session ID in cookie.)	Yes	No	No	No	No	No	No	Yes
Params										
ID	Integer	0:server1, 1: server2, 2: server3, 3: server4	Yes	No	No	No	No	No	No	Yes
Alias	String	(Another name of server)	Yes	No	No	No	No	No	No	Yes
DstAddress	String	(IP address)	Yes	No	No	No	No	No	No	Yes
DstPort	Integer	(Port number)	Yes	No	No	No	No	No	No	Yes

Example

```
{
 "Request" : {
  "Command" : "SetStreamingServerSettingsTCP" ,
  "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3" ,
  "Params" : {
   "ID" : 1 ,
   "Alias" : "Server1" ,
   "DstAddress": "192.168.0.1" ,
   "DstPort": 6504
  }
 }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	SetStreamingServerSettingsTCP	Yes	No	No	No	No	No	No	Yes
Result	String	(Result of command processing.)	Yes	No	No	No	No	No	No	Yes

Example

```
{
 "Response" : {
  "Requested" : "SetStreamingServerSettingsTCP" ,
  "Result" : "Success"
 }
}
```

3.1.13. Set streaming server settings(RTSP/RTP)

Set streaming settings for each server ID.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	SetStreamingServerSettingsRTSP	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SessionID	String	(Session ID in cookie.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Params										
ID	Integer	0:server1, 1: server2, 2: server3, 3: server4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Alias	String	(Another name of server)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Password	String	(Password for RTSP/RTP)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Example

```
{
 "Request" : {
  "Command" : "SetStreamingServerSettingsRTSP" ,
  "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3" ,
  "Params" : {
   "ID" : 1 ,
   "Alias" : "Server1" ,
   "Password": "abcde"
  }
 }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	SetStreamingServerSettingsRTSP	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Result	String	(Result of command processing.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Example

```
{
 "Response" : {
  "Requested" : "SetStreamingServerSettingsRTSP" ,
  "Result" : "Success"
 }
}
```

3.1.14. Set streaming server settings(ZIXI)

Set streaming settings for each server ID.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	SetStreamingServerSettingsZIXI	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SessionID	String	(Session ID in cookie.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Params										
ID	Integer	0:server1, 1: server2, 2: server3, 3: server4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Alias	String	(Another name of server)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DstAddress	String	(IP address)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DstPort	Integer	(Port number)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
StreamId	String	(Stream ID for ZIXI)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Password	String	(Password for ZIXI)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Latency	Integer	0:Low, 1:Medium, 2:Minimum(Zixi OFF), 3:High	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
AdaptiveBitrate	Integer	0:OFF, 1:ON	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No

* High Latency of Type is effective in 'GY-HM660' , 'GY-HM200' ,'GY-HM25x' , 'GY-LS300' , 'GY-HM8x0' , and 'KY-PZ100'.

Example

```
{
 "Request" : {
  "Command" : "SetStreamingServerSettingsZIXI" ,
  "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3" ,
  "Params" : {
   "ID" : 1 ,
   "Alias" : "Server1" ,
   "DstAddress": "192.168.0.1" ,
   "DstPort": 2088,
   "StreamId": "HM650-1234" ,
   "Password": "abcde" ,
   "Latency": 1,
   "AdaptiveBitrate": 0
  }
 }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	SetStreamingServerSettingsZIXI	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Result	String	(Result of command processing.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Example

```
{
 "Response" : {
  "Requested" : "SetStreamingServerSettingsZIXI" ,
  "Result" : "Success"
```

```
 }
}
```

3.1.15. Set streaming server settings(RTMP)

Set streaming settings for each server ID.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	SetStreamingServerSettingsRTMP	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SessionID	String	(Session ID in cookie.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Params										
ID	Integer	0:server1, 1: server2, 2: server3, 3: server4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Alias	String	(Another name of server)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DstUrl	String	(Network URL for Delivery)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
StreamKey	String	(Key for Delivery)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Example

```
{
 "Request" : {
  "Command" : "SetStreamingServerSettingsRTMP" ,
  "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3" ,
  "Params" : {
   "ID" : 1 ,
   "Alias" : "Server1" ,
   "DstUrl": "rtmp://xxxx.xxxx.xxxx-xxx.com/play" ,
   "StreamKey: "livestreaming"
  }
 }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	SetStreamingServerSettingsRTMP	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Result	String	(Result of command processing.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Example

```
{
 "Response" : {
  "Requested" : "SetStreamingServerSettingsRTMP" ,
  "Result" : "Success"
 }
}
```

3.1.16. Set streaming server settings(RTP)

Set streaming settings for each server ID.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	SetStreamingServerSettingsRTP	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SessionID	String	(Session ID in cookie.)	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Params										
ID	Integer	0:server1, 1: server2, 2: server3, 3: server4	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Alias	String	(Another name of server)	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DstAddress	String	(IP address)	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DstPort	Integer	(Port number)	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Smpte2022Fec	Integer	0:OFF, 1:ON	No	Yes	Yes	Yes	Yes	Yes	Yes	No
FecMatrixL	Integer	4 - 20	No	Yes	Yes	Yes	Yes	Yes	Yes	No
FecMatrixD	Integer	4 - 20	No	Yes	Yes	Yes	Yes	Yes	Yes	No

* FecMatorixL and FecMatrixD value are satisfy A×B=100 condition.

Example

```
{
 "Request" : {
  "Command" : "SetStreamingServerSettingsRTP" ,
  "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3" ,
  "Params" : {
   "ID" : 1 ,
   "Alias" : "Server1" ,
   "DstAddress": "192.168.0.1" ,
   "DstPort": 2088,
   "Smpte2022Fec": 1 ,
   "FecMatrixL": 10 ,
   "FecMatrixD": 10
  }
 }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	SetStreamingServerSettingsRTP	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Result	String	(Result of command processing.)	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Example

```
{
 "Response" : {
  "Requested" : "SetStreamingServerSettingsRTP" ,
  "Result" : "Success"
 }
}
```

3.2. System Command

3.2.1. Get System Information

System information acquisition

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	GetSystemInfo	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SessionID	String	(Session ID in cookie.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Example

```
{
  "Request" : {
    "Command" : "GetSystemInfo " ,
    "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3"
  }
}
```

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	GetSystemInfo	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Result	String	(Result of command processing.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Data										
Model	String	Model information	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Model	String	"UNKNOWN" / "HM650"(GY-HM650) / "HM850"(GY-HM850) / "HM890"(GY-HM890) / "HM200"(GY-HM200) / "LS300"(GY-LS300) / "HM250"(GY-HM250) / "HM258"(GY-HM258) / "HM660"(GY-HM660) / "PZ100"(KY-PZ100) "HC900"(GY-HC900)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Destination	String	Place of destination "JP"(Japan) / "US"(USA・Canada) / "KR"(Korea) / "EU"(Southern Europe,Central Europe) / "ER"(Russia) / "AC"(China) / "AA"(Australia) / "AG"(Asian) / "TW"(Taiwan) / "AS"(Saudi Arabia) / "UC"(Canada) / "UA"(Argentina) / "UB"(Brazil) / "EZ"(East Europe) / "EY"(Northern Europe) / "EK"(China) / "EF"(France) / "AH"(Hong Kong) / "UN"(Format SD,NTSC/PAL both format)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ApiVersion	String	Version "XX.YYY.ZZZ" (XX:Major ver. YYY:Minor ver. ZZZ:Development ver)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Serial	String	Serial number "xxxxxxxx"	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Overlay	String	Overlay option	No	No	No	Yes	Yes	No	No	No

				"On" / "Off"									
		Tagging	String	Tagging option "On" / "Off"	Yes	Yes	No	No	No	No	No	No

Example

```
{
  "Response" : {
    "Requested" : "GetSystemInfo " ,
    "Result" : "Success" ,
    "Data" : {
      "Model" : "HM650" ,
      "Destination" : "JP" ,
      "ApiVersion" : "0.13.0",
      "Serial" : "123A1234",
      "Tagging" : "Off"
    }
  }
}
```

3.2.2. Session renewal

Renew a session
Updating session is needed within 25 seconds as always.
This command has become obsolete and session renewal is no longer required.
Please don't use this command because it causes malfunction on Web access.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	SessionRenewal	Yes	No	No	No	No	No	No	No
SessionID	String	(Session ID in cookie.)	Yes	No	No	No	No	No	No	No
Params										
Update	Integer	0:False(Time-out immediately) 1:True(Time-out extension)	Yes	No	No	No	No	No	No	No

Example

```
{
 "Request" : {
  "Command" : "SessionRenewal " ,
  "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3" ,
  "Params" : {
   "Update" : 1
  }
 }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	SessionRenewal	Yes	No	No	No	No	No	No	No
Result	String	(Result of command processing.)	Yes	No	No	No	No	No	No	No

```
{
 "Response" : {
  "Requested" : "SessionRenewal" ,
  "Result" : "Success"
 }
}
```

3.2.3. Get preset zoom position

Acquire the preset zoom position.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	GetPresetZoomPosition	Yes	Yes	Yes	Yes	Yes	Yes	No	No
SessionID	String	(Session ID in cookie.)	Yes	Yes	Yes	Yes	Yes	Yes	No	No

Example

```
{
 "Request" : {
  "Command" : "GetPresetZoomPosition" ,
  "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3"
 }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	GetPresetZoomPosition	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Result	String	(Result of command processing.)	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Data										
A	Integer	Value of Preset "0" - "499",no-setting "-1"	Yes	Yes	Yes	Yes	Yes	Yes	No	No
B	Integer	Value of Preset "0" - "499",no-setting "-1"	Yes	Yes	Yes	Yes	Yes	Yes	No	No
C	Integer	Value of Preset "0" - "499",no-setting "-1"	Yes	Yes	Yes	Yes	Yes	Yes	No	No

Example

```
{
 "Response" : {
  "Requested" : "GetPresetZoomPosition" ,
  "Result" : "Success" ,
  "Data" : {
   "A" : 10 , "B" : 20 , "C" : 30
  }
 }
}
```

3.2.4. Set preset zoom position

Preset the zoom position.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	SetPresetZoomPosition	Yes	Yes	Yes	Yes	Yes	Yes	No	No
SessionID	String	(Session ID in cookie.)	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Params										
ID	String	"A"/"B"/"C" is Preset ID	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Position	Integer	Value of Preset "0" - "499", delete setting is "-1"	Yes	Yes	Yes	Yes	Yes	Yes	No	No

Example

```
{
  "Request" : {
    "Command" : " SetPresetZoomPosition" ,
    "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3" ,
    "Params" : {
      "ID" : "A" ,
      "Position" : 300
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	SetPresetZoomPosition	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Result	String	(Result of command processing.)	Yes	Yes	Yes	Yes	Yes	Yes	No	No

Example

```
{
  "Response" : {
    "Requested" : "SetPresetZoomPosition" ,
    "Result" : "Success"
  }
}
```

3.2.5. Set tally lamp priority

This command was moved to "3.7.3. Set tally lamp priority".

3.2.6. Get NTP Status

Acquire the status of NTP.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	GetNTPStatus	No	Yes	Yes	Yes	Yes	No	Yes	No
SessionID	String	(Session ID in cookie.)	No	Yes	Yes	Yes	Yes	No	Yes	No

Example

```
{
 "Request" : {
  "Command" : "GetNTPStatus" ,
  "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3"
 }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	GetNTPStatus	No	Yes	Yes	Yes	Yes	No	Yes	No
Result	String	(Result of command processing.)	No	Yes	Yes	Yes	Yes	No	Yes	No
Data										
Address	String	(IP address)	No	Yes	Yes	Yes	Yes	No	Yes	No
TcSync	String	"On" / "Off"	No	Yes	Yes	Yes	Yes	No	Yes	No
Status	String	"Syncronized" / "NotSyncronized" / "Master"	No	Yes	Yes	Yes	Yes	No	Yes	No

Example

```
{
 "Response" : {
  "Requested" : "GetNTPStatus" ,
  "Result" : "Success" ,
  "Data" : {
   "Address" : "192.168.0.100" ,
   "TcSync" : "On",
   "Status" : "Syncronized"
  }
 }
}
```

3.2.7. Set NTP Server

Set the NTP server address.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	SetNTPServer	No	Yes	Yes	Yes	Yes	No	Yes	No
SessionID	String	(Session ID in cookie.)	No	Yes	Yes	Yes	Yes	No	Yes	No
Params										
Address	String	(IP address)	No	Yes	Yes	Yes	Yes	No	Yes	No

Example

```
{
  "Request" : {
    "Command" : " SetNTPServer" ,
    "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3" ,
    "Params" : {
      "Address" : "192.168.0.100"
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	SetNTPServer	No	Yes	Yes	Yes	Yes	No	Yes	No
Result	String	(Result of command processing.)	No	Yes	Yes	Yes	Yes	No	Yes	No

Example

```
{
  "Response" : {
    "Requested" : "SetNTPServer" ,
    "Result" : "Success"
  }
}
```

3.2.8. Set NTP Settings

Set the NTP settings.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	SetNTPSettings	No	Yes	Yes	Yes	Yes	No	Yes	No
SessionID	String	(Session ID in cookie.)	No	Yes	Yes	Yes	Yes	No	Yes	No
Params										
TcSync	String	"On"/"Off"	No	Yes	Yes	Yes	Yes	No	Yes	No

Example

```
{
 "Request" : {
  "Command" : " SetNTPSettings" ,
  "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3" ,
  "Params" : {
   "TcSync" : "On"
  }
 }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	SetNTPSettings	No	Yes	Yes	Yes	Yes	No	Yes	No
Result	String	(Result of command processing.)	No	Yes	Yes	Yes	Yes	No	Yes	No

Example

```
{
 "Response" : {
  "Requested" : "SetNTPSettings" ,
  "Result" : "Success"
 }
}
```

3.3. Camera Control Command

3.3.1. Get camera status

Request all status information of camera function.
It is recommended to use this command every 500 msec or above.
Unnecessary use of this command make performance degradation.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	GetCamStatus	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SessionID	String	(Session ID in cookie.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Example

```
{
 "Request" : {
  "Command" : "GetCamStatus" ,
  "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3"
 }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	GetCamStatus								
Result	String	(Result of command processing.)								
Data			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Camera		(Camera)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Status	String	Status "NoCard"(no card inserted) / "Stop"(recording stop) / "Standby"(record standby) / "Rec"(recording)/ "RecPause"(recording pause)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mode	String	Mode "Camera"(record mode) / "Thmubnail"(display thmubnail) / "Play"(play clip) / "Review"(review clip) / "USB"(connect USB) / "EditMetadata"(edit metadata)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RecMode	String	Rec mode "Normal" / "Pre" / "Clip" / "Frame" / "Interval" / "Variable"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
TC	String	recording time(sec)(32bit length)	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
AspectRatio	String	Aspect ratio "16:9" / "4:3"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
WebAccess	String	Web access "Off" / "On"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
VideoOutputStatus	String	Video output status of camera "Off" / "On"	No	No	No	No	No	No	Yes	No
MenuStatus	String	Menu Open status of camera "Off" / "On"	No	Yes	Yes	Yes	Yes	No	Yes	Yes
MenuOutput	String	"All" / "Web"	No	No	No	No	No	No	Yes	No

FullAuto			Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Status	String	Status "Off" / "On" / "Preset"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Exposure			No	No	No	No	No	No	Yes	No
Status	String	Exposure "Auto" / "Manual" / "IrisPriority" / "ShutterPriority"	No	No	No	No	No	No	Yes	No
Iris			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Status	String	Mode "Manual" / "Auto" / "AutoAELock"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
		"Auto" / "Manual"	No	No	No	No	No	No	Yes	No
Value	String	Character string for iris value	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Gain			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Status	String	Mode "ManualL" / "ManualM" / "ManualH" / "Alc / "AlcAELock" / "Lolux" / "Variable"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
		"Auto" / "Manual"	No	No	No	No	No	No	Yes	No
Value	String	Character string for gain value	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
AeLevel			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Status	String	Mode "AeOff" / "AeOn" / "AeOnFace"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Adjust	String	AE Level adjustment "On" / "Off"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Value	String	Character string for AE level value	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Shutter			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Status	String	Mode "Off" / "Manual" / "Step" / "Variable" / "Eei" / "EeiAELock"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
		"Auto" / "Manual"	No	No	No	No	No	No	Yes	No
Value	String	Character string for Shutter value	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Whb			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Status	String	Mode "Preset"/"A"/"B"/"Faw"/"FawAELock"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
		"Faw" / "Awb" / "OnePush" / "3200K" / "5600K" / "Manual"	No	No	No	No	No	No	Yes	No
Value	String	Character string for White Balance value	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
WhPRScale	Integer	Slide bar total length for White paint Red(0-64)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
WhPBScale	Integer	Slide bar total length for White paint Blue(0-64)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
WhPRPosition	Integer	Slide bar current position for White paint Red(0-64)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
WhPBPosition	Integer	Slide bar current position for White paint Blue(0-64)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
WhPRValue	String	Character string for White paint Red value	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
WhPBValue	String	Character string for White paint Blue value	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Zoom			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dynamic	String	Dynamic Zoom Status "On" / "Off"	No	No	No	Yes	Yes	No	No	No
DynamicPos	Integer	Dynamic Zoom Position(0-499)	No	No	No	Yes	Yes	No	No	No
Position	Integer	Zoom position (0-499, for Slider button position)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DisplayValue	String	Character string for Zoom value "Z0 – Z149" (GY-HM200/HM25x/LS300 F-number "0 - 9999mm")	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
PanTilt			No	No	No	No	No	No	Yes	No
SpeedWithZoom	String	Speed With Zoom Status "On" / "Off"	No	No	No	No	No	No	Yes	No
PresetSpeed	Integer	Pan/Tilt/Preset speed (1-30)	No	No	No	No	No	No	Yes	No
Focus			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Status	String	Mode "AFFace" / "AF" / "MFOnePush" / "MF" / "MFFace"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
		"Auto" / "Manual"	No	No	No	No	No	No	Yes	No
Value	String	Character string for Focus value	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MasterBlack			No	Yes	Yes	Yes	Yes	No	No	Yes
Value	String	Character string for MasterBlack value	No	Yes	Yes	Yes	Yes	No	No	Yes

Detail			No	Yes	Yes	Yes	Yes	No	Yes	Yes
Value	String	Character string for Detail value	No	Yes	Yes	Yes	Yes	No	Yes	Yes
Streaming			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Status	String	Status "Stop"(Streaming has stopped or cannot be started.) / "Stopping"(About to stop.) / "Start"(Streaming has started.) / "Starting"(About to start.) / ~~"Waiting"(Waiting for connection. (for RTSP/RTP)) /~~ "Error" (Error occurred or waiting to start RTSP/RTP streaming)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Disptv			Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Status	String	Status "On" / "Off"	Yes	Yes	No	Yes	Yes	Yes	No	Yes
CharacterMix			No	No	Yes	No	No	No	No	Yes
Sdi	String	Mix "On" / "Off"	No	No	Yes	No	No	No	No	Yes
Hdmi	String	Mix "On" / "Off"	No	No	Yes	No	No	No	No	Yes
Video	String	Mix "On" / "Off"	No	No	Yes	No	No	No	No	Yes
TallyLamp			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Priority	String	Priority "Camera" / "Web"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Lighting	String	Lighting "On" / "Off"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
StudioTally	String	Status "Off" / "Program" / "Preview"	No	Yes	Yes	Yes	Yes	No	Yes	Yes
SlotA		(Status of SlotA)	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Status	String	Status "Select" / "NoSelect" / "NoCard" / "SelectRec" / "NoSelectRec" / "Invalid" / "Unknown"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Protect	String	Status "Unlock" / "Lock"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Remain	String	Remaining amount time(minutes) (0-65535)	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
ClipNum	Integer	Number of clips(0-4000)	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
RemainWarning	Integer	Remaining amount warning(0=No warning/1=Warning)	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
SlotB		(Status of SlotB)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Status	String	Status "Select" / "NoSelect" / "NoCard" / "SelectRec" / "NoSelectRec" / "Invalid" / "Unknown"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Protect	String	Status "Unlock" / "Lock"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Remain	String	Remaining amount time(minutes) (0-65535)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ClipNum	Integer	Number of clips(0-4000)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RemainWarning	Integer	Remaining amount warning(0=No warning/1=Warning)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Battery		(Status of Battery)	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Info	String	Battery information display classification "Time"(minutes) / "Capacity"(%) / "Voltage"(V)	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Level	String	Battery Level	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
		0：no battery / 1：plug / 2：plug[!] / 3：battery[?] /	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
		4：battery[CAL] / 5：battery[empty] / 6：battery[low] /	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
		7：battery[middle] / 8：battery[full] /	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
		9：battery[no segments] /	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
		10：charging battery [empty] /	No	Yes	No	Yes	Yes	Yes	No	Yes
		11：charging battery [low] /	No	Yes	No	Yes	Yes	Yes	No	Yes
		12：charging battery [middle] /	No	Yes	No	Yes	Yes	Yes	No	Yes
		13：charging battery [full] /	No	Yes	No	Yes	Yes	Yes	No	Yes
		14：charging battery [no segments]	No	Yes	No	Yes	Yes	Yes	No	Yes
Value	String	Remaining amount time	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes

			(minutes/ % / Voltage、65535 is impossible get)(0-1000/10)									
Enable			(Availability of function button switches)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Fullauto		(Fullauto function)	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
		Enable	Integer	switch 0:Disable, 1:Enable	No	No	Yes	Yes	Yes	Yes	No	Yes
		On	Integer	button "ON" switch of fullauto 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
		Off	Integer	button "OFF" switch of fullauto 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
		Preset	Integer	button "PRESET" switch of fullauto 0:Disable, 1:Enable	No	No	No	No	No	Yes	No	No
	Exposure			(Exposure function)	No	No	No	No	No	No	Yes	No
		Enable	Integer	switch 0:Disable, 1:Enable	No	No	No	No	No	No	No	No
		Auto	Integer	button "Atuo" switch of fullauto 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No
		Manual	Integer	button "Manual" switch of fullauto 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No
		ShutterPriority	Integer	button ShutterPriority" switch of fullauto 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No
		IrisPriority	Integer	button "IrisPriority" switch of fullauto 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No
	Iris			(Iris function)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Enable	Integer	switch 0:Disable, 1:Enable	No	No	Yes	Yes	Yes	Yes	No	Yes
		StatusDisp	Integer	Display Value of iris 0:Disable, 1:Enable	No	No	No	Yes	Yes	Yes	No	Yes
		Manual	Integer	button "MANUAL" switch of iris 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Auto	Integer	button "AUTO" switch of iris 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Open1	Integer	button ">" switch of iris 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Open2	Integer	button ">>" switch of iris 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
		Open3	Integer	button ">>>" switch of iris 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
		Close1	Integer	button "<" switch of iris 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Close2	Integer	button "<<" switch of iris 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
		Close3	Integer	button "<<<" switch of iris 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
		PushAuto	Integer	button "Push Auto" switch of iris 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
	Gain			(Gain function)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Enable	Integer	switch 0:Disable, 1:Enable	No	No	Yes	Yes	Yes	Yes	No	Yes
		StatusDisp	Integer	Display Value of gain 0:Disable, 1:Enable	No	No	No	Yes	Yes	Yes	No	Yes
		Manual	Integer	button "MANUAL" switch of gain 0:Disable, 1:Enable	Yes	Yes	No	No	No	No	Yes	No
		Auto	Integer	button "AUTO" switch of gain 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No
		Lolux	Integer	button "LOLUX" switch of gain 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
		Variable	Integer	button "Variable" switch of gain 0:Disable, 1:Enable	No	No	No	No	No	Yes	No	Yes
		L	Integer	button "L" switch of gain 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
		M	Integer	button "M" switch of gain 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
		H	Integer	button "H" switch of gain 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
		Up1	Integer	button "Up1" switch of gain 0:Disable, 1:Enable	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Up2	Integer	button "Up2" switch of gain 0:Disable, 1:Enable	No	No	No	No	No	Yes	No	Yes
		Down1	Integer	button "Down1" switch of gain 0:Disable, 1:Enable	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Down2	Integer	button "Down2" switch of gain 0:Disable, 1:Enable	No	No	No	No	No	Yes	No	Yes
	AeLevel			(AE Level function)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Enable	Integer	switch 0:Disable, 1:Enable	No	No	Yes	Yes	Yes	Yes	No	Yes
		StatusDisp	Integer	Display Value of AELevel 0:Disable, 1:Enable	No	No	No	Yes	Yes	Yes	No	Yes
		Up	Integer	button "▲" switch of AElevel 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Down	Integer	button "▼" switch of AElevel 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		AdjustOn	Integer	button "ON" switch of AElevel 0:Disable, 1:Enable	No	No	No	Yes	Yes	Yes	No	Yes
		AdjustOff	Integer	button "OFF" switch of AElevel 0:Disable, 1:Enable	No	No	No	Yes	Yes	Yes	No	Yes
	Shutter			(Shutter function)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Enable	Integer	switch 0:Disable, 1:Enable	No	No	Yes	Yes	Yes	Yes	No	Yes
StatusDisp	Integer	Display Value of Shutter 0:Disable, 1:Enable)	No	No	No	Yes	Yes	Yes	No	Yes
Off	Integer	button "OFF" switch of shatter 0:Disable, 1:Enable	Yes	Yes	Yes	No	No	No	No	No
Manual	Integer	button "MANUAL" switch of shatter 0:Disable, 1:Enable	Yes	Yes	No	No	No	No	No	No
Step	Integer	button "STEP" switch of shatter 0:Disable, 1:Enable	No	No	Yes	Yes	Yes	Yes	No	Yes
Variable	Integer	button "VRIABLE" switch of shatter 0:Disable, 1:Enable	No	No	Yes	Yes	Yes	Yes	No	Yes
Eei	Integer	button "EEI" switch of shatter 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Slower	Integer	button "▲" switch of shatter 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Faster	Integer	button "▼" switch of shatter 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Whb		(White balance function)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Enable	Integer	switch 0:Disable, 1:Enable	No	No	Yes	Yes	Yes	Yes	No	Yes
StatusDisp	Integer	Display Value of White balance 0:Disable, 1:Enable	No	No	No	Yes	Yes	Yes	No	Yes
Manual	Integer	button "MANUAL" switch of White balance 0:Disable, 1:Enable	Yes	Yes	No	No	No	No	Yes	No
Faw	Integer	button "FAW" switch of White balance 0:Disable, 1:Enable	Yes	Yes	No	No	No	No	Yes	No
Preset	Integer	button "PRESET" switch of White balance 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
A	Integer	button "A" switch of White balance 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
B	Integer	button "B" switch of White balance 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Awb	Integer	button "AWB" switch of White balance 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No
PushAuto	Integer	button "OnePushTrigger" switch of White balance 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
K3200	Integer	button "3200K" switch of White balance 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No
K5600	Integer	button "5600K" switch of White balance 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No
WhPaintRP	Integer	button " ↑ " switch of White paint 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
WhPaintRM	Integer	button " ↓ " switch of White paint 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
WhPaintBP	Integer	button "→" switch of White paint 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
WhPaintBM	Integer	button "←" switch of White paint 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Zoom		(Zoom function)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Enable	Integer	switch 0:Disable, 1:Enable	No	No	Yes	Yes	Yes	Yes	No	Yes
StatusDisp	Integer	Display Value of Zoom 0:Disable, 1:Enable	No	No	No	Yes	Yes	Yes	No	Yes
Tele1	Integer	button ">" switch of zoom 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tele2	Integer	button ">>" switch of zoom 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tele3	Integer	button ">>>" switch of zoom 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Wide1	Integer	button "<" switch of zoom 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Wide2	Integer	button "<<" switch of zoom 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Wide3	Integer	button "<<<" switch of zoom 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tele	Integer	button "Tele" switch of zoom 0:Disable, 1:Enable	No	No	Yes	Yes	Yes	Yes	No	Yes
Wide	Integer	button "Wide" switch of zoom 0:Disable, 1:Enable	No	No	Yes	Yes	Yes	Yes	No	Yes
Preset	Integer	button "Preset" switch of zoom 0:Disable, 1:Enable	No	No	Yes	Yes	Yes	Yes	No	Yes
Clear	Integer	button "Clear" switch of zoom 0:Disable, 1:Enable	No	No	Yes	Yes	Yes	Yes	No	Yes
Preset1	Integer	button "A" switch of zoom 0:Disable, 1:Enable	No	No	Yes	Yes	Yes	Yes	No	No
Preset2	Integer	button "B" switch of zoom 0:Disable, 1:Enable	No	No	Yes	Yes	Yes	Yes	No	No
Preset3	Integer	button "C" switch of zoom 0:Disable, 1:Enable	No	No	Yes	Yes	Yes	Yes	No	No
Focus		(Focus function)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Enable	Integer	switch 0:Disable, 1:Enable	No	No	Yes	Yes	Yes	Yes	No	Yes
StatusDisp	Integer	Display Value of Focus 0:Disable, 1:Enable	No	No	No	Yes	Yes	Yes	No	Yes
Manual	Integer	button "MANUAL" switch of focus 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Auto	Integer	button "AUTO" switch of focus 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Far1	Integer	button ">" switch of focus 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Far2	Integer	button ">>" switch of focus 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Far3	Integer	button ">>>" switch of focus 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Near1	Integer	button "<" switch of focus 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Near2	Integer	button "<<" switch of focus 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Near3	Integer	button "<<<" switch of focus 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Infinity	Integer	button "∞" switch of focus 0:Disable, 1:Enable	Yes	Yes	No	No	No	No	No	No
PushAuto	Integer	button "PUSH AUTO" switch of focus 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MasterBlack		(MasterBlack function)	No	Yes	Yes	Yes	Yes	No	No	Yes
Enable	Integer	switch 0:Disable, 1:Enable	No	No	No	No	No	No	No	Yes
StatusDisp	Integer	Display Value of MasterBlack 0:Disable, 1:Enable	No	No	No	No	No	No	No	Yes
Up1	Integer	button ">" switch of MasterBlack 0:Disable, 1:Enable	No	Yes	Yes	Yes	Yes	No	No	Yes
Up2	Integer	button ">>" switch of MasterBlack 0:Disable, 1:Enable	No	Yes	Yes	Yes	Yes	No	No	Yes
Up3	Integer	button ">>>" switch of MasterBlack 0:Disable, 1:Enable	No	Yes	Yes	Yes	Yes	No	No	Yes
Down1	Integer	button "<" switch of MasterBlack 0:Disable, 1:Enable	No	Yes	Yes	Yes	Yes	No	No	Yes
Down2	Integer	button "<<" switch of MasterBlack 0:Disable, 1:Enable	No	Yes	Yes	Yes	Yes	No	No	Yes
Down3	Integer	button "<<<" switch of MasterBlack 0:Disable, 1:Enable	No	Yes	Yes	Yes	Yes	No	No	Yes
Detail		(Detail function)	No	Yes	Yes	Yes	Yes	No	No	Yes
Enable	Integer	switch 0:Disable, 1:Enable	No	No	No	No	No	No	No	No
StatusDisp	Integer	Display Value of Detail 0:Disable, 1:Enable	No	No	No	No	No	No	No	No
Up	Integer	button ">" switch of Detail 0:Disable, 1:Enable	No	Yes	Yes	Yes	Yes	No	No	Yes
Down	Integer	button "<" switch of Detail 0:Disable, 1:Enable	No	Yes	Yes	Yes	Yes	No	No	Yes
User		(switch of user assignment)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sw1	Integer	button "SW1" switch of User Switch 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Sw2	Integer	button "SW2" switch of User Switch 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Sw3	Integer	button "SW3" switch of User Switch 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Sw4	Integer	button "SW4" switch of User Switch 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Sw5	Integer	button "SW5" switch of User Switch 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Sw6	Integer	button "SW6" switch of User Switch 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Sw7	Integer	button "SW7" switch of User Switch 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Sw8	Integer	button "SW8 switch of User Switch 0:Disable, 1:Enable	No	No	Yes	Yes	Yes	Yes	No	Yes
Sw9	Integer	button "SW9" switch of User Switch 0:Disable, 1:Enable	No	No	Yes	Yes	Yes	Yes	No	Yes
Sw10	Integer	button "SW10" switch of User Switch 0:Disable, 1:Enable	No	No	Yes	No	No	Yes	No	No
Sw11	Integer	button "SW11" switch of User Switch	No	No	Yes	No	No	No	No	No

			0:Disable, 1:Enable										
LensRet	Integer	button "LensRet" switch of User Switch 0:Disable, 1:Enable	No	No	Yes	No	No	No	No	No
Sub1	Integer	button "Sub1" switch of User Switch 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No
Sub2	Integer	button "Sub2" switch of User Switch 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No
Sub3	Integer	button "Sub3" switch of User Switch 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No
Streaming		(Streaming function)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Enable	Integer	switch 0:Disable, 1:Enable	No	No	No	No	No	No	No	Yes
StatusDisp	Integer	Display Value of Streaming 0:Disable, 1:Enable	No	No	No	No	No	No	No	Yes
On	Integer	button "ON" switch of Streaming 0:Disable, 1:Enable	Yes	Yes	Yes	No	No	No	Yes	Yes
Off	Integer	button "OFF" switch of Streaming 0:Disable, 1:Enable	Yes	Yes	Yes	No	No	No	Yes	Yes
Disptv		(Display function)	Yes	Yes	Yes	Yes	Yes	Yes	No	No
On	Integer	button "ON" switch of Display 0:Disable, 1:Enable	Yes	Yes	No	Yes	Yes	Yes	No	No
Off	Integer	button "OFF" switch of Display 0:Disable, 1:Enable	Yes	Yes	No	Yes	Yes	Yes	No	No
CharacterMix		(Character mix function)	No	No	Yes	No	No	No	No	Yes
Sdi	Integer	button "SDI" switch of CharacterMix 0:Disable, 1:Enable	No	No	Yes	No	No	No	No	Yes
Hdmi	Integer	button "HDMI" switch of CharacterMix 0:Disable, 1:Enable	No	No	Yes	No	No	No	No	Yes
Video	Integer	button "Video" switch of CharacterMix 0:Disable, 1:Enable	No	No	Yes	No	No	No	No	Yes
Menu		(Menu function)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Display	Integer	button "DYSPLAY" switch of Menu 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Status	Integer	button "STATUS" switch of Menu 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Menu	Integer	button "MENU" switch of Menu 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Set	Integer	button "SET" switch of Menu 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cancel	Integer	button "CANCEL" switch of Menu 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Up	Integer	button "↑" switch of Menu 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Down	Integer	button "↓" switch of Menu 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Left	Integer	button "←" switch of Menu 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Right	Integer	button "→" switch of Menu 0:Disable, 1:Enable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ButtonString		(String of button name)	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Gain		(Button of gain)	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
L	String	String of Low gain button	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
M	String	String of Middle gain button	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
H	String	String of High gain button	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
User		(Button of user switch alocation)	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Sw1	String	String of User switch 1 "Load Picture File" / "Clip Cutter Trig" / "Backup Trig" / "Clip Review" / "Zebra" / "Marker" / "Lolux" / "Bars" / "Focus Assist" / "OIS" / "AE Lock" / "OK Mark" / "Spot Meter" / "Face Detect" / "White Balance" / "Preset Zoom 1" / "Preset Zoom 2" / "Preset Zoom 3" / "LCD Backlight" / "Flash Band" / "One Push Focus" / "One Push Iris" / "Expanded Focus" / "Live Streaming" / "Auto Focus" / "Histogram" /	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes

						"AWB" / "Rec" / "Return Video"									
				Sw2	String	String of User switch 2. Same as above.	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
				Sw3	String	String of User switch 3. Same as above.	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
				Sw4	String	String of User switch 4. Same as above.	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
				Sw5	String	String of User switch 5. Same as above.	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
				Sw6	String	String of User switch 6. Same as above.	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
				Sw7	String	String of User switch 7. Same as above.	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
				Sw8	String	String of User switch 8. Same as above.	No	No	Yes	Yes	Yes	Yes	No	Yes
				Sw9	String	String of User switch 9. Same as above.	No	No	Yes	Yes	Yes	Yes	No	Yes
				Sw10	String	String of User switch 10. Same as above.	No	No	Yes	No	No	Yes	No	Yes
				Sw11	String	String of User switch 11. Same as above.	No	No	Yes	No	No	No	No	No
				LensRet	String	String of User switch Lens Ret. Same as above.	No	No	Yes	No	No	No	No	No
			Whb			(Button of White balance)	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
				Preset	String	String of Preset button "PRESET"/ "A" / "B" / "FAW"	No	No	Yes	Yes	Yes	Yes	No	Yes
				A	String	String of A button "PRESET"/ "A" / "B" / "FAW"	No	No	Yes	Yes	Yes	Yes	No	Yes
				B	String	String of B button "PRESET"/ "A" / "B" / "FAW"	No	No	Yes	Yes	Yes	Yes	No	Yes

Example

```
{
 "Response" : {
  "Requested" : "GetCamStatus" ,
  "Result" : "Success" ,
  "Data" : {
   "Camera" : {
    "Status" : "Standby" , "Mode" : "Camera" , "RecMode" : "Normal" ,
    "TC" : "##########" , "AspectRetio" : "16:9" , "WebAccess" : "On"
   } ,
   "Fullauto" : {
    "Status" : "Auto"
   } ,
   "Iris" : {
    "Status" : "Auto" , "Value" : "0"
   } ,
   "Gain" : {
    "Status" : "Alc" , "Value" : "0"
   } ,
   "AeLevel" : {
    "Status" : "AeOn" , "Adjust" : "On" , "Value" : "0"
   } ,
   "Shutter" : {
    "Status" : "Eei" , "Value" : "0"
   } ,
   "Whb" : {
    "Status" : "Faw" , "Value" : "0" ,
    "WhPRScale" : "Off" , "WhPBScale" : "0" ,
    "WhPRPosition" : "100" , "WhPBPosition" : "Z100" ,
```

```
  "WhPRValue" : "100" , "WhPBValue" : "Z100"
 } ,
 "Zoom" : {
  "Dynamic" : "Off" , "DynamicPos" : "0" ,
  "Position" : "100" , "DisplayValue" : "Z100"
 } ,
 "Focus" : {
  "Status" : "AF" , "Value" : "0"
 } ,
 "Streaming" : {
  "Status" : "Stop"
 } ,
 "Disptv" : {
  "Status" : "Off"
 } ,
 "CharacterMix" : {
  "Sdi" : "Off" , "Hdmi" : "Off" , "Video" : "Off"
 } ,
"TallyLamp" : {
  "Priority" : "Camera" , "Sw" : "Off"
 } ,
 "SlotA" : {
  "Status" : "Select" , "Protect" : "Unlock" , "Remain" : "120" , "ClipNum" : "50" ,
  "RemainWarning" : "0"
 } ,
 "SlotB" : {
  "Status" : "Select" , "Protect" : "Unlock" , "Remain" : "140" , "ClipNum" : "25" ,
  "RemainWarning" : "0"
 } ,
 "Battery" : {
  "Info" : "Time" , "Level" : "8" , "Value" : "80"
 } ,
 "Enable" : {
  "Fullauto" : {
   "Status" : 1 , "On" : 1 , "Off" : 1 , "Preset" : 1
  } ,
  "Iris" : {
   "Status" : 1 , "StatusDisp" : 1 ,
   "Manual" : 1 , "Auto" : 1 , "Open1" : 1 , "Open2" : 1 , "Open3" : 1 ,
    "Close1" : 1 , "Close 2" : 1 , "Close 3" : 1  "PushAuto" : 1
  } ,
  "Gain" : {
   "Status" : 1 , "StatusDisp" : 1 ,
   "Manual" : 1 , "Agc" : 1, "Lolux" : 1, "Variable" : 1 , "L" : 1 , "M" : 1 , "H" : 1 ,
   "Up1" : 1 , "Up2" : 1 , "Down1" : 1 , "Down2" : 1 ,
  } ,
  "AeLevel" : {
   "Status" : 1 , "StatusDisp" : 1 ,
   "AeLevelUp" : 1 , "AeLevelDown" : 1 , "AdjustOn" : 1, "AdjustOff" : 1
```

```
  } ,
  "Shutter" : {
    "Status" : 1 , "StatusDisp" : 1 ,
    "Off" : 1 , "Manual" : 1 , "Step" : 1 , "Variable" : 1 , "Eei" : 1 ,
    "Slower" : 1 , "Faster" : 1
  } ,
  "Whb" : {
    "Status" : 1 , "StatusDisp" : 1 ,
    "Manual" : 1 , "Faw" : 1 , "Preset" : 1 , "A" : 1 , "B" : 1 , "Adjust" : 1 ,
    "WhPaintRP" : 1 , "WhPaintRM" : 1 , "WhPaintBP" : 1 , "WhPaintBM" : 1
  } ,
  "Zoom" : {
    "Status" : 1 , "StatusDisp" : 1 ,
    "Tele1" : 1 , "Tele2" : 1 , "Tele3" : 1 , "Wide1" : 1 , "Wide2" : 1 , "Wide3" : 1 ,
   "Tele" : 1 , "Wide" : 1,
   "Preset" : 1 , "Clear" : 1 , "Preset1" : 1 , "Preset2" : 1 , "Preset3" : 1
  } ,
  "Focus" : {
    "Status" : 1 , "StatusDisp" : 1 ,
    "Manual" : 1 , "Auto" : 1,
    "Far1" : 1 , "Far2" : 1 , "Far3" : 1 , "Near1" : 1 , "Near2" : 1 , "Near3" : 1 ,
    "Infinity" : 1 , "PushAuto" : 1
  } ,
  "User" : {
    "Sw1" : 1 , "Sw2" : 1 , "Sw3" : 1 , "Sw4" : 1 , "Sw5" : 1 , "SDw6" : 1 ,
    "Sw7" : 1 , "Sw8" : 1 , "Sw9" : 1 , "Sw10" : 1 , "Sw11" : 1, "LensRet" : 1
  } ,
  "Streaming" : {
    "On" : 1 , "Off" : 1
  } ,
   "Disptv" : {
    "On" : 1 , "Off" : 1
  } ,
  "CharacterMix" : {
      "Sdi" : 1 , "Hdmi" : 1 , "Video" : 1
  } ,
  "Menu" : {
    "Display" : 1 , "Status" : 1 ,
    "Menu" : 1 , "Set" : 1 , "Cancel" : 1 ,
    "Up" : 1 , "Down" : 1 , "Left" : 1 , "Right" : 1
  }
 } ,
 "ButtonString" : {
  "Gain" : {
    "L" : "0dB" , "M" : "6dB" , "H" : "12dB"
  } ,
  "User" : {
    "Sw1" : "Focus Assist" , "Sw2" : "OIS" , "Sw3" : "Lolux" , "Sw4" : "AE Lock" ,
    "Sw5" : "Zebra" , "Sw6" : "Marker" , "Sw7" : "Clip Review" , "Sw8" : "Rec"
```

```
      "Sw9" : "AWB" , "Sw10" : "TC Preset" , "Sw11" : "OK Mark" ,
      "LensRet" : "Live Streaming"
     } ,
     "Whb" : {
      "Preset" : "PRESET" , "A" : "A" , "B" : "B"
     }
    }
   }
  }
 }
}
```

3.3.2. Recording

Control the recording function

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	SetCamCtrl	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SessionID	String	(Session ID in cookie.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Params										
CamCtrl	String	Camera Control "Rec":recording start / "Stop":recording stop	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Example

```
{
 "Request" : {
  "Command" : "SetCamCtrl " ,
  "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3" ,
  "Params" : {
   "CamCtrl" : "Rec"
  }
 }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	SetCamCtrl	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Result	String	(Result of command processing.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Example

```
{
 "Response" : {
  "Requested" : "SetCamCtrl " ,
  "Result" : "Success"
 }
}
```

3.3.3. Set zoom position (obey preset zoom settings of camera)

Control zoom position
In operation,obay preset zoom speed settings of camera,
If you use zooming with slide bar, you should use "SetWebSliderEvent" command.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	SetZoomCtrl	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
SessionID	String	(Session ID in cookie.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Params										
Position	Integer	Zoom position "0"～"499"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No

Example

```
{
  "Request" : {
    "Command" : "SetZoomCtrl " ,
    "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3" ,
    "Params" : {
      "Position" : 400
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	SetZoomCtrl	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Result	String	(Result of command processing.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No

Example

```
{
  "Response" : {
    "Requested" : "SetZoomCtrl " ,
    "Result" : "Success"
  }
}
```

3.3.4. Live streaming

Control the streaming function
After changing settings with API command, you should check the result of the command before start live streaming.
While menu or status screen is displayed on the camcorder, start/stop streaming command does not work.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	SetStreamingCtrl	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SessionID	String	(Session ID in cookie.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Params										
Streaming	String	Streaming Control "On":streaming start / "Off":streaming stop	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Example

```
{
 "Request" : {
  "Command" : "SetStreamingCtrl" ,
  "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3" ,
  "Params" : {
   "Streaming" : "On"
  }
 }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	SetStreamingCtrl	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Result	String	(Result of command processing.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Example

```
{
 "Response" : {
  "Requested" : "SetStreamingCtrl" ,
  "Result" : "Success"
 }
}
```

3.3.5. Tally lamp control

This command controls tally lamp.
Turning on/off the tally lamp depends on camera settings. "3.7.2. Set tally lamp priority"has the details.
"SetTallyLampCtrl" should be used only when changing the tally lamp state, otherwise it causes performance degradation.
Please do not use "SetTallyLampCtrl" in the studio tally system described in '3.7. How to control studio tally system".
From Web API version 1.07, alarm indication on the camera itself has highest priority compared with all other tally control via web interface.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	SetTallyLampCtrl	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SessionID	String	(Session ID in cookie.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Params										
Sw	String	Tarry lamp Control "On"(The order turns on LED) / "Off"(The order turns off LED) /	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Example

```
{
 "Request" : {
  "Command" : "SetTallyLampCtrl",
  "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3" ,
  "Params" : {
   "Sw" : "On"
  }
 }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	SetTallyLampCtrl	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Result	String	(Result of command processing.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Example

```
{
 "Response" : {
  "Requested" : "SetTallyLampCtrl" ,
  "Result" : "Success"
 }
}
```

3.3.6. Set Web Button Event

Issue a button event

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	SetWebButtonEvent	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SessionID	String	(Session ID in cookie.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Params		(Button parameter is selected by Kind parameter)								
Kind	String	Kind of button event								
		"Fullauto"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
		"Iris"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		"Gain"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		"AeLevel"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		"Shutter"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		"Whb"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		"Zoom"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		"Focus"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		"User"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		"Disptv"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		"Menu"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		"Rec"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		"MasterBlack"	No	Yes	Yes	Yes	Yes	No	No	Yes
		"Detail"	No	Yes	Yes	Yes	Yes	No	Yes	Yes
		"Exposure"	No	No	No	No	No	No	Yes	No
		"SpeedWithZoom"	No	No	No	No	No	No	Yes	No
Button	String	Fullauto event								
		"On" / "Off"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		"Preset"	No	No	No	No	No	Yes	No	No
		Exposure event								
		"Auto"/ "Manual" / "IrisPriority" / "ShutterPriority"	No	No	No	No	No	No	Yes	No
		Iris event								
		"Manual" / "Auto"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
		"Open1"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		"Open2"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
		"Open3"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
		"Close1"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		"Close2"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
		"Close3"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
		"PushAuto"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
		Gain event								
		"Alc"	Yes	Yes	No	No	No	No	No	No
		"Lolux"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
		"L" / "M" / "H"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
		"Variable"	No	No	No	No	No	Yes	No	No
		"Up1"	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		"Up2"	No	No	No	No	No	Yes	No	No
		"Down1"	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes

"Down2"	No	No	No	No	No	Yes	No	No
"Manual" / "Auto"	No	No	No	No	No	No	No	No
AeLevel event								
"AeLevelUp" / "AeLevelDown"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
"AdjustOn" / "AdjustOff"	No	No	No	Yes	Yes	Yes	No	Yes
"Up" / "Down"	No	No	No	No	No	No	Yes	No
Shutter event								
"Off"	Yes	Yes	Yes	No	No	No	No	No
"Step"	No	No	Yes	Yes	Yes	Yes	No	Yes
"Variable"	No	No	Yes	Yes	Yes	Yes	No	Yes
"Manual"	Yes	Yes	No	No	No	No	No	No
"Eei"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
"Slower"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
"Faster"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Whb event								
"Faw"	Yes	Yes	No	No	No	No	Yes	No
"Preset" / "A" / "B"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
"Adjust" (Awb trigger when PZ100)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
"WhPaintRP"/"WhPaintRM"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
"WhPaintBP"/"WhPaintBM"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
"Awb"	No	No	No	No	No	No	Yes	No
"3200K"	No	No	No	No	No	No	Yes	No
"5600K"	No	No	No	No	No	No	Yes	No
"Manual"	No	No	No	No	No	No	Yes	No
Zoom event								
"Tele1" / "Tele2" / "Tele3"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
"Wide1" / "Wide2" / "Wide3"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
"Stop" ※"Tele" or "Wide" events need "Stop" in KY-PZ100.	No	No	No	No	No	No	Yes	No
Focus event								
"Manual" / "Auto"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
"Far1" / "Far2" / "Far3" / "Near1" / "Near2"/ "Near3"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
"Infinity"	Yes	Yes	No	No	No	No	No	No
"PushAuto"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
"Stop" ※"Far" or "Near" events need "Stop" in KY-PZ100.	No	No	No	No	No	No	Yes	No
MasterBlack event								
"Up1" / "Up2" / "Up3" / "Down1" / "Down2"/ "Down3"	No	Yes	Yes	Yes	Yes	No	No	Yes
User event								
"Sw1" / "Sw2" / "Sw3" / "Sw4" / "Sw5" / "Sw6" / "Sw7"	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
"Sw8" / "Sw9"	No	No	Yes	Yes	Yes	Yes	No	Yes
"Sw10"	No	No	Yes	No	No	Yes	No	No
"Sw11" / "LensRet"	No	No	Yes	No	No	No	No	No
"Sub1" / "Sub2" / "Sub3"	No	No	No	No	No	No	Yes	No
Disptv event								
"On":(Display on TV) / "Off":(Display on TV)	Yes	Yes	No	Yes	Yes	Yes	No	No
"Sdi":(Character Mix)	No	No	Yes	No	No	No	No	Yes
"Hdmi":(Character Mix)	No	No	Yes	No	No	No	No	Yes
"Video":(Character Mix)	No	No	Yes	No	No	No	No	Yes

				Menu event									
				"Display":(Menu) / "Status":(Menu) / "Menu":(Menu)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
				"Cancel":(Menu) / "Set":(Menu) / "Up":(Menu) /	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
				"Down":(Menu) / "Left":(Menu) / "Right":(Menu)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
				※ "Up", "Down", "Left", and "Right" events call assigned function when menu is closed.	No	No	No	No	No	No	No	Yes
				Rec event								
				"Start":Recording start / "Stop":Recording stop	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
				Detail event "Up" / "Down"	No	Yes	Yes	Yes	Yes	No	Yes	Yes
				SpeedWithZoom event "Off / "On"	No	No	No	No	No	No	Yes	No

Example

```
{
  "Request" : {
    "Command" : "SetWebButtonEvent " ,
    "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3" ,
    "Params" : {
      "Kind" : "Fullauto" ,
      "Button" : "On"
    }
  }
}
```

Response

Key		Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response											
	Requested	String	SetWebButtonEvent	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Result	String	(Result of command processing.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Example

```
{
  "Response" : {
    "Requested" : "SetWebButtonEvent " ,
    "Result" : "Success"
  }
}
```

3.3.7. Set Web Slider Event

Issue a slider event
You should use 'SetWebSliderEvent' command instead of 'SetZoomCtrl' for zooming with slide bar. You get maxmum speed of zoom.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	SetWebSliderEvent	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
SessionID	String	(Session ID in cookie.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Params										
Kind	String	Kind of Slider event								
		" ZoomBar "	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Position	Integer	Slider event								
		ZoomBar 0～499:Zoom position	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No

Example

```
{
 "Request" : {
  "Command" : "SetWebSliderEvent " ,
  "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3" ,
  "Params" : {
   "Kind" : "ZoomBar" ,
   "Position" : 73
  }
 }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	SetWebSliderEvent	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Result	String	(Result of command processing.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No

Example

```
{
 "Response" : {
  "Requested" : "SetWebSliderEvent " ,
  "Result" : "Success"
 }
}
```

3.3.8. Set Web XYField Event

Issue a two-dimensional slider event

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	SetWebXYFieldEvent	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SessionID	String	(Session ID in cookie.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Params										
Kind	String	Kind of XYField event "WhPaintRB ":White paint R and B	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
XPosition	Integer	XYField event WhPaintRB "0"～"64" (White paint B position)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
YPosition	Integer	XYField event WhPaintRB "0"～"64" (White paint R position)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Example

```
{
 "Request" : {
  "Command" : "SetWebXYFieldEvent" ,
  "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3" ,
  "Params" : {
    "Kind" : "WhPaintRB" ,
    "XPosition" : 32,
    "YPosition" : 32
  }
 }
}
```

Respopnse

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	SetWebXYFieldEvent	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Result	String	(Result of command processing.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Example

```
{
 "Response" : {
  "Requested" : "SetWebXYFieldEvent" ,
  "Result" : "Success"
 }
}
```

3.3.9. Get GPS Information

Request location information of camera GPS function.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	GetGPSInfo	Yes	Yes	Yes	No	No	No	No	Yes
SessionID	String	(Session ID in cookie.)	Yes	Yes	Yes	No	No	No	No	Yes

Example

```
{
 "Request" : {
  "Command" : "GetGPSInfo" ,
  "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3"
 }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	GetGPSInfo	Yes	Yes	Yes	No	No	No	No	Yes
Result	String	(Result of command processing.)	Yes	Yes	Yes	No	No	No	No	Yes
Data										
AntennaLevel	String	"None" / "Lost" / "Searching" / "Level1" / "Level2" / "Level3"	Yes	Yes	Yes	No	No	No	No	Yes
Location	String	"+/-"<Latitude>"+/-"<Longitude>"+/-"<Altitude>"/" Latitude +:North, -:South, 00.00000(min) - 90.000000(max) Longitude +:East, -:West, 000.000000(min) - 179.999999(max) Altitude +, - , 0.000000(min) - 99999999(max)	Yes	Yes	Yes	No	No	No	No	Yes

*Location data is valid only if AnttennaLevel is "Level1", "Level2", or "Level3".

Example

```
{
 "Response" : {
  "Requested" : "GetGPSInfo" ,
  "Result" : "Success" ,
  "Data" : {
   "AntennaLevel" : "Level3" ,
   "Location" : "+35.360452+138.727820+3775.630/"
   } ,
 }
}
```

3.3.10. Seesaw switch operation

Seesaw switch operation command is changing parameter by a seesaw-swith.

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	SeesawSwitchOperation	No	Yes	Yes	Yes	Yes	No	No	Yes
SessionID	String	(Session ID in cookie.)	No	Yes	Yes	Yes	Yes	No	No	Yes
Params										
Kind	String	Kind of Seesaw event "ZoomSeesaw" / "IrisSeesaw" / "MasterBlackSeesaw" / "FocusSeesaw"	No	Yes	Yes	Yes	Yes	No	No	Yes
Direction	String	Zoom operation "Stop" / "Wide" / "Tele" Iris operation "Open" / "Close" / "Stop" MasterBlack operation "Up" / "Down" / "Stop" Focus operation "Far" / "Near" / "Stop"	No	Yes	Yes	Yes	Yes	No	No	Yes
Speed	Integer	0 - 8	No	Yes	Yes	Yes	Yes	No	No	Yes

*"Speed = 0" has the same meaning as "Direction = Stop".

Example

```
{
 "Request" : {
  "Command" : "SeesawSwitchOperation" ,
  "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3" ,
  "Params" : {
   "Kind" : "MasterBlack" ,
   "Direction" : "Up" ,
   "Speed" : 5
  }
 }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	SeesawSwitchOperation	No	Yes	Yes	Yes	Yes	No	No	Yes
Result	String	(Result of command processing.)	No	Yes	Yes	Yes	Yes	No	No	Yes

Example

```
{
 "Response" : {
  "Requested" : "SeesawSwitchOperation" ,
  "Result" : "Success"
 }
}
```

3.4. PTZ Camera Support Command

3.4.1. Set Pan Tilt Control

Pan / Tilt control command with direct position parameters.

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	SetPTCtrl	No	No	No	No	No	No	Yes	No
SessionID	String	(Session ID in cookie.)	No	No	No	No	No	No	Yes	No
Params										
PanDirection	String	"Stop" / "Left" / "Right" / "Home" / "Position"	No	No	No	No	No	No	Yes	No
PanPosition	Integer	0(Back left limmit) - 17540(front) - 35080(Back right limmit) PanPosition is valid when "PanDirection" is "Position".	No	No	No	No	No	No	Yes	No
PanSpeed	Integer	0 - 30	No	No	No	No	No	No	Yes	No
TiltDirection	String	"Stop" / "Up" / "Down" / "Home" / "Position"	No	No	No	No	No	No	Yes	No
TiltPosition	Integer	0(Just above) - 9040(just beside) - 12080(diagonally downward) "TiltPosition" is valid when "TiltDirection" is "Position".	No	No	No	No	No	No	Yes	No
TiltSpeed	Integer	0 - 30	No	No	No	No	No	No	Yes	No

*"Speed = 0" has the same meaning as "Direction = Stop".

Example

```
{
  "Request" : {
    "Command" : "SetPTCtrl" ,
    "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3" ,
    "Params" : {
      "PanDirection" : "Left" ,
      "PanPosition" : 32768
      "PanSpeed" : 10
      "TiltDirection" : "Up" ,
      "TiltPositon : 32768
      "TiltSpeed" : 10
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	SetPTCtrl	No	No	No	No	No	No	Yes	No
Result	String	(Result of command processing.)	No	No	No	No	No	No	Yes	No

Example

```
{
  "Response" : {
    "Requested" : "SetPTCtrl" ,
    "Result" : "Success"
  }
}
```

3.4.2. Joystick Operation

Joystick operation command with direction and speed parameters.

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	JoyStickOperation	No	No	No	No	No	No	Yes	No
SessionID	String	(Session ID in cookie.)	No	No	No	No	No	No	Yes	No
Params										
PanDirection	String	"Stop" / "Left" / "Right"	No	No	No	No	No	No	Yes	No
PanSpeed	Integer	0 - 30	No	No	No	No	No	No	Yes	No
TiltDirection	String	"Stop" / "Up" / "Down"	No	No	No	No	No	No	Yes	No
TiltSpeed	Integer	0 - 30	No	No	No	No	No	No	Yes	No

*"Speed = 0" has the same meaning as "Direction = Stop".

Example

```
{
 "Request" : {
  "Command" : "JoyStickOperation" ,
  "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3" ,
  "Params" : {
   "PanDirection" : "Left" ,
   "PanSpeed" : 10
   "TiltDirection" : "Up" ,
    "TiltSpeed" : 10
  }
 }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	JoyStickOperation	No	No	No	No	No	No	Yes	No
Result	String	(Result of command processing.)	No	No	No	No	No	No	Yes	No

Example

```
{
 "Response" : {
  "Requested" : "JoyStickOperation" ,
  "Result" : "Success"
 }
}
```

3.4.3. Zoom switch operation

Zoom switch operation command is changing zoom by a seesaw-swith.

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	ZoomSwitchOperation	No	Yes	Yes	Yes	Yes	No	Yes	Yes
SessionID	String	(Session ID in cookie.)	No	Yes	Yes	Yes	Yes	No	Yes	Yes
Params										
Direction	String	"Stop" / "Wide" / "Tele"	No	Yes	Yes	Yes	Yes	No	Yes	Yes
Speed	Integer	0 - 8	No	Yes	Yes	Yes	Yes	No	Yes	Yes

*"Speed = 0" has the same meaning as "Direction = Stop".

Example

```
{
  "Request" : {
    "Command" : "ZoomSwitchOperation" ,
    "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3" ,
    "Params" : {
      "Direction" : "Wide" ,
      "Speed" : 5
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	ZoomSwitchOperation	No	Yes	Yes	Yes	Yes	No	Yes	Yes
Result	String	(Result of command processing.)	No	Yes	Yes	Yes	Yes	No	Yes	Yes

Example

```
{
  "Response" : {
    "Requested" : "ZoomSwitchOperation" ,
    "Result" : "Success"
  }
}
```

3.4.4. Set Pan / Tilt / Zoom preset

Control pan / tilt / zoom preset position.

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	SetPTZPreset	No	No	No	No	No	No	Yes	No
SessionID	String	(Session ID in cookie.)	No	No	No	No	No	No	Yes	No
Params										
No	Integer	1 - 100(Number of preset position)	No	No	No	No	No	No	Yes	No
Operation	String	"Move"(Move to preset position) "Set" (Current position is stored) "Delete"(Delete the preset position)	No	No	No	No	No	No	Yes	No

Example

```
{
  "Request" : {
    "Command" : "SetPTZPreset" ,
    "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3" ,
    "Params" : {
      "No" : 90 ,
      "Operation" : "Move"
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	SetPTZPreset	No	No	No	No	No	No	Yes	No
Result	String	(Result of command processing.)	No	No	No	No	No	No	Yes	No

Example

```
{
  "Response" : {
    "Requested" : "SetPTZPreset" ,
    "Result" : "Success"
  }
}
```

3.4.5. Get camera status (for remote controller)

Request minimum status information of camera function for RM-LP100 and other remote controllers.
It is recommended to use this command every 500 msec or above.
Unnecessary use of this command make performance degradation.

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	GetCamStatusMinimum	No	No	No	No	No	No	Yes	No
SessionID	String	(Session ID in cookie.)	No	No	No	No	No	No	Yes	No

Example

```
{
  "Request" : {
    "Command" : "GetCamStatusMinimum" ,
    "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3"
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	GetCamStatusMinimum	No	No	No	No	No	No	Yes	No
Result	String	(Result of command processing.)	No	No	No	No	No	No	Yes	No
Data										
Camera		(Camera)								
Status	String	Status "NoCard"(no card inserted) / "Stop"(recording stop) / "Standby"(record standby) / "Rec"(recording)/ "RecPause"(recording pause)	No	No	No	No	No	No	Yes	No
VideoOutputStatus	String	"On" / "Off"	No	No	No	No	No	No	Yes	No
MenuStatus	String	"On" / "Off"	No	No	No	No	No	No	Yes	No
Exposure										
Status	String	"Auto" / "Manual" / "IrisPriority" / "ShutterPriority"	No	No	No	No	No	No	Yes	No
Iris										
Status	String	"Auto" / "Manual"	No	No	No	No	No	No	Yes	No
Value	String	Character string for iris value	No	No	No	No	No	No	Yes	No
Shutter										
Status	String	"Auto" / "Manual"	No	No	No	No	No	No	Yes	No
Value	String	Character string for Shutter value	No	No	No	No	No	No	Yes	No
Gain										
Status	String	"Auto" / "Manual"	No	No	No	No	No	No	Yes	No
Value	String	Character string for gain value	No	No	No	No	No	No	Yes	No
AeLevel										
Status	String	"AeOff" / "AeOn"	No	No	No	No	No	No	Yes	No
Value	String	Character string for AE level value	No	No	No	No	No	No	Yes	No
Whb										
Status	String	"Faw" / OnePush" / "3200K" / "5600K" / "Manual"	No	No	No	No	No	No	Yes	No

Value	String	Character string for White Balance value	No	No	No	No	No	No	Yes	No
WhPRScale	Integer	Slide bar total length for White paint Red(0-255)	No	No	No	No	No	No	Yes	No
WhPBScale	Integer	Slide bar total length for White paint Blue(0-255)	No	No	No	No	No	No	Yes	No
WhPRPosition	Integer	Slide bar current position for White paint Red(0-255)	No	No	No	No	No	No	Yes	No
WhPBPosition	Integer	Slide bar current position for White paint Blue(0-255)	No	No	No	No	No	No	Yes	No
WhPRValue	String	Character string for White paint Red value	No	No	No	No	No	No	Yes	No
WhPBValue	String	Character string for White paint Blue value	No	No	No	No	No	No	Yes	No
Focus										
Status	String	"Auto" / "Manual"	No	No	No	No	No	No	Yes	No
Value	String	Character string for Focus value	No	No	No	No	No	No	Yes	No
Zoom										
Position	Integer	Zoom position (0-499)	No	No	No	No	No	No	Yes	No
Detail										
Value	String	Character string for detail value	No	No	No	No	No	No	Yes	No
Streaming										
Status	String	Status "Stop"(Streaming has stopped or cannot be started.) / "Stopping"(About to stop.) / "Start"(Streaming has started.) / "Starting"(About to start.) / ~~"Waiting"(Waiting for connection. (for RTSP/RTP)) /~~ "Error" (Error occurred or waiting to start RTSP/RTP streaming)	No	No	No	No	No	No	Yes	No
TallyLamp										
Priority	String	Priority "Camera" / "Web"	No	No	No	No	No	No	Yes	No
Lighting	String	Lighting "On" / "Off"	No	No	No	No	No	No	Yes	No
StudioTally	String	Status "Off" / "Program" / "Preview"	No	No	No	No	No	No	Yes	No
Enable		(Availability of function button switches)								
Exposure		(Exposure function)								
Auto	Integer	button "Atuo" switch of exposure 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No
Manual	Integer	button "Manual" switch of exposure 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No
ShutterPriority	Integer	button ShutterPriority" switch of exposure 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No
IrisPriority	Integer	button "IrisPriority" switch of exposure 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No
Iris		(Iris function)								
Open1	Integer	button ">" switch of iris 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No
Close1	Integer	button "<" switch of iris 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No
Gain		(Gain function)								
Auto	Integer	Display Value of gain 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No
Manual	Integer	button "MANUAL" switch of gain 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No
Up1	Integer	button "Up1" switch of gain 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No
Down1	Integer	button "Down1" switch of gain 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No
AeLevel		(AE Level function)								
Up	Integer	button "▲" switch of AElevel 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No
Down	Integer	button "▼" switch of AElevel 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No
Shutter		(Shutter function)								
Slower	Integer	button "▲" switch of shatter 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No
Faster	Integer	button "▼" switch of shatter 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No

Whb		(White balance function)										
	Faw	Integer	button "FAW" switch of White balance 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No
	Manual	Integer	button "MANUAL" switch of White balance 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No
	OnePush	Integer	button "AWB" switch of White balance 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No
	K3200	Integer	button "3200K" switch of White balance 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No
	K5600	Integer	button "5600K" switch of White balance 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No
	OnePushTrigge	Integer	button "AWB trigger" switch of White balance 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No
Focus		(Focus function)										
	Manual	Integer	button "MANUAL" switch of focus 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No
	Auto	Integer	button "AUTO" switch of focus 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No
Detail		(Detail function)										
	Up	Integer	button "ON" switch of Streaming 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No
	Down	Integer	button "OFF" switch of Streaming 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No
Preset		(Availability of preset number)										
	1	Integer	PTZ preset number is operatable. 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No
	2	Integer	PTZ preset number is operatable. 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No
	• • • • • • • • • •											
	#	Integer	PTZ preset number is operatable. 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No
	100	Integer	PTZ preset number is operatable. 0:Disable, 1:Enable	No	No	No	No	No	No	Yes	No

Example

```
{
 "Response" : {
  "Requested" : "GetCamStatusMinimum" ,
  "Result" : "Success" ,
  "Data" : {
   "Camera" : {
      "PowerStatus" : "On" , "MenuStatus" : "On"
   } ,
   "Exposure : {
      "Status" : "Auto"
   } ,
   "Iris" : {
     "Status" : "Auto" , "Value" : "0"
   } ,
    "Shutter" : {
     "Status" : "Auto" , "Value" : "0"
   } ,
    "Gain" : {
     "Status" : "Auto" , "Value" : "0"
   } ,
    "AeLevel" : {
    "Status" : "AeOn" , "Value" : "0"
```

```
 } ,
"Whb" : {
 "Status" : "Faw" , "Value" : "0" ,
 "WhPRScale" : 0 , "WhPBScale" : 0,
 "WhPRPosition" : 64, "WhPBPosition" : "64,
 "WhPRValue" : "64" , "WhPBValue" : "64"
} ,
"Focus" : {
 "Status" : "Auto" , "Value" : "0"
} ,
"Zoom" : {
 "Position" : 100
} ,
"Detail" : {
 "Value" : "100"
} ,
"Streaming" : {
 "Status" : "Stop"
} ,
"TallyLamp" : {
 "Priority" : "Camera", "Lighting" : "Off"
} ,
"Enable" : {
 "Exposure" : {
  "Auto" : 1 , "Manual" : 1 , "ShutterPriority" : 1 , "IrisPriority" : 1
 } ,
 "Iris" : {
  "Open1" : 1 ,"Close1" : 1
 } ,
 "Gain" : {
  "Auto" : 1 , "Manual" : 1 , "Up1" : 1 , "Down1" : 1
 } ,
 "AeLevel" : {
  "Up" : 1 ,"Down" : 1
 } ,
 "Shutter" : {
  "Slower" : 1 ,"Faster" : 1
 } ,
"Whb" : {
  "Faw" : 1 , "Manual" : 1 , "OnePush" : 1 , "K3200" : 1 , "K5600" : 1 , "OnePushTrigger" : 1
 } ,
 "Focus" : {
  "Auto" : 1 , "Manual" : 1
 } ,
 "Detail" : {
  "Up" : 1 ,"Down" : 1
 } ,
"Preset" : {
"1" : 1 , "2" : 1 , "3" : 1 , "4" : 1 , "5" : 1 , "6" : 1 , "7" : 1 , "8" : 1 , "9" : 1 , "10" : 1 ,
```

```
    "11" : 1 , "12" : 1 , "13" : 1 , "14" : 1 , "15" : 1 , "16" : 1 , "17" : 1 , "18" : 1 , "19" : 1 , "20" : 1 ,
    "21" : 1 , "22" : 1 , "23" : 1 , "24" : 1 , "25" : 1 , "26" : 1 , "27" : 1 , "28" : 1 , "29" : 1 , "30" : 1 ,
    "31" : 1 , "32" : 1 , "33" : 1 , "34" : 1 , "35" : 1 , "36" : 1 , "37" : 1 , "38" : 1 , "39" : 1 , "40" : 1 ,
    "41" : 1 , "42" : 1 , "43" : 1 , "44" : 1 , "45" : 1 , "46" : 1 , "47" : 1 , "48" : 1 , "49" : 1 , "50" : 1 ,
    "51" : 1 , "52" : 1 , "53" : 1 , "54" : 1 , "55" : 1 , "56" : 1 , "57" : 1 , "58" : 1 , "59" : 1 , "60" : 1 ,
    "61" : 1 , "62" : 1 , "63" : 1 , "64" : 1 , "65" : 1 , "66" : 1 , "67" : 1 , "68" : 1 , "69" : 1 , "70" : 1 ,
    "71" : 1 , "72" : 1 , "73" : 1 , "74" : 1 , "75" : 1 , "76" : 1 , "77" : 1 , "78" : 1 , "79" : 1 , "80" : 1 ,
    "81" : 1 , "82" : 1 , "83" : 1 , "84" : 1 , "85" : 1 , "86" : 1 , "87" : 1 , "88" : 1 , "89" : 1 , "90" : 1 ,
    "91" : 1 , "92" : 1 , "93" : 1 , "94" : 1 , "95" : 1 , "96" : 1 , "97" : 1 , "98" : 1 , "99" : 1 , "100" : 1 ,
    } ,
  }
 }
}
```

3.5. How to acquire JPEG data

These commands enables to start JPEG encoding and aquire JPEG image data.
'3.5.1 JpegEncode' command with parameter 'Start' can be used to start encoding.
JPEG data is acquired followed by a header in a response for 'get_jpg_cgi' described in '3.5.2 Acquire JPEG data'.

3.5.1. JPEG encode control

Start / stops the encoding function of the camera.
It is necessary to start encoding to acquire JPEG data.
When other users have already used it,it returns disable error. Even in this case, you can acquire JPEG data.
Please be carefully to stop JPEG encoding, because other users may acquire JPEG data.
There is a possibility stop encoding command returns error if another client has already stopped encoding.
In the following cases, you cannot send the command to the camera.
The camera is in Live Streaming mode.
The camera is in IFB Streaming mode.

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	JpegEncode	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SessionID	String	(Session ID in cookie.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Params										
Operate	String	"Start" / "Stop"	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Example

```
{
 "Request" : {
  "Command" : "JpegEncode" ,
  "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3" ,
  "Params" : {
   "Operate" : "Start"
  }
 }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	JpegEncode	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Result	String	(Result of command processing.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Example

```
{
 "Response" : {
  "Requested" : "JpegEncode" ,
  "Result" : "Success"
 }
}
```

3.5.2. Set JPEG encode size

Setting image resolution of acquring JPEG data.

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	SetJpegEncodeSize	No	No	No	No	No	No	Yes	No
SessionID	String	(Session ID in cookie.)	No	No	No	No	No	No	Yes	No
Params										
Size	String	"640x360" / "320x181"	No	No	No	No	No	No	Yes	No

Example

```
{
  "Request" : {
    "Command" : "SetJpegEncodeSize" ,
    "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3" ,
    "Params" : {
      "Size" : "320x180"
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	SetJpegEncodeSize	No	No	No	No	No	No	Yes	No
Result	String	(Result of command processing.)	No	No	No	No	No	No	Yes	No

Example

```
{
  "Response" : {
    "Requested" : "SetJpegEncodeSize" ,
    "Result" : "Success"
  }
}
```

3.5.3. Acquire JPEG data

You can acquire JPEG image followed by a header when accessing to the URL below.
Content type of the response is image/jpeg.

Access format	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
http://<ip address>/cgi-bin/get_jpg.cgi?SessionID=<Session ID in cookie.>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Request	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
GET /cgi-bin/get_jpg.cgi?SessionID=<Session ID in cookie.> HTTP/1.1\r\n	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Response	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
HTTP 1.1 200 OK\r\n *Content-type: image/jpeg\r\n* *Pragma: no-cache\r\n* *Cache-Control: no-cache\r\n* *Expires: Thu, 01 Jan 1970 00:00:00 GMT\r\n* *Content-Length: 32906\r\n* *Date: Wef, 07 Jan 2015 23:28:58 GMT\r\n* *Server: Camera\r\n* *\r\n* *…..Data of Jpeg file follows after this.*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

3.6. How to use Interruptible Feedback Function

These commands enables to use interruptible feedback(IFB) function.
IFB is used for returning audio to the camera from the controller.

3.6.1. Get interruptible feedback settings

Get IFB function parameters.

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	GetIFBSettings	No	Yes	Yes	No	No	No	No	No
SessionID	String	(Session ID in cookie.)	No	Yes	Yes	No	No	No	No	No

Example

```
{
 "Request" : {
  "Command" : "GetIFBSettings" ,
  "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3" ,
 }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	GetIFBSettings	No	Yes	Yes	No	No	No	No	No
Result	String	(Result of command processing.)	No	Yes	Yes	No	No	No	No	No
Data										
Function	String	Switch to enable IFB function. "Enable" / "Disable"	No	Yes	Yes	No	No	No	No	No
Address	String	Address of IFB server. "xxx.xxx.xxx.xxx"	No	Yes	Yes	No	No	No	No	No
Port	Integer	Port of IFB server. 1 - 65535	No	Yes	Yes	No	No	No	No	No
Mountpoint	String	Mountpoint on IFB server. Max 62 characters.	No	Yes	Yes	No	No	No	No	No

Example

```
{
 "Response" : {
  "Requested" : "GetIFBSettings" ,
  "Result" : "Success" ,
  "Data" : {
   "Function" : "Enable",
   "Address" : "192.168.0.11" ,
   "Port" : 5000 ,
   "Mountpoint" : "DB90TX"
  }
 }
}
```

3.6.2. Set interruptible feedback settings

Set IFB function parameters. It is necessary to use return audio at camera.
This command enables / disables the IFB function of the camera.

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	SetIFBSettings	No	Yes	Yes	No	No	No	No	No
SessionID	String	(Session ID in cookie.)	No	Yes	Yes	No	No	No	No	No
Params										
Function	String	Switch to enable IFB function. "Enable" / "Disable"	No	Yes	Yes	No	No	No	No	No
Address	String	Address of IFB server. "xxx.xxx.xxx.xxx"	No	Yes	Yes	No	No	No	No	No
Port	Integer	Port of IFB server. 1 - 65535	No	Yes	Yes	No	No	No	No	No
Mountpoint	String	Mountpoint on IFB server. Max 62 characters.	No	Yes	Yes	No	No	No	No	No

Example

```
{
 "Request" : {
  "Command" : "SetIFBSettings ,
  "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3" ,
  "Params" : {
   "Function" : "Enable",
   "Address" : "192.168.0.11" ,
   "Port" : 5000 ,
   "Mountpoint" : "DB90TX"
  }
 }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	SetIFBSettings	No	Yes	Yes	No	No	No	No	No
Result	String	(Result of command processing.)	No	Yes	Yes	No	No	No	No	No

Example

```
{
 "Response" : {
  "Requested" : "SetIFBSettings" ,
  "Result" : "Success"
 }
}
```

3.6.3. Set interruptible feedback streaming control

This command is used to start/stop IFB streaming

Request

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	SetIFBCtrl	No	Yes	Yes	No	No	No	No	No
SessionID	String	(Session ID in cookie.)	No	Yes	Yes	No	No	No	No	No
Params										
Streaming	String	Streaming Control "Start":start streaming / "Stop":stop streaming	No	Yes	Yes	No	No	No	No	No

Example

```
{
  "Request" : {
    "Command" : "SetIFBCtrl" ,
    "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3" ,
    "Params" : {
      "Streaming" : "Start"
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	SetIFBCtrl	No	Yes	Yes	No	No	No	No	No
Result	String	(Result of command processing.)	No	Yes	Yes	No	No	No	No	No

Example

```
{
  "Response" : {
    "Requested" : "SetIFBCtrl" ,
    "Result" : "Success"
  }
}
```

3.7. How to control Studio Tally System

"SetStudioTally" command indicates tally condition to the camera and it displays "PGM" or "PVW" on the LCD
Menu settings on the camera which affects tally lamp control are as follows.
On the studio tally system described in this chapter, "SetTally LampCtrl" command should not be used.
"SetStudioTally" and "SetTallyLampPriority" commands can control studio tally system.
From Web API version 1.07, alarm indication on the camera itself has highest priority compared with all other tally control via web interface.

Menu settings on HM660/HM200/HM25x/PZ100

System...
Tally Lamp
Off, Rec, Live Streaming, Rec/Live Streaming, ***External****

Menu settings on HM8x0

System...
Tally System
Studio*,*Internal*

If the Tally System setting is "**Studio**".

System...
Front Tally
Off, ***On****
Back Tally
Off, ***On****

* Tally lamp is controlled by Web API when selected.

3.7.1. Studio tally control

This command controls studio tally indication.
Turning on/off the tally lamp depends on camera settings.
Refer to "3.7.4. Relation of commands on Studio tally system" about Tally lamp control.
"'SetStudioTally" should be used only when changing the tally state, otherwise it causes performance degradation.

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request										
Command	String	SetStudioTally	No	Yes	Yes	Yes	Yes	No	Yes	Yes
SessionID	String	(Session ID in cookie.)	No	Yes	Yes	Yes	Yes	No	Yes	Yes
Params										
Indication	String	"Off"(not Indicate status on LCD) / "Program"(Indicate PGM on LCD) / "Preview"(Indicate PVW on LCD)	No	Yes	Yes	Yes	Yes	No	Yes	Yes

Example

```
{
  "Request" : {
    "Command" : "SetStudioTally" ,
    "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3" ,
    "Params" : {
      "Indication" : "Program"
    }
  }
}
```

Response

Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	SetStudioTally	No	Yes	Yes	Yes	Yes	No	Yes	Yes
Result	String	(Result of command processing.)	No	Yes	Yes	Yes	Yes	No	Yes	Yes

Example

```
{
  "Response" : {
    "Requested" : "SetStudioTally" ,
    "Result" : "Success"
  }
}
```

3.7.2. Set tally lamp priority

Set indication priority setting of the tally lamp.
You should set tally lamp priority to "Web" before using the tally lamp via API.
Menu setting on the camera is fixed to "External/Studio" when setting changed priority to "Web" and cannot change it.
It becomes changeable when priority setting is "Camera".
This command should be used only when the tally lamp status need to be changed, otherwise it causes performance degradation.

'SetTallyLampPriority' changes camera setting as follows.

Camera stores prior state before switching to the "Web" priority and it resumes former state when you return the priority to "Camera".

HM660/HM200/HM25x/PZ100

This setting becomes "**External**" when the priority is set to "Web".

```
System...
    Tally Lamp
      Off, Rec, Live Streaming, Rec/Live Streaming, External
```

HM8x0

This setting becomes "**Studio**" when the priority is set to "Web".

```
System...
    Tally System
      Studio,Internal
```

This setting becomes "**On**" when the priority is set to "Web".

```
System...
    Front Tally
      Off, Rec, Live Streaming, Rec/Live Streaming *
      Off, On                                     **
    Back Tally
      Off, Rec, Live Streaming, Rec/Live Streaming *
      Off, On                                     **
```

* If the Tally System setting is "Internal".
** If the Tally System setting is "Studio".

Request

Key			Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Request												
	Command		String	SetTallyLampPriority	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	SessionID		String	(Session ID in cookie.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Params											
		Priority	Integer	"Camera"(Camera is given priority of control.) /	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
				"Web"(Web is given priority of control.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Example

```
{
  "Request" : {
    "Command" : "SetTallyLampPriority" ,
    "SessionID" : "7425fbcb58ee4d15dd4c1f5ace4299a3" ,
    "Params" : {
      "Priority" : "Camera"
    }
```

```
  }
}
```

Response

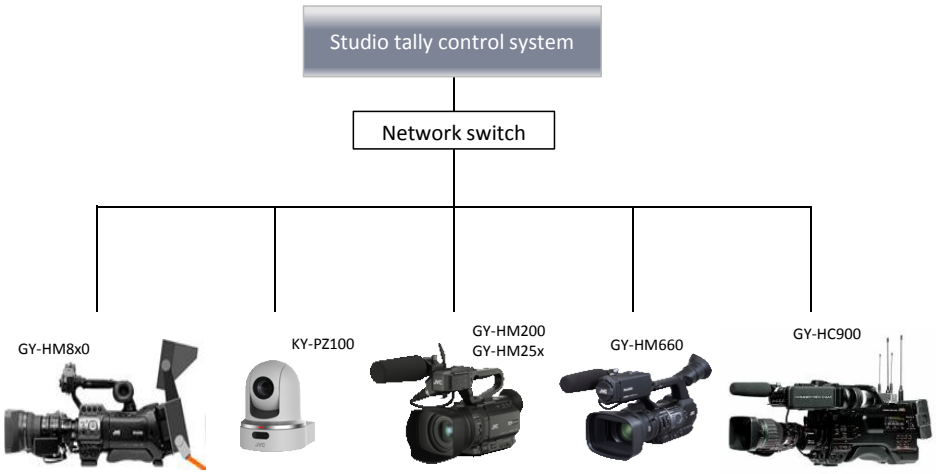
Key	Style	Value	HM650	HM660	HM8x0	HM200	HM25x	LS300	PZ100	HC900
Response										
Requested	String	SetTallyLampPriority	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Result	String	(Result of command processing.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Example

```
{
  "Response" : {
    "Requested" : "SetTallyLampPriority" ,
    "Result" : "Success"
  }
}
```

3.7.3. Relation of commands on Studio tally system

System Chart



LED lighting of each model

TallyLampPriority	StudioTally	Settings	GY-HM8x0 front	GY-HM8x0 back	KY-PZ100	GY-HM200 GY-HM25x	GY-HM660	GY-HC900 front	GY-HC900 back
Web	Program	External or Studio							
	Preview	External or Studio							
	Off	External or Studio							
Camera	Program	External or Studio							
		other							
	Preview	External or Studio							
		other							
	Off	External or Studio other							

LCD indication of each model

TallyLampPriority	StudioTally	GY-HM8x0	KY-PZ100	GY-HM200 GY-HM25x	GY-HM660	GY-HC900
Any time	Program	PGM	PGM	PGM	PGM	PGM
	Preview	PVW	PVW	PVW	PVW	PVW
	Off					

LCD indication image

3.7.4 Sequence of studio tally system

* "GetCamStatusMinimum" command can be used to acquire the status as well on KY-PZ100.